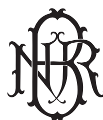


NATIONAL BANK OF ROMANIA

Financial Stability Report

2011

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 12 July 2011 and the National Bank of Romania Board in its meeting on 14 July 2011. 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 31 August 2011.

The analyses draw on the information available by 15 August 2011.

Reproduction of the publication is forbidden. Data may be used only by indicating the source.

National Bank of Romania, 25 Lipscani Street, postal code 030031, Bucharest
Telephone: 4021/312 43 75; fax: 4021/314 97 52
Website: http://www.bnr.ro

ISSN 1843-3251 (print)
ISSN 1843-326X (online)

ABBREVIATIONS

ALB	Leasing and Non-banking Financial Services Association
ANEVAR	National Association of Romanian Valuers
BIS	Bank for International Settlements
BSE	Bucharest Stock Exchange
CCR	Central Credit Register
CDS	credit default swaps
CEE	Central and Eastern Europe
EBIT	earnings before interest and taxes
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECB	European Central Bank
EM	emerging markets
ESA	European System of Accounts
EU	European Union
EUROSTAT	Statistical Office of the European Union
FDI	foreign direct investment
FICs	financial investment companies
FMA	Fund Managers Association
GDP	gross domestic product
GEO	Government Emergency Ordinance
GVA	gross value added
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
OECD	Organisation for Economic Cooperation and Development
PPSSC	Private Pension Scheme Supervisory Commission
RBA	Romanian Banking Association
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
WEO	World Economic Outlook

Contents

CHAPTER 1. OVERVIEW **7**

CHAPTER 2. INTERNATIONAL ECONOMIC AND FINANCIAL ENVIRONMENT **14**

CHAPTER 3. FINANCIAL SYSTEM AND ITS RELATED RISKS **19**

3.1. Structure of the financial system **19**

3.2. Banking sector **21**

3.2.1. Structural developments 21

3.2.2. Aggregate balance sheet of credit institutions 24

3.2.2.1. Dynamics of bank assets 24

3.2.2.2. Developments of own, attracted and borrowed resources 26

3.2.3. Capital adequacy 28

3.2.3.1. Developments of own funds of banks, Romanian legal entities 28

3.2.3.2. Analysis of solvency 32

3.2.3.3. Results of stress test in assessing the banking system 37

3.2.4. Loans and credit risk 38

3.2.4.1. Main credit developments 38

3.2.4.2. Credit quality 44

3.2.5. Liquidity risk 47

3.2.6. Market risk 50

3.2.7. Profitability and efficiency 53

3.3. Non-bank financial sector **56**

3.3.1. Insurance market 56

3.3.2. Private pension funds 59

3.3.3. Non-bank financial institutions 60

3.4. Capital market **64**

3.4.1. General developments 64

3.4.2. Risk aversion 66

CHAPTER 4. RISKS RELATED TO DOMESTIC ECONOMIC AND FINANCIAL DEVELOPMENTS **73**

4.1. Domestic macroeconomic developments **73**

4.1.1. Real sector 73

4.1.2. Public sector 75

4.2. Corporate and household financial indebtedness **77**

4.3. External balance **84**

4.3.1. Current account deficit 85

4.3.2. Capital flows 88

CHAPTER 5. COMPANIES AND HOUSEHOLDS 92
5.1. Risks generated by companies 92
5.1.1. Companies' economic and financial results 92
5.1.2. Payment discipline of non-financial corporations........ 97
5.2. Risks generated by households........ 102
5.2.1. Households' balance sheet and saving behaviour 102
5.2.2. Households' capacity to service debt 106
5.3. Risks generated by the real estate sector and mortgage-backed lending........111

CHAPTER 6. FINANCIAL SYSTEM INFRASTRUCTURE 116
6.1. Central bank actions aimed at containing the risks to the functioning of payment and settlement systems 116
6.2. ReGIS payment system stability 119

CHAPTER 7. RECENT DEVELOPMENTS AND THE OUTLOOK........ 121
7.1. The International Financial Reporting Standards and the banking sector........ 121
7.2. The new European financial system architecture 123
7.2.1. The reform of the European institutional framework 123
7.2.2. The new Basel III capital requirements 126
7.2.3. Taxation of the financial sector........ 130
7.3. The European Bank Coordination Initiative (the Vienna Initiative) 132

CHAPTER 1. OVERVIEW

Financial stability in Romania has remained robust since the release of the previous *Financial Stability Report* (August 2010), despite the difficult global and domestic economic conditions in the previous year. Risks to the banking sector were countered by credit institutions' own efforts which translated into consolidation of solvency, provisioning and liquidity levels amid the National Bank of Romania's measures addressing prudential regulation, supervision and adequate management of risks faced by the banking system.

The implementation of the provisions in the financing arrangement signed with the European Union, the International Monetary Fund, and other international financial institutions underpinned the firm carrying out of macro-prudential policies. A beneficial contribution to safeguarding financial stability had the European Bank Coordination Initiative, under which the nine participating banks have fulfilled their aggregate commitments to maintain exposure and ensure a capital adequacy ratio above 10 percent for every subsidiary in Romania. The new precautionary Stand-By Arrangement signed in 2011 with the European Union, the International Monetary Fund and the World Bank, together with the commitments undertaken by the Romanian authorities under the national programmes, are seen as anchors for maintaining financial stability and furthering structural reforms in order to boost the economic growth potential.

As highlighted in the previous *Report*, credit risk remained the major vulnerability of the banking sector. The loan portfolio quality further deteriorated, albeit at a slower pace than in 2009. The non-performing loan ratio[1] reached 13.4 percent in June 2011 (against 7.9 percent at end-2009 and 11.9 percent at end-2010). However, expected losses were adequately managed, with a provisioning coverage of the claims overdue for more than 90 days at 96 percent, a level similar to that of 2010. Looking ahead, as credit institutions' non-performing loans are seen reaching a peak in the course of 2011, the pressures on bank asset quality are expected to start abating, amid a gradual consolidation of economic growth and tighter risk management by banks.

Credit institutions reported a sufficiently-high capital adequacy ratio in order to cover credit risk as a result of the NBR's exercising close oversight of developments in this indicator and banks' efforts to raise additional capital, as required by the central bank. The capital increases amounted to EUR 650 million in 2010 and EUR 110 million in 2011 H1. The solvency ratio stood at a comfortable level of 14.2 percent in June 2011 (versus 14.7 percent in December 2009 and 15 percent in December 2010). Tier 1 capital posted a favourable trend (up 16 percent at end-2010 compared to the period prior to the time when the global financial crisis first hit Romania) owing to significant capital increases performed by shareholders; Tier 1 capital accounts for 80 percent of total capital. At mid-2011, this indicator ran at 13.6 percent, very close to the 14.2 percent solvency ratio, which indicates the adequate quality of banks' own funds in terms of permanence and loss absorbing capability criteria. The results of the latest stress test to economic shocks conducted by the NBR show that the Romanian banking sector is properly capitalised: the solvency ratio and the Tier 1 capital ratio would drop by at most 3.5 percentage points in the unlikely event of the considered adverse scenario materialising. To preserve a sound banking sector in the face of still considerable risks implies to maintain capitalisation and provisioning of credit institutions at adequate levels, including

[1] The ratio of A (loans and interest overdue for more than 90 days and/or for which legal proceedings were opened against the operation/debtor) to B (loans and related interest outstanding). The definition is in line with the IMF recommendations and ensures comparability between the countries.

amid the implementation of the International Financial Reporting Standards (IFRS) starting in 2012, with a view to preventing and cushioning the impact of potentially adverse developments at global level.

The difficult external environment poses a challenge to financial stability in Romania. World economy could be affected by a slower growth rate, in developed economies in particular. Moreover, the fallout from sovereign debt crisis via contagion on some countries in the EU and on the USA, along with the lingering vulnerabilities in certain banking sectors in Europe, may depress economic growth in Romania, the capacity of the banking sector to access financing and bank asset quality.

In order to minimise the possible contagion effects via the above-mentioned channels, the NBR monitors closely and permanently the prudential standing of banks, Romanian legal entities, with foreign capital originating in the countries hit by the sovereign debt crisis. The capacity of these banks to withstand a potential external financing shock strengthened in 2011, with most of the banks posting solvency ratios at above-average levels and higher-than-required liquidity indicators. In addition, parent banks further contributed funds even after the crisis had broken out and thus covered more than 95 percent of the external financing accounted for by their subsidiaries in Romania in 2010. Loans with a maturity of more than one year made up the largest share in intra-group lines of credit recorded by such banks (72 percent in June 2011 against 66 percent in the case of all foreign-owned banks). Against this background, to maintain adequate levels of solvency and liquidity (the latter being fostered by banks' sizeable assets eligible[2] for the NBR's refinancing operations, pointing to an improvement over end-2008) is essential for an appropriate management of risks stemming from possible external liquidity shocks.

So far, external markets have validated the Romanian authorities' efforts to preserve macroeconomic equilibria and financial stability: (i) during March 2009 – August 2011, the CDS spread[3] for Romania narrowed by roughly 350 basis points to about 300 basis points, similarly to other countries in the region; the recent heightening of tensions on financial markets also echoed on the CDS market and all the countries in the region reported wider spreads; (ii) in July 2011, Fitch rating agency upgraded Romania's credit rating to the pre-crisis level, i.e. BBB- (investment grade), and (iii) external financing remained available even in the periods when foreign investors exhibited stronger risk aversion (for instance, in June 2011 when Romania launched medium-term bonds tantamount to EUR 1.5 billion).

In turn, the EU authorities' response for maintaining financial stability and reinforcing economic governance at European level was unprecedented. The consistent package of measures aimed at enhancing European economic governance and implementing a new macro- and micro-prudential architecture within the EU will help, together with the permanent mechanism for supporting financial stability, to increase the growth potential in the EU and to mitigate the European financial system vulnerabilities that the crisis has brought to the fore.

The major external vulnerabilities of the Romanian economy at the time the crisis broke out have alleviated considerably. First, the current account deficit remained at a moderate and sustainable level

[2] The eligible assets to access the NBR's market operations and lending facility are as follows: securities issued by the Romanian government, certificates of deposit issued by the NBR, and other marketable assets set pursuant to an NBR Board decision. Local banks, including those with foreign capital, do not hold on their balance sheets significant amounts of sovereign bonds issued by other countries than Romania. At end-June 2011, bonds issued by non-resident government institutions accounted for 0.2 percent of aggregate bank assets and 1.4 percent of credit institutions' securities portfolio.

[3] CDS (Credit Default Swap) is an agreement whereby one party (protection buyer) makes regular payments to another party (protection seller) and in return receives a payoff if a third party (also called reference entity) defaults (or experiences a similar credit event).

(4.1 percent of GDP in 2010, with the 2011-2012 forecasts staying below 5 percent of GDP, compared to 11.6 percent of GDP at end-2008), whilst exports performance surpassed the average of the region. To preserve a sustainable current account deficit even after resuming a lasting economic growth calls for furthering fiscal consolidation and matching pay rises with productivity gains. The short-term external debt (STED), another major vulnerability of the previous years, saw its adverse potential on financial stability diminishing. Although its share in total external debt widened (from 19 percent in 2009 to 22 percent at mid-2011), the increase was attributed mainly to intra-group loans, STED was to a large extent rolled over, and the foreign currency reserve under the NBR management ensures comfortable coverage of potential non-rollovers (in June 2011, the ratio of forex reserve to STED exceeded 160 percent, which is above the figures reported in other countries in the region). Externally indebted companies reported a non-performing loan ratio below the system-wide average (6.6 percent against 13.4 percent on average for the non-financial companies in June 2011), so that the risk of a possible adverse evolution of external liquidity feeding through to the banking sector is moderate.

The vulnerabilities to Romania's growth potential saw mixed developments. On the one hand, the absorption of structural and cohesion funds (based on disbursements from the European Commission) remained low and innovation costs were still at modest levels (compared to the countries in the region and to Romania's commitments under the Europe 2020 Strategy). On the other hand, the labour market is undergoing a broad-based reform aimed at making the Romanian economy more competitive. Fiscal consolidation – the centrepiece of reform programmes and one of the essential requirements in shaping investor perception of sovereign risk – carried on. In 2010, the fiscal deficit declined to 6.5 percent of GDP (according to national methodology, or 6.4 percent of GDP according to ESA95 methodology) and the structural fiscal deficit fell to 5.2 percent of GDP (from 8.3 percent of GDP in 2009). In 2011 H1, the fiscal deficit came in at 2.1 percent of GDP (below the ceiling set under the IMF-EU financing arrangement) and the year-end target is 4.4 percent of GDP (according to national methodology, or below 5 percent of GDP according to ESA95 methodology). The focal point of the authorities' concerns in 2011 is to continue to implement structural reforms and fiscal consolidation measures, including the reduction in arrears and improvement of the financial position of state-owned enterprises in distress. Nevertheless, the start of the election run-up in 2012 may pose the risk of these reforms being implemented with some delay.

In the private sector, the financial disintermediation process that started in 2009 carried on, in line with the developments seen in most countries in the region, being more pronounced for the household sector. Financial intermediation measured as the share of non-government credit in GDP ran at 41 percent in 2010, similarly to a year earlier. Both demand and supply contributed to this performance. Banks tightened lending terms and standards in a pro-cyclical manner, whereas demand stayed low amid a gradual economic recovery and international developments carrying considerable uncertainties and risks. The rebound in lending, expected to accompany the consolidation of economic growth, must however be sustainable so as to achieve a more balanced currency breakdown of flows of new loans and to avert the crowding-out of loans to the private sector in the medium term.

The loan breakdown by destination improved in 2010. As for corporate lending, companies in tradables sectors benefited from a larger volume of loans compared to those in non-tradables sectors, with growth rates standing at 10.1 percent and 3.1 percent respectively in December 2009 – June 2011, thus helping Romania's economic growth pattern to improve. Large-size companies were granted by local banks with more substantial financings than the SMEs (although refinancing remained prevalent), in line with the credit channel related to financial disintermediation. In the case of households, real estate loans held the largest share, to the detriment of consumer credit. Against the backdrop of

weak demand for loans from the private sector and substantial government borrowing requirements, banks increased their exposure to the government sector, taking the share of such loans (including marketable securities) in domestic credit to 23.9 percent at mid-2011 against 19 percent at end-2009.

Foreign currency lending remained both a stock and, to a lesser extent in the period under review, a flow issue. Forex loans on local banks' balance sheets accounted for 62.9 percent of the loan stock in June 2011, amid the significant short foreign exchange position of households. Foreign currency loans have become riskier than leu-denominated ones in terms of credit risk: (i) the non-performing loan ratio for all the forex loans to households is higher or close to that for leu-denominated loans and (ii) the growth of non-performing foreign currency corporate loans is higher than that of leu-denominated loans (i.e. 185 percent versus about 91 percent respectively during December 2009 – June 2011). The NBR will continue to closely monitor forex lending and, as mentioned also in the previous *Report*, to take the necessary steps so that the risks related to forex lending to unhedged borrowers are properly covered and accurately reflected in the prices of financial services, given that European decision-makers seek to achieve a balanced resumption of lending between local- and foreign currency-denominated loans, along with the proper management of the forex loan stock. Full capital liberalisation calls for an enhanced cooperation and coordination between regulators and supervisors in host and origin countries, and the establishment of the European Systemic Risk Board in 2011 sets the stage for higher efficiency in implementing macro-prudential measures at domestic level.

Arbitraging the National Bank of Romania's prudential measures (also by externalising part of the loan portfolios) and/or pro-cyclical easing of prudential standards so as to boost profits in the short term may, in the medium term, weigh on the quality of loan portfolios of the entities that resorted to such practices. As far as non-bank financial institutions (NBFIs) are concerned, the loans with the highest non-performance rate were extended in 2005-2006 when banks, in their attempt to counter the impact of measures taken by the NBR in order to dampen the fast-paced expansion of bank loans, especially foreign currency-denominated loans, redirected part of the credit flow towards the NBFIs in the same group[4]. In early 2007, the central bank sought to enhance harmonisation of the national prudential regulatory framework with the European one and replaced some of its prudential measures with measures allowing banks to draw up their own norms on lending to households. In this context and amid ample liquidity (basically credit lines extended by foreign parent banks), credit institutions eased their lending terms and standards for 2007-2008 in a pro-cyclical manner so as to boost lending and increase their market share in the short run. The loans that those banks granted over the above-mentioned period now have the highest non-performance rate, since the arbitraging of prudential standards meant to increase their market share in the short term led to a weakening of these institutions' asset portfolio quality in the medium term. Hence, as the NBR exercises close monitoring, both banks and NBFIs need to avoid renewed resort to the pre-crisis lending pattern and shift the focus of their risk management approach from short term to medium and long term in order to attain a sustainable and accountable financial intermediation.

Financial results of the banking sector were negative in 2010, but returned to positive territory in 2011 H1. However, the loss incurred in 2010 was not a broad-based feature, as it hit mid- and small-size credit institutions in particular. Behind the poor profitability stood the significantly higher provisioning costs, the ongoing financial disintermediation and lower appetite for risk. Banks' liquidity position remained adequate. The loan-to-deposit ratio for the non-government sector improved (from 137 percent at the onset of the crisis in October 2008 to 123 percent in June 2011[5]), in line with

[4] Since 2006, prudential measures targeting credit institutions have been applied to NBFIs as well.

[5] The loan-to-deposit ratio for households improved in the same period from 121.8 percent to 95.8 percent.

the ongoing financial disintermediation manifest in many economies around the world. Banks have remained relatively highly dependent on external financing, but this vulnerability has been alleviated by the largely medium- and long-term resources provided by parent banks to their subsidiaries in Romania. Parent banks held 84.3 percent of non-residents' deposits with credit institutions in Romania (of which 70.4 percent had medium- to long-term maturity); in addition, such deposits are not subject to early repayment clauses.

The risk attached to a weak performance of interbank liquidity is further low, with interbank bilateral exposures being generally small compared to own funds and holdings of liquid assets. The central bank's policy of further cutting the minimum reserve requirements ratio amid the adequate management of liquidity in the banking system left banks with more financing resources. Last but not least, liquidity risk management improved as a result of enhancing the regulatory framework by including more detailed requirements on the liquidity reserve.

The major vulnerabilities that companies posed to financial stability persisted since the release of the previous *Report*, as follows: banks' and NBFIs' debt repayment capacity kept declining, albeit at a slower pace than in the prior reference period and payment discipline among partners remained relatively loose. The quality of the loans granted to non-financial corporations continued to worsen, albeit at a slower pace (the volume of non-performing loans rose 40 percent during June 2010 – June 2011 against 200 percent during June 2009 – June 2010). In 2011, conditions are in place for both vulnerabilities to diminish. The lending recovery will ease the firms' liquidity constraints, especially in the case of micro-enterprises, and the commitments assumed under the precautionary arrangement signed with the EU, the IMF, and the World Bank will focus on cutting arrears as well. Companies posted mixed economic and financial results in 2010, with firms in tradables sector faring better than those in non-tradables sector, thereby contributing to laying the groundwork for the much-desired change in Romania's economic growth pattern.

High indebtedness and the sizeable short foreign exchange position, the major vulnerabilities of the household sector, registered a moderation in their negative developments in 2010, but are still at a level requiring close monitoring and possible additional remedial measures in the near run and, in the medium term, more efforts by credit institutions to improve households' financial culture and bring about a shift in the business model of banks that should focus more on lending to companies, also via creating business relations over a longer horizon and increasing corporate customer loyalty. Households' capacity to repay their debts continued to deteriorate, albeit at a slower pace than that described in the previous *Report*. The non-performing loan ratio increased moderately, by 1.5 percentage points to 7.9 percent in the period December 2009 – June 2011. Credit institutions made several attempts to implement measures aimed at mitigating the rise in the non-performing loan ratio mostly by restructuring impaired assets and proceeding to externalisation of non-performing loans. However, these solutions' efficiency could prove limited, as restructuring measures were often insufficient to improve debtors' repayment capacity and externalisation of non-performing loans could become less attractive once the IFRS are implemented. Some developments in households' behaviour in terms of debt repayment capacity call for closer attention by both banks and NBFIs in order to ensure adequate prudential rules on credit risk management. More precisely, the maturity of loans and their purpose must be better matched, tougher prudential requirements are needed for NBFIs than those for banks, and prudential rules should be differentiated in terms of loan destination rather than by type of collateral.

The adverse developments on the real estate market had a moderate impact on banks' balance sheets to date. The National Bank of Romania further pursued its proactive stance of creating more

room to manage the risks stemming from the decrease in value and liquidity of mortgage collateral. The loan-to-value (LTV) ratio stood at 78.4 percent for corporate loans and 74.2 percent for household loans in June 2011. These readings would be sufficient to manage a downturn on the real estate market in 2011 (according to the scenario that the European Banking Authority projected for Romania under the stress testing exercise conducted in March 2011). Nevertheless, there are still some challenges that require maintaining prudent LTV levels. The NBR, the RBA and the ANEVAR initiated also a set of measures on ensuring an appropriate mortgage collateral revaluation on a regular basis.

The non-bank financial sector saw mixed developments in 2010. The economic downturn depressed the general insurance market that reported a decline in the value of gross underwritten premiums, but the life insurance market displayed a positive performance amid the stabilisation of financial markets. Private pension funds were also influenced by the economic contraction, as reflected by a slower increase in contribution receipts, but faced no difficulties in managing financial flows.

The activity of NBFIs stayed on a downward trend in 2010 and in 2011 H1 following the subdued demand for loans and the risk aversion exhibited by these entities given the sizeable volume of overdue loans on their balance sheets. Compared to 2009, the pace of loan portfolio deterioration alleviated, following the same general tendency seen in the case of credit institutions.

Investors' perception towards the risk attached to local capital market investments improved in January 2010 – July 2011, as mirrored by the positive performance of market capitalisation and traded volumes. The yield curve on the leu-denominated government securities market has entered a positive slope since 2010 Q2. The financial turmoil triggered by the sovereign debt crisis in several European countries had a low, relatively short-lived impact on Romania's bond yields as yet. The ROBOR-EURIBOR spread for various maturities narrowed during 2010, thus confirming the decline in investors' risk aversion. Overall, prudential indicators of the Romanian financial system, along with key macroeconomic indicators, proved resilient to the volatile dynamics and the adverse effects from the global economic environment.

Payment systems and securities settlement systems, i.e. the systemically important components of the financial infrastructure, continued to function under safe and efficient conditions following both the observance of adequate standards in terms of system architecture and measures that the NBR took in exercising its statutory task of promoting and overseeing the smooth functioning of these systems. In this field, the central bank sought to mitigate the major risks likely to disrupt the functioning of payment and securities settlement systems, namely liquidity risk, credit risk, legal risk, settlement risk, operational risk and systemic risk. From this perspective, the goal was to render more flexible the provisions of specific regulations in the area of payment and settlement systems, while also updating the legal framework in force based on the latest developments worldwide with a view to fostering the efficient and safe functioning of these systems.

ReGIS payment system did not face any significant risks during 2010 and in 2011 H1, being capable of absorbing liquidity shocks thanks to the comfortable level of funds held by participants and the government securities available in credit institutions' portfolios. These securities may be used as collateral upon making recourse to the intraday repo facility and the lending facility provided by the NBR.

The main amendments to the regulatory framework are not expected to bring about notable changes in capitalisation, provisioning or liquidity levels of credit institutions in Romania, considering that the current prudential requirements implemented by the NBR cover risks to an adequate

extent. Implementation of Basel III will, most likely, not lead to requirements of additional, large capital increases by credit institutions in Romania. The high share of Tier 1 capital in total capital (80 percent at mid-2011) and the lack of hybrid capital instruments cushion the impact of Basel III on capital requirements for local entities. The introduction of IFRS starting with financial year 2012 is in line with the global trend of harmonising national financial accounting and reporting standards with international ones, given the ongoing economic developments towards globalisation of banking operations and, implicitly, the more acute need for an international harmonisation of accounting rules underlying the financial information disclosed to the public. The National Bank of Romania is focusing on the steps that need to be taken ahead of the introduction of IFRS in order to preserve prudent levels of provisions, solvency and capital buffers of credit institutions even after 1 January 2012.

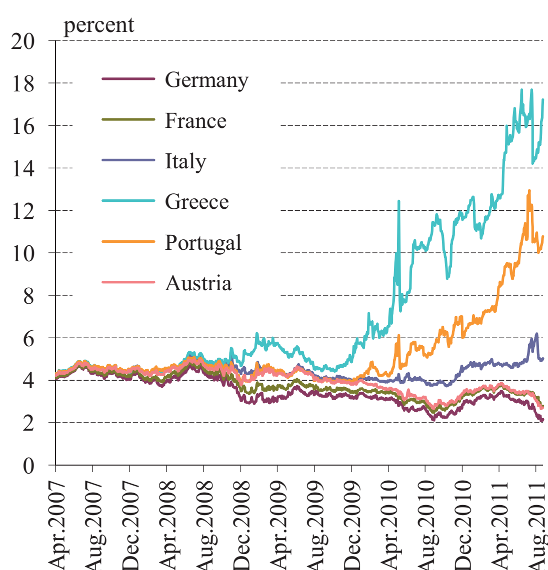
The major challenges lying ahead are: (i) to manage the contagion risk that could become manifest in the event of adverse developments on international markets as a result of the sovereign debt crisis or the considerably slower growth in developed economies, (ii) to improve bank asset quality, (iii) to achieve a more balanced currency breakdown of flows of new loans, and (iv) to enhance the early intervention tools for ailing credit institutions. These challenges call for further efforts to maintain adequate solvency, provisions and liquidity, as well as for additional prudential measures.

CHAPTER 2. INTERNATIONAL ECONOMIC AND FINANCIAL ENVIRONMENT

Economic growth has resumed at global level, but developments at country and regional levels highlight relatively significant dynamics differences, amid increasing uncertainties surrounding future trends. The major external challenges to financial stability in Romania, namely (i) the spillover effects from the sovereign debt crisis via contagion and (ii) the risk of slower economic growth in trading partners, call for further efforts to maintain macroeconomic equilibria and prudence in the banking activity.

The fallout from the sovereign debt crisis, via contagion, to some EU Member States and the USA and the persistence of vulnerabilities in certain European banking sectors may harm the economic growth in Romania, the capacity of the banking sector to access financing and the quality of bank assets.

Chart 2.1. 10-year government bond yield in euro area countries



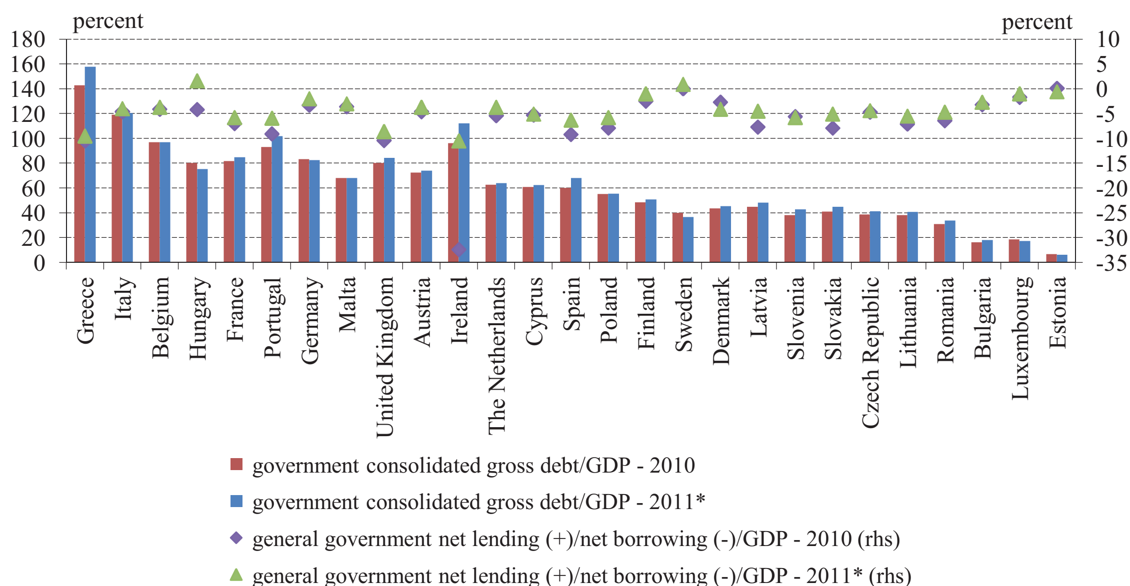
Source: Bloomberg

With a view to maintaining financial stability and improving the system of economic governance at European level, the EU authorities gave an unprecedented response. The main solutions they identified were: (i) the introduction of the European Semester to improve the coordination of economic policies at EU level; (ii) the establishment of a permanent mechanism for supporting financial stability, i.e. the European Stability Mechanism, which will become operational as of 2013 and whose chief task will be to provide financial assistance to euro area countries conditional on the implementation of economic and fiscal adjustment programmes. The current system at EU level, until the new framework comes into force, consists in the European Financial Stability Facility (EFSF), aimed at granting financing to euro area countries[6], and the European Financial Stabilisation Mechanism (EFSM), which took over the previous system at EU level for balance of payments assistance; (iii) the implementation of a new financial supervisory architecture at macro- and micro-prudential levels; (iv) the adoption of a common development strategy (Europe 2020); (v) the launch, as of 2012, of a macroeconomic supervisory framework with the aim of preventing the emergence of major macroeconomic imbalances as well as of identifying and correcting the current ones, and (vi) the adoption of the Euro Plus Pact – signed also by non-euro area countries, including Romania –, whose purpose is to foster competitiveness and employment and to strengthen public finance sustainability and financial stability.

[6] In 2011 H1, Ireland and Portugal were granted EFSF financing worth EUR 3.6 billion and EUR 5.9 billion respectively.

In fact, fiscal- and public debt-related difficulties faced by some euro area countries are a major vulnerability to EU financial stability, as also reflected by the increasing yields required by investors to finance the public deficits of those countries (Chart 2.1.). During 2008-2009, the euro area fiscal position deteriorated swiftly, before witnessing a slight correction in 2010, as the general government deficit accounted for 6.0 percent of GDP, down from 6.3 percent of GDP in the previous year. Similar contributions to this development had: (i) automatic stabilisers (lower budget revenues and higher social costs, amid largely negative economic growth rates) and (ii) the programmes aimed at supporting the economy and/or the banking sector[7]. Euro area general government debt accounted for 85.1 percent of GDP in 2010 and is expected to rise by 2.6 percentage points in 2011 (Chart 2.2.). The EU average is anticipated to post a similar increase, i.e. by 2.3 percentage points, to reach 82.3 percent of GDP.

Chart 2.2. Fiscal position of EU Member States in 2010 and the 2011 forecast



Note: Ratios are computed according to ESA95 methodology.

*Source: Eurostat, * The European Commission's spring 2011 forecast*

Fiscal consolidation is an important concern of the European authorities. The purpose is not only to achieve macroeconomic equilibria and sustainability from the point of view of the financial markets, but also to diminish the crowding-out of the private sector so that it would play a more prominent role in resuming economic growth. In 2011, Romania's main trading partners in the euro area have already launched or will launch fiscal consolidation programmes. The initial negative effects of such measures on economic activity are expected to be largely offset by the pick-up in foreign trade.

Romania is unlikely to be included, via contagion, in the group of high fiscal deficit countries, given the substantial fiscal consolidation measures taken by the authorities. In spite of Romania's public debt witnessing fast-paced dynamics during 2007-2010 (more than 30 percent per annum), this indicator has remained at a low level, i.e. approximately 30 percent of GDP in December 2010

[7] According to ECB estimates, automatic stabilisers contributed in 2010 by more than 20 percent to the deterioration of the debt-to-GDP ratio, down from approximately 30 percent, whereas the measures to support the economy had an over 17 percent contribution (ECB, *Financial Stability Review*, December 2010).

(according to ESA95 methodology), against the 60 percent reference value specified in the Treaty on the Functioning of the European Union (Chart 2.2.). Moreover, the government took a number of fiscal consolidation measures, in compliance with the commitments assumed under the arrangements concluded with the EU, the IMF and the World Bank, pushing the general government deficit from 8.5 percent of GDP in 2009 down to 6.5 percent in 2010. The general government deficit target for 2011 is 5 percent of GDP, according to the precautionary financing arrangement signed with the EU and the IMF, and it will fall below 3 percent from 2012 (values measured according to ESA95 methodology).

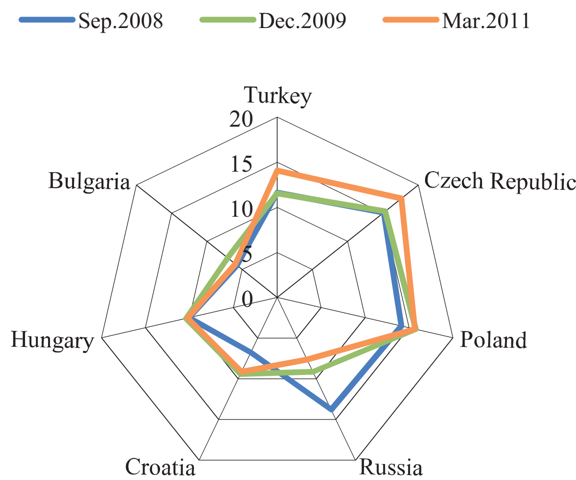
The increased sovereign risk in some countries and the persistence of vulnerabilities in certain European financial systems may disrupt the developments in liquidity at European level and hinder the domestic banks' access to external financing. With a view to minimising the possible negative contagion effects via the above-mentioned channels, the National Bank of Romania monitors closely and regularly the prudential standing of banks, Romanian legal entities, with foreign capital originating in the countries hit by the sovereign debt crisis. The ability of these banks to withstand a potential external financing shock has strengthened in 2011, with most banks posting solvency ratios above the system-wide average and higher-than-required liquidity indicators, close to the system average. Furthermore, the quality of loan portfolio is close to the average, while provisioning is above the average. Moreover, after the onset of the crisis, parent banks further contributed capital to their Romanian subsidiaries, ensuring more than 95 percent of the external financing attracted by the latter in 2010. Loans with maturity longer than one year hold the largest share in intra-group credit lines recorded by such banks, i.e. 72 percent in June 2011 against 66 percent for all banks with foreign capital. From a macro-prudential perspective, maintaining adequate liquidity (fostered by banks' sizeable portfolios of assets eligible[8] for the NBR's refinancing operations, pointing to an improvement as compared to end-2008) and solvency levels is essential for an appropriate management of risks related to potential external liquidity shocks.

The contagion risk for the region[9] via the single lender channel has changed little since the release of the previous *Report*, as exposures have stayed flat. In Romania, the exposure to possible shocks from the countries in the region increased marginally by 2 percent in March 2011 versus December 2009 (Chart 2.3.), but the aggregate value remained close to the region average. During the same period, the intensity of the potential shocks that the Romanian banking sector might have spread to the region decreased by 17 percent.

[8] The eligible assets to access the NBR's market operations and lending facility are as follows: securities issued by the Romanian government, certificates of deposit issued by the NBR, and other marketable assets set pursuant to an NBR Board decision. Local banks, including those with foreign capital, do not hold on their balance sheets significant amounts of sovereign bonds issued by other countries than Romania. At end-June 2011, bonds issued by non-resident government institutions accounted for 0.2 percent of aggregate bank assets and 1.4 percent of credit institutions' securities portfolio.

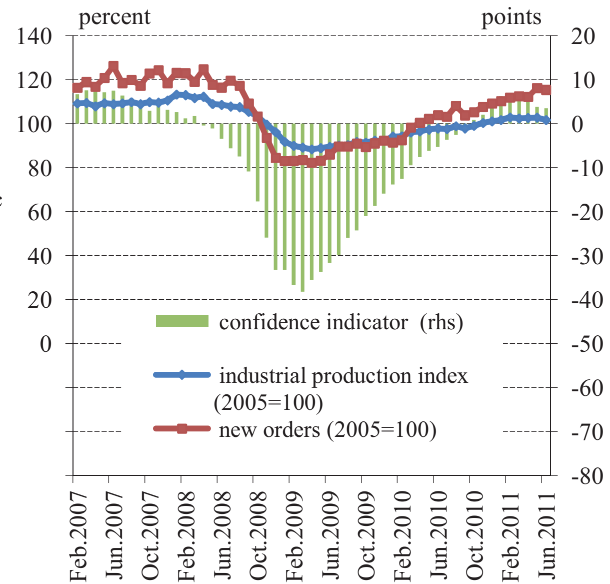
[9] The analysis covered Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Russia, Turkey, Ukraine and the Baltic States. The method used in calculating regional exposures is based on Fratzscher, M., in *On Currency Crises and Contagion,* ECB Working Paper No. 139, April 2002.

Chart 2.3. Sensitivity of the Romanian banking sector to regional shocks



Source: BIS, NBR calculations

Chart 2.4. Manufacturing output and outlook in the euro area*



* seasonally adjusted data

Source: European Commission

So far, external markets have validated Romanian authorities' efforts to preserve macroeconomic equilibria and financial stability. During March 2009 – August 2011, the CDS spread for Romania narrowed by roughly 350 basis points to about 300 basis points, similarly to other countries in the region. The recent heightening of tensions on financial markets was reflected by the CDS market as well and all the countries in the region reported wider spreads. In July 2011, Fitch rating agency upgraded Romania's credit rating to the pre-crisis level, i.e. BBB-, corresponding to "investment grade". Moreover, the credibility of government policies allowed further access to external financing even in the periods when global investors exhibited stronger risk aversion. For instance, Romania issued medium-term bonds worth EUR 1.5 billion on external markets in June 2011. The ongoing reforms, especially the fiscal consolidation measures, under the precautionary financing arrangement signed with the EU, the IMF and the World Bank are meant to ensure the consistency of macroeconomic and financial policies, contributing to strengthening investors' confidence and mitigating contagion risk from other markets.

The second vulnerability to financial stability deriving from the external environment refers to the slowdown in world economic growth, in general, and in the developed countries that are Romania's trading partners, in particular. The dynamics of the world economy have re-entered positive territory (5.1 percent in 2010 versus -0.5 percent in 2009, according to *World Economic Outlook* published by the IMF in June 2011) since the release of the previous *Report*, but the outlook points to a risk of slower growth rates. Countries are expected to post relatively significant dynamics differences, reflecting specific structural and incidental conditions, which may put pressure on global financial stability. In 2011, Romania will most likely be among the economies with relatively slow growth rates, i.e. 1.5 percent against 2.9 percent, the average for the CEE countries according to the *European Commission's spring 2011 forecast*, but the country is expected to resume faster growth starting with 2012.

The EU economic environment has improved since the release of the previous *Report*, but risks remain high. In 2010, the EU economic growth stood at 1.7 percent on average (higher than the European Commission's 1 percent projection as of May 2010), similar to the euro area figure. In October 2010, the industrial confidence indicator of euro area managers reverted to positive territory. Nevertheless, starting April 2011, unfavourable developments in financial markets, in relation to the sovereign debt crisis and the implementation of fiscal consolidation measures, led to the worsening of euro area managers' expectations, despite the faster growth rate of new orders in the industrial sector (Chart 2.4.). The slowdown of economic growth in the second quarter in Romania's main trading partners, i.e. 0.1 percent in Germany and 0 percent in France versus an estimated 0.3 percent, shows that the resumption of economic growth in the EU remains fragile, which may also hinder the economic rebound in Romania. In the last months, Romania's exports have posted a performance above the EU-10 average (for details, see Section 4.3.1. *Current account deficit*), but the uncertainties surrounding future global economic developments call for further prudent macroeconomic policies.

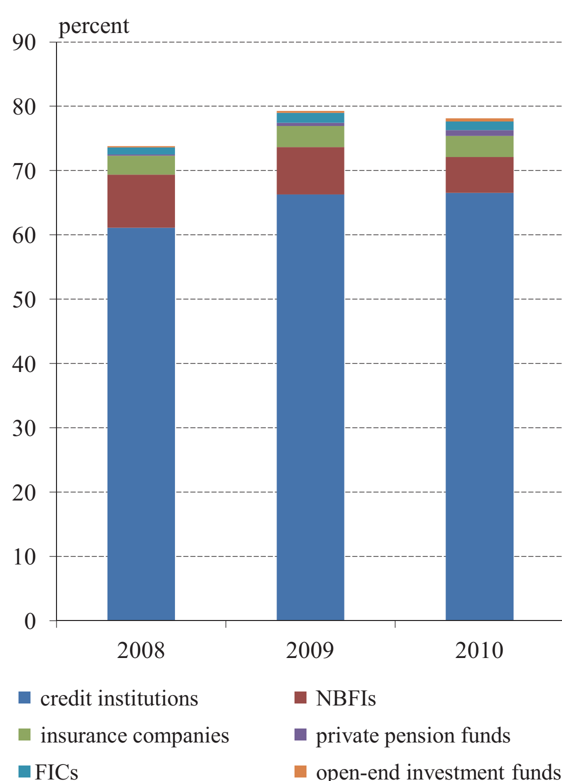
CHAPTER 3. FINANCIAL SYSTEM AND ITS RELATED RISKS

3.1. Structure of the financial system

Financial intermediation in Romania declined slightly in 2010 against the background of the economic downturn and the tensions on the global financial markets. Credit institutions are the main component of the financial sector and their exposures to the financial institutions in Romania, as well as the funds raised from these institutions are limited and pose no significant risk of direct contagion to the financial system.

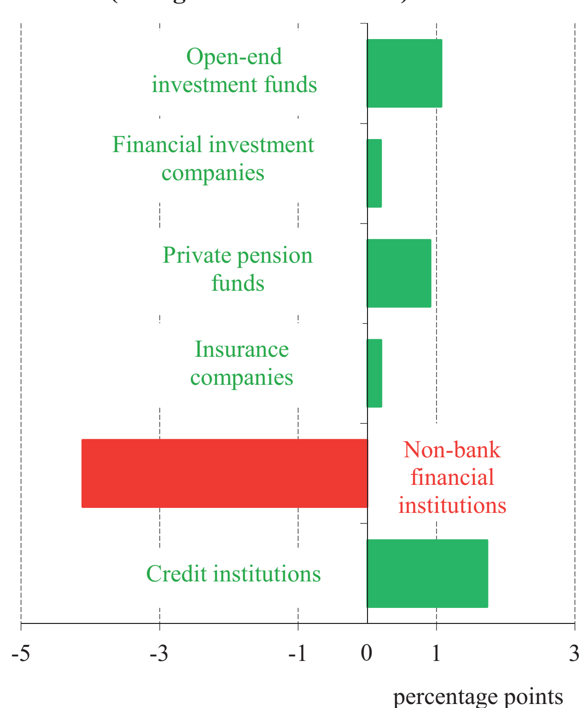
The share of assets held and managed by financial institutions to GDP, an indicator assessing the level of financial intermediation in the economy, dropped marginally in 2010, the increase in the previous years being interrupted by the economic decline and the tensions on global financial markets (Chart 3.1.).

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



Source: NBR, NSC, ISC, PPSSC, MPF

Chart 3.2. Components of the financial system during 2008-2010 (change in sectoral shares)

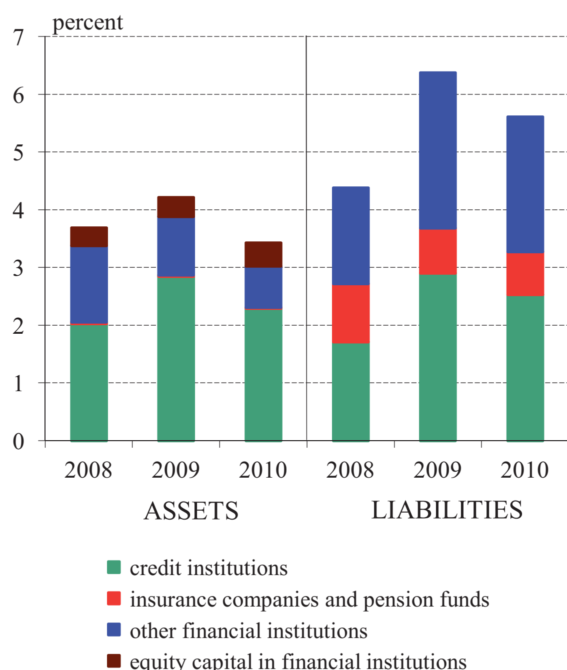


Note: The green segments indicate the growth of the sector's share in the financial system. The red segment shows the decline in the sector's share in the financial system.

Source: NBR, NSC, ISC, PPSSC, MPF

As for the structure of the financial system, the share of non-bank financial institutions (NBFIs) during 2008-2010 narrowed, given that the heightened default risk associated with their portfolios led to the contraction of lending in this sector and, implicitly, to the drop in balance sheet assets. This development was accompanied by increases in the shares of the other segments of the financial sector (Chart 3.2.). Credit institutions, the key component of the financial system, and open-end investment funds saw the fastest growth; the value of assets managed by private pension funds rose further, reaching 0.9 percent of GDP at end-2010.

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



Source: NBR

Domestic contagion risk, assessed based on the exposures of credit institutions to financial institutions in Romania and the resources they attracted from financial institutions, is low. The balance sheets of credit institutions show a declining share of exposures and funds raised from financial institutions in Romania in 2010 (Chart 3.3.), which are monitored with a view to identifying the potential risk sources, no remedial measures being necessary to implement. The assessments of inter-sector exposures did not reveal any risks that might affect the financial system stability.

Financial regulation does not entirely root out the problem of domestic contagion. Nevertheless, sectoral regulations set forth exposure limits aimed at reducing inter-sector contagion.

The evolution of the number of financial institutions in 2010 shows no significant changes as regards the institutions managing the largest part of financial sector assets. The marked slowdown of the economic decline allowed the progress in financial intermediation in the absence of too many mergers and acquisitions, the risks being managed within financial institutions or the financial groups to which they belong. It is to be noted the increased number of insurance brokers and open-end investment funds along with the lower number of financial investment services companies. Despite the extensive adjustments on the capital market during 2008-2010, prompted primarily by the global financial crisis, the revival in share prices over the last period boosted investors' interest in placements in investment funds (Table 3.1.).

Table 3.1. Number of financial institutions operating in Romania

end of period

	2008	2009	2010
Credit institutions	43	42	42
Insurance companies	44	45	43
Insurance brokers	459	510	567
Private pension funds	23	25	22
Open-end investment funds	54	52	58
Close-end investment funds	-	15	18
FICs	5	5	5
Financial investment services companies	66	64	55
NBFIs (General Register)[10]	238	228	207
NBFIs (Entry Register)	4,513	4,802	5,009

Source: NBR, NSC, ISC, PPSSC

[10] In compliance with Law No. 93/2009 on NBFIs.

3.2. Banking sector

3.2.1. Structural developments

In 2010 and 2011 H1, the structure of the Romanian banking system posted no significant changes in terms of the number of credit institutions and shareholding compared to the situation presented in the previous *Report*. The concentration degree of the Romanian banking system was below the EU average and stays moderate, with deposits showing a more pronounced growth. Financial intermediation continued to register values lower than those reported by the other EU Member States.

In 2010 and 2011 H1, the structure of the Romanian banking system underwent no major changes[11]. Compared to 2009, the number of credit institutions remained unchanged. Out of 40 banks with majority private capital, 26 (one more than in 2009) have foreign capital and the number of foreign bank branches fell from 10 to 9 (Table 3.2.).

Table 3.2. Structural indicators of the Romanian banking system

end of period

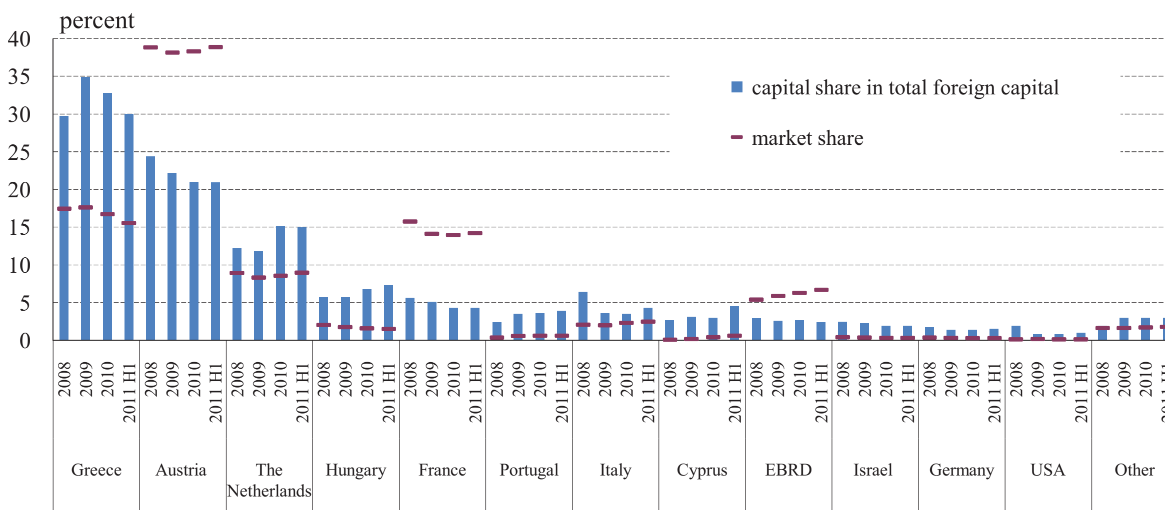
	2003	2004	2005	2006	2007	2008	2009	2010	2011 H1
Number of credit institutions	39	40	40	39	42	43	42	42	42
Number of banks with majority private capital	36	38	38	37	40	41	40	40	40
Number of banks with majority foreign capital,	29	30	30	33	36	37	35	35	35
of which:									
– foreign bank branches	8	7	6	7	10	10	10	9	9
Assets of banks with majority private capital/Total assets (%)	62.5	93.1	94	94.5	94.7	94.6	92.5	92.4	93.1
Assets of banks with foreign capital/Total assets (%)	58.2	62.1	62.2	88.6	88.0	88.2	85.3	85.0	85.4
Assets of top five banks/ Total assets (%)	63.9	59.2	58.8	60.3	56.3	54.3	52.4	52.7	53.6
Herfindahl-Hirschmann index (points)	1,264	1,120	1,124	1,171	1,046	926	857	871	895

Source: NBR

Similarly to 2009, in 2010 and 2011 H1, banks with Austrian capital further held the largest market share in aggregate assets (38.8 percent), ahead of banks with Greek capital (15.5 percent). Banks with Greek capital were still in the lead (30 percent), yet their number is decreasing (Chart 3.4.). Banks with Austrian and French capital followed the same downward path (21 percent and 4.3 percent respectively). The share of Dutch capital in total foreign capital saw a noticeable rise in 2010 (to 15 percent), due to capital increases occasioned by the establishment of GE Garanti Bank S.A.

[11] In 2010, the only change in the structure of the Romanian banking system was the establishment in May of GE Garanti Bank S.A., which took over, by transfer, the activity of the Romanian branch of Garanti Bank International N.V. A number of 24 foreign credit institutions notified the National Bank of Romania about their intention to directly conduct financial services on the territory of Romania.

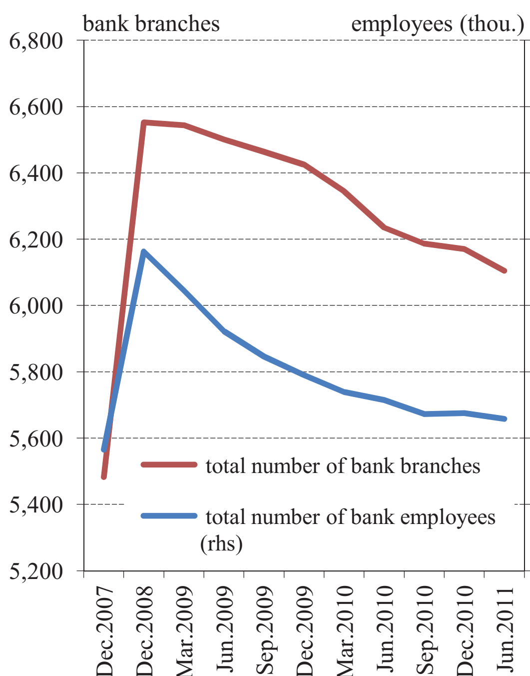
Chart 3.4. The weight of credit institutions' share capital in total foreign capital and their market share by country of origin



Source: NBR

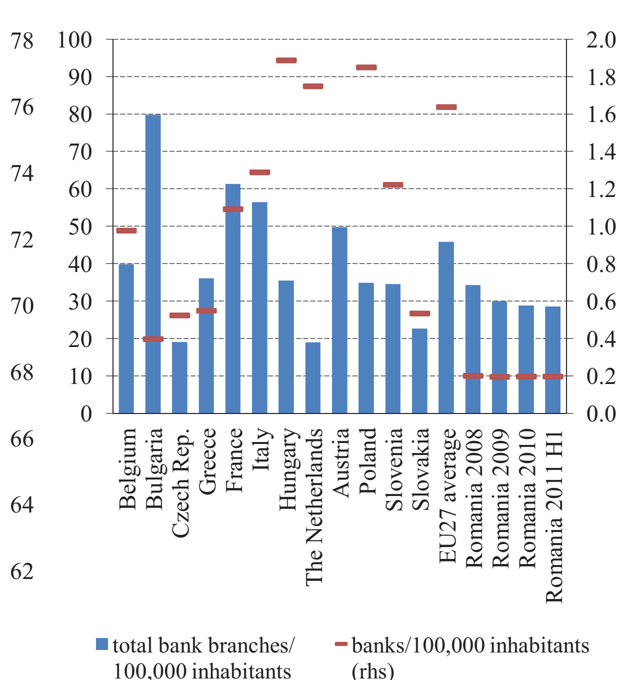
In 2010 too, the persistent economic downturn prompted banks' tendency to cut costs by scaling back their territorial units by 225 and their payrolls by 1,145; in 2011 H1, the decline slowed markedly (Chart 3.5.). With regard to the number of territorial units and credit institutions per 100,000 inhabitants, the Romanian banking system further stands below the EU average (Chart 3.6.).

Chart 3.5. The number of bank branches and bank employees



Source: NBR

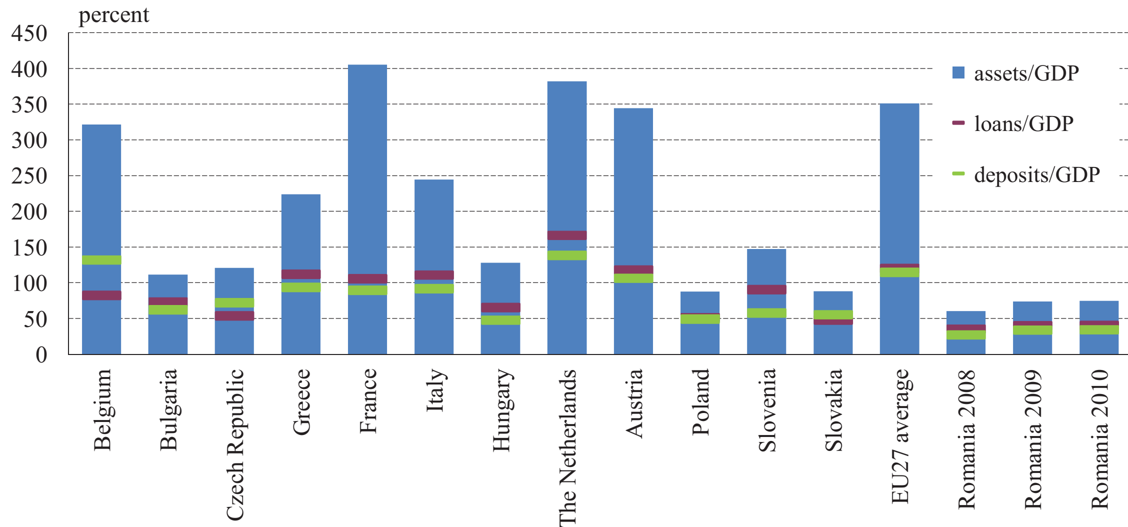
Chart 3.6. The number of banks and bank branches per 100,000 inhabitants (international comparisons)



Source: NBR, ECB – Statistical Data Warehouse

Financial intermediation, calculated based on the share in GDP[12] of assets, loans and deposits of banks conducting business on the territory of Romania is still far below the EU average and even below the levels in the other new EU Member States (Chart 3.7.).

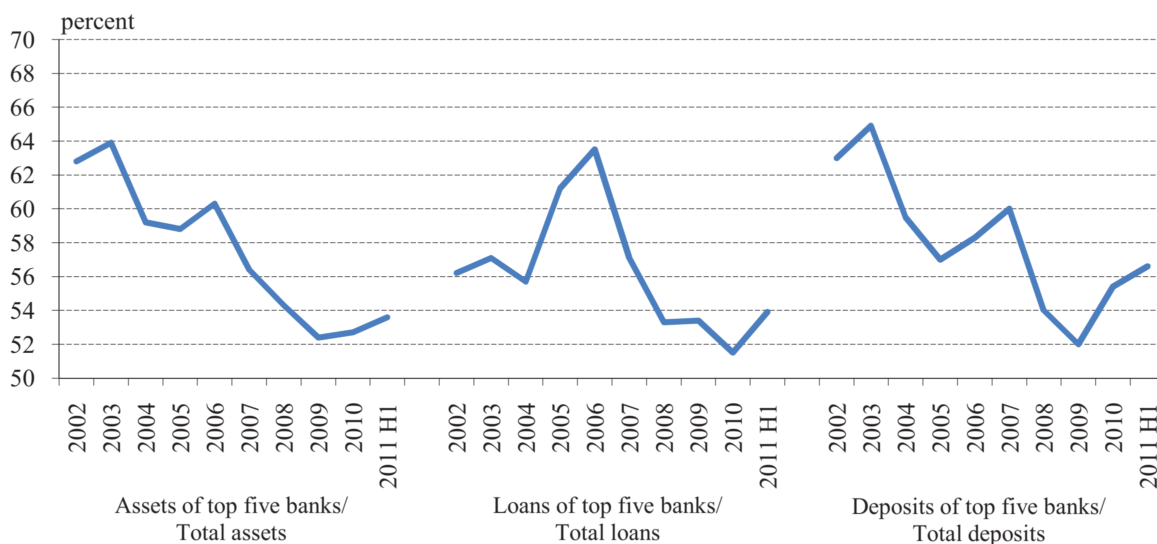
Chart 3.7. Financial intermediation (international comparisons)



Source: NBR, ECB

The concentration degree of the Romanian banking system assets (Chart 3.8.) stuck to a downward path until end-2009; in 2010, it rose slightly, but remained below the EU average. The weight of deposits taken by the top five banks in total deposits also showed an increasing concentration degree in 2010. Moreover, the Herfindahl-Hirschmann index illustrates a higher concentration degree than that associated with assets or loans.

Chart 3.8. Concentration degree of the Romanian banking system

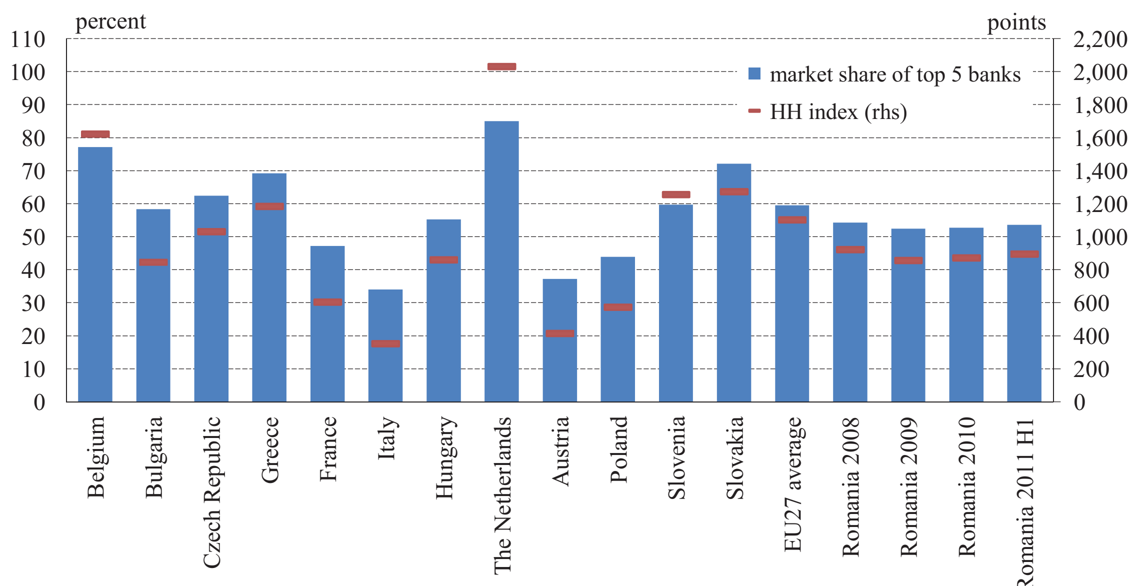


Source: NBR

[12] Financial intermediation is determined based on monetary statistics: ECB – Statistical Data Warehouse.

The value of Herfindahl-Hirschmann index for assets started to decline in 2006, suggesting a moderate concentration degree. The 895 point level recorded in June 2011 places Romania below the EU average of 1,102 (Chart 3.9.).

Chart 3.9. Assets concentration degree (international comparisons)



Note: 2009 data were available for the EU Member States.

Source: ECB – EU Banking Structures, NBR

3.2.2. Aggregate balance sheet of credit institutions

Since the publication of the previous *Report*, aggregate balance sheet assets have been declining in real terms, mainly on account of tighter lending conditions and in line with the further disintermediation in a number of economies. Loan developments show increased caution on both demand and supply sides. The contraction of loans to households was more ample than that of corporate loans, pointing to the faster pace of financial disintermediation for this category of customers. The volume of household deposits stayed on a downward path; the fall was partly offset by capital increases made by bank shareholders. The financing of long-term assets with short-term deposits remains a weakness of the banking sector.

3.2.2.1. Dynamics of bank assets

The analysis of aggregate balance sheet assets confirmed the tendencies identified in the previous *Report*: (i) the slowdown in banking business, mainly as a result of tighter lending conditions; (ii) the larger exposure to the government sector, and (iii) the drop in credit institutions' placements with the central bank, chiefly following the cut in minimum reserve requirements.

The dynamics of aggregate balance sheet assets stayed negative in real terms throughout the period under review[13]. The evolution was largely attributable to the persistent disintermediation (the real annual change in loans to the private sector was further negative, i.e. -3.0 percent in 2010 and -6.1 percent in June 2011 respectively); the acceleration of the annual inflation rate in the latter part of the period also had a contribution to this development due to the first-round effects of the standard VAT rate hike and the statistical effect of the change in the RON/EUR exchange rate.

[13] The real annual change in aggregate balance sheet assets was -4 percent (net), i.e. -2 percent (gross) in 2010 and almost -5 percent and -3 percent respectively in June 2011.

In terms of structure (Table 3.3.), the volume of *claims on the domestic non-bank sector* further accounted for the largest share, i.e. 72.5 percent of total bank assets at end-June 2011.

Table 3.3. Asset structure of credit institutions operating in Romania

percent of total assets

	2005	2006	2007	2008	2009	2010 Mar.	2010 Jun.	2010 Sep.	2010 Dec.	2011 Mar.	2011 Jun.
Domestic assets, *of which:*	96.5	97.4	98.3	98.5	96.9	97.1	98.0	97.6	97.3	97.3	97.5
Claims on the NBR and credit institutions, *of which:*	40.0	34.9	28.8	23.8	18.6	15.9	16.2	15.6	16.5	15.2	13.9
– claims on the NBR	37.5	31.3	24.9	21.8	15.7	12.9	13.8	13.2	14.2	13.1	11.8
Claims on domestic non-bank sector, *of which*:	48.5	54.8	61.2	63.4	67.5	70.4	71.1	71.1	70.4	71.2	72.5
– claims on the government sector	1.9	1.6	3.7	5.0	12.7	14.2	14.1	14.5	15.8	16.3	17.1
– claims on companies	30.2	30.8	29.9	29.2	27.3	28.5	28.8	28.7	28.0	28.5	29.0
– claims on households	16.4	22.4	27.6	29.2	27.5	27.7	28.2	27.9	26.6	26.4	26.4
Other assets	8.0	7.7	8.3	11.3	10.8	10.8	10.7	10.9	10.4	10.9	11.1
Foreign assets	3.5	2.6	1.7	1.5	3.1	2.9	2.0	2.4	2.7	2.7	2.5

Source: NBR – aggregate monetary balance sheet of credit institutions

Compared to the same year-earlier period, the 1.4 percentage point rise in the share of *claims on the domestic non-bank sector* at end-June 2011 was attributed solely to the *government segment* (up 3 percentage points to 17.1 percent). Government claims posted further positive real dynamics in annual terms throughout the period under review (36.1 percent in June 2010, 21.4 percent in December 2010 and 17.1 percent in June 2011), however more moderate than at the outbreak of the crisis in Romania (214.5 percent in June 2009 and 159.1 percent in December 2009). The development was influenced by the heightening risks associated with both companies and households, equally impacting loan demand and supply, and by the government's increasing financing needs, especially in the first part of the reviewed period.

The share of the other two segments of the domestic non-bank sector (companies and households) witnessed mixed changes, albeit less ample, in the structure of balance sheet assets: *claims on companies* hovered marginally around 29 percent, while the share of *claims on households* decreased from a year earlier (by 1.8 percentage points to 26.4 percent at end-June 2011). The changes emerged in the context of the following developments: (i) the real annual contraction of corporate loans was insignificant in 2010 (-0.4 percent), but gained momentum in June 2011 (-2.7 percent) and (ii) the real annual drop in loans to households was largely affected by the steeper downtrend in consumer loans[14], as well as by the slowdown in mortgage loan dynamics, possibly due to the temporary discontinuation of the "First Home" programme.

[14] The contraction of consumer loans was steeper in 2010 H2 amid: (i) the sharper drop in wages including by the 25 percent cut in public sector wages starting with July, (ii) further unfavourable job prospects and (iii) higher interest rates on new business, due mainly to the increase in the margins applied by banks following the implementation of Government Emergency Ordinance No. 50/2010 on consumer loan agreements.

In terms of the currency in which loans to the private sector were granted, foreign currency-denominated loans held the largest weight (62.9 percent), with annual growth rates remaining in positive territory, even though on a downward path (when expressed in euro, foreign currency-denominated loans moved up in annual terms by 8.3 percent in 2010 and 4.8 percent in June 2011). Leu-denominated loans kept shrinking (-10.1 percent and -6.5 percent respectively, real annual change in both reference periods), with household loans posting the sharpest decline.

By maturity, all types of loans recorded negative growth rates, more pronounced in the case of short-term loans; the impact of these changes on the shares of the three categories in total loan portfolios was marginal. Thus, at end-2011, long-term loans took the largest share (57 percent), short-term and medium-term loans recording relatively similar shares (about 21 percent).

In May and June 2011, lending saw a revival as shown by the monthly changes in loans to the private sector as a result of the larger volume of new business. The conditions favourable to this development were: (i) the cut in interest rates on new leu-denominated loans, (ii) the slight easing of lending standards[15], and (iii) the relative improved perception on economic recovery.

Another notable change in the structure of aggregate balance sheet assets concerned *claims on the central bank and credit institutions,* which fell by 2.3 percentage points at end-June 2011 from a year earlier, to 13.9 percent; the decrease was attributed to *claims on the central bank* (-2 percentage points to 11.8 percent), whose real annual dynamics stayed in negative territory throughout the period under review (-30.6 percent in June 2010, -12.0 percent in December 2010 and -17.3 percent in June 2011). The evolution of placements with the central bank was influenced mainly by lower required reserve volume, amid the narrowing of the financing base of credit institutions and the drop in the minimum reserve requirement ratio. Nevertheless, the share of deposits with the central bank was still significant and represented a key feature of banks in Romania, including banks with foreign capital, illustrating particularly the prudential requirements regarding minimum reserve requirements.

3.2.2.2. Developments of own, attracted and borrowed resources

Structural analysis of aggregate balance sheet liabilities revealed the following tendencies:

i) the real dynamics of corporate and household deposits entered negative territory starting with July 2010, for the first time in the past decade;

ii) short-term financing persisted;

iii) dependence on external financing remained relatively high;

iv) own sources grew via capital increases made by the shareholders of credit institutions.

The real annual dynamics of corporate and household deposits remained negative (-2.0 percent in 2010 and -5.1 percent at end-June 2011) in the context of: (i) lower incomes; (ii) households' high indebtedness ratio despite the real decline in the loans granted to such customers, and (iii) keener interest in government securities. Corporate and household deposits tended to go down, particularly the former (-6.7 percent versus -3.9 percent in the case of household deposits, real annual changes in June 2011). However, these deposits further accounted for the largest share of total bank liabilities (Table 3.4.), fluctuating around 46 percent.

[15] According to the NBR's May 2011 survey on lending to non-financial companies and households, some lending conditions were less restrictive as from early 2011.

Table 3.4. Liabilities structure of credit institutions operating in Romania

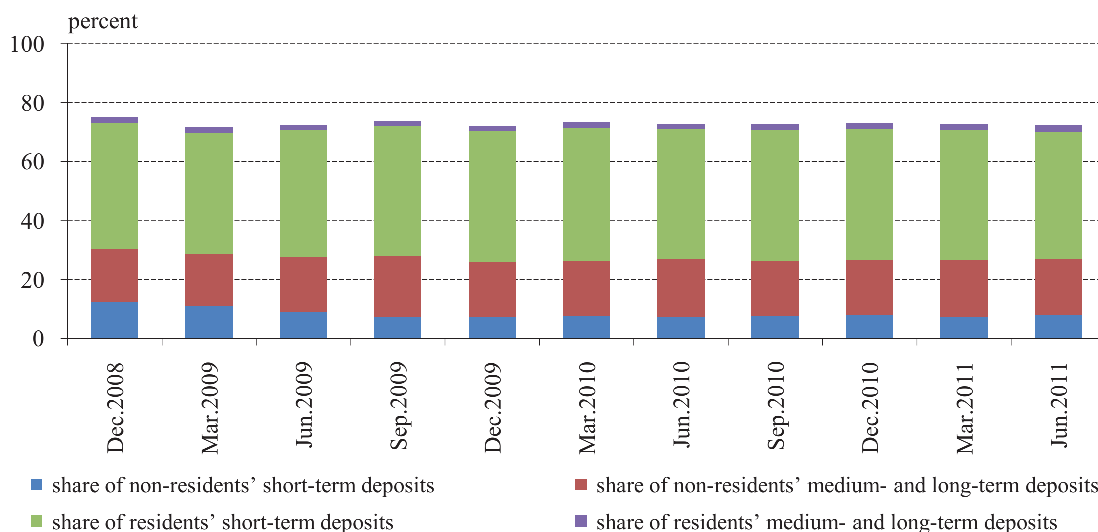
percent of total liabilities

	2005	2006	2007	2008	2009	2010 Mar.	2010 Jun.	2010 Sep.	2010 Dec.	2011 Mar.	2011 Jun.
Domestic liabilities, *of which*:	79.1	77.5	71.7	69.3	73.7	73.5	73.0	73.6	73.1	73.2	72.8
– inter-bank deposits	2.5	3.6	3.8	2.1	5.4	2.9	2.4	2.5	3.4	2.5	2.6
– government sector deposits	3.5	3.1	2.9	3.1	2.1	2.1	2.3	2.2	1.7	2.5	1.6
– corporate and household deposits	57.5	55.0	49.7	44.6	46.0	47.1	45.9	46.2	46.2	46.1	45.2
– capital and reserves	12.2	11.8	9.9	10.7	12.1	13.3	13.7	14.5	14.3	15.1	15.1
– other liabilities	3.4	4.0	5.4	8.8	8.1	8.1	8.7	8.2	7.5	7.8	8.3
Foreign liabilities	20.9	22.5	28.3	30.7	26.3	26.5	27.0	26.4	26.9	26.8	27.2

Source: NBR – aggregate monetary balance sheet of credit institutions

Residents' deposits with maturities of up to one year (Chart 3.10.) continued to prevail, thus maintaining the asset-liability mismatch in terms of maturity. Deposits from non-residents had mainly medium- and long-term maturities.

Chart 3.10. Share of deposits taken from residents (companies and households) and non-residents in total liabilities, by maturity



Source: NBR

The real annual dynamics of foreign liabilities decelerated marginally (-0.5 percent) in 2010, gaining momentum in June 2011 (-2.8 percent). The structure of external financing base shows that resources attracted from parent banks, especially those with maturities over one year, further held the largest share (84.3 percent). The share of foreign liabilities in total balance sheet liabilities hovered slightly around 27 percent.

Over the reviewed period, credit institutions continued to consolidate their capital base (share capital rose in real terms by 9.1 percent in 2010 and 4.2 percent in 2011 H1). The new capital increases were made by the shareholders of credit institutions mostly at the recommendation of the central bank, mainly with a view to consolidating solvency so as to offset the effects associated with the deterioration of the loan portfolio quality.

3.2.3. Capital adequacy

Capitalisation of Romanian banks remains at a comfortable level (14.2 percent in June 2011 from 14.7 percent in December 2009 and 15 percent in December 2010), creating favourable conditions to meet the additional capital requirements under Basel III. The factors that ensured the stability of the Romanian banking system include the measures taken by the central bank with a view to enhancing credit institutions' capacity to withstand economic shocks, the fulfilment of commitments taken by the parent banks of the nine leading subsidiaries in Romania to provide *ex ante* additional capital, as well as the increased caution about lending.

In the period ahead, the challenges may stem from banks' need to change their business model in a competition-driven environment and their manner of implementing the new Basel III regulatory framework.

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

Despite the adverse conditions banking business had to cope with in the period since the release of the previous *Report*, when credit risk was highly manifest, the aggregate volume of own funds of banks, Romanian legal entities, stood at an adequate level (close to that recorded at end-2009). The period under consideration saw credit institutions face new challenges. As banks' profit contracted sharply (audited profit for fiscal 2010, used for the calculation of own funds, accounted for 68 percent of the profit reported in the previous year), the shareholders of credit institutions were required to provide additional capital (about EUR 650 million in 2010). The notable capital increases ensured credit institutions' capacity to absorb unexpected losses resulting from occurrence of risks specific to the banking business. The central bank reinforced the buffer role that Tier 1 capital plays within total own funds and the balance sheet of credit institutions, stating via regulations[16] that *Tier 1 capital shall be used at any time and primarily for the purposes of absorbing shocks, without incurring fixed costs for the bank and being actually put at the bank's disposal, i.e. by being paid in full*.

In December 2010, the regulatory framework for own funds of credit institutions was changed[17]. A key novelty is the regulation of conditions for introducing hybrid capital instruments among Tier 1 items.

[16] Regulation No. 11/14/23 September 2010 issued by the NBR and the NSC amending and supplementing NBR Regulation No. 18/23/2006 issued by the NBR and the NSC on own funds of credit institutions, approved by Order No. 15/112/2006 issued by the NBR and the NSC (published in *Monitorul Oficial al României*, Part I, No. 690/14 October 2010) Art. 3, para. 3.

[17] Regulation No. 15/18/30 September 2010 issued by the NBR and the NSC amending and supplementing Regulation No. 18/23/2006 issued by the NBR and the NSC on own funds of credit institutions and investment firms (published in *Monitorul Oficial al României*, Part I, No. 725/1 November 2010).

Box 1. The new regulatory framework for own funds: hybrid capital instruments

In view of ensuring the adequate quality of hybrid capital instruments, *Regulation No. 15/18/30 September 2010 issued by the NBR and the NSC amending and supplementing Regulation No. 18/23/2006 issued by the NBR and the NSC on own funds of credit institutions and investment firms* stipulates a number of requirements these instruments must meet as components of Tier 1 capital, among which: (i) hybrid capital instruments shall be issued for an unspecified period of time or with a maturity of at least 30 years, according to the original contract; (ii) they may include one or several call options at the sole discretion of the issuer, but cannot be bought back for a period of at least 5 years from the date the related amounts were included in the calculation of own funds; (iii) they may include a buy-back incentive for the credit institution only if it is deemed moderate and it is not resorted sooner than 10 years from the issue date of the instruments. In compliance with Art. 8^1 letter c) of the Regulation, the NBR will define the concept of moderate buy-back incentive; (iv) the instruments issued for a specified or an unspecified period of time may be bought back only with the prior approval of the NBR; (v) the provisions governing the instrument shall ensure, by way of adequate mechanisms, that the unpaid principal, interest and dividend cover losses and do not hinder the recapitalisation of the credit institution. The NBR will set regulations on the operation of these mechanisms; (vi) in case of bankruptcy or winding-up of a credit institution, hybrid capital instruments have a payment rank below that of securities issued for an unspecified period of time and of other similar instruments that meet, cumulatively, the general conditions on subordination.

Moreover, the Regulation imposes restrictions on the payment of interest or dividends on the hybrid capital instruments, where necessary, for an unspecified period of time, on a non-cumulative basis. In the event of a credit institution does not meet capital requirements in compliance with the applicable regulations, it shall stop paying the interest or dividends on hybrid capital instruments. In addition, based on the financial standing and the solvency of the credit institution, the central bank may request interest and dividend payment to be stopped; the criteria underlying such a request are to be regulated by the NBR.

The prior approval for the buy-back of the instruments issued for a specified and an unspecified period of time may be obtained only if, in the central bank's opinion, both the financial standing and the solvency of the credit institution are not significantly affected. The NBR may require, in the context of the prior approval, the replacement of hybrid capital instruments with items in the category of equity capital or with hybrid capital instruments of either similar or higher quality. The NBR may require the deferment of the buy-back of instruments issued for a specified period of time in case the credit institution fails to meet the capital requirements stipulated in the applicable regulations; such a request may be formulated in other cases too, depending on the financial standing and the solvency of the credit institution.

The Regulation states that the halt in the payment of interests and dividends on hybrid capital instruments shall be without prejudice to the credit institution's right to replace the payment of interests and dividends by the payment in the form of shares, provided that any such alternate mechanism used for the payment of interests and dividends should allow the bank to preserve its financial resources. The NBR will regulate the specific conditions for the operation of alternate mechanisms for the payment of interests and dividends.

In addition to the aforementioned criteria, in order to ensure the adequate quality of Tier 1 capital items, the Regulation also sets forth a number of limitations regarding hybrid capital instruments, depending on the fulfilment of the said features, as follows:

a) the total value of the instruments that, by contract, shall be converted in contingency situations and which, at the NBR's initiative, may be converted at any time based on the assessment of the financial standing and the solvency of the issuing credit institution into share capital/endowment capital shall not exceed 50 percent of Tier 1 capital;

b) where the value of the instruments mentioned under letter a) is lower than 50 percent of Tier 1 capital, within the respective limit, all the other instruments shall not exceed 35 percent of Tier 1 capital;

c) within the limits stated under letters a) and b), the instruments issued for a specified period of time, and those which include a buy-back incentive shall not exceed 15 percent of Tier 1 capital;

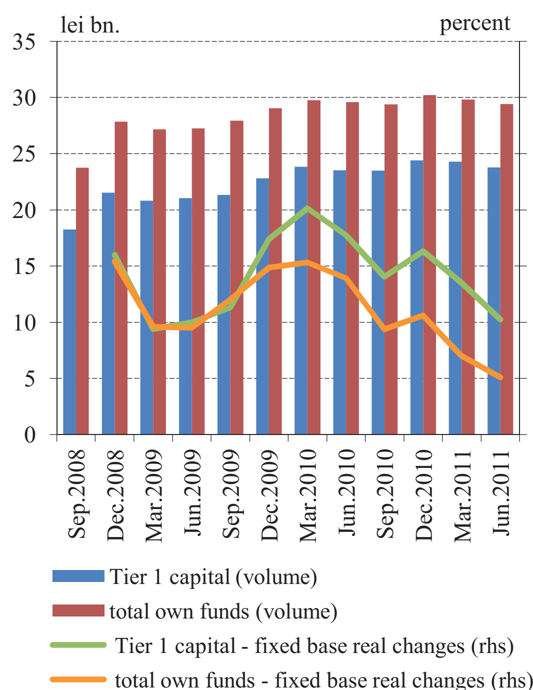
d) the value of items exceeding the limits stated under letters a) – c) is subject to the limitation stipulated in Art. 21 para. 1.

Regulation No. 15/18/30 September 2010 issued by the NBR and the NSC came into force on 31 December 2010.

The supplementation of the regulatory framework focused on the transposition into the national legislation of the EU directives in the field[18] and the creation of a level playing field for the international credit institutions conducting business in various EU Member States. The reports on own funds for December 2010 – June 2011 submitted by the credit institutions in Romania did not include amounts relative to hybrid capital instruments. Therefore, the impact of the regulatory framework enlargement will be assessed in the period ahead.

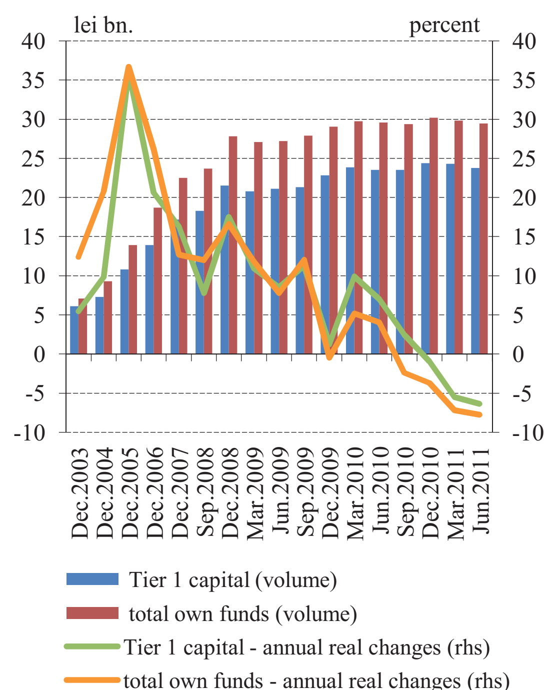
The prudent supervision of the banking system and the central bank's proactive stance during the period when the indirect effects of the global financial crisis hit the Romanian financial system were manifest ensured, in 2010, the good performance of own funds of credit institutions, Romanian legal entities, calculated at aggregate level. Own funds saw a real 10.6 percent increase at end-2010 (Chart 3.11.), using as a fixed base the level reported at end-September 2008 (when the global financial crisis was deemed to have become manifest in Romania), but they have embarked on a downward trend (in June 2011, the growth pace moderated by around 5.5 percentage points). At end-2010, Tier 1 capital posted a more favourable development; it stood 16 percent higher than the base level, mainly as a result of recapitalisation made by the shareholders, the increases exceeding cumulative inflation.

Chart 3.11. Total own funds and Tier 1 capital (fixed base 30 September 2008)



Source: NBR, NIS

Chart 3.12. Total own funds and Tier 1 capital



Source: NBR, NIS

In terms of annual growth, both own funds and their major component – Tier 1 capital – entered negative territory starting with 2010 Q4 (Chart 3.12.), in the context of temporarily high inflation (hovering around 8 percent in the period since the release of the previous *Report*) induced chiefly by the first-round effect of the 5 percentage point hike in the standard VAT rate. The increased level of own funds in the previous periods when credit institutions' capacity to obtain profit from the banking

[18] 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 European Union's Official Journal of the European Union L 302 of 17 November 2009.

business was high also contributed to this development. It is noteworthy that the negative change of own funds does not exceed the level of inflation. Tier 1 capital – seen as the core of credit institutions' own sources in terms of the criteria of permanence, flexibility and loss-absorbing capability – further held the largest share (80 percent) of total own funds in the period since the release of the previous *Report* (Table 3.5.).

The impact of the previous change in the regulatory framework, consisting in the permission granted to banks to include audited profit in the calculation of Tier 1 capital, was modest (2.5 percent of total own funds in December 2010, compared to around 4 percent at end-2009). The causes behind this development are the large volume of expenses related to credit risk provisions and the erosion of operating profit following the downward adjustment in interests on assets (mainly loans and government securities). In 2011, the pressures from asset quality started to ease – a process that will become more manifest once economic activity and lending have recovered – while the challenges from the keener competition on the bank market (resulting in the narrower margin between lending and deposit rates) are estimated to be further manifest. The banks conducting business in Romania will have to adjust their costs in order to remain profitable in a stiffer competition-driven environment.

Table 3.5. Own funds and capital adequacy indicators

percent

	Sep. 2008	Dec. 2008	Dec. 2009	Mar. 2010	Jun. 2010	Sep. 2010	Dec. 2010	Mar. 2011	Jun. 2011
Percent of total own funds:	100	100	100	100	100	100	100	100	100
Tier 1 capital, *of which:*	76.7	77.2	78.4	79.8	79.3	79.7	80.3	81.0	80.1
Equity capital	48.7	43.7	46.0	47.3	49.8	51.3	50.8	51.7	53.1
Equity premiums	4.4	3.8	4.0	6.1	6.1	5.8	5.7	5.8	5.8
Legal reserves	28.2	34.6	33.4	33.0	32.6	32.4	32.3	30.2	30.2
Current profit (audited)	–	–	3.75	0.0	0.0	0.7	2.5	0.0	0.0
Current loss	-0.6	-0.7	-2.2	-1.2	-3.0	-3.5	-5.0	-0.5	-2.6
Tier 2 capital, *of which:*	23.3	22.8	21.6	20.2	20.7	20.3	19.7	19.0	19.9
Revaluation reserves	9.6	8.1	6.06	5.9	5.6	5.7	5.6	5.7	5.7
Subordinated loans (net)	15.2	15.8	17.2	15.7	16.6	16.3	15.7	15.0	15.2
Subordinated loans (gross)	17.5	17.9	20.1	19.0	20.4	20.7	20.3	20.0	20.7
Solvency ratio (> 8 percent)	11.9	13.8	14.7	15.0	14.3	14.6	15.0	14.9	14.2
Tier 1 capital ratio	10.0	11.8	13.4	14.2	13.4	13.8	14.2	14.5	13.6

Source: NBR

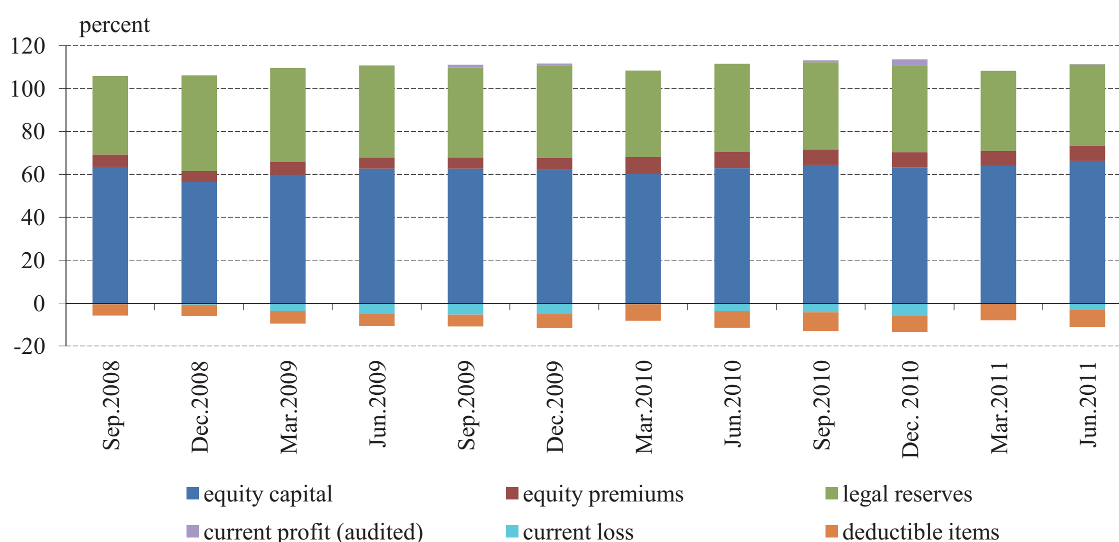
The adequate quality of Tier 1 capital is illustrated by the structure of such funds (Chart 3.13.):

i) equity capital, share premiums included, remains the major component (whose contribution rose from 68 percent of Tier 1 capital in December 2009 to 73.5 percent in 2011). In 2010, capital increases amounted to lei 2,715 million, made by the shareholders of 15 banks (representing an increase of 11 percent in real annual terms in December 2010, compared to 6 percent in 2009). Moreover, in 2011 H1, ten banks witnessed additional capital increases (lei 400 million). The capital increases were necessary to maintain a high capitalisation level and to improve resistance to exogenous shocks since banks' capacity to perform a profitable activity was undermined by the worsening quality of loans in the banks' balance sheets;

ii) legal reserves are further the second component supporting Tier 1 capital. Compared to the previous period, the more modest financial results obtained in 2010 entailed no significant changes in the level of reserves after the submission of the balance sheets;

iii) a major challenge faced by banks was to maintain own funds at an adequate level, given their erosion due to accounting losses in the current period (by about 5 percent in 2010 compared to 2 percent in 2009), whereas the audited profit had a modest contribution (2.5 percent in 2010 versus roughly 4 percent in 2009). In 2011 H1, accounting losses took 2.6 percent out of own funds.

Chart 3.13. Structure of Tier 1 capital



Source: NBR

Tier 2 capital accounted for around 20 percent of total own funds, comprising mainly subordinated loans and revaluation reserves. With subordinated loans being limited to at most 50 percent of the value of Tier 1 capital – prudential regulation that focuses on ensuring a safe ratio between primary and secondary capitalisation sources – the rise in the gross volume of this item was about 4 percent in 2010 (compared to 16 percent in the previous period). In December 2010, 77 percent of the gross volume of subordinated loans was included in the calculation of own funds (versus 85 percent in December 2009). In the period since the release of the previous *Report*, the contribution of revaluation reserves to the financing of Tier 2 capital remained unchanged (about 30 percent).

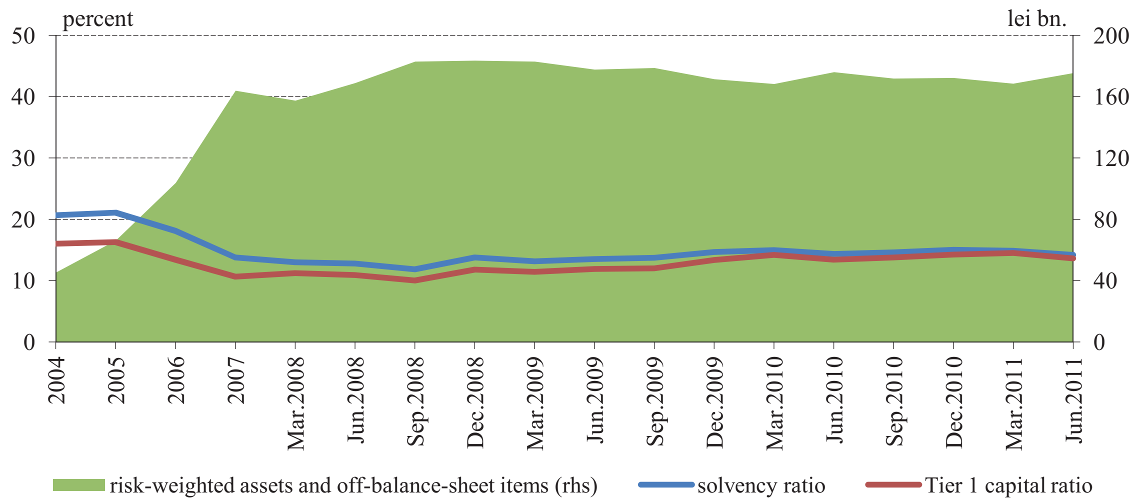
3.2.3.2. Analysis of solvency

The central bank's proactive stance meant to increase the banking system's resilience to shocks, together with shareholders' efforts to strengthen the capital base of credit institutions, have further ensured high capital adequacy of such entities.

With a view to assessing capitalisation of credit institutions, the central bank uses the solvency ratio[19] as the only regulated indicator. Since the release of the previous *Report*, the aggregate solvency ratio (Chart 3.14.) hovered around 14 percent (with a peak of 15 percent in December 2010). Considering the 8 percent threshold, a level in line with that applicable in the European Union, the figure reported by the credit institutions in Romania is a comfortable one. Hence, these entities can fulfil the additional capital requirements under Basel III (which introduces, *inter alia*, two additional capital segments, namely the capital conservation buffer and the countercyclical capital buffer) that are to be transposed into the European regulatory framework via *Capital Requirements Directive IV*.

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

Chart 3.14. Capital adequacy indicators



Source: NBR

The good performance is attributable to several factors, as follows:

i) the minimum prudential level for the solvency indicator within the supervisory process was kept at 10 percent, as agreed at the time when the fallout from the global financial crisis first hit Romania;

ii) the parent banks of the nine largest foreign-owned credit institutions doing business in Romania fulfilled their commitment to providing *ex ante* additional capital to maintain a capital adequacy ratio above 10 percent for the period the financing arrangement signed by Romania with the EU, the IMF and other IFIs is in place (the spring of 2011). Under the European Bank Coordination Initiative of March 2011, the nine parent banks[20] of the major subsidiaries in Romania reaffirmed their long-term commitments to Romania for maintaining adequate capital levels, i.e. above 11 percent, as reported by every credit institution in Romania at that date, without however formally pledging to preserve a certain level of exposures. This commitment, alongside the new precautionary Stand-By Arrangement signed by Romania with the IMF and the EU, is expected to help strengthen investors' confidence and put the economy back on a sustainable growth path;

iii) the slower pace of increase of lending and banks' investing their liquid funds chiefly in government securities led to a lower value of risk-weighted assets and off-balance-sheet items, resulting in an improved performance of the solvency ratio.

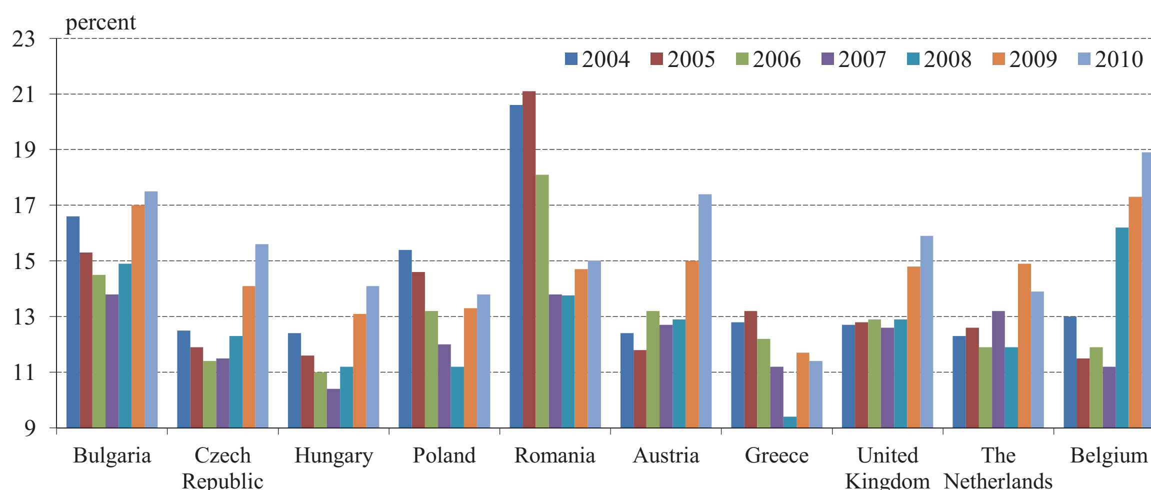
Given the ongoing financial disintermediation, the volume and structure of capital requirements for the banking system as a whole were little changed. Credit risk requirements are still accounting for about 85 percent of the total figure, whereas operational risk and currency risk requirements stabilised at 14 percent and 1 percent respectively.

Banks in many countries stepped up their efforts to raise additional capital in 2010 (Chart 3.15.) in an attempt at laying the groundwork for the implementation of the new Basel III regulatory framework, which sets forth additional capital requirements to mitigate the detrimental effects stemming from the

[20] Erste Bank Group, Raiffeisen Group, Eurobank EFG, National Bank of Greece, Unicredit Group, Société Générale, Alpha Bank, Volksbank International and Piraeus Bank.

pro-cyclical lending and provisioning. As far as large and complex banking groups[21] were concerned, the major determinants of the higher capital base were retained profits and share capital increases, whilst the higher value of risk-weighted assets in 2010 Q2 had an adverse impact. The new rules will help enhance banking system's resilience to shocks during downturns or at times of crisis. Given the assessed sample, Romania takes a median position.

Chart 3.15. Trend of solvency ratio in selected EU Member States



Source: IMF – Global Financial Stability Report (April 2011), NBR

A more in-depth analysis of capital adequacy by bank groups in terms of asset holdings[22] (Chart 3.16.) reveals the persistence of previous trends.

Capitalisation remains lower in the case of large banks (whose solvency ratio was 13 percent in June 2011) compared to the other two groups. The above-mentioned level is below the average, but well above the prudential supervision threshold.

The levels calculated for medium- and small-sized banks are similar, with both categories reporting above-average capitalisation at 18 percent in June 2011.

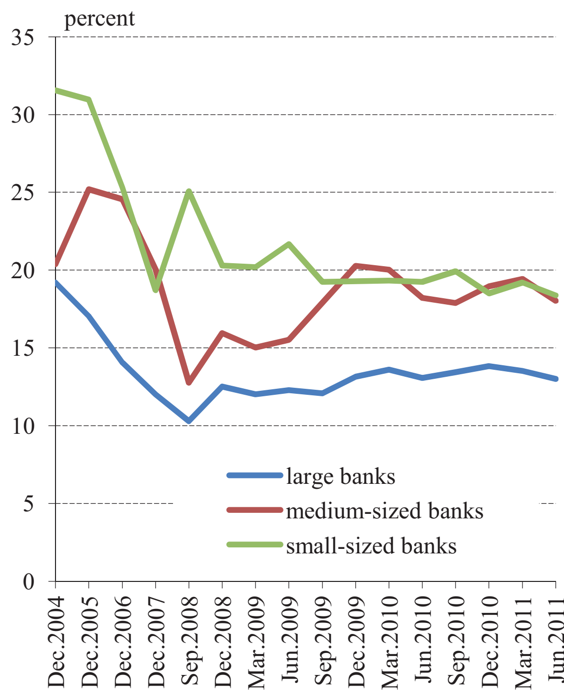
The breakdown of banks by the level of the solvency ratio (Chart 3.17.) shows an improving trend by the end of 2011 Q1, which had started two years ago, as a direct effect of the central bank's measures[23]. The number of banks whose solvency ranged between 10 and 12 percent fell to two in March 2011 (from six in June 2010) and a stronger concentration was observed in the 12-16 percent range (14 in March 2011 versus 10 in June 2010). At mid-2011, the breakdown of banks was similar to the year-earlier picture, owing to weaker financial results. For the first time in the past two years, only one bank reported a below 10 percent solvency ratio (i.e. 9.3 percent in June 2011, which is still

[21] European Central Bank, *Financial Stability Review*, December 2010.

[22] 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 and 5 percent of total, while small-sized banks are defined as entities whose assets account for less than 1 percent of aggregate assets.

[23] In order to increase banks' resilience to the global financial crisis-induced shocks, the National Bank of Romania established in its supervision actions a 10 percent threshold for the solvency ratio (against the minimum regulated level of 8 percent). In addition, with a view to ensuring effective supervision, the central bank required solvency reports to be submitted on a monthly basis (rather than quarterly, as stipulated under the legal framework in force) by the banks registering a negative financial result, a large volume of non-performing claims or below-average solvency ratios.

Chart 3.16. Solvency ratio by group of banks in terms of asset holdings

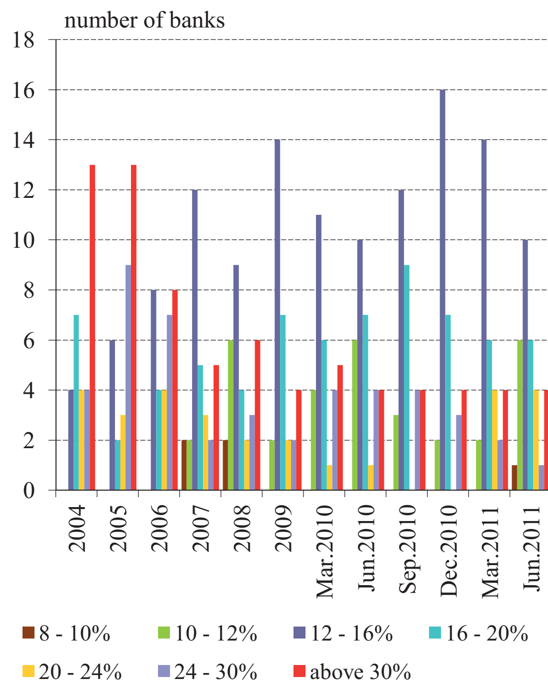


Source: NBR

above the minimum required level of 8 percent), but the entity holds only 0.1 percent of total assets of the Romanian banking system. In line with its prudential stance pursued ever since the global financial crisis broke out, the central bank required the bank's shareholders to boost share capital by the end of 2011.

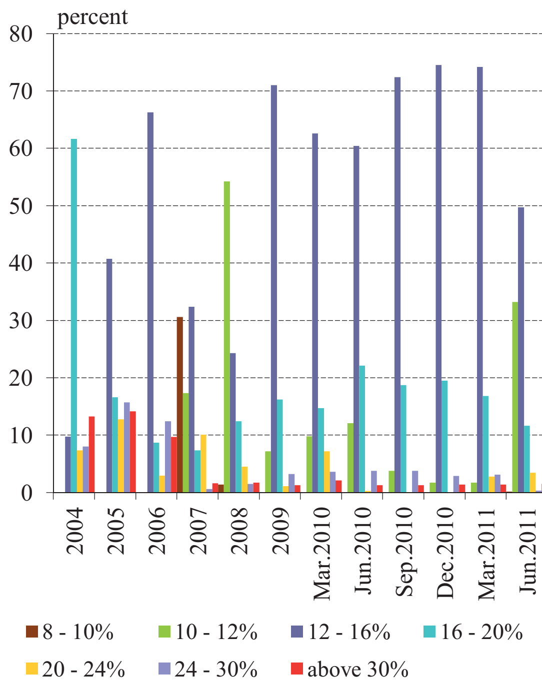
Bank assets in terms of the solvency ratio (Chart 3.18.) followed the above-mentioned trends. In March 2011, the assets of credit institutions whose solvency ratio ranged between 10 and 12 percent accounted for about 2 percent of total bank assets (down from 12 percent in June 2010) and the assets held by entities whose solvency ratio ranged between 12 and 16 percent grew to 74 percent of the aggregate figure (from 60 percent in June 2010). At mid-2011, roughly 33 percent of total assets moved down to the 10-12 percent range as a result of the one percentage point drop in the solvency ratios reported by two large banks.

Chart 3.17. Banks in terms of solvency ratio



Source: NBR

Chart 3.18. Bank assets in terms of solvency ratio



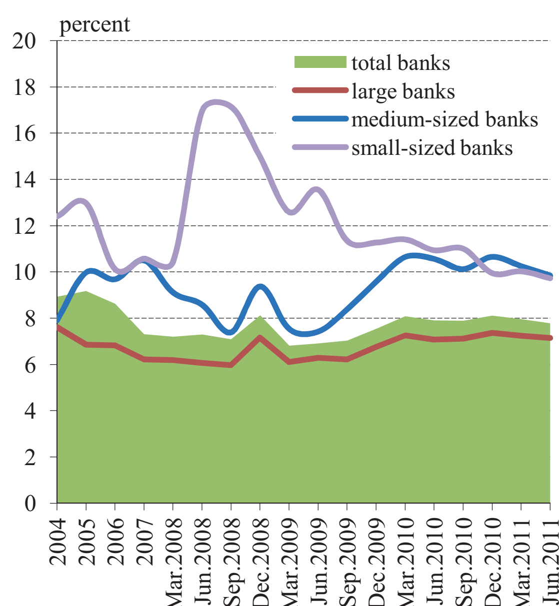
Source: NBR

The Tier 1 capital ratio[24] (Chart 3.14.) is used by the central bank as a secondary indicator whereby capital adequacy is measured. The indicator's relevance, apart from being used in international

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

comparisons and in the EU-wide stress tests, consists in assessing the quality of banks' own sources considering that its components (share capital, capital premiums, reserves, etc.) make up the core of own funds that has a great shock-absorbing capability. As for the banks conducting business in Romania, the adequate quality of their own funds is reflected by the high Tier 1 capital ratio (13.6 percent in June 2011, i.e. similar to the year-earlier level) that stands very close to the solvency ratio.

Chart 3.19. The leverage ratio – total and by bank group



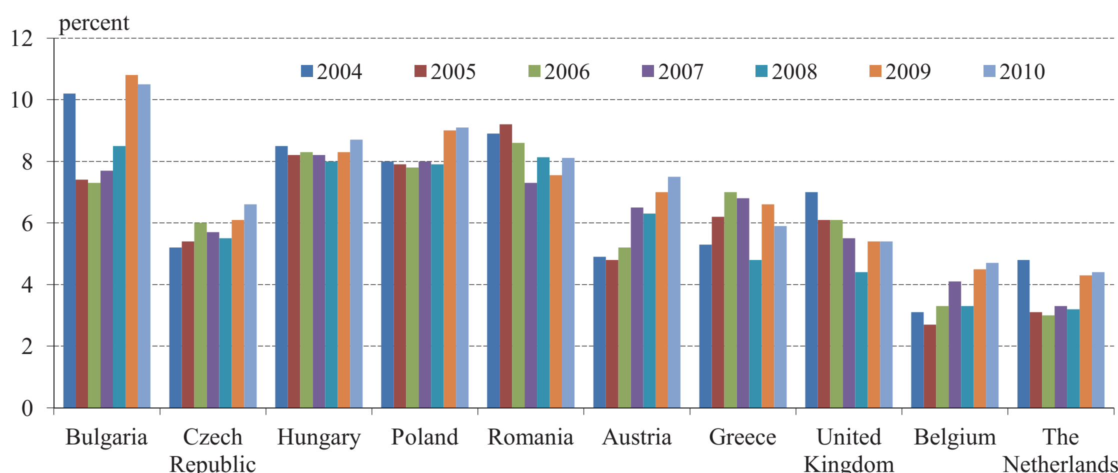
Source: NBR

In compiling its analyses, the central bank uses the leverage ratio[25], a measure of establishing to what extent credit institutions' own sources cover bank financing. Since the release of the previous *Report*, the indicator firmed at approximately 8 percent (Chart 3.19.). In compliance with Basel III rules, this indicator will become part of the prudential regulation framework applicable in the EU.

The breakdown of the leverage ratio by bank group in terms of asset holdings shows that large banks remained at a lower self-financing degree (7.1 percent in June 2011), while small- and medium-sized banks posted similar leverage ratios (about 10 percent in 2011 to date). The drivers of this development were, together with the increase in Tier 1 capital, the decline in bank asset volume reported by many credit institutions amid the persistence of an uncertain macroeconomic environment over the period under review.

The 8 percent leverage ratio registered by the Romanian banking system compares favourably to that of other emerging economies in the region (Chart 3.20.). It notes that credit institutions in the home country of parent banks that expanded into Eastern Europe continued to make a lower recourse to own sources in order to ensure financing.

Chart 3.20. Leverage ratio in selected EU Member States



Source: IMF – Global Financial Stability Report (April 2011), NBR

[25] The leverage ratio is calculated as a ratio of Tier 1 capital to total assets at average value.

3.2.3.3. Results of stress test in assessing the banking system

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 assess the impact of a possible adverse change in the macroeconomic environment on banking system solvency both at aggregate level and for each credit institution. The risk factors considered are variables such as economic growth, exchange rate, interest rate and inflation rate. The results of the latest stress test on banking system solvency conducted in January 2011 cover an eight-quarter horizon (2011 Q1 – 2012 Q4).

The shocks likely to affect the profitability and, finally, the solvency of the banking sector are simulated through a separate analysis of direct effects on the financial result (as a result of a shift in market parameters) and indirect effects on the quality of the loan portfolio (following changes in the financial performance of the corporate sector and in households' debt repayment capacity). Indirect effects are measured by the expected volume of provisioning due to the impairment of financial assets over an one-year horizon. In addition, the interbank contagion effect is assessed, which involves an evaluation of possible consequences of a less than full capacity of repaying debts due by a credit institution in the wake of the considered macroeconomic shocks.

The scenario assumed the leu posting a sharp depreciation versus the euro (more than 15 percent) in 2011, before embarking upon a gradual appreciation in 2012. Moreover, capital inflows would fall markedly against the backdrop of a worsening in the country's risk perception, the economy would still be mired in recession (at a rate of decline of -3.1 percent) and net interest income of credit institutions would decrease significantly amid the narrowing net interest margin.

The stress test results showed that the solvency ratio and the Tier 1 ratio would be lowered on aggregate by at most 3.5 percentage points to about 11.5 percent and 10.7 percent respectively, against the background of a substantial increase (over 30 percent) in the level of loan loss provisions due to the worsened quality of the loan portfolio, an increase driven particularly by exposures to households. Despite the plunge in operating income due to lower interest income, accounting for the largest share in total income (almost 58 percent in December 2010), the banking sector has a good capacity of withstanding considerable shocks; nevertheless, losses are unevenly distributed across the system, since the large banks are in a better position to register operating profits and, implicitly, have a greater potential to withstand shocks.

At the time the crisis broke out, some credit institutions were in the process of increasing the size of their loan portfolios in respect to their total assets, which led to a significant share of expenditures not directly depending on the loan volume. For these credit institutions, the losses incurred in previous years are expected to have a non-recurrent nature and some imbalances reflected by the developments in the "cost/income" ratio should be corrected once these entities reach their target volume of loans. In cases where the results of the simulations show a likely detrimental impact on the activity of certain credit institutions, the systemic risk that these entities might induce is assessed. Currently, according to the results for the considered horizon, the credit institutions that may be affected by such a scenario cannot trigger systemic risk via interbank exposures or following the real sector feedback effect.

3.2.4. Loans and credit risk

Given the persistent uncertainties surrounding economic developments, lending showed feeble revival signs in the period elapsed since the release of the previous *Report*. Banks have further pursued a prudent pro-cyclical stance in granting new loans and opted for loan refinancing and purchases of government securities, despite the measures taken by the central bank in order to bring interest rates to normal levels and foster the resumption of lending.

The future developments in non-performing loans and the challenges posed by foreign currency loans granted to unhedged borrowers further rank among the top issues on the agenda of the central bank in the short run. The significant loan provisioning led to an increase in reserves for covering expected losses. The prevention of risks generated by foreign currency loans to unhedged borrowers needs a coherent European approach, along with the adoption of new measures at national level in order to improve bank risk management, the transparent translation of risks from loans to unhedged borrowers (households in particular) into costs of related financial products and the balancing of flows of new loans denominated in domestic and foreign currency. Loan portfolio quality is expected to improve in line with the favourable domestic macroeconomic developments.

3.2.4.1. Main credit developments

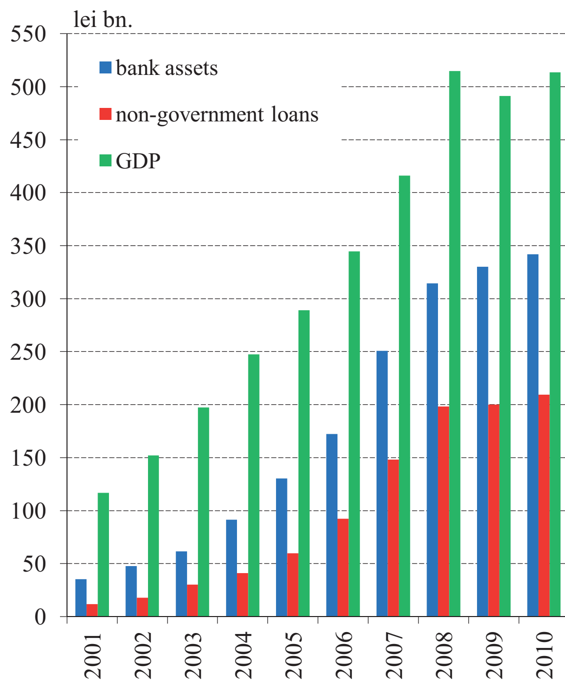
In 2010, bank assets and non-government loans saw a marginal increase in nominal terms, which was the equivalent of a small reduction in real terms (Chart 3.21.), given that the economic growth rate stayed in negative territory. The dynamics of net bank assets[26] remained low (3.5 percent in nominal terms in 2010) as compared with the previous year's figure of 5 percent. In spite of the measures adopted by the central bank with a view to ensuring monetary conditions for fostering private sector's demand for loans[27], banks further showed stronger pro-cyclical risk aversion, by opting for loan refinancing and purchases of government securities, on the back of considerable issues for budget deficit financing. As a result, non-government loans posted an annual growth of merely 4.7 percent in nominal terms in 2010.

Financial intermediation (calculated as a share to GDP of non-government loans granted by domestic credit institutions) remained unchanged at 41 percent (Chart 3.22.), the same reading as in 2009. However, despite the changes seen in banks' 2010 balance sheets (the slow pace of lending, the provisioning of a significant share of loan portfolio and the marginal increase in deposits of non-bank clients), the share to GDP of bank assets stayed put at 67 percent. Romania ranks further among the countries with financial market depth lower than that of other Member States.

[26] Data are taken over from the releasable annual financial statements submitted by credit institutions to the NBR.

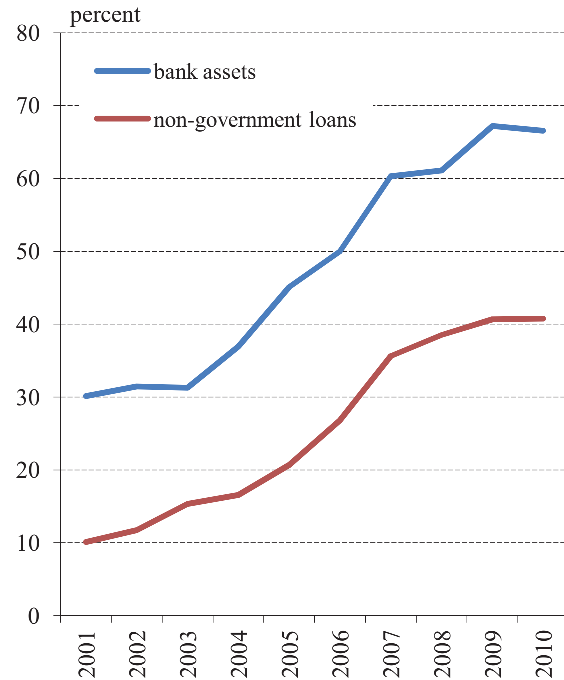
[27] In 2010, the central bank continued to gradually cut the policy rate from 8 percent in December 2009 to 7.5 percent in January 2010, 7.0 percent in February 2010, 6.5 percent in March 2010 and 6.25 percent in May 2010.

Chart 3.21. Bank assets and non-government loans



Source: NBR, NIS

Chart 3.22. Bank assets and non-government loans as a share in GDP



Source: NBR, NIS

In 2010 and 2011 H1, the main determinants of non-government loan developments come from both supply- and demand-side factors. The former include banks' persistent risk aversion, as a result of the build-up of a high volume of non-performing loans and the negative impact of provisioning costs on profitability indicators. In addition, lending standards applicable to companies and households were kept relatively unchanged, being slightly loose in the case of real estate loans, while lending terms saw a marginal loosening in 2010. On the demand side, non-government loans were depressed by:

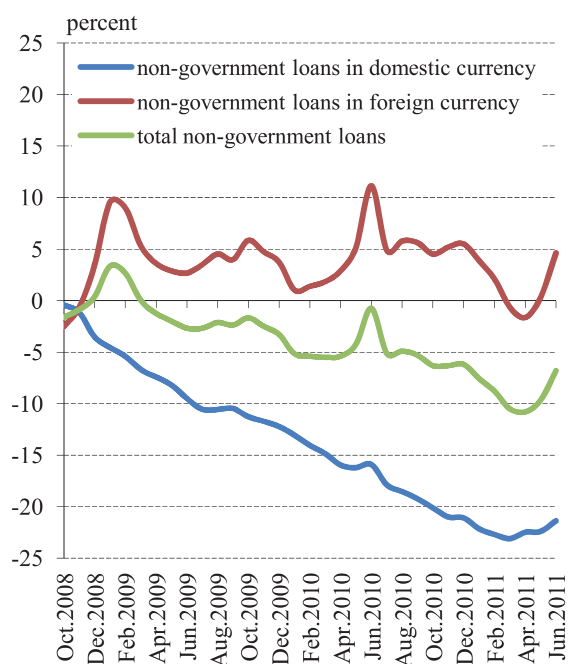
i) the contraction in household income following the measures taken for the purpose of fiscal consolidation, as well as the lingering uncertainties surrounding the level of such income in the period ahead;

ii) the increased prudence in liquidity management which resulted in lower consumption and higher propensity for saving by way of either time deposits or purchases of government securities.

In the period elapsed since the release of the previous *Report*, the central bank continued to pursue a prudent monetary policy stance, in an attempt to ensure inflation convergence with medium-term targets and bring to normal levels money market rates and bank lending and deposit rates, with a view to consolidating favourable conditions for the sustainable resumption of lending to the private sector and the economic rebound. Despite the measures adopted to gradually cut policy rate, the real developments in non-government loans (considering the end of 2008 Q3 as the reference date when the fallout from the global economic crisis first hit the Romanian financial system) reveal the stronger decline of this indicator in April 2009 – April 2011 to -11 percent, on the back of its domestic currency component (Chart 3.23.). Starting May 2011, lending showed an improved performance, which materialised in the slower contraction of non-government loans to -6.8 percent

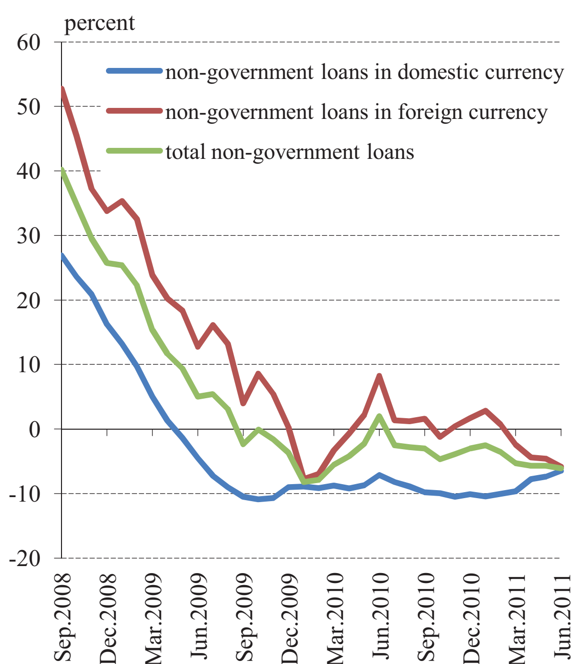
in June 2011. This may be largely attributed to the rise in foreign currency loans (4.6 percent in June 2011, including the effect of exchange rate movements).

Chart 3.23. Real growth rate of non-government loans (fixed base 30 September 2008)



Source: NBR, NIS

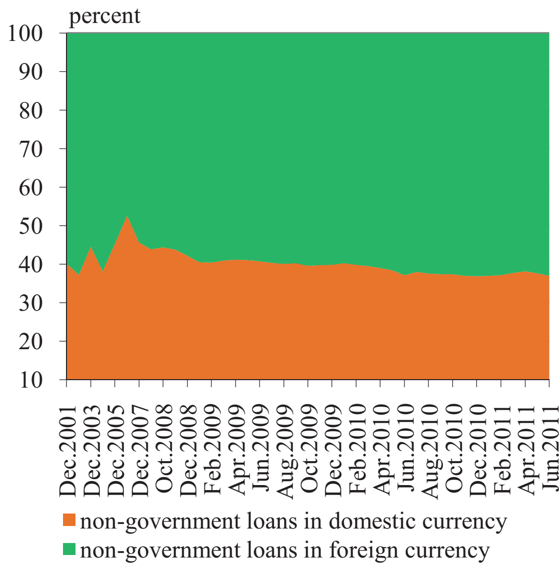
Chart 3.24. Real annual growth rate of non-government loans



Source: NBR, NIS

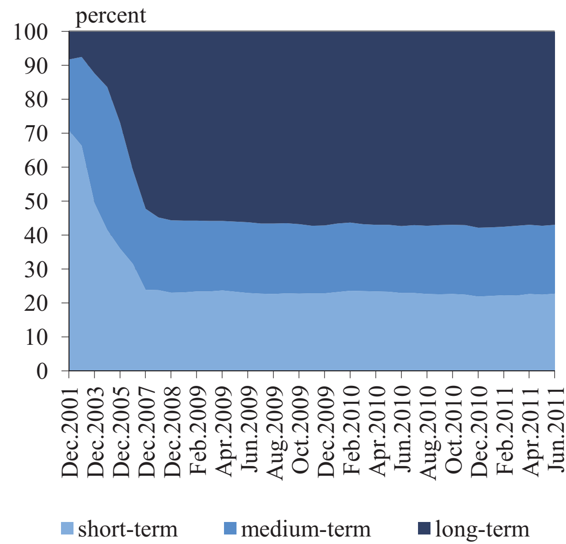
In year-on-year comparison, non-government loans to the private sector dropped by about 3 percent starting 2010 Q2 (Chart 3.24.) and by 6 percent as of March 2011. Behind this development stood the fall in domestic currency loans, their real rate of decrease staying put at 10 percent in September 2010 – March 2011 and slowing down to about -7 percent in 2011 Q2. In contrast, the annual growth rate of foreign currency loans (expressed in lei equivalent) remained positive, albeit low in July 2010 – February 2011, but entered negative territory (reaching -6 percent in real terms, in June 2011), including as a result of the statistical effect of domestic currency appreciation in 2011. When expressed in euro, foreign currency loans picked up 4.8 percent year on year in June 2011. The rise in foreign currency loans entailed structural changes in non-government loans, the share of this component adding 3 percentage points to 62.9 percent of total non-government loans in April 2010 – June 2011 (Chart 3.25.). As a result, loans granted or denominated in foreign currency prevailed further, the same tendency being observed in other emerging economies. Foreign currency lending had negative effects, such as the heightened credit risk associated with unhedged borrowers. Lowering risks from foreign currency loans remains a common challenge at European level. Apart from the coordination of specific national regulations in both home and host countries, alternative solutions may arise from fostering the development of domestic currency financial markets, which need to identify new medium- and long-term financing sources.

Chart 3.25. Non-government loans by currency



Source: NBR

Chart 3.26. Non-government loans by maturity

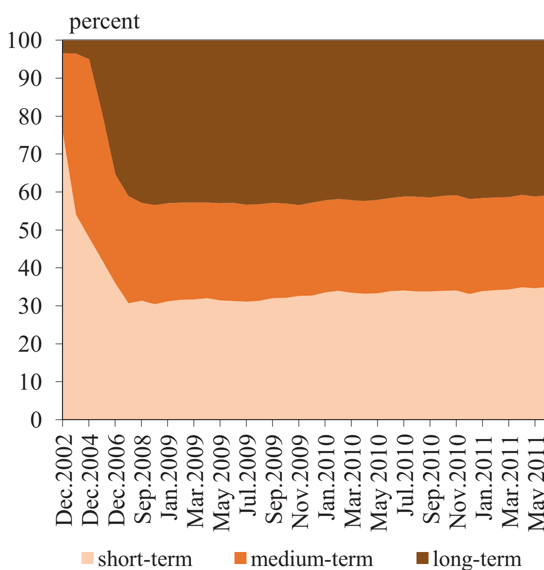


Source: NBR

Due to banks' prudent stance vis-à-vis extending new loans and the bias towards refinancing current facilities, the breakdown by maturity of non-government loans granted to the private sector remained unchanged (Chart 3.26.). Hence, long-term loans further held the prevailing share (57 percent of total non-government loans in June 2011).

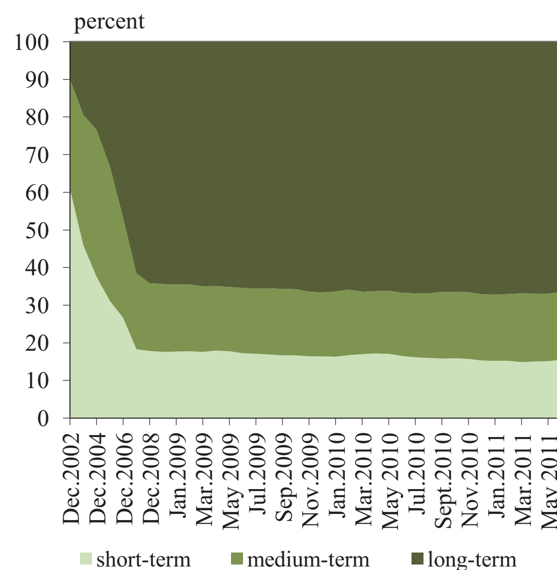
The maturity breakdown of non-government loan components by currency shows that long-term foreign currency loans are further prevalent (67 percent of non-government loans in foreign currency) (Chart 3.28.), owing to the mounting demand for investment loans in the previous period. The maturity breakdown of non-government loans in domestic currency (Chart 3.27.) remains more balanced.

Chart 3.27. Non-government loans in domestic currency by maturity



Source: NBR

Chart 3.28. Non-government loans in foreign currency by maturity

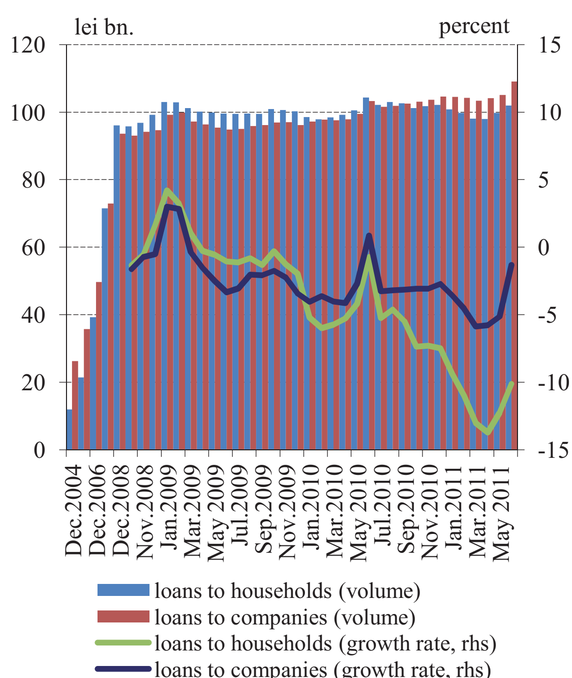


Source: NBR

In the period elapsed from the release of the previous *Report*, non-government loans to households followed a downtrend (-2 percent in nominal terms in June 2011 versus June 2010), whereas non-government loans to companies posted an increase, particularly in 2011 Q2 (up 5.6 percent in nominal terms in the same period).

In real terms, both components of non-government loans posted a decline, yet of different magnitude, in line with the continued stronger financial disintermediation in the case of households. The analysis based on outstanding loans as at end-2008 Q3 shows the faster contraction in loans to households from 1 percent in June 2010 to 10 percent in June 2011, with a peak of 14 percent in April 2011. Corporate loans dropped roughly 3 percent in July-December 2010 and 6 percent in 2011 Q1 (Chart 3.29.). The second quarter of 2011 saw the resumption of lending to non-financial corporations, as revealed by the slower contraction in real terms to only 1.3 percent in June 2011. The aforementioned developments had an impact on non-government loans by recipient, particularly on household loans (Chart 3.30.), whose share diminished by about 2 percentage points against the prior period to 48 percent in June 2011. In addition, corporate loans started to recover after a five-year decline (at end-June 2011, their share in total non-government loans was little over 50 percent). They include mainly refinancing facilities for large corporations in particular, to the detriment of SMEs.

Chart 3.29. Non-government loans by component



Source: NBR

Chart 3.30. Non-government loans by recipient

Source: NBR

Bank lending and deposit rates to non-bank clients underwent changes in the period under consideration. Interest rates on loans and deposits (Chart 3.31.) posted the following developments:

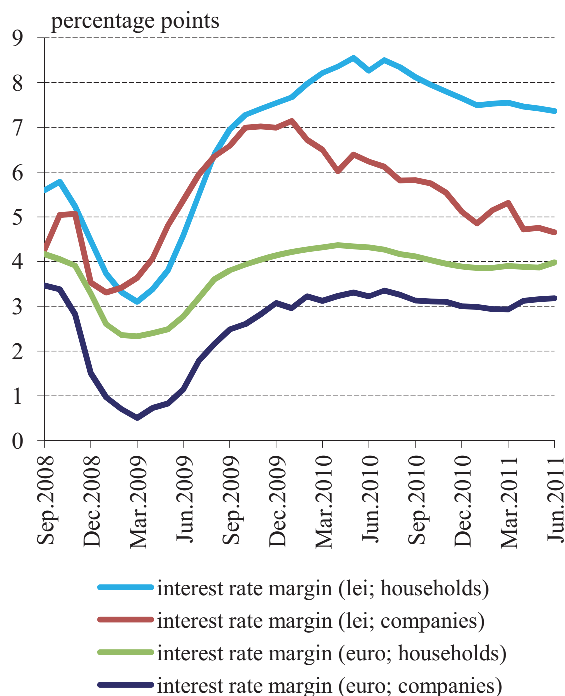
i) interest rates on leu-denominated household loans were further high (14 percent, on average, in June 2011), 8 percentage point higher than the policy rate. In July 2010 – June 2011, they fell by merely 1.5 percentage points, signalling the persistence of high risk perception. Companies benefit from better interest rates on leu-denominated loans: 10 percent, on average, in June 2011, down 2.3 percentage points versus June 2010. Interest rates on domestic currency loans reverted to levels below those recorded in 2007 (14.2 percent for households and 11.8 percent for companies);

ii) interest rates on foreign currency loans stayed put at levels similar to those reported at end-2010 H1 (7 percent for households and 5.9 percent for companies), which appear to foster lending in foreign currency;

iii) average interest rate on leu-denominated time deposits of households (6.6 percent in June 2011) further exceeded by more than one percentage point that applicable to companies (5.4 percent), their volatility pushing down bank deposit rates. This advantage is offset by higher interest rates on household loans. Interest rates on foreign currency deposits of both households and companies are relatively low (around 3 percent), their level being similar to that recorded in June 2010;

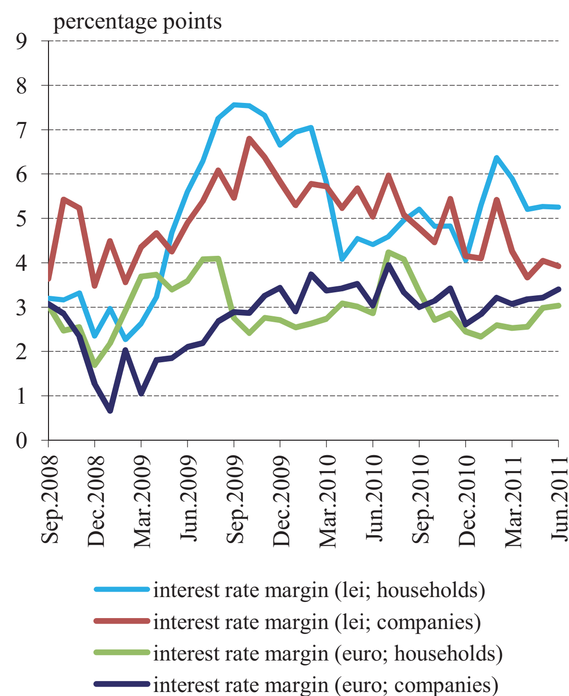
iv) interest rate margins between loans and deposits in domestic currency remain high (roughly 7 percentage points for households and 5 percentage points for companies in 2011 H1) due to the significant costs associated with credit risk. However, they follow a slight downtrend as compared with end-2010 H1 (down 0.9 percentage points for households and 1.6 percentage points for companies). Interest rate margins between loans and deposits in foreign currency stay at lower levels in the reviewed period (4 percentage points for households and 3 percentage points for companies).

Chart 3.31. Interest rate margins on outstanding loans and deposits



Source: NBR

Chart 3.32. Interest rate margins on new loans and deposits



Source: NBR

Interest rates on new loans and deposits of non-bank clients (Chart 3.32.) were influenced to a limited degree by monetary policy decisions, with banks further charging high interest rates to some debtors perceived as being more risky. Hence, in the period elapsed since the release of the previous *Report*, the following developments deserve mention:

i) in 2010 H2, banks stopped the downward adjustment of interest rates on leu-denominated loans to households. In early 2011, such interest rates picked up swiftly, adding 2 percentage points up to 13.5 percent in February 2011, and stabilised afterwards at 12 percent in 2011 Q2. The said level is 2.2 percentage points lower than that calculated based on average outstanding loans, yet it is further higher than the policy rate;

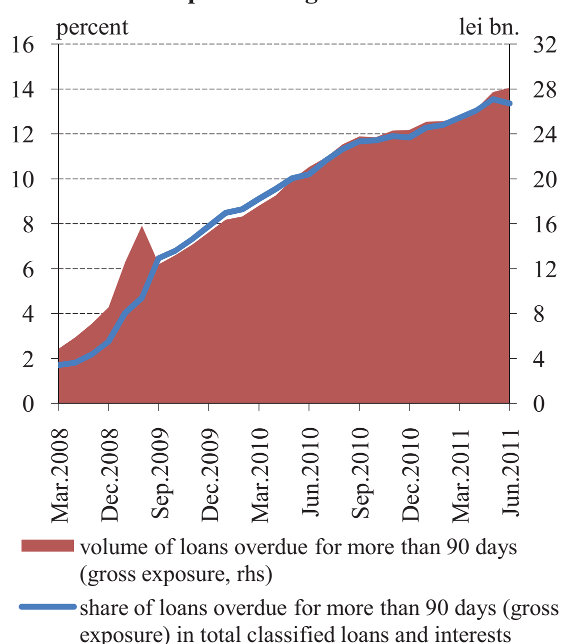
ii) banks charged lower interest rates on leu-denominated corporate loans (lending rates applicable to companies fell by 2 percentage points in June 2011 as against the same year-ago period);

iii) interest rates on foreign currency loans remained relatively flat in the period under review (about 6 percent in March 2011 for both households and companies), indicating banks' increased availability to grant such loans;

iv) banks' competition for taking leu-denominated deposits from households continued in 2010 H2, with deposit rates rising slightly. In 2011, banks showed keener interest in increasing operating income, which entailed the gradual decline in interest rates (to an average of 6.7 percent in June 2011). Interest rates on corporate deposits were cut by up to one percentage point in July 2010 – January 2011. In February 2011, deposit rates applicable to companies rose by 0.6 percentage points, indicating banks' efforts to raise funds from the local market. Interest rate differentials between household and corporate deposits denominated in lei and foreign currency respectively remained unchanged at roughly 1 percentage point. Average interest rate on new deposits is similar to that calculated based on the deposit balance;

v) starting with 2010 Q2, interest rate margin between new loans and deposits in domestic currency (about 5 percentage points for households and 4 percentage points for companies) has remained significantly lower than that calculated based on outstanding loans and deposits (7 percentage points for households and 5 percentage points for companies), which challenged banks to cut operating expenses. Accounting losses reported by some banks in the 2010 financial year caused the substantial rise in the margins of leu-denominated operations in the first part of 2011, which drew them closer to the 2010 H1 figures. The margins reported for foreign currency operations in June 2011 stayed close to the figures reported at end-June 2010.

Chart 3.33. Non-performing loans



Source: NBR

3.2.4.2. Credit quality

The protracted economic decline and the fiscal consolidation measures adopted by the government in 2010 (which had as a result the contraction in the income of a large number of debtors) contributed further to the worsening quality of banks' loan portfolio. The deterioration of asset quality also indicates that the expected resumption of lending did not occur in 2010, while revival signals for the current year are still weak. The central bank assesses the quality of banks' loan portfolio based on accounting and prudential reports.

Against the background of the unsettled economic environment in which banks carried out their activity since the outbreak of the global financial crisis, the share of non-performing loans[28] (calculated in terms of gross exposure[29]

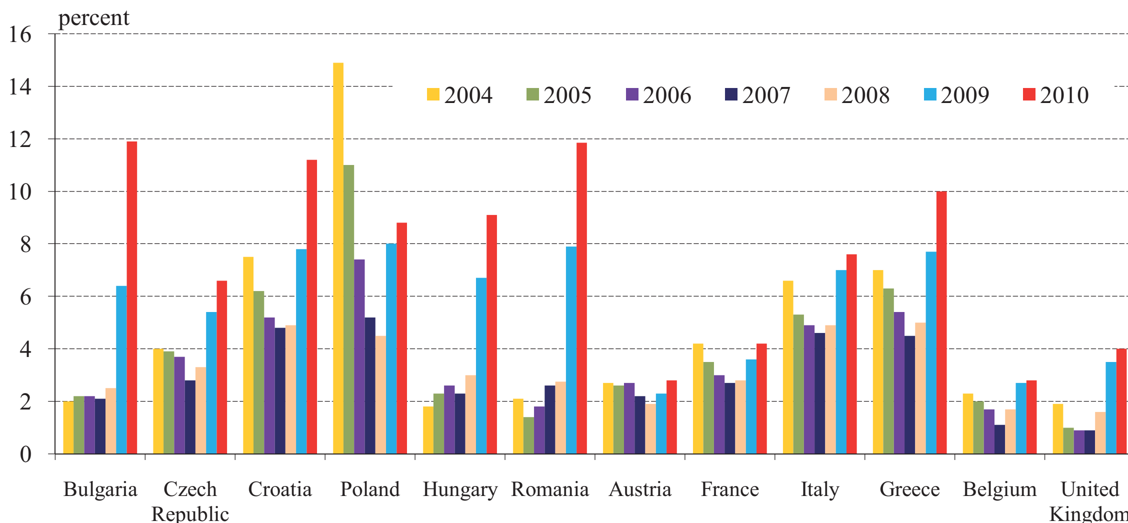
[28] Based on regulations on loan classification, the National Bank of Romania calculates, for financial stability purposes, the non-performing indicator that comprises loans and interest overdue for over 90 days and/or in which case legal proceedings were initiated against the operation or the debtor (classified in national regulations under "Loss 2"). This definition is compliant with the provisions of *Compilation Guide on Financial Soundness Indicators* prepared by the International Monetary Fund and is the most used at international level. The volume of overdue loan is the outstanding loan and related interest, irrespective of the number of overdue payments.

[29] The gross exposure is the carrying amount of loan and interest, non-adjusted for the debtor's guarantees.

based on the data in prudential reports) in total classified loans and interest stayed on an upward path (Chart 3.33.). The rate of decline of this indicator slowed down starting with 2010 (the increase was of 1.5 percentage points in 2011 H1, 4 percentage points in 2010 and 5 percentage points in 2009). At end-June 2011, the share of loans and interest overdue for over 90 days in total classified loans and interest stood at 13.4 percent in total classified loans.

The objective of the National Bank of Romania for the period ahead is to prompt banks to access EU funds for Romania by creating more favourable conditions for loan provisioning for the guarantees issued by multilateral development banks, as well as by extending such prudential treatment to other similar guarantees in respect to loan protection quality[30].

Chart 3.34. Loans portfolio quality in selected EU countries (share of non-performing loans in total loans)



Source: IMF – Global Financial Stability Report (April 2011), NBR calculations

The worsening quality of asset portfolios was a common feature of the European financial market[31] in 2010, given the lingering effects of the global financial crisis (Chart 3.34.).

Although on an uptrend, credit risk ratio[32] rose at a slower pace in 2010 (adding 6 percentage points to 21 percent in December and another one percentage point in 2011). As compared with the above-mentioned key indicator used to assess loan portfolio quality, credit risk ratio also incorporates the loans/interest overdue for less than 90 days (versus over 90 days, according to the IMF recommendation) and the classification criteria include the debtor's financial performance as well as the declassification by contagion principle. As a result, this indicator is much stricter than

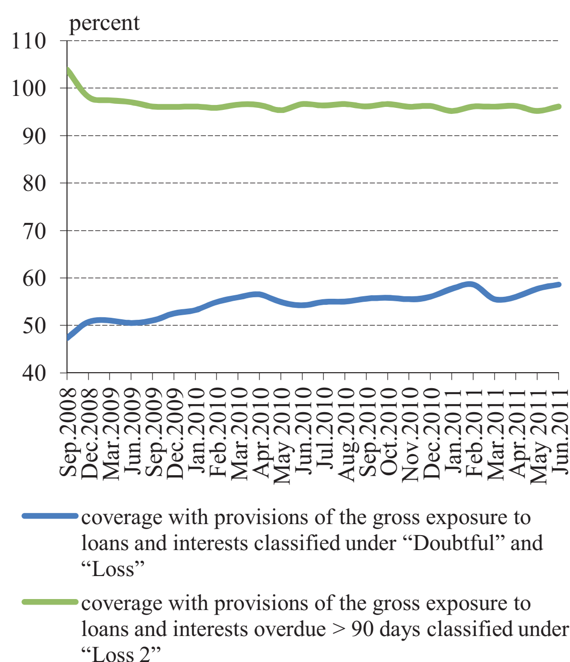
[30] The objective of the draft regulation is to enforce the provisions of Directive 48/2006/EC and Basel II Capital Accord. The amendment aims to grant derogations from Art. 13 of NBR Regulation No. 3/2009 on classification of loans and placements as well as on the setting-up, adjustment and use of specific credit risk provisions for guarantees, such as express, irreversible and unconditioned guarantees of the Romanian government or the NBR; securities issued by the governments or the central banks in countries under category A or the European Union; express, irreversible and unconditioned guarantees of multilateral development banks; securities issued by multilateral development banks. Art. 13 sets forth the following: "The guarantees for exposures representing the principal of loans/placements classified under "loss", in which case debt service exceeds 90 days and/or legal proceedings were initiated against the operation or the debtor, are adjusted by way of coefficients determined by the lender for each category/case. The coefficients should not exceed 0.25."

[31] Mention should be made that the EU does not have a single definition of non-performing loans and, consequently, the assessments should consider the differences between national methodologies. The European fora are currently analysing the most appropriate harmonisation methods of various definitions used by EU countries.

[32] Credit risk ratio is the ratio of gross exposure relative to loans and interest classified under "doubtful" and "loss" to total classified loans and interest (excluding off-balance sheet items).

that recommended by the IMF. The situation of overdue loans is expected to improve in line with the gradual economic rebound and the resumption of lending on a sustainable basis.

Chart 3.35. Coverage with provisions of classified loans and interests



Source: NBR

Banks continued their efforts to ensure the provisioning of loans and placements, particularly non-performing loans, in 2010 (provision balance[33] rose by 58 percent as against the twofold increase seen a year earlier) and 2011 H1 (14 percent increase of provisions as compared to end-2010 balance). Such costs had a major impact on profitability indicators. As a result, the reserves for covering possible expected losses[34] were increased.

Chart 3.35. shows the main indicators used by the central bank for the assessment of provision adequacy (calculated based on gross exposure, in terms of a prudent approach[35]). *The coverage with provisions of the gross exposure of loans and interest overdue for over 90 days and/or in which case legal proceedings were initiated against the debtor* remained unchanged at 96 percent in the period elapsed since the release of the previous *Report*.

The coverage with provisions of non-performing loans is different in EU countries (Chart 3.36.), including as a result of various national methodologies used to determine the level of necessary provisions, but also due to the fact that the realisation of guarantees for non-performing loans may vary considerably. Romania[36], along with Slovakia and Bulgaria, records a higher level of non-performing loan provisioning, owing to prudent regulations.

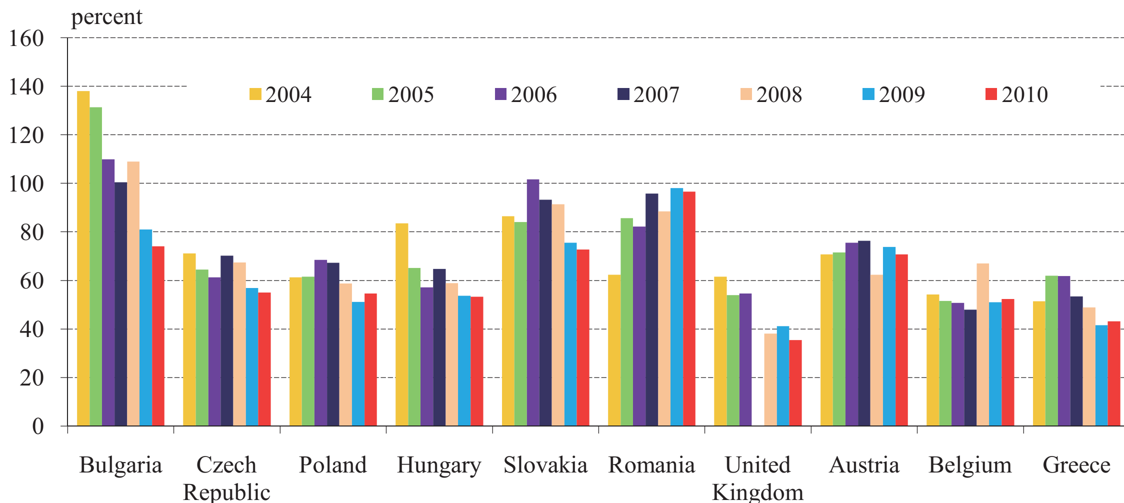
[33] In compliance with NBR Regulation No. 3/2009 on classification of loans and placements as well as on the setting-up, adjustment and use of specific credit risk provisions, as subsequently amended and supplemented, the provisioning coefficients of the net exposure related to loans/placements granted to hedged borrowers are as follows: "watch" – 5 percent; "substandard" – 20 percent; "doubtful" – 50 percent; "loss" – 100 percent. The provisioning coefficients for loans granted to unhedged borrowers, natural entities, are higher than the aforementioned ones: "standard" – 7 percent; "watch" – 8 percent; "substandard" – 23 percent; "doubtful" – 53 percent; "loss" – 100 percent.

[34] Prudential banking regulations require the unitary approach to the setting-up, regularisation and use of provisions, ensuring the comparability of indicators reported by banks. In Romania, loan classification standards are prudent. Hence, net exposure (calculated as the differential between gross exposure and the debtors' collateral) for "loss", must be entirely covered by provisions. The regulation requires a strict approach to guarantees for loans/interest overdue for more than 90 days and/or in which case legal proceedings were initiated: (i) for principal, banks can take into account at most 25 percent of the guarantee value; (ii) guarantees for exposures representing current/overdue interest attached to those loans are not considered, the coefficient applicable to the respective guarantee being zero (as a result, these interests are 100 percent covered by provisions).

[35] The amount of debtor guarantees is an important source for non-performing loan recovery which has not been taken into account, but which is a factor contributing to risk reduction.

[36] In order to make a comparison, Romania used the definition of non-performing loan, namely the indicator calculated as a ratio of total provisions to the gross exposure of loans and interest overdue for over 90 days and in which case legal proceedings were initiated.

Chart 3.36. Coverage with provisions of non-performing loans in selected EU countries



Source: IMF – Global Financial Stability Report (April 2011), NBR calculations

Although credit risk remains the main vulnerability of financial stability, the volume of overdue and doubtful claims[37] can be managed. The assessment relies on the low share of overdue and doubtful claims in total assets (1.7 percent in June 2011).

3.2.5. Liquidity risk

The liquidity position of banks broadly remained at a comfortable level in the period under consideration. Systemic risk was further small, bilateral interbank exposures being generally low in relation to own funds and liquid assets of creditor banks. The increase in short-term external debt of banks ranked further among the potential vulnerabilities of the banking system to the possible external liquidity shortages, being however offset by medium- and long-term funds supplied by parent banks to their subsidiaries in Romania. Liquidity risk management improved in 2010 H2 as the regulatory framework was supplemented by extending current liquidity reserve requirements.

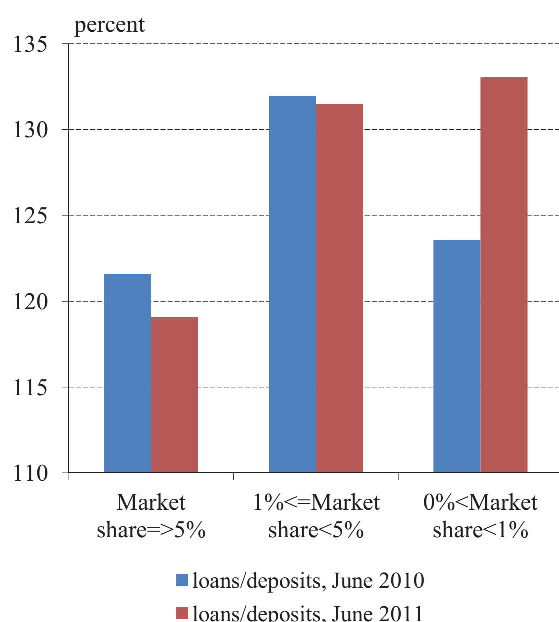
The imbalance between non-government loans and financing resources continued to flatten out throughout the reviewed period, as non-government loans declined at a pace[38] faster than that of deposits[39], which was indicative of the ongoing financial disintermediation. From a structural standpoint, only the group of banks holding market shares below 1 percent recorded as of end-June 2011 a higher loan/deposit ratio (Chart 3.37.).

[37] The indicator was calculated based on accounting reports. *The accounting regulation compliant with EU Directives, applicable to credit institutions, non-bank financial institutions and the Deposit Guarantee Fund in the Banking System*, approved by National Bank of Romania's Order No. 13/2008, as subsequently amended and supplemented, provides the definition of overdue and doubtful claims. **Overdue claims** comprise all past-due loans and interest, including overdue payments of at least one day. **Doubtful claims** consist of loans and related interest in the case of which banks initiated legal proceedings against the debtor in order to recover them. Mention should be made that the accounting methodology for determining non-performing loans relies on two classification criteria, namely (i) debt service and (ii) the initiation of legal proceedings against debtor or loan; the overdue loan amount: the accounting methodology takes into account only actual overdue instalments (that were not paid at due date) – the instalments due in the period ahead are deemed current.

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

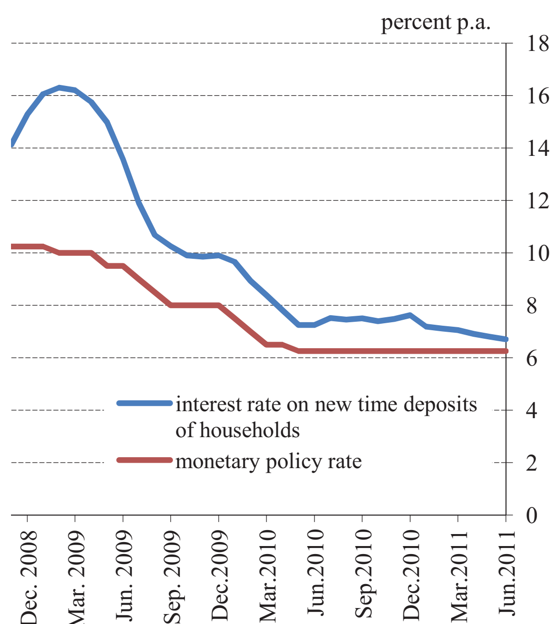
[39] At end-June 2011, non-government loan/deposit ratio stood at 122.6 percent, while that of households was of 95.8 percent. In order to make a comparison, this indicator stood at 138.4 percent in Hungary (Magyar Nemzeti Bank*, Report on Financial Stability,* November 2010*)*, 77.2 percent in the Czech Republic and 87.3 percent in Slovakia. (For the last two countries, the NBR made the calculations based on March 2011 data, available at www.fsi.imf.org).

Chart 3.37. Non-government loans/deposits by group of banks



Source: NBR

Chart 3.38. Interest rate on new household leu-denominated deposits and the monetary policy rate



Source: NBR

Although the real annual dynamics of household deposits entered negative territory[40] starting August 2010, their share in total liabilities of the banking system (27.6 percent) inched down merely 0.1 percentage points at end-June 2011 as against the same year-ago period, on the back of the decrease in bank liabilities. As of January 2011, interest rates on new leu-denominated deposits of households resumed a slight downward trend, due to the negative pace of lending (Chart 3.38.). The prevalence of short-term deposits with maturities of up to one year taken from companies and households remains a potential vulnerability of the banking system.

Given the slight reduction in the savings within the banking sector, the reliance of this sector on external financing (27.2 percent of total liabilities at end-June 2011, up 0.2 percentage points versus the same period a year earlier[41]) exceeded further the average for the countries in the region (Chart 3.39.); short-term external debt of banks in Romania added EUR 1.1 billion to EUR 7.4 billion at end-June 2011. However, this vulnerability is reduced by the prevalence of medium- and long-term deposits from parent banks[42] for all groups of banks[43]. The probability that parent banks limit the support to their subsidiaries is further low in the context of the strategic importance these banking groups have in East-European countries, as well as of the precautionary financial arrangements

[40] Except January 2011.

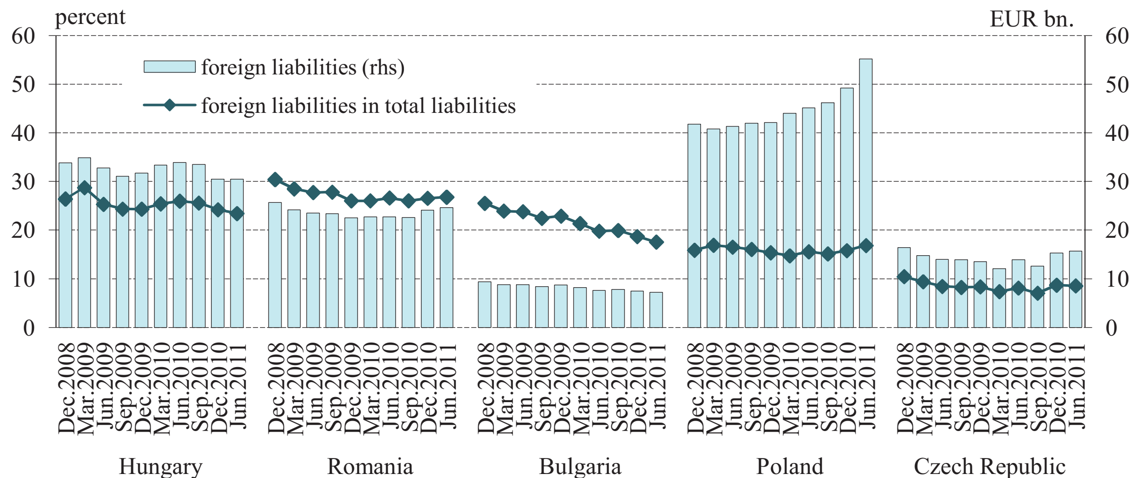
[41] The decline in the share of foreign liabilities reported by the group of banks with market shares ranging from 1 percent to 5 percent of assets did not offset entirely the marginal increases seen by the groups of banks with market shares higher than 5 percent and lower than 1 percent of assets. At end-June 2011, the share of foreign liabilities of four out of six subsidiaries of Greek banks in Romania exceeded the average for the banking system.

[42] At end-June 2011, parent banks held 84.3 percent of total non-resident deposits with credit institutions in Romania.

[43] The share of medium- and long-term deposits of non-residents in their total narrowed by 1.6 percentage points in June 2011 as against the same year-ago period to 70.4 percent; the group of banks with market shares of over 5 percent of assets saw a 3.2 percentage point decline to 75.2 percent, while the groups of banks holding between 1 and 5 percent and below 1 percent of assets posted increases by 3.2 percentage points and 5.5 percentage points to 61.5 percent and 51.5 percent respectively (one bank with Greek capital stood below the average for the group).

signed with the IMF, EU and World Bank, which will contribute to the strengthening of investor confidence in Romania.

Chart 3.39. Foreign liabilities (international comparisons)

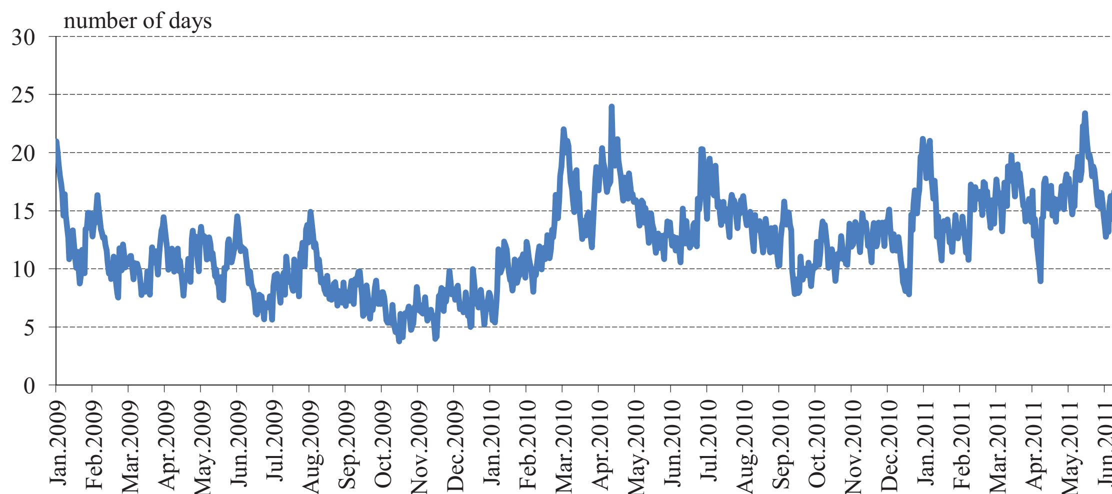


Source: ECB

The share of capital and other reserves added 1.3 percentage points to 15.1 percent in total liabilities at end-June 2011.

Domestic interbank deposits further held a small share in total liabilities, i.e. 2.6 percent at end-June 2011, the transmission of the contagion risk in the banking system via this channel being contained. The results of interbank contagion test[44] reveal a low systemic risk, with bilateral interbank exposure being generally small as compared to own funds and liquid assets of creditor banks. The average maturity of deposits taken from the interbank market in Romania is on the rise (Chart 3.40.).

Chart 3.40. Average maturity of deposits taken from the Romanian interbank market



Source: NBR

[44] Interbank contagion model is used to capture the potential systemic risk generated by the unexpected insolvency of some credit institutions. The propagation of the shock induced by insolvent credit institutions may cause the insolvency of other credit institutions by way of interbank exposures. In addition, the insolvency of some credit institutions may entail the rise in the share of non-performing loans following the worsening financial standing of economic agents with exposures to such credit institutions, with a potential domino effect.

Liquidity indicators of the banking system stood at comfortable levels at end-June 2011: immediate liquidity[45] was of 36.3 percent, while liquid assets/short-term liability[46] ratio stood at 143.5 percent, increasing and decreasing slightly year on year by 0.4 percentage points and 3.2 percentage points respectively. The liquidity indicator calculated according to regulations in force[47] equalled 1.37, exceeding the minimum regulated level of 1.

The NBR policy to further cut minimum reserve requirement ratios in the context of adequate management of liquidity in the banking system contributed to the provision of financial resources to the banking sector. 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 mainly through the supplementation of regulatory framework[48] in 2010 H2, specifying the existing requirements on the liquidity reserves[49] in the context of new international provisions. The new regulatory framework ensures the transposition of the relevant provisions of *Directive 111/2009/ EC* and *Guidelines on Liquidity Buffers & Survival Periods* issued by the Committee of European Banking Supervisors[50]. The *Guidelines* include requirements for the calibration and structure of liquidity reserves in order to allow credit institutions to deal with liquidity shortages for at least one month without changing the activity model.

3.2.6. Market risk

According to sensitivity analyses carried out on the basis of December 2010 data, interest rate risk estimated based on the change in the present value of future cash flows for credit institutions is on the rise, mainly as a result of the increase in the share of fixed-income items in total balance sheet assets and of the short-term financing strategy of some credit institutions. In 2010 and 2011 H1, the currency risk arising from the direct impact of exchange rate movements on own funds remained at a low level.

Interest rate risk

In 2010, the share of government securities in total assets of credit institutions increased steadily, thus contributing to the mitigation of the negative impact exerted by the contraction of lending to the private sector on the operating income. The recent dynamics of loan loss provisions reveals a relative stabilisation due to the favourable economic environment. Not taking into account the additional expenses arising from exposures to non-financial companies and households, the yield spread on securities follows an upward path (the share of government securities in total assets rose at a faster pace than that of the income from available-for-sale and held-to-maturity securities, substituting risk unadjusted high-yield assets, such as loans to the real sector – Chart 3.41.).

[45] (Holdings and deposits with banks + unpledged securities) / Total liabilities.

[46] The indicator includes the assets, liabilities and off-balance-sheet items with maturities of up to three months.

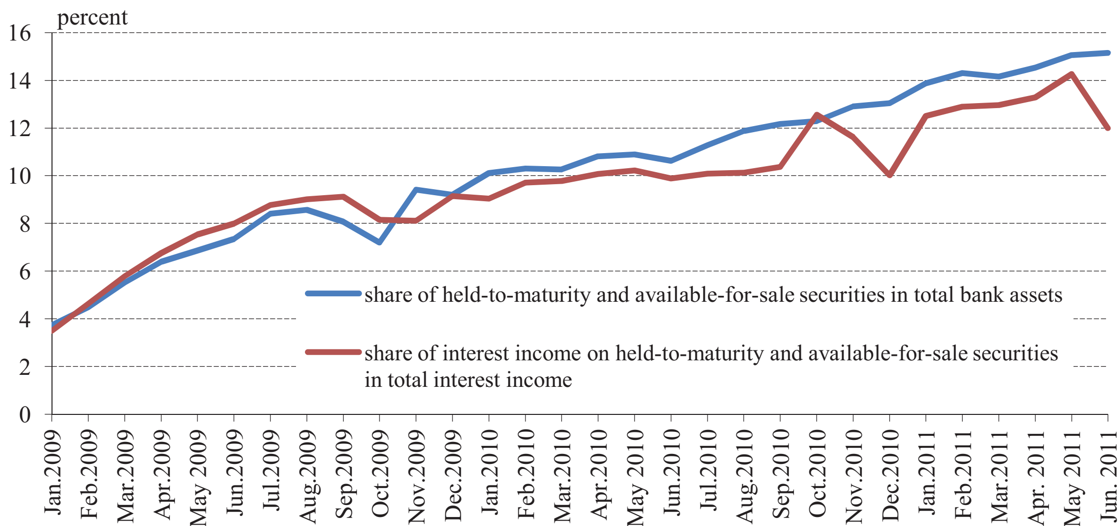
[47] Regulated liquidity indicator (NBR Regulation No. 24/2009) is calculated as a ratio of effective and required liquidity for every maturity band.

[48] NBR Regulation No. 22/2010 amended and supplemented NBR Regulation No. 18/2009 on governance arrangements of the credit institutions, internal capital adequacy assessment process and the conditions for outsourcing their activities.

[49] Liquidity reserves are the available liquidity amounts covering additional liquidity requirements that may arise on a short time horizon, in the context of a crisis. It is calibrated based on three factors: (i) severity and features of crisis scenarios; (ii) time horizon calculated as a survival period; (iii) characteristics of reserve assets.

[50] As of 1 January 2011, the European Banking Authority took over all the tasks and responsibilities of the Committee of European Banking Supervisors. The European Banking Authority was established by Regulation (EC) No. 1093/2010 of the European Parliament and of the Council of 24 November 2010.

Chart 3.41. Share of held-to-maturity and available-for-sale securities in total assets and share of related interest income in total interest income



Source: NBR

The medium- and long-term impact of government securities holdings on the profitability of credit institutions brings little support to the presence of the crowding-out effect[51]. On the other hand, the significant share of government securities enhances the liquidity position of credit institutions over high-yield placements.

Given a steady volume of securities, the inelastic relation between the lower net interest rate margin and the higher volume of loans to the real sector could lead to the decline in the financial performance and the solvency ratio of some credit institutions.

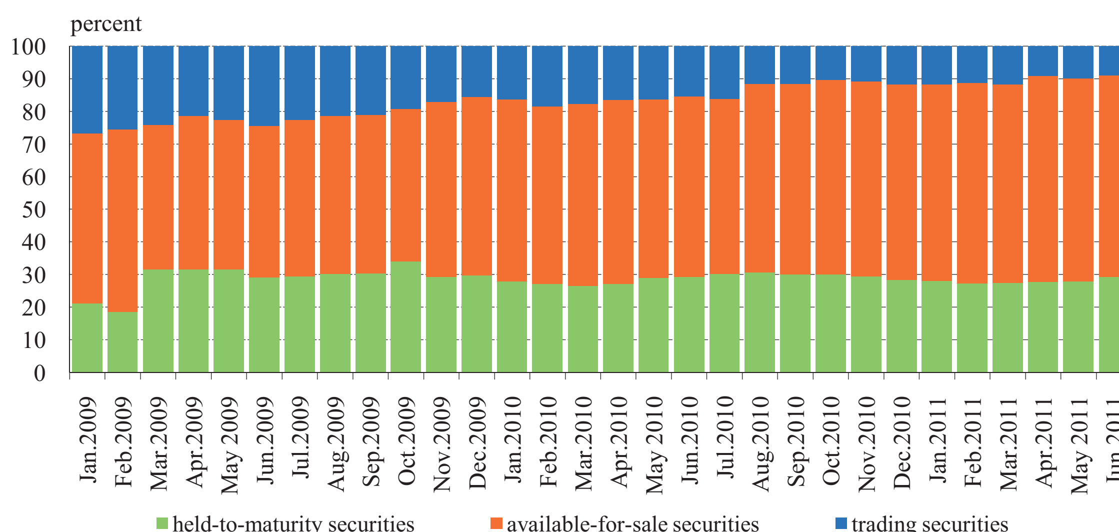
The sensitivity to interest rate risk assessed on the basis of December 2010 data (estimated based on the change in the present value of future cash flows of credit institutions) is on the rise. Hence, the impact on own funds of a shift in the term structure of the yield curve by 200 basis points is estimated at roughly 10 percent of own funds (as against 5 percent, a figure estimated based on December 2009 data), largely owing to fixed-income instruments (government securities, loans with promotional interest rates) and changes of the yield curve shape. At end-2010, most credit institutions were aligned in respect to the direction change of the interest rates that would impact their profitability, namely increases in the level of interest rates.

The change in the market value of government securities classified as trading and available-for-sale, following a parallel shift of the yield curve by 200 basis points (interest rate rise) would generate losses of about 3.5 percent in total own funds[52]. Despite the significant share of held-to-maturity securities in total government securities of credit institutions (Chart 3.42.), they were not taken into account when determining the impact on own funds, due to the different accounting treatment.

[51] The crowding-out is present when government borrowing competes with investment in the real sector.

[52] The impact on own funds is estimated based on outstanding securities as at 30 June 2011.

Chart 3.42. Government securities by destination in the portfolio of credit institutions



Source: NBR

Banks in Romania, including subsidiaries of foreign banks, are not significantly exposed to foreign sovereign securities, due to the strict eligibility criteria applicable to the collateral used for NBR's market operations[53].

The weight of equity and other capital instruments in total assets of the banking sector was still very low. Swaps are the most common form of financial derivatives, with a fair value of below 1 percent of total balance sheet assets and liabilities.

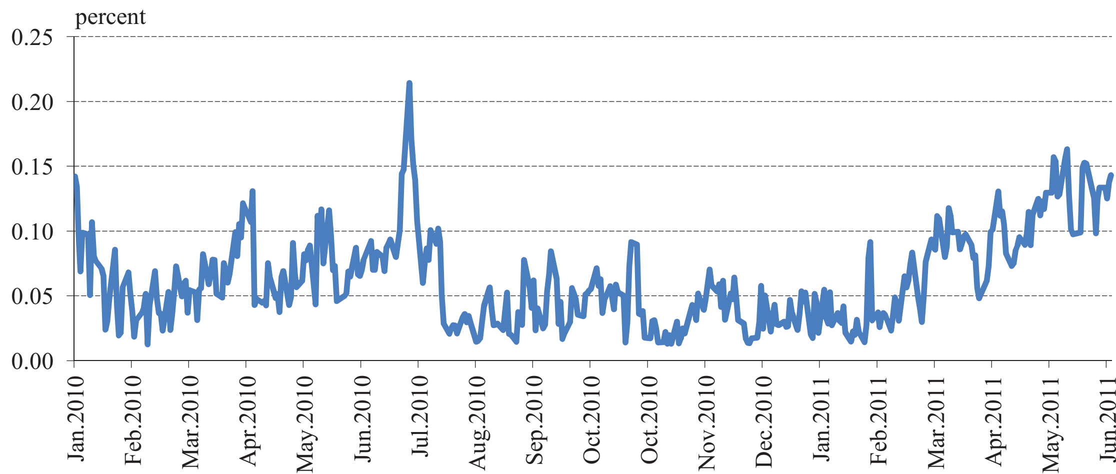
Exchange rate risk

The strong depreciation of the domestic currency versus major currencies would have a positive impact on interest income, offset however by a much higher volume of loan loss provisions, particularly in the case of households. The potential direct impact of exchange rate movements on the financial results of credit institutions is low. The maximum VaR[54] recorded during January 2010 – June 2011, assuming a 10-day period for closing the open positions is below 0.25 percent of total own funds (Chart 3.43.).

[53] Assets eligible for trading and guaranteeing are: securities issued by the Romanian government, NBR certificates of deposit, as well as other categories of negotiable assets, established based on a decision adopted by the NBR Board. Banks in Romania, including foreign capital banks, do not hold significant amounts of sovereign securities outside Romania. The share of securities issued by non-resident non-government institutions in total bank assets at end-June 2011 was of 0.2 percent, whereas their share in total securities in the portfolio of credit institutions ran at 1.4 percent.

[54] The daily VaR (Value at Risk) is estimated at the 99th percentile, using the historical method, considering the exchange rate movements for 13 currencies over a 3-year period.

Chart 3.43. Daily value at risk based on the net foreign currency position of credit institutions



Source: NBR

Despite the recent increase in the risk aversion of the international investors in respect to the emerging economies, which may be attributed to sovereign debt crisis in some EU member states, as well as in the United States, an improved perception of country risk and the expectations on the relative RON/EUR exchange rate stability could play a role in the carry trade[55] development. In an environment marked by significant uncertainties surrounding the direction and volatility of capital movements, the likelihood of this phenomenon is far from being negligible, given the considerable interest rate differential vis-à-vis the euro zone, attributable to persistent inflation and the need to firmly anchor inflation expectations against the background of significant risks associated with medium-term inflation developments.

3.2.7. Profitability and efficiency

At end-2010, the aggregate result of the banking system stayed in the negative territory where it entered starting with Q2, due to the rise in provisioning costs and the decline in operating profit. However, losses were not broad-based, being reported particularly by small- and medium-sized banks. At end-2011 H1, the financial results of the banking system were positive, the operating profit, albeit on the downside versus the same year-ago period, covering lower provisioning costs.

The profitability of the banking system is expected to remain low in the short run, owing to the time lag between the resumption of economic growth and its favourable impact on the financial results of the banking system.

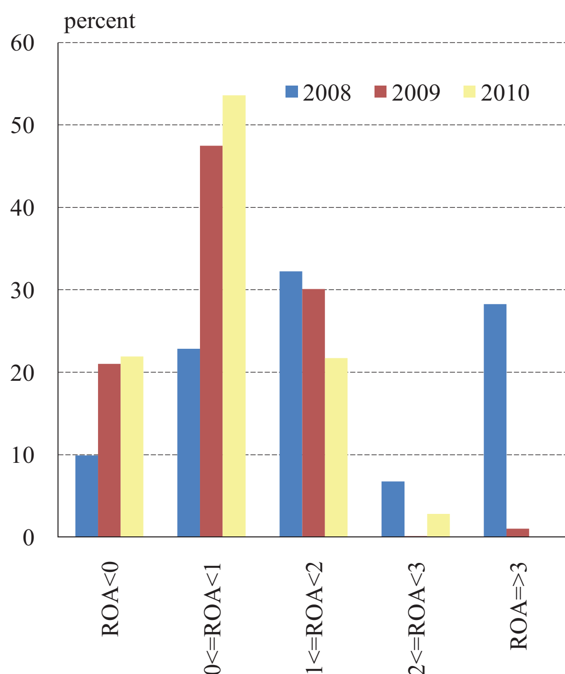
The profitability of the Romanian banking system entered negative territory as of May 2010. As a result, for the first time since 1999, the banking system ended the financial year on a loss (lei 516.4 million)[56], mainly under the impact of high provisioning costs, as well as the decline in

[55] Carry trade refers to speculative capital flows generated by interest rate differentials between countries with different currencies, given the uncertainties surrounding exchange rate movements.

[56] The contraction in the economic activity of non-government clients due to recession, the public sector wage cuts, the uncertainties surrounding real wage dynamics, as well as the expenses related to the implementation of Government Emergency Ordinance No. 50/2010 on consumer loan agreements put additional pressure on banks' financial results.

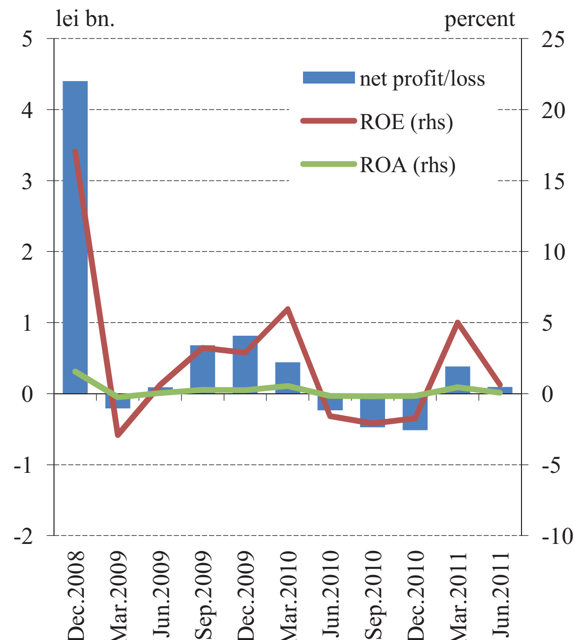
operating income. However, losses were not broad-based, the market share of banks reporting losses standing at 21.9 percent in December 2010[57] (Chart 3.44.).

Chart 3.44. Breakdown of credit institutions' market share based on ROA



Source: NBR

Chart 3.45. Net profit/loss, ROE and ROA



Source: NBR

A number of 20 credit institutions, mostly large- and medium-sized banks[58], recorded profit in 2010 as well, amid more efficient operating expense and loan portfolio restructuring.

Starting February 2011, banking sector as a whole saw a trend reversal, reporting net profit[59] at the end of the said month (Chart 3.45.).

In 2010, ROE and ROA, the key profitability indicators, stayed on a downward path for the second year in a row. At end-June 2011, the levels of ROE and ROA improved slightly as against the same period a year earlier, as they entered positive territory.

Net provisioning costs related to loans to non-bank clients continued to increase in 2010 H2, reflecting the worsening loan portfolio quality, yet the growth pace of provisioning[60] slowed down towards year-end. As of January 2011, net provisioning costs stood below those recorded in the same period a year earlier.

In December 2010, the operating profit of the banking system was 11.7 percent smaller year on year, the group of small banks staying in negative territory (Chart 3.46.). The annual dynamics of

[57] The indicator is calculated based on aggregate assets. In Hungary, the market share of banks incurring losses rose from about 5 percent in December 2009 to 25 percent at end-2010 Q3 (Magyar Nemzeti Bank, *Report on Financial Stability,* November 2010). In Poland, the market share of banks incurring losses dropped from around 13.9 percent in September 2009 to 7.9 percent at end-2010 Q3 (Narodowy Bank Polski, *Financial Stability Report,* December 2010).

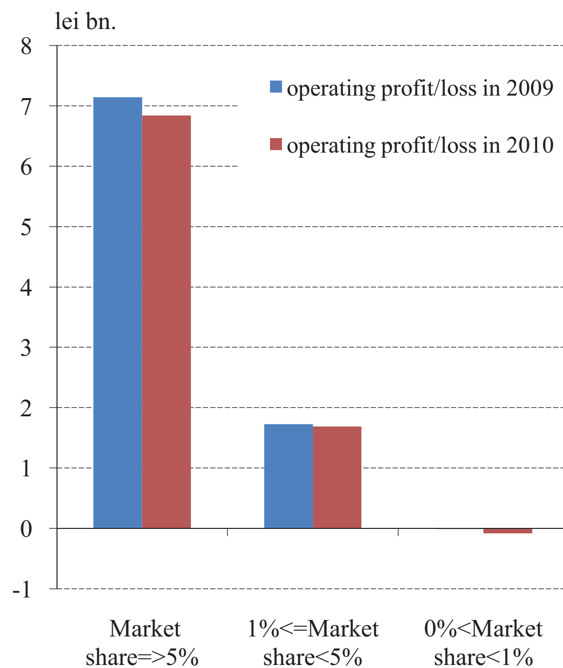
[58] Large banks have asset holdings of over 5 percent of total, medium-sized banks between 1 and 5 percent and small banks below 1 percent.

[59] Except May 2011, when the banking system recorded small losses.

[60] The growth rates of these indicators were calculated in real terms, year on year.

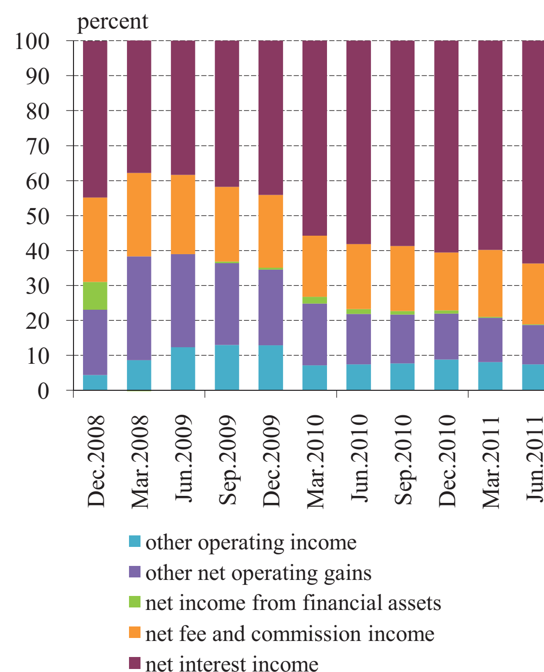
operating profit decelerated in 2010 H2, reaching negative levels starting October. At end-June 2011, all three groups of banks recorded operating profit.

Chart 3.46. Operating profit/loss by group of banks in 2009 and 2010



Source: NBR

Chart 3.47. Breakdown of operating income



Source: NBR

Net interest income stayed on the upward course it followed since end-2009, yet it grew at a slower pace in 2010 H2. In 2011 H1, its dynamics moved into negative territory as banks offset the contraction in loans granted to the private sector by increasing their holdings of low-yield held-to-maturity and available-for-sale securities. In addition, the net interest rate margin applicable to the non-financial private sector narrowed, due mainly to the drop in average lending rates amid keener competition and lower demand for loans. The share of net interest income in operating income stood at 60.6 percent at end-2010 and 63.7 percent at end-June 2011 (a rise of 16.5 percentage points and 5.5 percentage points as compared with the same year-ago periods (Chart 3.47.). At the end of 2010 and June 2011, interest rates on loans and securities[61] held the largest shares in interest income, whereas interest rates on client deposits and funds raised from credit institutions[62] were further the main components of interest expenses, the same as in previous years.

The share of net income from commissions in total operating income shrank by 4.3 percentage points to 16.5 percent in December 2010 versus the same period a year earlier, as a result of their stronger contraction in the context of disintermediation. Starting January 2011, these two categories of income saw the reversal[63] of their annual dynamics, with net income from commissions declining at a pace slower than operating income.

[61] The share of interest revenues in outstanding loans dropped 1.4 percentage points to 79.6 percent in June 2011 versus the same year-ago period, while that of interest revenues on securities holdings added 3.1 percentage points to 12.9 percent.

[62] The share of interest expenses in client deposits fell by 2.5 percentage points to 63.3 percent of interest expenses, while that of interest expenses in funds raised from credit institutions added 1.8 percentage points to 27.7 percent.

[63] Except June 2011 when the growth rate of net income from commissions was slower than that of operating income.

In the same period, the share of net gains from operations, other than those from interest, in operating income narrowed by 8.5 percentage points to 13.2 percent, mainly on account of lower net income from foreign currency transactions. This trend continued at end-2011 H1.

Furthermore, the share of "other operating income" in total operating income went down from 12.3 percent in December 2009 to 8.1 percent in December 2010, including on the back of lower income from claims retrieval. At end-June 2011, other operating income decreased at a faster pace than operating income.

The banks' concern for containing operating expenses in 2010 was reflected by cuts in staff costs (-6.5 percent), depreciation expenses (-2.4 percent) and the costs of materials, works and services provided by third parties (-8.6 percent) as compared with the preceding year. The downtrend continued at end-June 2011, although depreciation costs resumed an upward course. The share of "other operating expenses" in total operating expenses fell by merely 0.7 percentage points in December 2010 versus December 2009 to 35.9 percent, in the context of losses arising from some portfolios of non-performing loans[64]. At end-June 2011, this item accounted for 33.5 percent of operating expenses.

Cost/income ratio deteriorated marginally by 1 percentage point to 64.9 percent at end-2010, staying on this trend in 2011 H1.

3.3. Non-bank financial sector

3.3.1. Insurance market

In 2010, life insurance market saw favourable developments amid the stabilisation of financial markets, whereas non-life insurance market contracted due to economic downturn. The positive profitability ratio recorded by insurance companies in 2009 and 2010 is a key factor for preserving the financial stability of the insurance sector as it protects the capital of companies and fosters the development of this market in order to ensure convergence to the EU market.

Gross premiums written by insurance companies dropped 5.7 percent in 2010 due to the slowdown in economic growth starting 2009, as well as to the unfavourable international environment. Non-life insurance market contracted by 7.5 percent, this development being only partly offset by life insurance market which advanced by merely 2.3 percent and holds a small share in total insurance market. Risks stemming from the real economy and financial markets were transmitted in the first round to the life insurance sector and afterwards to the non-life insurance market (Table 3.6.).

[64] At 30 June 2011, losses from unrecoverable receivables covered and not covered by provisions recorded by five banks made up 52 percent of total "Other operating expenses".

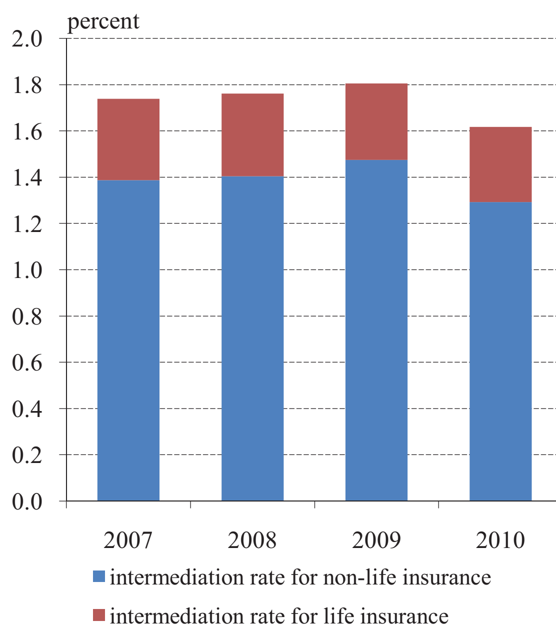
Table 3.6. Transfer of risks from the real economy and financial markets to the insurance sector

	2008	2009	2010
Non-life insurance (provides short-term protection)	▪ Economic expansion ▪ Rise in nominal household disposable income ↑ **Gross premiums written**	▪ Economic decline ▪ Rise in nominal household disposable income ↑ **Gross premiums written**	▪ Economic decline ▪ Drop in nominal household disposable income ↓ **Gross premiums written**
Life insurance (provides medium- and long-term protection)	▪ Economic expansion ▪ Rise in nominal household disposable income ↑ **Gross premiums written**	▪ Lower stock prices ▪ Heightened credit risk perception in relation to financial asset investment ↓ **Gross premiums written**	▪ Financial market stabilisation ▪ Expected economic rebound ↑ **Gross premiums written**

Financial intermediation in insurance market was lower in 2010, for the first time since the outbreak of the international financial turmoil in 2007, due to the decline reported by non-life insurance sector (Chart 3.48.).

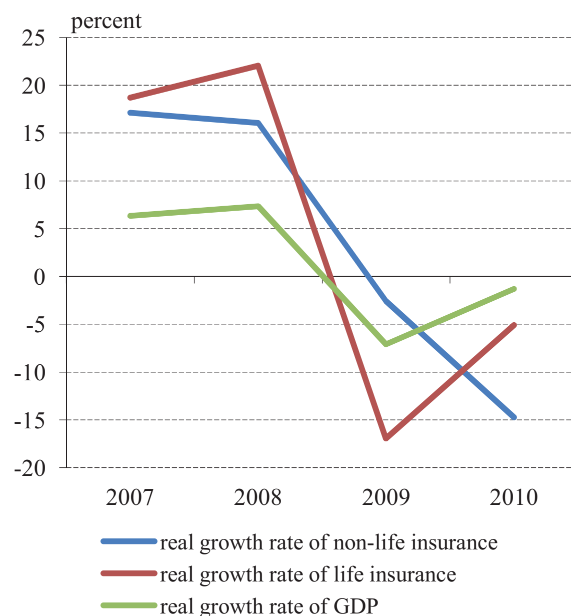
The analysis of insurance market developments in real terms reveals that life insurance market had a positive response to the slowdown of economic decline at end-2010, while non-life insurance market contracted, the effect of improving macroeconomic conditions being gradually felt in this insurance sector (Chart 3.49.). The drop in non-life insurance may be attributed to the time lag between economic growth and corporate and household propensity towards short-term insurance policies.

Chart 3.48. Insurance market – share of gross premiums written in GDP



Source: ISC, NIS

Chart 3.49. Insurance market and GDP dynamics

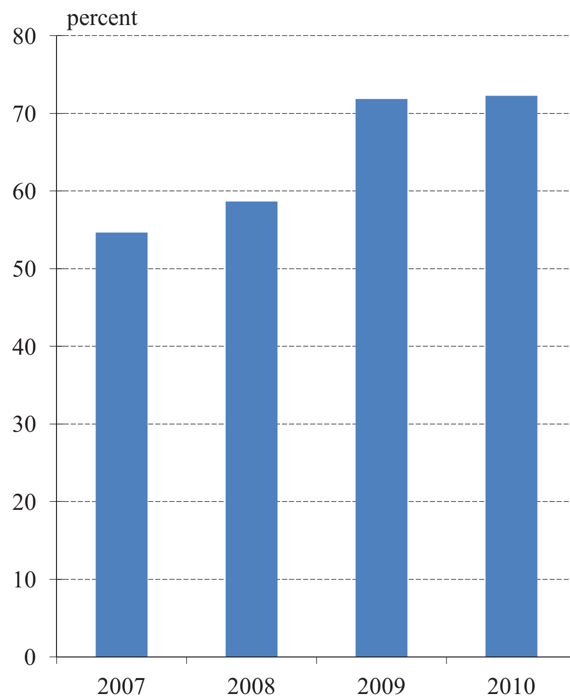


Source: ISC, NIS

The ratio of expenses related to gross claims paid from non-life insurance to revenues from gross premiums written stabilised in 2010, as compared with previous years when the costs associated with auto insurance and the strategy of companies to expand their market shares entailed the increase of

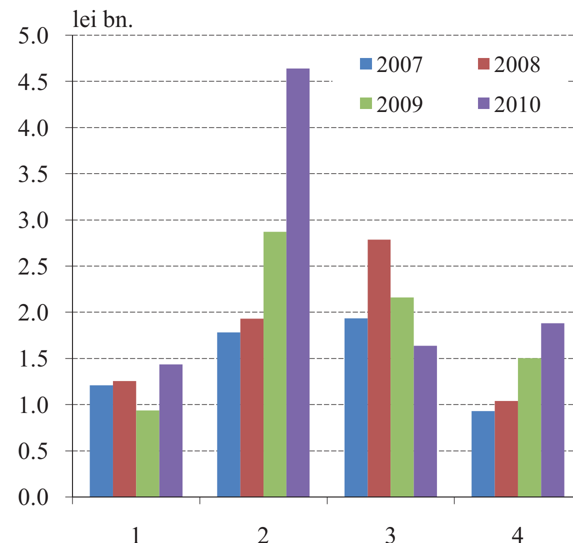
the risks underwritten by non-life insurance companies (Chart 3.50.). This development indicates the improved risk management which has a positive impact on profitability and capitalisation ratios of non-life insurance companies.

Chart 3.50. Share of gross claims paid in total gross premiums written for non-life insurance



Source: ISC

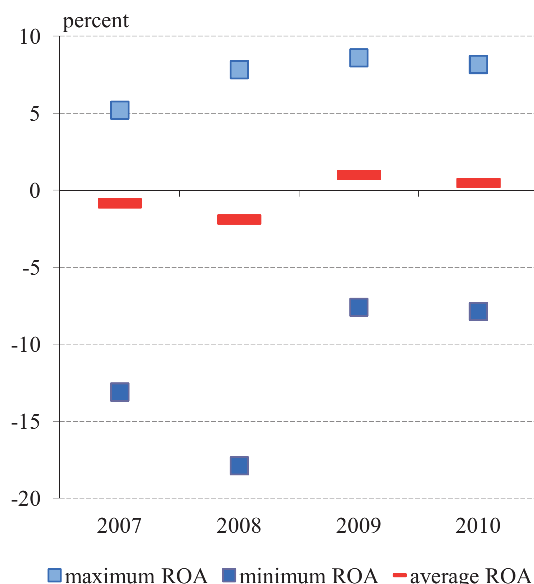
Chart 3.51. Key investments of insurance companies



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, MPF

Chart 3.52. Return on assets of the ten largest insurance companies in terms of asset value (maximum, minimum and average ROA)



Source: ISC, MPF

Insurance companies invested largely in fixed-income bonds and securities, government securities in particular, as well as in bank deposits, ensuring a low credit risk for the financial asset portfolio and the fast access to liquid funds. Investment in financial instruments for which investment risk is transferred to the insured increased further in 2010, given the rise in gross premiums written for life insurance products related to investment funds (Chart 3.51.).

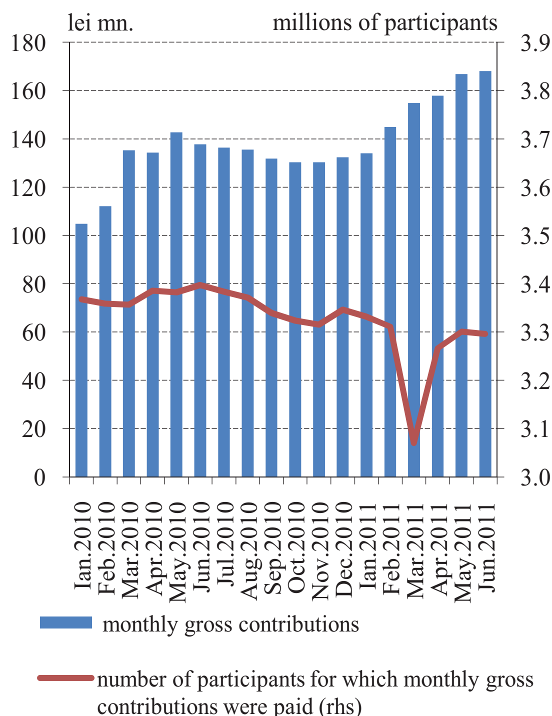
The profitability of the ten largest insurance companies in terms of asset holdings improved considerably in 2009 and recorded similar developments in 2010 (Chart 3.52.). Maintaining the profitability ratio of insurance companies in positive territory is a major factor for strengthening the financial stability of the insurance sector, as it protects the capital of companies and fosters the development of this market in order to ensure convergence to the EU market.

3.3.2. Private pension funds

Private pension funds do not incur risks that may affect the stability of the domestic financial system. The slower economic growth in 2010 limited the rise in income from contributions, yet private pension funds did not face additional difficulties in managing financial flows, as their recent launch in 2007 does not expose them to significant outflows. Fixed-income instruments had the highest yields, while government securities held over 60 percent of total portfolio of private pension funds, this structure being specific to a low risk profile.

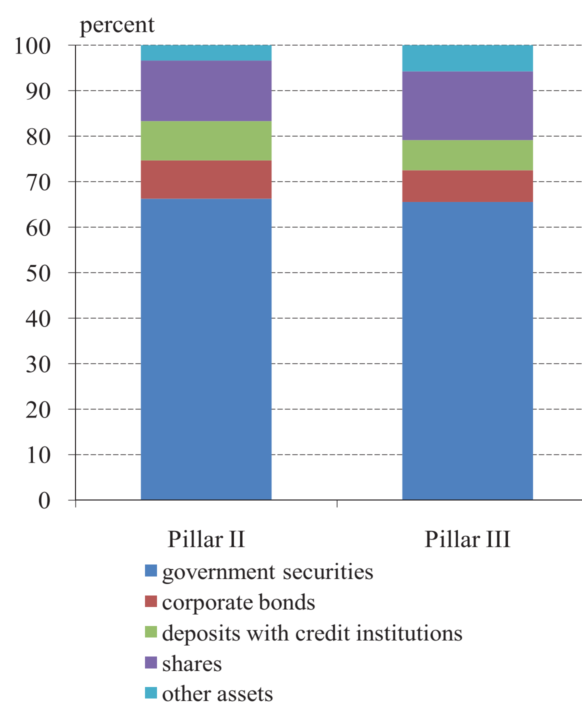
Private pension system (Pillar II) was launched in Romania in 2007, being mandatory for persons aged up to 35 years and voluntary for persons aged up to 45 years. In this context, the number of participants for which monthly contributions were paid is expected to keep rising, at least until the oldest participants reach the retirement age. Nevertheless, the economic downturn in 2009-2010 affected private pension funds as well, as the number of participants for which monthly contributions were paid decreased marginally in 2010 and 2011 H1, despite the increased amount of contributions (Chart 3.53.). Monthly contributions moved up due to the higher contribution rate in March 2010 from 2.0 percent to 2.5 percent of gross income[65] and the resumption of economic growth in 2011.

Chart 3.53. Developments in contributions for Pillar II



Source: PPSSC

Chart 3.54. Breakdown of investment portfolios at the end of 2011 H1



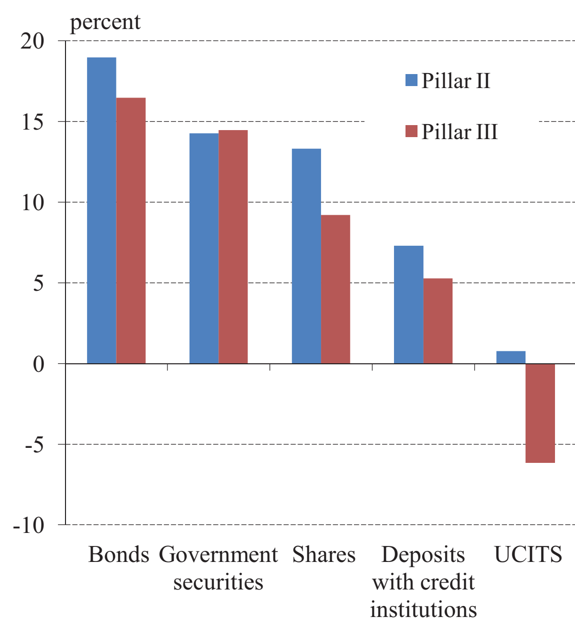
Source: PPSSC

At end-2011 H1, net assets of private pension funds totalled lei 5.4 billion for Pillar II and lei 385 million for Pillar III. This figure indicates the limited capacity of private pension funds to support the stability of domestic financial markets via purchases of long-term assets. However, mention should be made that, due to the accumulation stage this system is undergoing, pressures on selling some financial assets in the portfolio are unlikely to be seen at a certain time.

[65] In compliance with Law No. 12 of 26.01.2010 on the state social security budget for 2010.

Private pension funds invested most of their available funds in government securities (more than 60 percent), providing a low investment risk to the asset portfolio. Corporate bonds, bank deposits and shares ensure portfolio diversification and consolidate the resistance of private pension funds to financial market shocks (Chart 3.54.).

Chart 3.55. Average annual interest rates on the main financial investment assets in 2010



Source: PPSSC

At end-2011 H1, foreign investments of private pension funds made up 11.4 percent (Pillar II) and 10.1 percent (Pillar III) of the asset portfolio, mainly in EU member states. Despite the low direct exposure to international risks, it is necessary to closely monitor contagion risk in case an external shock may occur.

At end-2010, the investments of private pension funds in interest-bearing financial instruments included short-term bank deposits with an average maturity of 45 days and medium-term fixed-income instruments with an average maturity of 5.1 years. This investment strategy is in line with the domestic economic and financial environment, providing investment opportunities in the context of an economic rebound.

Fixed-income instruments generated the highest return for private pension funds in 2010, given that the capital market recorded a moderate recovery after the strong shocks in 2008 and 2009, and the appropriate liquidity level in the banking system pushed deposit rates down. The undertakings for collective investment in transferable securities (UCITS) brought modest or even negative income to Pillar III, yet their very low share in total assets (below 1 percent) did not affect the profitability of private pension funds (Chart 3.55.).

3.3.3. Non-bank financial institutions

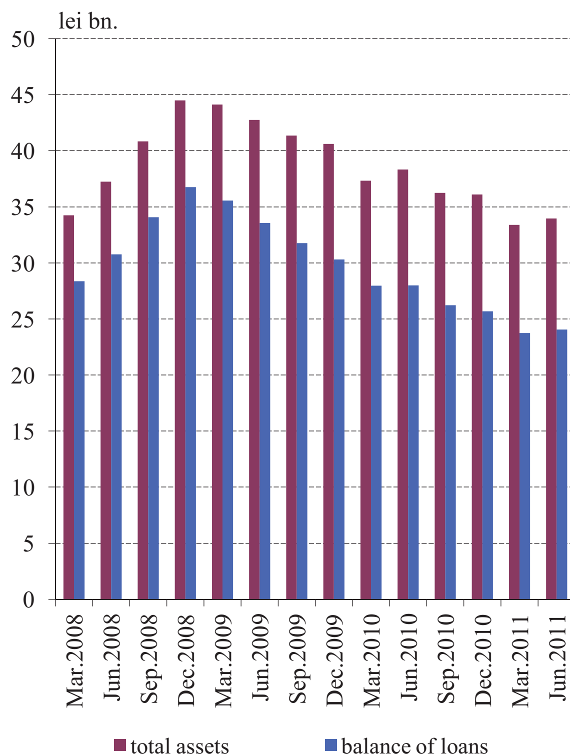
In 2010 and 2011 H1, the activity of non-bank financial institutions (NBFIs) stayed on a downward course, as a result of the still low demand for loans and the risk aversion of the NBFIs due to the significant volume of overdue loans in their balance sheets. However, as compared with 2009, the loan portfolio quality deteriorated at a slower pace. The cut in provisioning costs had a favourable impact on the aggregate financial result that returned to positive territory in 2011 H1.

Loans granted by NBFIs remained on the downtrend they followed since 2009, their balance as at end-2011 H1 totalling lei 24 billion, down 14 percent year on year and 34 percent as compared with the record high of the loan volume in December 2008 (Chart 3.56.). The contraction of NBFIs activity and the slight recovery of loans extended by credit institutions caused the significant drop in the share of NBFI loans in total non-government loans, from 18 percent in December 2008 to 11 percent in June 2011.

Net aggregate assets of NBFIs decreased, amid the contraction of lending activity and the high volume of provisions. The undertakings recorded in the Special Register, which are subject to prudential supervision by the NBR, hold 93 percent of total assets of NBFIs, half of them being divided between the ten largest institutions.

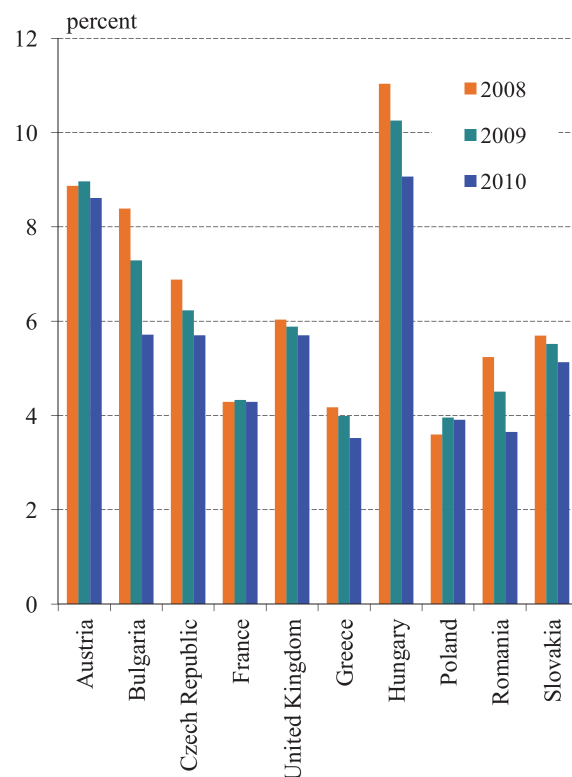
The activity carried out by NBFIs in Romania focus on financial leasing operations, which account for about 75 percent of total loans extended by this sector. The worsening macroeconomic conditions had a negative impact on financial leasing operations in the EU, most member states reporting a lower volume of loans granted. The depth of the financial leasing market[66] in Romania is similar to that of Poland, France or Greece, yet below that of Hungary and Austria (Chart 3.57.).

Chart 3.56. Developments in the NBFI sector



Source: NBR

Chart 3.57. The share of the leasing market to GDP in selected EU countries (end-of-year balance)

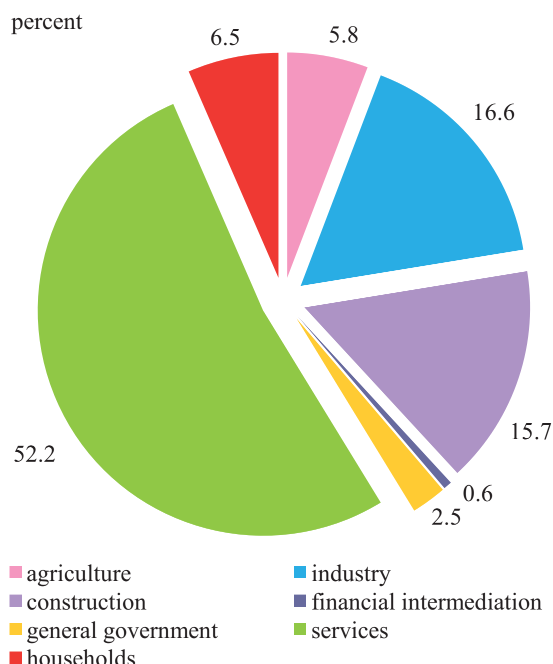


Source: Leaseurope, Eurostat, NBR, NBR calculations

The loans granted by NBFIs are particularly channelled to non-financial corporations that hold a share of roughly 75 percent of total. With regard to the concentration of NBFI loans by economic sector, the exposure to companies in the services sector is prevalent (Chart 3.58.).

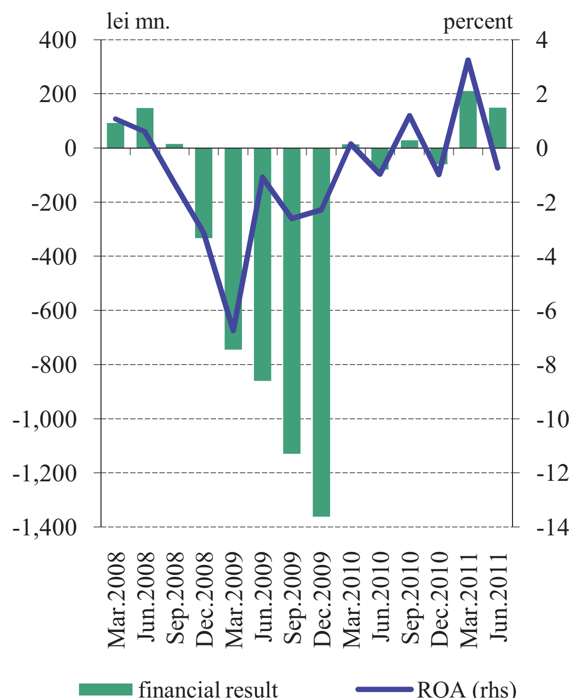
[66] Calculated as a share to GDP of leasing operations.

Chart 3.58. Breakdown of NBFI loans by activity as at 30 June 2011[67]



Source: NBR

Chart 3.59. Profitability of the NBFI sector[68]



Source: NBR

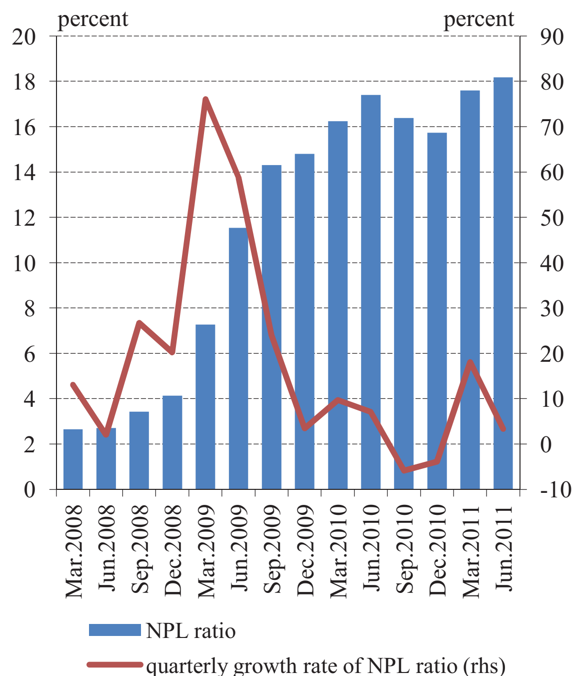
The gross aggregate financial result improved in 2011 H1, after posting mixed developments in 2010 (Chart 3.59.), the NBFIs recorded in the Special Register reporting a gross profit of lei 150 million. The decline in provisioning costs in order to cover credit risk as a result of the flattening erosion of portfolio quality can create conditions for profit consolidation in the period ahead, yet such result will be influenced by macroeconomic developments.

Considering the specific activity, credit risk is the main challenge for the undertakings in this sector. Recent macroeconomic developments made a significant contribution to the rise in non-performing loan ratio of NBFIs (Chart 3.60.). However, as compared with 2009, loan portfolio quality deteriorated at a slower pace, following a trend similar to that of credit institutions. As a result, provisioning costs were further high, but provisioning was slower, the quarterly costs related to new provisions standing below those recorded in the same periods of 2009 (Chart 3.61.).

[67] Exposure by economic sector was calculated based on data reported by NBFI enlisted in the Special Register to the Central Credit Register and includes the exposures to a single debtor exceeding lei 20,000.

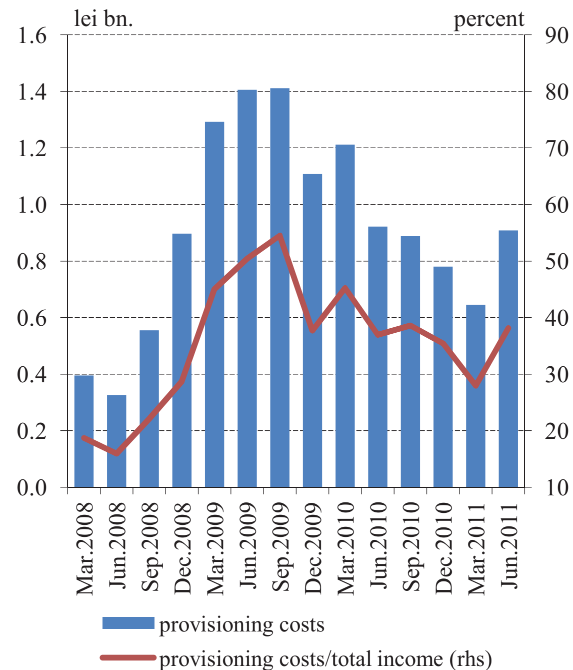
[68] The ROE indicates the cumulative gross result since the beginning of the year, whereas economic profitability was computed based on the annualised levels of the quarterly gross result.

Chart 3.60. Credit risk in the NBFI sector[69]



Source: NBR

Chart 3.61. Quarterly provisioning costs



Source: NBR

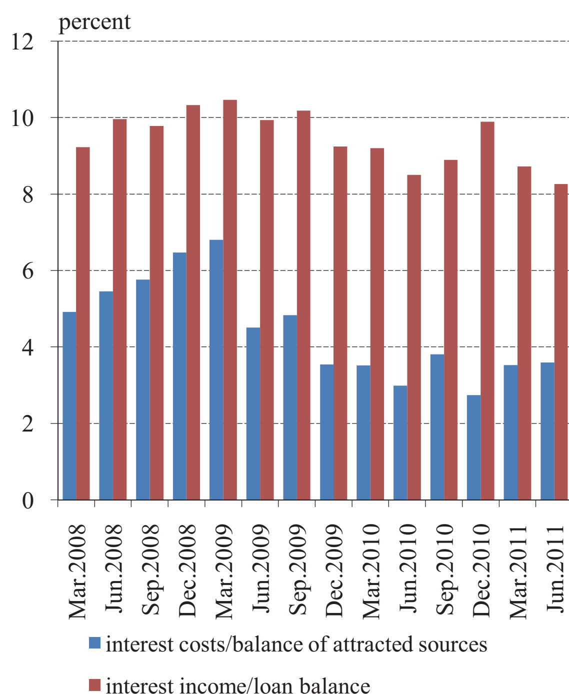
The analysis of the share of interest income and expense in loans granted and deposits taken reveals the persistence of large interest rate margins (Chart 3.62.), which may mitigate the shocks likely to arise in case of unfavourable developments of NBFI refinancing costs. In addition, market risk is reduced in this sector, as the refinancing structure and loans granted are generally balanced in terms of maturity, currency and interest rate.

European financial institutions have a prevailing impact on NBFI sector in Romania both by participations held either directly or indirectly and credit lines (Chart 3.63.). Foreign shareholding facilitated the access of NBFIs to external financing sources, loans taken from international markets accounting for 87 percent of this sector's total debt.

With regard to the Romanian financial system, the interlinkages between NBFIs are particularly visible in the relation with the banking sector in terms of capital and financing. Although contagion risk can be manifest in financial groups, it has a low impact on the Romanian banking sector as whole. NBFI loans from credit institutions in Romania reached similar levels at end-2010 (lei 2.2 billion) and 2011 H1 (lei 2.3 billion), accounting for roughly 1.1 percent of total non-government loans extended by credit institutions. Moreover, credit institutions' participations in the NBFI capital equalled about lei 0.6 billion. The NBFIs also rely to a small extent to loans taken directly from credit institutions in Romania, the share of loans from domestic credit institutions making up about 10 percent of total loans.

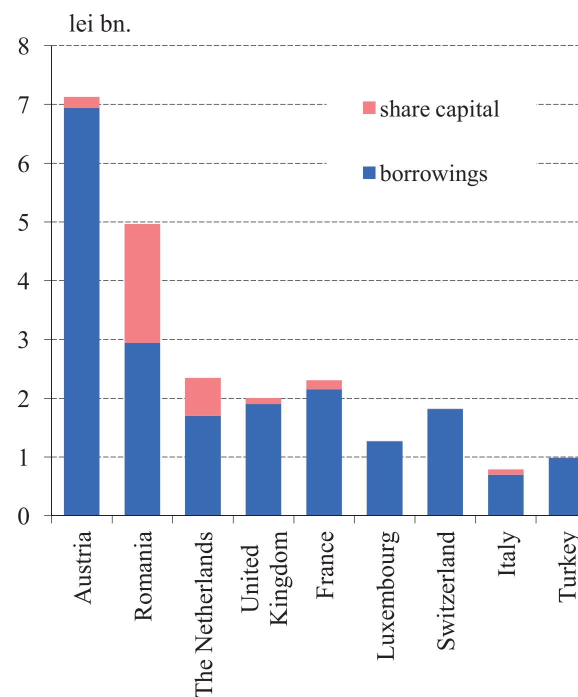
[69] Non-performing loan ratio was calculated as a ratio of unadjusted loan exposure and the interest classified under "Loss" to total loans and interest granted by NBFI.

Chart 3.62. Interest risk in the NBFI sector (annualised data)



Source: NBR

Chart 3.63. Breakdown of share capital and loans by country of origin as at 30 June 2011



Source: NBR

3.4. Capital market

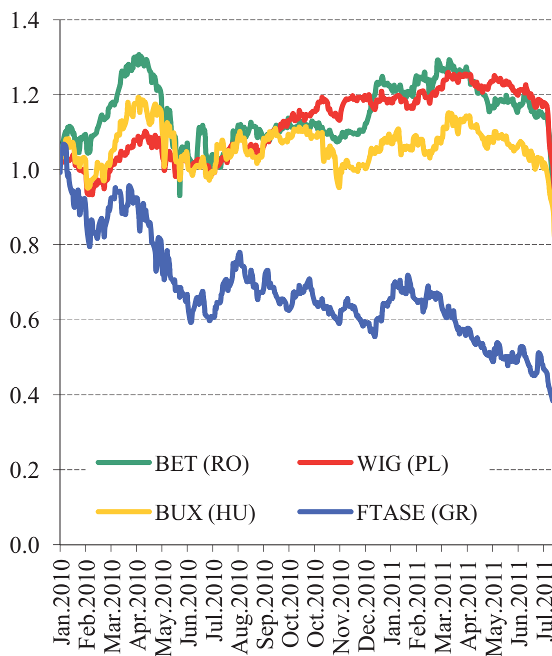
Investors' perception of the risk attached to capital market investments improved somewhat in the period January 2010 – July 2011. The Romanian capital market was only to a small extent correlated with international markets, owing to the strong bearing that domestic factors tend to have on day-to-day developments. Investors' risk aversion saw an overall downtrend, but there were also highly volatile episodes as a result of tensions on international markets following the sovereign debt crisis that hit Greece, Ireland and the USA.

3.4.1. General developments

Market indexes for the region's emerging economies, including Romania, moved in tandem in January 2010 – July 2011, reflecting a relative stability and two tension-ridden episodes due to external events. Volatility increased in 2010 H1 following the turmoil on external markets in the wake of Greece's sovereign debt crisis that occurred after S&P credit rating agency downgraded the country to "speculative grade" and in July-August 2011 amid the sovereign debt crisis also hitting euro area countries and the same agency downgrading the US rating (Chart 3.64.). Over the period under review, Bucharest Stock Exchange (BSE) capitalisation fared well, but annualised liquidity[70] in 2010 saw wide swings that receded in H2. The rise in the value of trades amid flat capitalisation points in fact to stock market consolidation (Chart 3.65.).

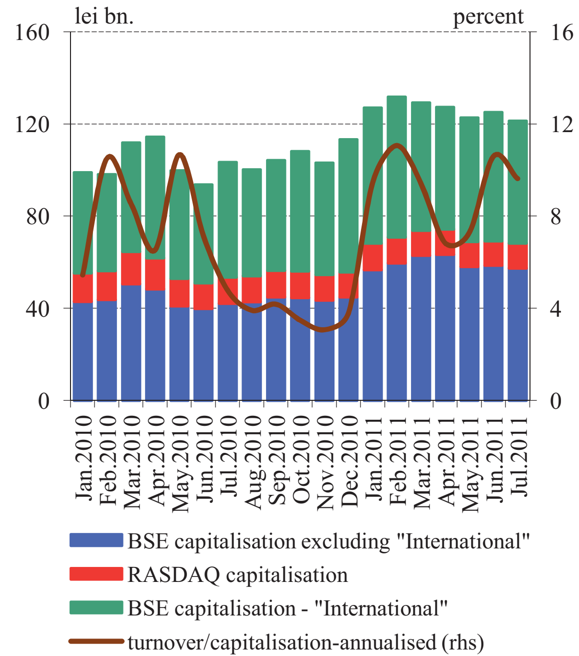
[70] Monthly transactions * 12 / Market capitalisation at the end of the month.

Chart 3.64. Regional stock market index dynamics (January 2010=1)



Source: Bloomberg

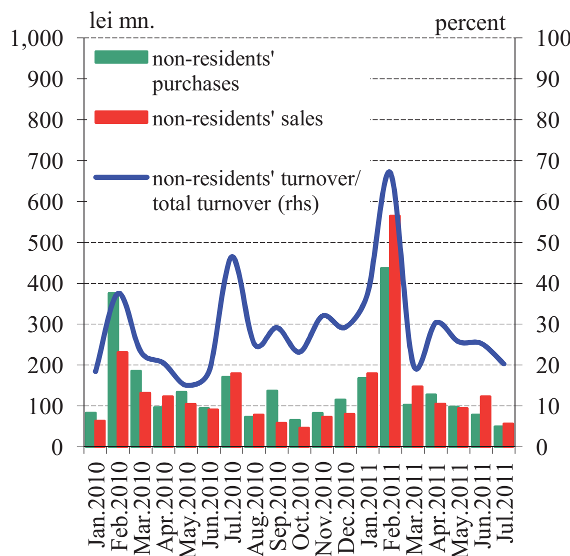
Chart 3.65. Market capitalisation and annualised liquidity



Source: BSE, NBR calculations

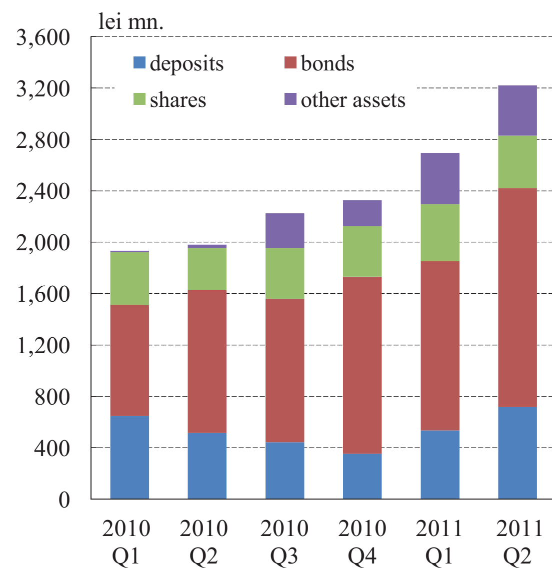
Non-resident investors showed a keener interest in trading on the BSE[71] in February 2010 and February 2011, which however did not send volatility to higher. The overall trend in the period under review was a relative balance between sales and purchases of financial securities by non-resident investors on the BSE (Chart 3.66.).

Chart 3.66. Non-resident investors' trades on the BSE (excluding trades under "International")



Source: BSE

Chart 3.67. Net assets of open-end investment funds



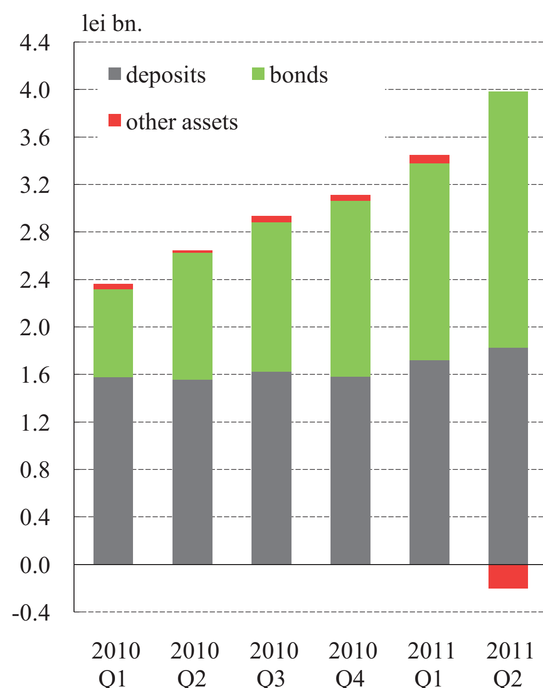
Source: NBR

[71] BSE, excluding RASDAQ and the financial derivatives market in Sibiu.

Net assets of open-end investment funds increased in 2010 and 2011 H1. The positive development was fuelled both by capital flows into investment funds and a higher portfolio value. The year 2010 saw an upsurge in the share of investments in newly-floated bonds and securities, while in 2011 H1 open-end investment funds eyed mainly bank deposits and bonds (Chart 3.67.).

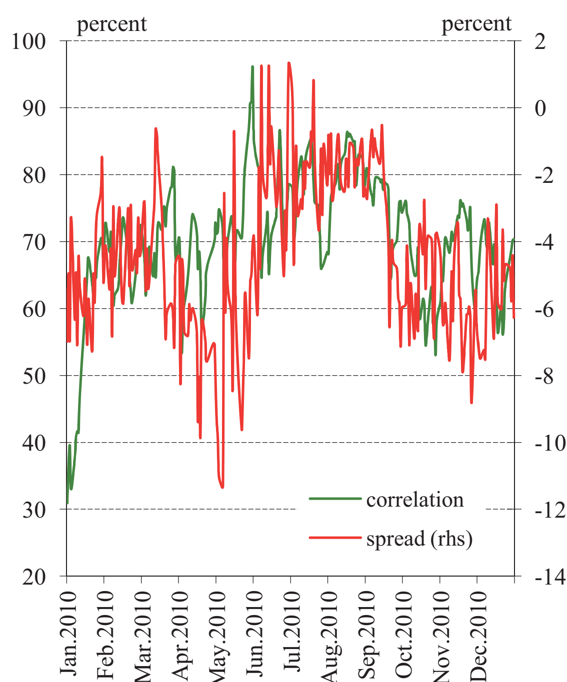
The assets managed by money market funds followed an uptrend in the period under review amid stronger investments in bonds, given that investments in bank deposits remained virtually unchanged (Chart 3.68.).

Chart 3.68. Total assets of money market funds



Source: NBR

Chart 3.69. Spot-futures spread and correlation[72]



Source: NSC, NBR calculations

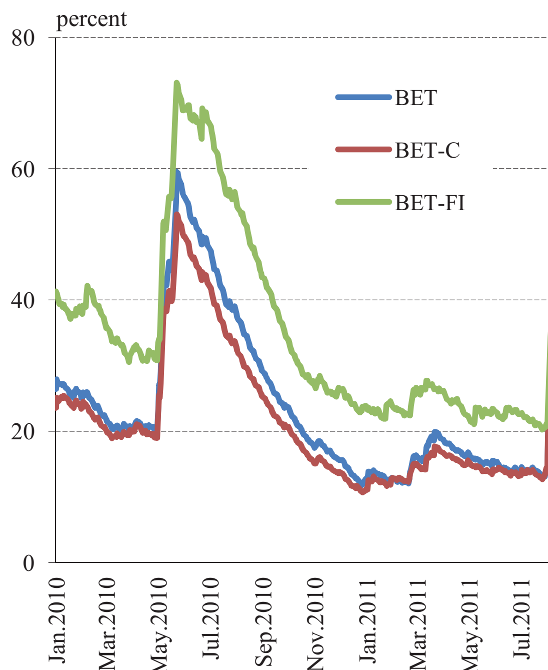
In May 2010, the spot-futures spread and correlation entered a sharp uptrend (Chart 3.69.). This trend was accompanied by a decline in volatility and liquidity on the Sibiu futures market amid investors' resurging risk aversion. At the same time, the volatility of the spot-futures spread fell markedly in 2010 H1.

3.4.2. Risk aversion

The outbreak of the sovereign debt crisis in Greece in May 2011 impacted the Romanian capital market, pushing market indexes lower and volatility higher. The shock was lower than that seen in the aftermath of Lehman Brothers collapse in September 2008, but it occurred at a time when the market was recovering from the losses incurred during the international financial crisis, resulting in a trend reversal. At end-2010, volatility reverted to the levels recorded prior to the outbreak of the sovereign debt crisis in Greece, but the USA being downgraded by S&P credit rating agency on 15 August 2011 reignited capital market jitters (Chart 3.70.).

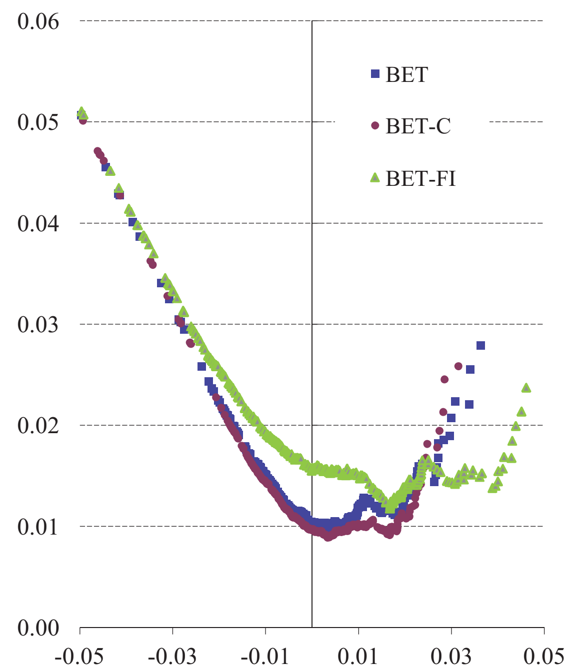
[72] Spot-futures spread and correlation were weighted by the volume of trades in highly liquid shares on the Sibiu futures market. The estimated correlation was conditioned based on a diagonal BEKK multivariate GARCH model (1.1).

Chart 3.70. Volatility of BSE indices



Source: BSE, NBR calculations

Chart 3.71. The excess average function[73] for BSE indices (1 January 2010 – 15 August 2011)



Source: BSE, NBR calculations

The BET-FI was the most volatile index on the Romanian stock exchange in 2010 amid the action of some specific factors and investors' risk aversion towards putting their money in financial investment companies, whilst the levels of volatility seen in BET and BET-C indexes were quite similar. The annualised daily volatility of the BET-FI stood, on average, 13 percent and 16 percent higher than those of BET and BET-C indexes respectively. In the period January-August 2011, index volatility was little changed, except for the significant increase in August, as a result of the detrimental impact from the sovereign debt crisis in the USA. The excess average function (Chart 3.71.) illustrates the high number of excess values in the developments in the BET-FI compared to those in BET and BET-C indexes.

Foreign market tensions that resurfaced after the sovereign debt crisis in Greece had broken out and the USA had been downgraded by S&P credit rating agency translated into an even stronger flight to safety. One of the consequences was the steep surge in the price of gold, from about USD 1,100 per ounce at end-2009 to USD 1,765 per ounce at mid-August 2011. Higher investors' risk aversion caused the market risk related to BSE indexes to rise (Chart 3.72.). In May and June 2010, the daily VaR[74], which defines the highest possible loss on a time horizon of 10 days, climbed to 55.9 percent in the case of the BET-FI, which shed 15 percent on 25 May against the previous trading session alone.

[73] This function assumes that the index yields in ascending order should be set successively as thresholds, before calculating a ratio with the mean of the sums of differences between the yields and the chosen threshold as the numerator and the sample size above the threshold as the denominator. Since the threshold is chosen successively in ascending order, the slope of the series resulting from this function should be negative and trend to zero. However, when the series of results does not asymptotically trend to zero and the slope lies much above zero, then the index exhibits tail behaviour over the period under review.

[74] Daily VaR (Value at Risk) is estimated for a time horizon of 10 days 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 time horizon of 10 days 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).

The VaR for BET and BET-C indexes posted very similar levels, much lower than those registered by the BET-FI.

Chart 3.72. Daily VaR for BSE indices' returns

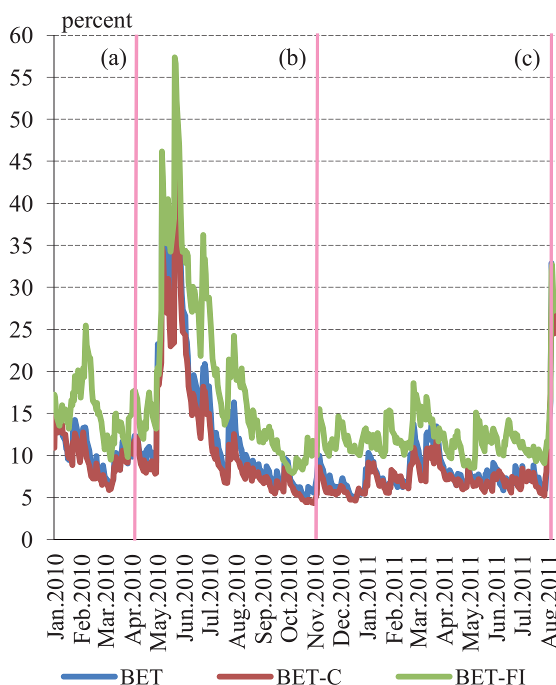
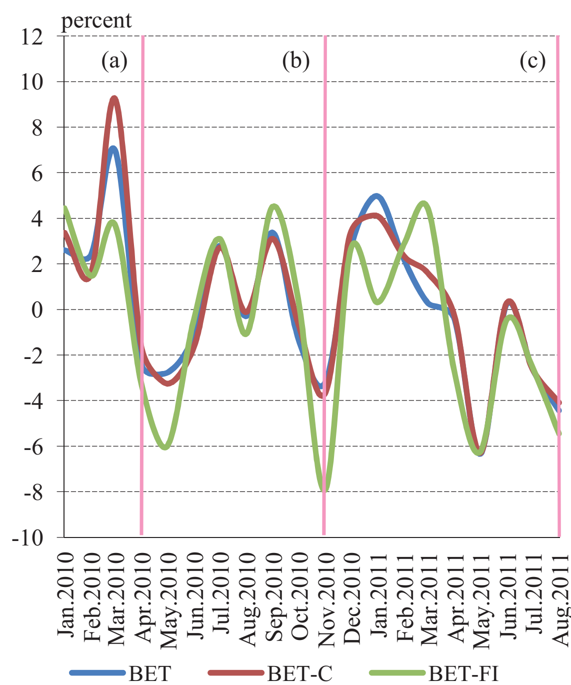


Chart 3.73. Risk premiums[75] for BSE indices



Note: (a) – S&P credit rating agency downgrades the rating for Greece to speculative grade (27 April 2010)

(b) – the Irish Prime-Minister makes a statement on his country's decision to ask for financial assistance from the EU and the IMF (21 November 2010)

(c) – S&P credit rating agency downgrades for the first time ever the rating for the USA to AA+ (5 August 2011)

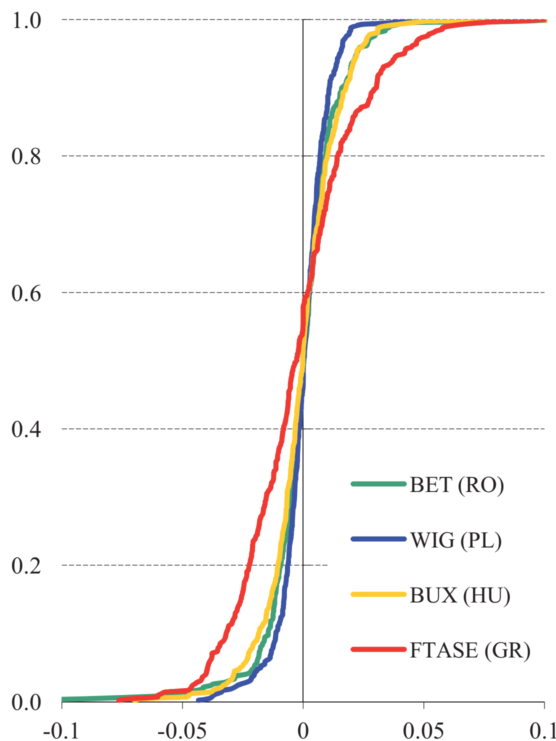
Source: BSE, NBR calculations

The spike-up in market risk in the period May-June 2010 was also reflected by the negative performance of risk premiums for stock exchange indexes (Chart 3.73.); in 2010 Q1, they had followed an upward trend, in line with the stellar performance of global market indices. The risk premium for the BET-FI swung more widely than the BET and BET-C indices. In 2011 Q1, risk premiums fell into negative territory amid heightening tensions on international markets.

The cumulated distribution of index returns across the region shows for the BET a medium degree of resilience to an international turmoil, since negative returns were moderate (Chart 3.74.). The index behaviour mirrors a medium degree of investors' risk aversion on the Romanian capital market.

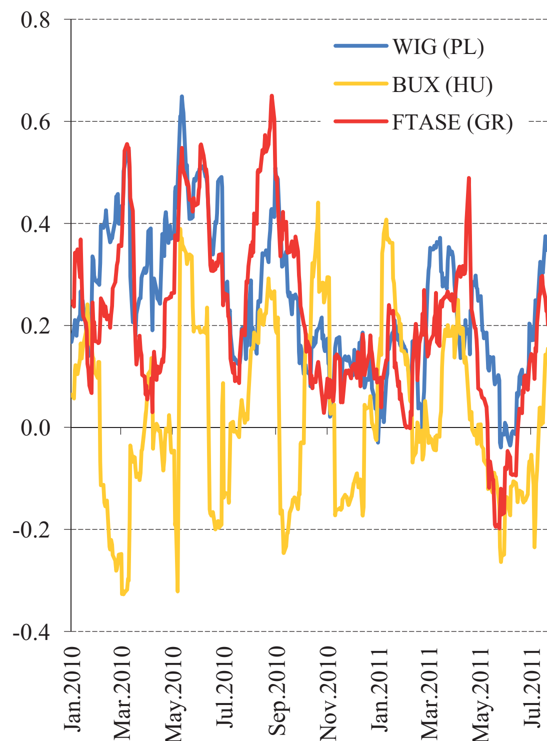
[75] Risk premiums were calculated as a ratio with the difference between the annualised return for every index and the yield on 3M government stocks traded on the secondary market (interbank transactions) as the numerator and the annualised standard deviation of daily returns of that index as the denominator. The standard deviation used here has a conditioned nature deriving from a GARCH model (1.1). The estimation of risk premiums using this methodology is referred to as Sharpe ratio, since the Nobel laureate economist William Sharpe proposed this indicator as a measure for the market price of risk.

Chart 3.74. Cumulated distribution of returns[76] (1 January 2010 – 15 August 2011)



Source: Bloomberg, NBR calculations

Chart 3.75. Correlations between BET index and capital market indices in the region



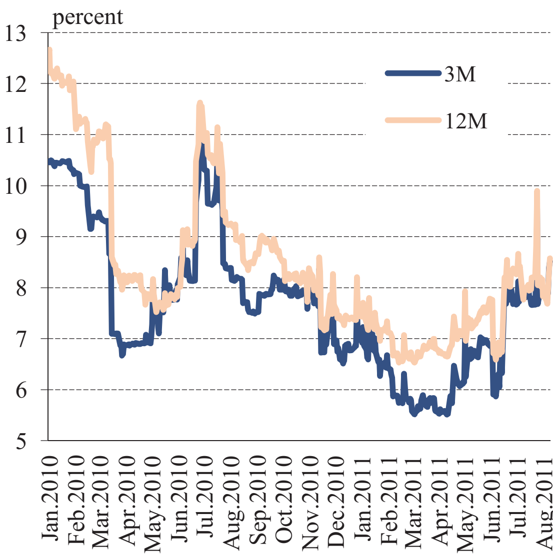
Source: Bloomberg, NBR calculations

The correlations between the BET index and other indexes of the markets in the region remained within a medium-to-low range (Chart 3.75.). Even though the capital market in Romania is connected to regional and international markets, local factors tend to weigh more heavily on the stock exchange, as illustrated by day-to-day developments. The low correlation is beneficial for regional investors who may diversify their portfolios by mitigating the overall risk through exposures to the Romanian capital market. The correlation with the Greek stock exchange index does not signal a contagion effect targeting Romania, as the local capital market reacted to Greece's sovereign debt crisis in a manner similar to those seen in other economies across the region.

The implied volatility of the RON/EUR exchange rate followed a downward path overall, but foreign market turmoil episodes caused investors' risk aversion to increase (Chart 3.76.). The ROBOR-EURIBOR spread narrowed in the period January 2010 – August 2011 against the background of improved performance of macroeconomic indicators and adequate liquidity in the banking system (Chart 3.77.).

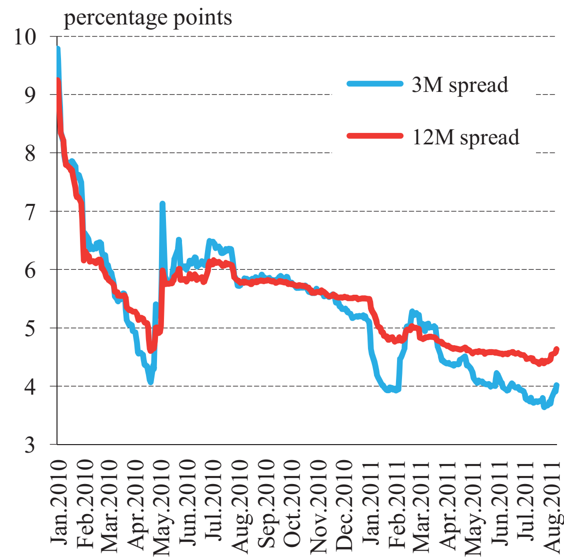
[76] Cumulated probability distribution of returns in respect of four stock exchange indexes in Chart 3.72 was calculated using a Kaplan-Meier estimation function. Oy axis shows figures in the [0-1] range of probability levels for which the function was estimated. Ox axis shows various figures of index yields related to probability levels.

Chart 3.76. Implied volatility of the EUR/RON exchange rate for 3M and 12M options



Source: Bloomberg

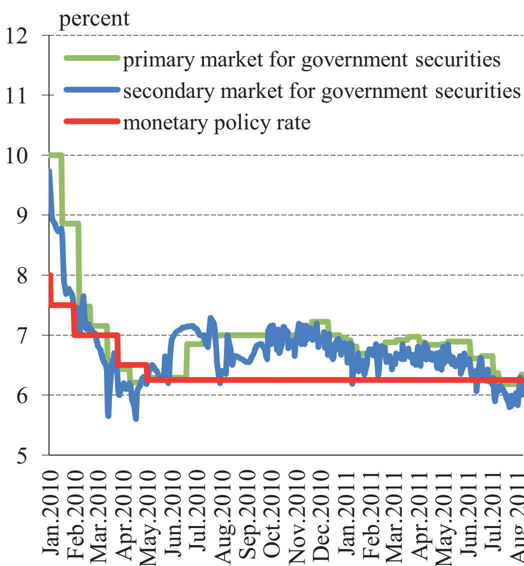
Chart 3.77. ROBOR-EURIBOR spread



Source: NBR, Bloomberg, NBR calculations

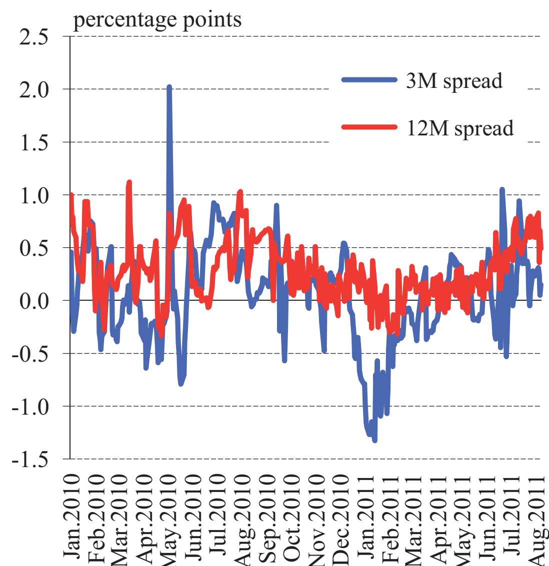
The ongoing fiscal consolidation, the signing of the financing arrangement with international financial institutions and the significant slowdown of the economic contraction translated into lower yields on government securities with one-year residual maturity in 2010 Q1, which thus neared the monetary policy rate and thereafter stabilised and even trended slightly downwards in 2011 Q2. The financial turmoil triggered by the sovereign debt crisis in some European economies has so far had a limited, short-lived impact on the yields on Romania's government securities (Chart 3.78.).

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



Source: NBR, NBR calculations

Chart 3.79. Spread between ROBOR and the returns on government securities traded on the secondary market

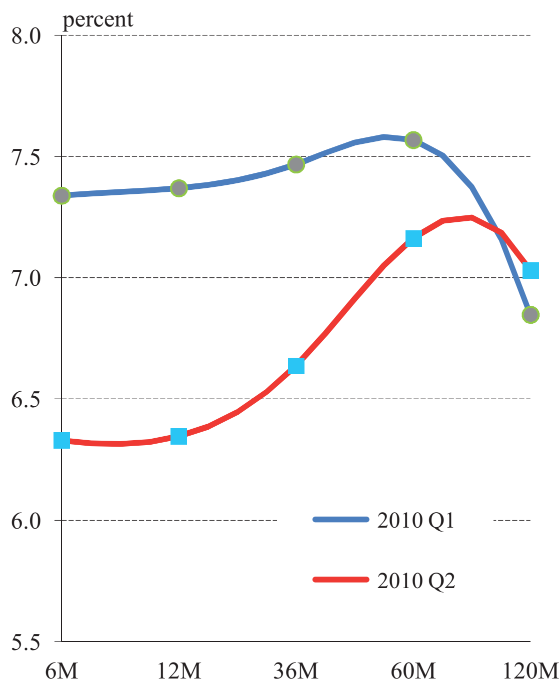


Source: NBR, NBR calculations

The spread between ROBOR and yields on government securities traded in the secondary market is an indicator of investor perception regarding banking risks. This interest rate spread posted sharp fluctuations in 2010 Q1 and Q2, then declined towards the end of the year, pointing to a downtrend in investors' risk aversion[77]. The renewed turmoil on international financial markets in July-August 2011 again triggered a widening of the interest rate spread, but the level of uncertainty was below that registered in 2010 Q1 and Q2 (Chart 3.79.).

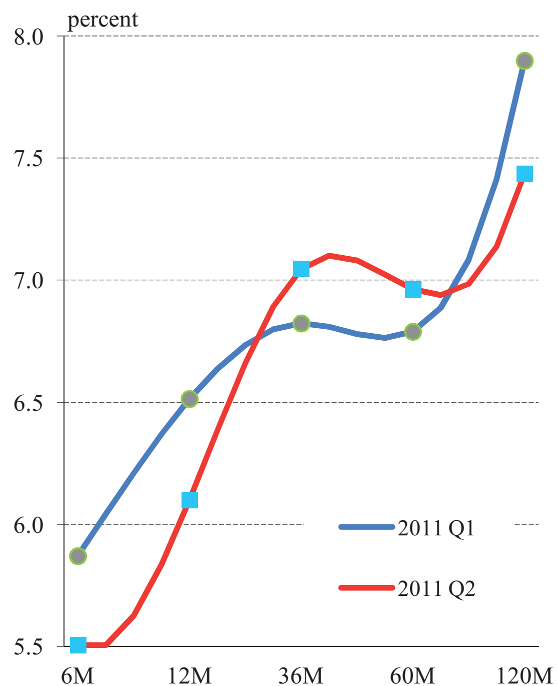
The yield curve on the secondary market for lei-denominated government securities saw its slope shifting starting in 2010 Q2 (Chart 3.80.). This was largely attributed to the more than one percentage point increase in the yields on government securities with residual maturity of up to one year. By contrast, yields on government paper with ten-year residual maturity stood almost 0.2 percentage points higher. The explanation for the reversal of this slope in 2010 Q2 lies with the positive outlook for the Romanian economy. In 2011 Q1 and Q2, the yield curve further displayed a positive slope amid lower yields on government securities with maturities of up to one year (Chart 3.81.).

Chart 3.80. Yield curve[78] in the secondary market in 2010 Q1 and Q2



Source: NBR, NBR calculations

Chart 3.81. Yield curve in the secondary market in 2011 Q1 and Q2



Source: NBR, NBR calculations

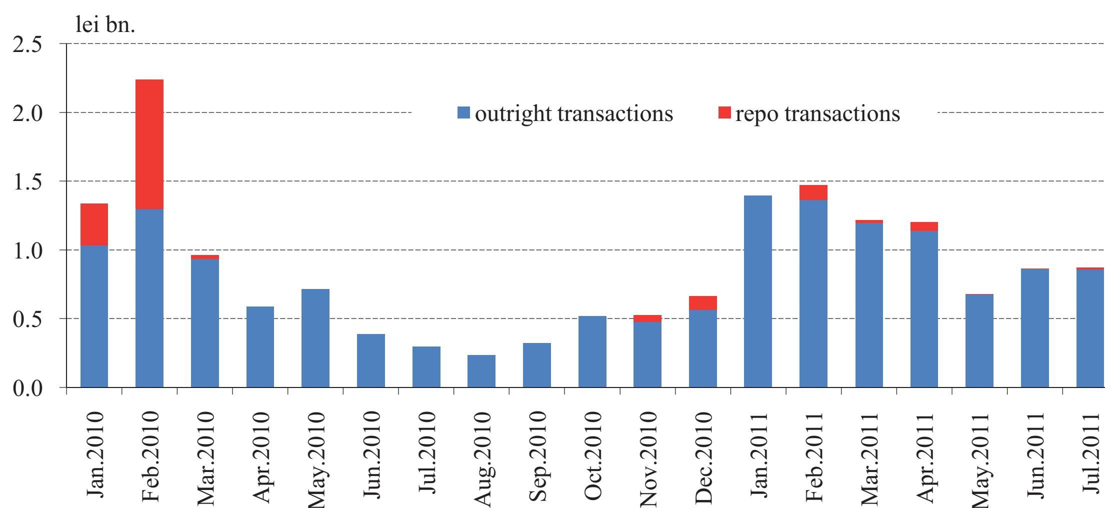
The value of outright transactions in lei-denominated government securities on the secondary market dropped markedly in March 2010, after having posted a favourable performance in the first two months of the year, concurrently with a significant rise in repo transactions (Chart 3.82.). The downward course in the value of outright transactions in government paper coincided with the decline in money market rates. In 2010 Q4, the value of outright transactions in lei-denominated government securities fluctuated, the same as in 2011 H1. The value of transactions in government securities on the BSE remained subdued in the period from January 2010 to June 2011 and amounted to roughly 1 percent

[77] Investors on the government securities market in Romania are largely institutional investors.

[78] In order to estimate the yield curve, the transactions in lei-denominated government securities on the interbank secondary market in 2010 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.

of total turnover. During 2010, the value allotted following the issues of government securities in the primary market decreased by 35.6 percent from 2009 to reach lei 43.8 billion. In 2011 H1, the amount raised via issues of government securities grew by 147 percent against the same period in 2010.

Chart 3.82. Daily average of transactions in leu-denominated government securities on the interbank secondary market



Source: NBR

Given the fiscal deficit financing pressures and investors' fears to invest medium- and long-term funds, demand for government securities focused primarily on short-term paper, so that issues of certificates of deposit accounted for about 79 percent of the value allotted in 2010 and almost 74 percent of the value allotted in 2011 H1.

CHAPTER 4. RISKS RELATED TO DOMESTIC ECONOMIC AND FINANCIAL DEVELOPMENTS

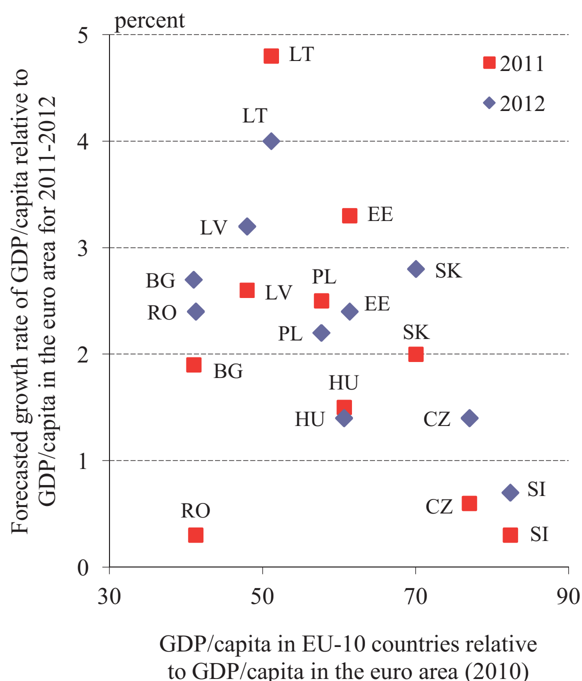
4.1. Domestic macroeconomic developments

Romania's macroeconomic situation has improved since the release of the previous *Report*. The new financing arrangement signed with the EU, the IMF and the World Bank and the measures explicitly stated in the main national programmes are seen as anchors for consolidating the achieved results and boosting the economic growth potential. The focal point of the government in 2011 is to continue to implement structural reforms and fiscal consolidation measures, including the reduction in arrears and improvement of the financial position of state-owned enterprises in distress.

4.1.1. Real sector

Romania's macroeconomic situation has improved since the release of the previous *Report*, as the halt in economic downturn and the favourable performance of the country's external trading partners played an important part. The Romanian economy was subject to restructuring, which laid the groundwork for its sustainable development (public sector payrolls were downsized, bank lending relatively favoured the tradables sector and the fiscal deficit narrowed). In 2010, economic activity decelerated at a slower pace, with real GDP dropping 1.3 percent. The outlook for 2011 points to a resumption of favourable developments. In 2011 Q1, the economic growth was 0.7 percent, before reaching 0.2 percent in Q2 (seasonally adjusted data), with tradables sectors making the largest contribution. In 2011 H1, gross value added in the industrial sector rose by 7.3 percent, while in the agricultural sector it posted a 2.5 percent pick-up. Economic growth forecasts[79] for 2011 place Romania below the regional readings (1.5 percent versus the 2.9 percent EU-10 average), but next year its growth rate will revert to a level comparable to that of the region.

Chart 4.1. Average annual convergence rate in EU-10



Source: Eurostat, NBR calculations

There are favourable prospects for real convergence. During 2011-2012, Romania's GDP per capita is forecasted to increase as compared to the readings estimated for the euro area (Chart 4.1.). In addition, Romania undertook to implement an ambitious structural reform programme meant to consolidate the economic results that had already been achieved and to boost the economic growth potential, generating progress in terms of real convergence. The main courses of action are stated clearly in the authorities' national programmes, while a number of the planned measures are also included in the new financing arrangement signed with the EU, the IMF and the World Bank (Box 2).

[79] According to the National Commission for Prognosis, the European Commission and the International Monetary Fund.

Box 2. Key measures undertaken by Romania[80]

1. Fostering competitiveness and sustainable development

– Decreasing the share of the public wage bill in GDP
– Making a list of priority public investment projects and selling major stakes in state-owned companies on financial markets
– Strengthening the capacity and performances of research, development and innovation (RDI), by implementing the new system of institutional funding (in order to achieve, by 2020, a level of 2 percent of GDP for public and private sector investment in RDI)
– Supporting the transition towards a more efficient economy in terms of the use of resources and of reducing greenhouse gas emissions (GHG), as well as developing technologies and measures to mitigate the effects of GHG emissions
– Increasing the share of energy from renewable sources
– Reducing the consumption of primary energy

2. Fostering employment

– Boosting employment
– Achieving an employment rate of 70 percent for the 20-64 age group in 2020
– Strengthening social dialogue and rendering collective bargaining flexible
– Amending and supplementing the legal framework on the unemployment insurance social system and on boosting employment
– Increasing youth participation on the labour market
– Expanding the active life by limiting anticipated retirement pension systems
– Reducing the incidence of undeclared work
– Reforming the legal framework on professional training and implementation of the EU framework for the recognition of professional qualifications
– Initiating procedures regarding the ranking of universities into categories based on evaluating the curricula and their institutional capacity
– Reducing the early school leaving rate to 11.3 percent by 2020
– Increasing the share of individuals aged 30-34 with tertiary education to at least 26.7 percent by 2020
– Reducing the number of people at risk of poverty and social exclusion

3. Strengthening public finance sustainability

– Fiscal consolidation
– Introducing a numerical rule for the consolidated general government deficit into national legislation, in line with the provisions of the Maastricht Treaty
– Narrowing the budget deficit below 3 percent of GDP in 2012 (ESA95 methodology)
– Reducing the consolidated general government arrears by restructuring the health sector and by strengthening the budget discipline of the local government, as well as the arrears of majority state-owned enterprises
– Public administration reform
– Implementing the strategic reform for improving general government efficiency based on the functional analysis conducted with the technical support of the World Bank
– Improving the management of structural instruments

4. Consolidation of financial stability

– Further steps to secure the adequate implementation of the IFRS by the banking sector starting 2012
– Measures in the area of credit institution restructuring
– The NBR expanding the list of eligible collateral for refinancing operations
– Setting a prudential treatment of debt-to-equity swaps
– Monitoring the foreign currency-denominated loans and taking the necessary steps for their price to reflect the risk of their being granted to unhedged borrowers in an accurate and transparent manner
– Taking measures related to the contingency plan in order to avert systemic risk in the banking sector

5. Improving the business environment

– Facilitating market entry and/or exit of enterprises

[80] The measures are included in the 2011-2013 National Reform Programme. Some of them were undertaken by the Romanian government under the financing arrangement signed with the EU, the IMF and the World Bank as well as to meet the requirements of the new European economic governance framework (for further details, see also Chapter 2 – *International economic and financial environment*).

The main vulnerabilities to Romania's economic growth potential saw mixed developments in 2010. On the one hand, the absorption of European structural instruments (based on disbursements from the European Commission) remained low and innovation costs were still at paltry levels (approximately 0.5 percent of GDP, on average, during 2005-2009 against 0.9 percent of GDP for EU-10 or 2 percent of GDP, as assumed by Romania under the Europe 2020 Strategy). On the other hand, the labour market is undergoing broad-based reforms aimed at making the Romanian economy more competitive. In 2011 H1, amendments and supplements to the Labour Code were implemented, following the measures aimed at cutting central and local government costs in 2010. The labour market witnessed significant adjustments: the number of employees economy-wide declined by almost 360,000 employees in 2010 and by 170,000 in 2011 H1 on account of lay-offs in both budgetary and private sectors, whereas the net wage decreased by 4 percent in real terms in 2010 and 6 percent in 2011 H1, thus contributing to the favourable adjustment of unit labour costs in terms of external competitiveness. The job supply further contracted in 2010, albeit at a significantly slower pace, while 2011 Q1 saw a trend reversal, as the supply increased to approximately 27,700 jobs at end-H1, according to NIS. Labour developments were similar to those reported in EU-10.

Economic adjustment during 2009-2010 was also reflected by investment dynamics, whose share in GDP (in current prices) shrank to 22.7 percent in 2010 from 26.2 percent in the previous year. Looking ahead, investment is expected to resume, as its share in GDP is anticipated to widen to roughly 23 percent in 2011, according to the 2011 spring forecast of the NCP. The recovery is expected to gain in quality as well, since the central government envisages more efficient budgetary allocations for investment, by making a list of priority public investment projects.

4.1.2. Public sector

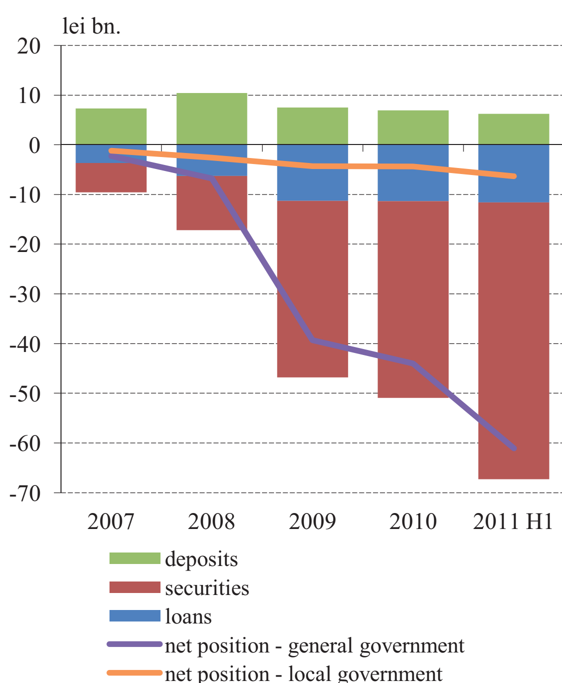
Fiscal consolidation – the centrepiece of reform programmes and one of the major requirements in shaping investors' perception of sovereign risk – carried on. In 2010, the fiscal deficit narrowed to 6.5 percent of GDP (according to national methodology, or 6.4 percent of GDP according to ESA95 methodology). In 2011 H1, the fiscal deficit came in at 2.1 percent of GDP (below the ceiling set in the financing arrangement[81]), with the year-end target being 4.4 percent of GDP (according to national methodology, or below 5 percent of GDP according to ESA95 methodology). The structural fiscal deficit fell from 8.3 percent of GDP in 2009 to 5.2 percent of GDP in 2010, according to the European Commission, and the forecast points to further favourable developments (3.3 percent and 2.8 percent for 2011 and 2012 respectively). In 2010, public debt rose to 30.8 percent of GDP, remaining among the lowest in the EU (see also Chart 2.3. in Chapter 2 – *International economic and financial environment*). In 2011, public debt is expected to stay below 40 percent of GDP, while government debt service will rise to 11.2 percent of GDP, according to the Ministry of Public Finance.

The focal point of economic reforms in 2011 is to continue to implement structural reforms and fiscal consolidation measures, also in terms of stronger payment discipline in the economy by reducing arrears and improving the financial position of state-owned enterprises in distress. Nevertheless, certain challenges may hinder this process. First, there is a risk that these reforms may be implemented with some delay, especially next year, in the run-up to the elections. Second, the structure of public debt financing has certain vulnerabilities: short-term public debt accounts for a high share in GDP, i.e. 11 percent in 2010, which ranks among the highest readings in the EU, 0.9 percentage points above the 2009 figure, and non-residents' contribution to financing debt is growing, remaining nevertheless significantly lower than non-residents' share in the debt of Poland, Hungary or the

[81] IMF, *Country Report,* No. 11/158, June 2011.

Czech Republic. The share of public debt financing from external markets rose to roughly 40 percent in 2010 from 35 percent in the previous year[82]. This trend is also manifest on the domestic market of government securities, since the share of non-residents' holdings increased to 18 percent in June 2011 from approximately 7 percent in December 2009. In May 2011, domestic banks accounted for around one third of public debt financing, which is comparable to the 2009-2010 level, but double the 2008 reading.

Chart 4.2. Developments in the net position of general government[83] vis-á-vis the banking sector



Source: NBR

Third, the risk of medium-term crowding-out of the private sector – given the authorities' significant financing needs – should be avoided. This risk is relatively low in the short run. The net debtor position of the public sector vis-à-vis the banking sector has deteriorated in the past years, to more than lei 60 billion in June 2011 (Chart 4.2.), but its dynamics started to decelerate as of mid-2010, alongside the increase in the private sector loan demand[84].

Fourth, the looser financial discipline of the local government is another challenge to the ongoing structural reforms and fiscal consolidation measures, entailing negative consequences on the economy and the banking sector. The local government is accountable for more than 87 percent of public sector debts overdue for more than 90 days to non-financial corporations. Banks granted nearly lei 6.4 billion worth of loans to the local government (about 3 percent of the loan stock in June 2011). Pursuant to the recent legislative changes, some of these local authorities may fall into the category of entities in financial distress or insolvency[85]. The direct risk stemming from the local government to banks is further low (the non-performing loan ratio[86] was 0.3 percent in June 2011 and the value of restructured loans stood at a low level, i.e. below lei 10 million in September 2010).

Deficit-to-GDP and debt-to-GDP ratios of the local government remain relatively subdued, similarly to other countries in the region (Chart 4.3.). The two indicators stood at 0.1 percent and 2.3 percent respectively in December 2010, whereas 2011 H1 witnessed a local budget surplus of 0.3 percent of GDP. The Romanian local government received mainly short- and medium-term financing and

[82] IMF, *Country Report,* No. 11/158, June 2011.

[83] The general government includes the central government, the local government and social security funds.

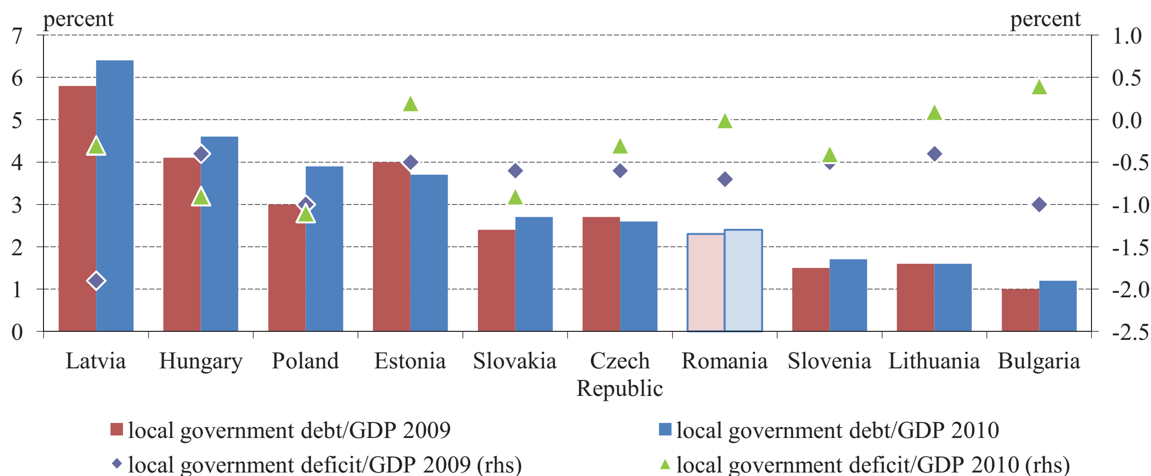
[84] For details, see Section 4.2. – *Corporate and household financial indebtedness*.

[85] According to Law No. 273/2006 on local public finances, as subsequently amended, the local government is hit by financial crisis (insolvency respectively) if it meets one of the following criteria: (i) failure to pay outstanding liabilities liquid and older than 90 days (120 days respectively) and exceeding 15 percent (50 percent respectively) of the annual budget (except those in dispute), and (ii) failure to pay wages and similar income under the budget of revenues and expenditure for a period over 90 days (120 days respectively) from due date.

[86] The non-performing loan ratio is the share of loans granted to local government overdue for more than 90 days (with local authority contamination) in total loans to local government.

the local government debt with maturity between 1 and 5 years tripled in 2010, to lei 7.5 billion; the share held by this maturity rose to 65 percent from around 30 percent in 2009.

Chart 4.3. EU-10 local government debt and local government budget deficits



Source: Eurostat

4.2. Corporate and household financial indebtedness

Demand for and supply of loans equally contributed to disintermediation, which carried on in 2010 and 2011 H1. Indebtedness in foreign currency is further both a stock and, to a lower extent in the reference period, a flow issue, requiring ongoing efforts to achieve a more balanced currency breakdown of new loans. The cost of foreign currency lending should cover all risks and the provisioning and capitalisation levels should remain adequate after the implementation of IFRS as well, with a view to preventing and absorbing the impact of potential unfavourable developments at international level. The externalisation and the redemption of loans granted to companies and households further posted high levels, widening the gap between indebtedness in the balance sheets of banks and that in the balance sheets of domestic debtors in terms of volume and structure. The negative consequences on credit supply implied by the risk of withdrawal of external financing becoming manifest have diminished thanks to higher solvency ratios and liquid asset holdings. The structure of the financing of the economy has improved, as the tradables sector came into focus, contributing to the favourable change in the economic growth pattern.

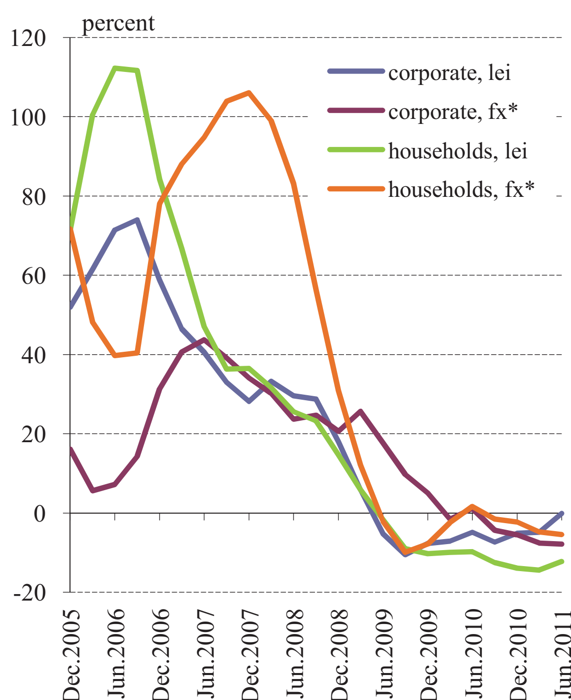
Disintermediation, which began during 2009, carried on in 2010 and 2011 H1, similarly to the developments seen in most of the countries in the region. The real growth rates of indebtedness stood largely in negative territory (Chart 4.4.). Total corporate and household indebtedness to banks and NBFIs (resident and foreign, including externalised loans) decreased during December 2009 – June 2011 by 7 percent in real terms, accounting for 57.8 percent of GDP[87] at mid-2011 (Chart 4.5.).

The creditors' exposure to the domestic real sector during December 2009 – June 2011 declined at a moderate pace in the case of foreign creditors and resident banks (by 8.3 percent and 3.2 percent

[87] The 2011 GDP forecast of the National Commission for Prognosis (the 2011 spring forecast) was used for total debt-to-GDP ratio in June 2011.

respectively; real changes)[88] and at a fast rate in the case of NBFIs (by 28.8 percent in real terms). Domestic banks strengthened their position in the ranking of real sector creditors (up to 67.3 percent of total lending in June 2011), to the detriment of resident NBFIs, whose contribution to lending to companies and households reached 7.5 percent.

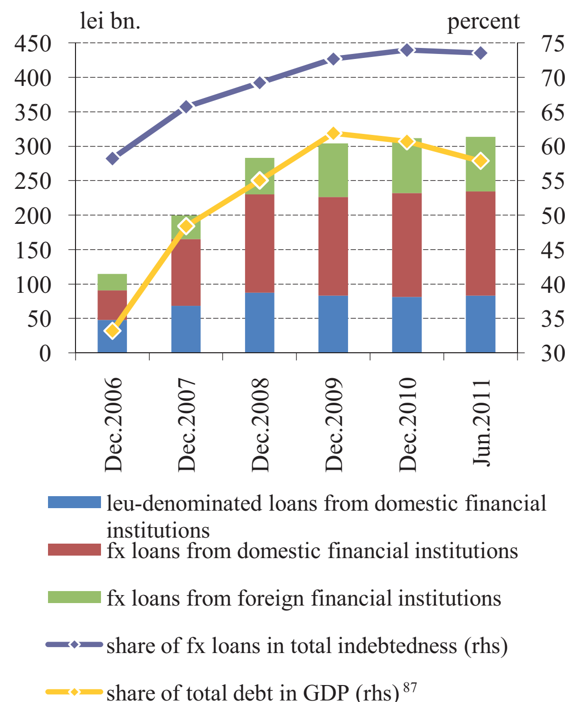
Chart 4.4. Real growth rate of total corporate and household indebtedness



* series adjusted for exchange rate movements

Source: NBR, NIS, NBR calculations

Chart 4.5. Developments in total corporate and household indebtedness



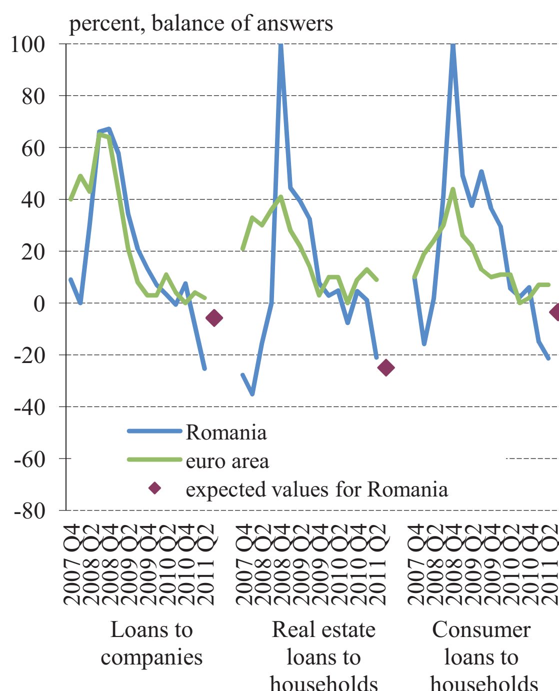
Source: NBR, NCP, NIS, NBR calculations

Demand for and supply of loans equally contributed to disintermediation. In 2010, the lending policy of domestic banks witnessed no significant changes versus 2009, being further highly restrictive, following the pro-cyclical tightening of lending standards and terms in the preceding years (Chart 4.6.). This development was similar to the euro area trends. The explanation for banks' ongoing increased prudence lies with: (i) the larger share of non-performing loans in total loan portfolio, (ii) the uncertainties surrounding the overall economic conditions, (iii) the negative outlook on households' financial standing, and (iv) the unfavourable expectations on real estate developments. Lending terms saw mixed developments. On the one hand, banks reduced lending costs by diminishing the average interest rate margin over 1M ROBOR and cutting other costs. Nevertheless, on the other hand, they required additional collateral and established a lower loan to value ratio (LTV). Moreover, banks also increased the risk premium for companies. 2011 H1 witnessed some signs of lending standards easing for both debtor types (non-financial corporations and households), as banks that took such measures gave the following reasons: (i) positive expectations on the general economic situation, (ii) lower risks associated with either the industrial sub-sector in which the respective company operates or households' creditworthiness, as well as (iii) increased competition in the banking sector.

[88] In nominal terms, foreign creditors' exposure (lei equivalent) rose from lei 77.7 billion in 2009 to lei 79.0 billion in June 2011, whereas domestic banks' exposure increased from lei 196.4 billion to lei 210.9 billion in the same period.

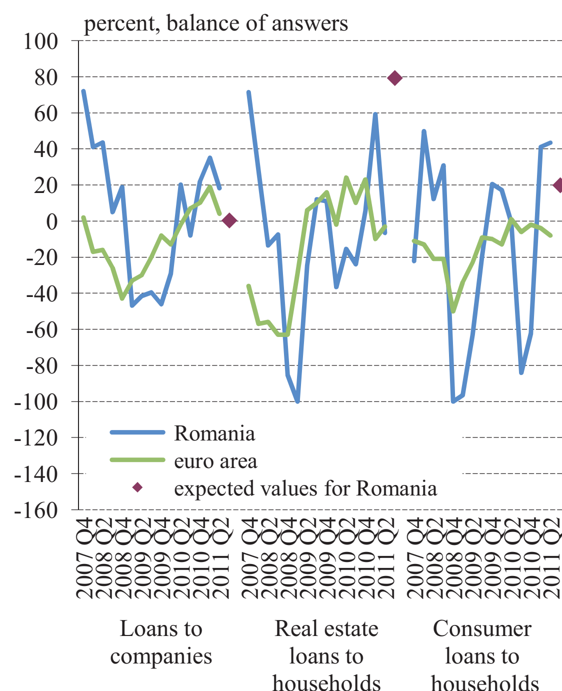
In 2010, the demand for loans saw mixed developments, rising slightly in the case of companies, while decreasing further in the case of households, especially for consumer loans (Chart 4.7.). The number of database queries made by banks with the Central Credit Register operated by the NBR with respect to potential debtors, both natural and legal entities, lost 18 percent versus 2009, reaching a level similar to that of 2004. In 2011 H1, banks reported a certain recovery in loan demand for all debtor types.

Chart 4.6. Developments in lending standards



Note: Positive readings in the balance show a tightening of lending standards.

Chart 4.7. Developments in loan demand



Note: Positive readings in the balance show an increase in loan demand.

Source: NBR – Bank Lending Survey, May 2011
ECB – The Euro Area Bank Lending Survey, April 2011

The rising demand for loans (which began as early as mid-2010 in the case of companies), against the backdrop of ongoing disintermediation, brings into discussion the medium-term risk of crowding-out the private sector. Banks increased their exposure to the government sector, taking the share of such loans (including marketable securities) in domestic credit to 23.9 percent in June 2011 against 19 percent at end-2009. The explanations for this behaviour lie with: (i) the high borrowing requirements of public authorities, (ii) the uncertainties surrounding the short-term economic outlook in the private sector, (iii) the weak demand for loans from the private sector, and (iv) the commitments assumed under the European Bank Coordination Initiative to maintain group exposures to Romania. Nonetheless, preventing the crowding-out of the private sector is necessary in order to strengthen the latter's contribution to the resumption of economic growth, given the need to continue the fiscal consolidation programme.

The externalisation and the redemption of loans mask, to a certain extent, the information on the quality and the volume of corporate and household indebtedness as shown in banks' balance sheets[89]. In 2010, many credit institutions redeemed the high-quality portfolios they had externalised in the preceding years and sold non-performing loans with a view to improving portfolio quality and releasing provisions. Nearly 70 percent of the portfolios redeemed in 2010 come from parent banks and are high-quality portfolios (classified as standard portfolios). Non-performing loans accounted for around 70 percent of total loan portfolios sold in 2010. The average discount for these transactions was approximately 60 percent (higher for loans to households, i.e. around 75 percent, and lower for loans to companies, i.e. about 40 percent)[90]. These developments show that the loss given default (LGD)[91] of non-performing loan portfolios during the crisis calls for prudence in bank management so as to ensure adequate risk coverage.

Non-performing loans were relatively evenly transferred to intra-group entities of the transferring bank and outside the group, to debt-collecting businesses. It is worth mentioning that certain banks set up entities (different from debt-collecting ones) whose main shareholder they are and to which they transferred non-performing loans. Such actions accounted for around 75 percent of intra-group non-performing loan transfers in 2010. These transactions most likely target non-performing mortgage-backed loans in particular, aiming at turning the collateral to account once conditions on the real estate market improve. In the event of this scenario failing to materialise, the entity having the bank as main shareholder shall incur the loss.

Starting 2012, the externalisation and the redemption of loans may trigger additional challenges. Once the IFRS have been implemented in Romania, there is a risk that low-quality loan portfolios previously externalised to countries with a less restrictive provisioning policy may return to the balance sheets of domestic banks. This would worsen the quality of these banks' portfolios, all the more so that provisioning would no longer be possible at the same level as when using Romanian accounting standards. The NBR's proposals for prudential filters aimed at maintaining prudential indicators at adequate levels would significantly mitigate some of the arbitraging risks of provisioning regimes.

The structural vulnerabilities of corporate and household indebtedness witnessed mixed developments:

A. Indebtedness in foreign currency has remained both a stock and, to a lower extent, a flow issue and the corresponding credit risk is increasing. The foreign currency loan stock (of domestic banks and NBFIs and external creditors) rose slightly, from 72.7 percent to 73.5 percent in total corporate and household financial debt during December 2009-June 2011 (Chart 4.5.)[92]. The breakdown of indebtedness to domestic entities (Chart 4.8.) shows that mortgage-backed consumer loans and real estate loans hold the largest share in the case of households, i.e. over 90 percent each in June 2011, whereas in that of companies foreign currency loans account for the prevailing share in the real estate sector (89 percent), services and manufacturing (around 77 percent and 72 percent respectively at end-June 2011). The composition of corporate indebtedness to domestic banks and NBFIs by

[89] In 2010, the volume of externalised loans equalled lei 4.3 billion, whereas that of redeemed loans amounted to lei 3.8 billion. In 2011 H1, the former ran at lei 1.2 billion, while the latter stood at lei 1.0 billion. Caution is warranted in taking these figures into consideration, since some banks reported the nominal value of sold or redeemed portfolios, while others reported the discount value.

[90] According to an NBR survey among credit institutions that reported selling or buying loan portfolios in 2010.

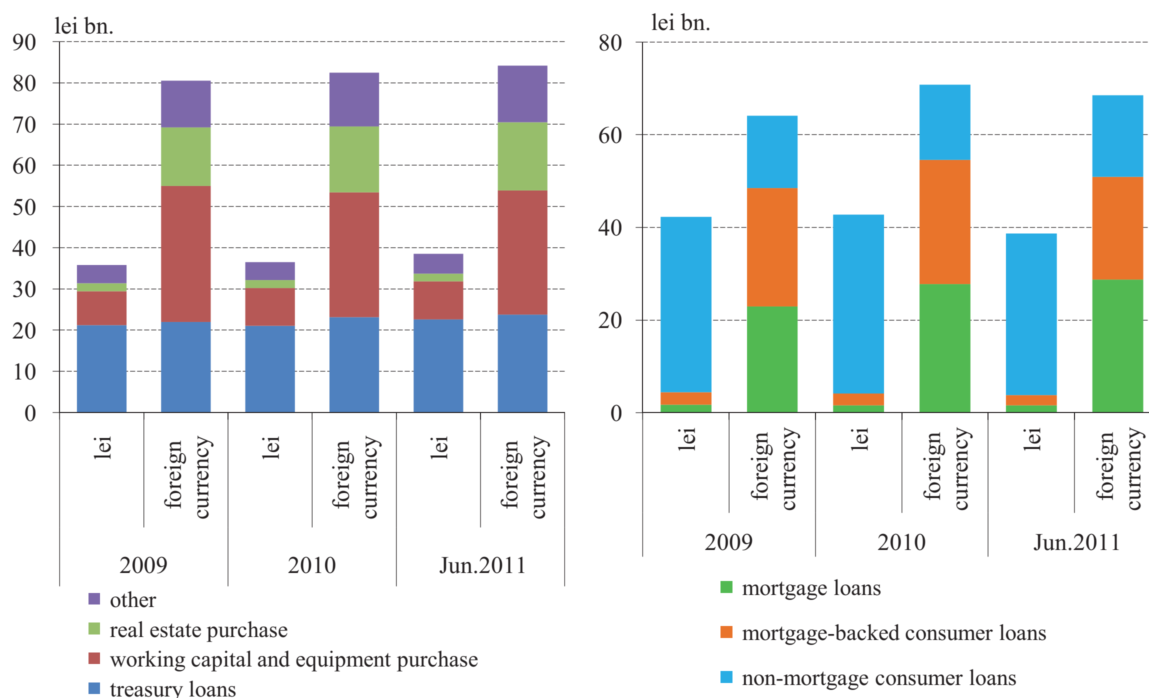
[91] Computed as a ratio of the loss on an exposure due to counterparty default to the amount exposed to risk at the time of repayment.

[92] Forex loans accounted for 62.9 percent of domestic banks' balance sheets in June 2011.

destination in June 2011 resembled that of 2009. Most of the loans targeted (i) treasury needs and (ii) working capital and equipment purchase, accounting for approximately 38 percent and 32 percent respectively of loans granted to companies at mid-2011 (Chart 4.8.). In 2010, nearly 90 percent of the companies that applied for foreign currency loans from banks and NBFIs did not perform any export activities, the degree of currency risk coverage being lower.

Chart 4.8. Breakdown of loans granted by domestic banks and NBFIs by destination and currency

a) non-financial corporations **b) households**



Source: CCR, NBR calculations

Source: Monetary Balance Sheet, NBFI balance sheet, CCR, Credit Bureau

The period after which the stock of forex loans granted to households would dry up in the absence of additional measures aimed at containing foreign currency lending is either further long or has widened. In June 2011, the average maturity of the foreign currency loan stock reached 9 years for non-mortgage consumer loans and almost 22 years for mortgage-backed loans (Chart 4.9.). In 2010 and 2011 H1, the foreign currency loan flow was significant for mortgage-backed consumer loans and for real estate loans, accounting for approximately 95 percent of the volume of new loans granted during this period[93].

In terms of credit risk, foreign currency loans have become riskier than leu-denominated ones as: (i) the non-performing loan ratio for all types of foreign currency loans granted to households is higher than or close to that for leu-denominated loans[94], (ii) the growth rate of non-performing corporate loans in foreign currency in terms of volume is higher than that of leu-denominated loans (up 185 percent versus about 91 percent in the period December 2009 – June 2011), and (iii) banks restructured mainly foreign currency loans[95]. Despite the increasing risk, the interest rate margin on new EUR-denominated loans to both companies and households followed a slightly downward

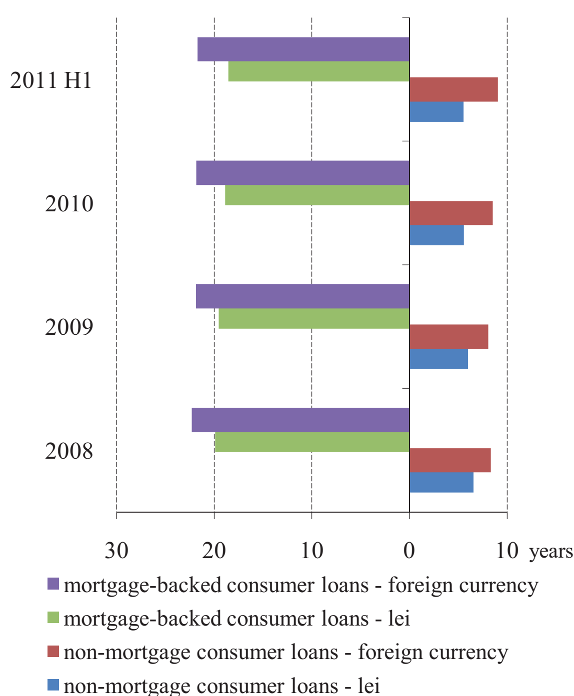
[93] In the case of non-financial corporations, the situation was balanced, as new EUR-denominated loans accounted for approximately half of the total loan flow in 2010 and 2011 H1. The slowdown in the growth rate of foreign currency loans in real terms (Chart 4.4.) was the result of the new business volume running lower than forex loans maturing in 2010.

[94] See Section 5.2. – *Risks generated by households*.

[95] See the Box on loan restructuring in Section 5.2. – *Risks generated by households*.

path (Chart 4.10.), most likely due to lower external refinancing costs, as the risk perception towards Romania improved. In August 2011, the CDS spread for Romania was of about 300 basis points, similar to other countries in the region. A lower interest rate margin on new EUR-denominated loans – given the increasing risks – may, however, also highlight the fact that the lending costs set by certain banks failed to take into consideration all the risks stemming from foreign currency lending.

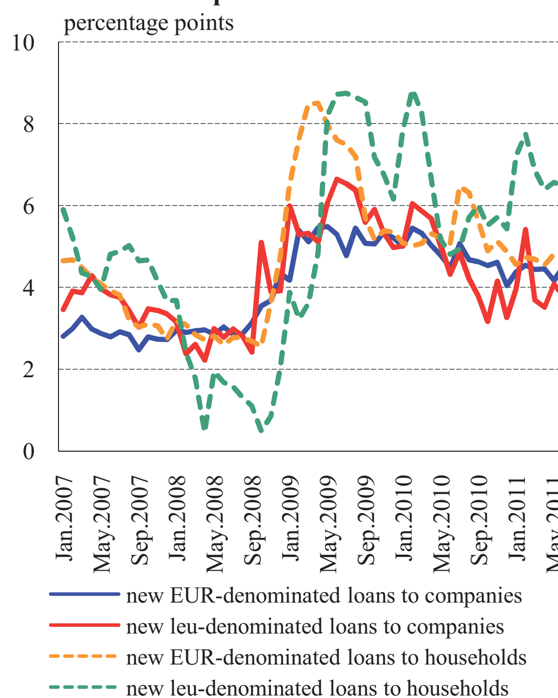
Chart 4.9. Average (residual) maturity of loans to households



Note: Average maturity was computed by weighting maturities to loan amount.

Source: CCR, Credit Bureau, NBR calculations

Chart 4.10. Interest rate margin on new loans to companies and households



Note: The margin was computed as the difference between the interest rate on new loans and 3M ROBOR and 3M EURIBOR respectively.

Source: Bloomberg, NBR calculations

Together with the NBR's proposals for prudential filters aimed at keeping prudential indicators at a proper level following the implementation of the IFRS as well, a prudent management of banks holding a significant foreign currency loan portfolio will most likely ensure the maintenance of adequate capitalisation and provisioning levels. Certain risks stemming from foreign currency lending may not have been assessed entirely and reflected properly in the prices of banks' financial products. The concentration risk (associated with the negative impact of unfavourable exchange rate movements on the whole group of unhedged borrowers), the refinancing risk and, possibly, the risk of a higher country risk premium need to be accurately assessed. Last but not least, the extremely nonlinear relation between credit and market risks in the case of foreign currency lending calls for increased caution, which should lead to higher provisioning and capital levels, in the NBR's opinion.

The National Bank of Romania has implemented, over time, a broad range of prudential, monetary policy and administrative measures (Box 3) with a view to mitigating the risks to price and financial stability entailed by the fast growth rate of foreign currency lending. These measures proved to have limited efficiency in time, similarly to other countries, also due to full capital liberalisation, since such measures were taken in a host economy and targeted domestic debtors and local banks. Under the circumstances, a unitary approach at European (possibly even international) level is necessary, as the measures taken at domestic level should be supplemented by improved risk assessment and

management, namely commitments assumed by parent banks, as well as an enhanced and more efficient cooperation between regulatory and supervisory authorities in host and home countries. The European Systemic Risk Board has become operational in 2011 and may set the stage for such an approach.

Box 3. Key measures that the National Bank of Romania initiated to curb the fast foreign currency-denominated lending growth in 2001-2010

- October 2001 – to date: the foreign exchange daily position was limited to: (i) at most 10 percent of the bank's own funds for any of the adjusted foreign exchange positions of a bank and (ii) at most 20 percent of the bank's own funds for the overall foreign exchange position.
- November 2002 – to date: a higher reserve requirement ratio for foreign currency-denominated liabilities than for leu-denominated ones.
- February 2004 – March 2007: a maximum indebtedness level of 30 percent for consumer loans, 35 percent for mortgage loans and 40 percent for total indebtedness (these measures addressed the fast-paced growth in lending as a whole and were extended so as to cover NBFIs as well starting 2006).
- September 2005 – December 2006: overall exposure limits for credit institutions (Romanian legal entities) for foreign currency-denominated loans to households and companies equal to at most 300 percent of their own funds (after deducting credit risk provisions).
- September 2005 – April 2009: credit institutions may include the borrowers who do not earn steady income in the currency in which their loan is denominated in the 'B' financial performance category at most.
- February 2008 – to date: differentiated provisioning coefficients for loans in foreign currency or linked to another currency's exchange rate granted to unhedged borrowers.
- August 2008 – to date: taking into account the interest rate risk and the currency risk when setting the maximum indebtedness level (with significantly higher coefficients in case of USD- and CHF-denominated loans).
- 2006 – to date: the measures on containing foreign currency-denominated loans were extended so as to cover NBFIs as well.
- 2008 – to date: strong recommendations on capital increases for those credit institutions with overly high exposures to foreign exchange lending; moral suasion.

The National Bank of Romania will further monitor foreign currency lending closely and take the necessary steps so that the risks related to unhedged borrowers are properly covered and accurately reflected in the costs and prices of financial services. At the same time, it will seek to bring into balance new leu- and foreign currency-denominated loans, once the growth of loans to the private sector resumes as expected, so that forex loans and especially those to unhedged borrowers do not account for the largest share of the financing flow, in line with European standards in the field.

B. The negative consequences on loan supply, assuming that banks' foreign liabilities are no longer rolled over, have diminished since the release of the previous Report. To this contributed the adequate solvency ratio and increased holdings of liquid assets (see Chapter 2 – *International economic and financial environment* for details). Moreover, the loan to deposit ratio for the non-government sector improved from 137 percent at the outbreak of the crisis in October 2008 to 123 percent in June 2011. The breakdown by currency shows mixed developments: the loan/deposit ratio for the domestic currency improved, dropping from 78 percent in December 2009 to 70 percent in June 2011, whereas that for foreign currency deteriorated from 184 percent to 223 percent over the same period due to the faster growth of loans than of deposits. Consequently, granting domestic currency loans to the detriment of those in foreign currency is also justified from a prudential perspective, i.e. in terms of the available volume of financing resources.

C. The financing structure of the economy has improved, exerting a favourable impact on changing Romania's economic growth pattern. Companies in the tradables sectors benefited from a larger volume of loans than those in the non-tradables sectors (10.1 percent versus 3.1 percent during December 2009 – June 2011). In June 2011, companies in the non-tradables sector accounted for two thirds of total loans and consequently are likely to further hold the largest share in banks' medium-term loan portfolio. High value added businesses, i.e. medium high-tech and high-tech, were granted larger volumes of loans than those manufacturing lower value added goods, namely low-tech and medium low-tech – 41.1 percent rise versus 2.4 percent decline over the same period. Last but not least, knowledge-intensive business services received a larger volume of loans (up 7.4 percent) than their less knowledge-intensive correspondents (up 0.1 percent) during the same interval. These favourable developments were not broadly based across the above-mentioned sectors, but were the result of decisions taken by a relatively small number of companies. The strengthening of such favourable trends would imply extending loans to a greater number of businesses operating in the industries that benefited from increasing lending during December 2009 – June 2011.

D. Companies' access to financing is still low, whereas the number of individual borrowers from banks or NBFIs remains high, albeit slightly decreasing, i.e. approximately 4.2 million people, accounting for almost 43 percent of the active labour force in June 2011. The high degree of household indebtedness, on the one hand, and rising corporate borrowing requirements, on the other hand, underpin a shift in the business model of banks in Romania so as to ensure an increased focus on non-financial corporations in the private sector, in general, and SMEs, in particular, including by developing business relations spanning longer horizons and building corporate customer loyalty. Banks should be actively involved in identifying the business sectors with a sustainable development potential, while equally considering the destinations of the European funds made available to entrepreneurs and possibly even providing advisory input for accessing such funds.

Although constrained by the difficulties inherent to changing a business pattern focusing on the supply of standardised financial products via large territorial networks, corporate lending seems poised to resume following the disintermediation manifest during the crisis. The number of companies that were granted domestic or foreign loans by financial institutions (banks and NBFIs) declined by 17.4 percent during December 2010 – June 2011 to reach approximately 116,000, accounting for 19.4 percent of companies operating[96] in Romania. Only 13.3 percent of active companies resorted to loans from domestic banks (June 2011). The degree of loan concentration increased, as the debts of about 88,000 companies decreased, on average, by 53 percent, while 33,000 firms reported a 141 percent rise in debt, on average, in December 2009 – June 2011.

4.3. External balance

The risks to Romania's external position were further at manageable levels in 2010, with similar prospects for 2011. The current account deficit remained at a moderate and sustainable level (4.1 percent of GDP in 2010, marginally lower than in 2009 and clearly below 11.6 percent at end-2008), while the structural issues of the trade balance saw mixed developments. Under the circumstances, the ongoing implementation of a set of fiscal and income policies that should strengthen the external balance is further warranted. The favourable effects from net exporting companies on economic recovery and lending revival will materialise especially via the indirect channel associated with the supply chain exporters are part of. Romania's debt servicing capacity remains high and the new precautionary financing arrangement with the EU, the IMF and the World Bank will reinforce it both directly, by providing the necessary financing if various adverse scenarios materialise, and indirectly, by strengthening the already-achieved

[96] Companies that submitted their financial reports to the Ministry of Public Finance.

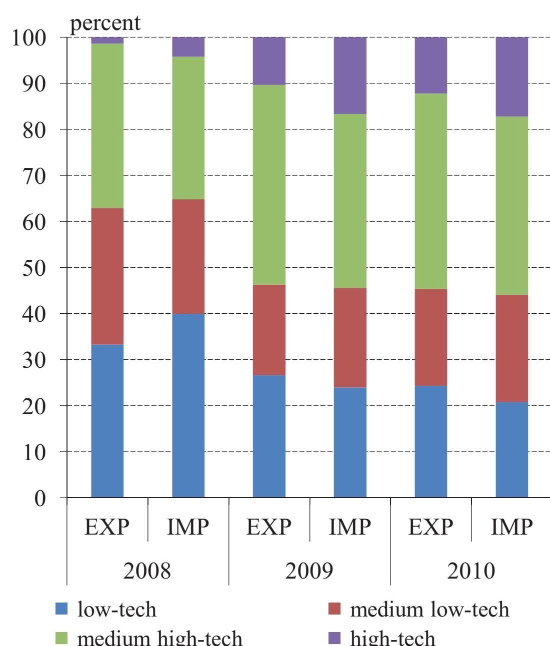
economic performance and by continuing structural reforms meant to boost the economic growth potential. This will have a positive impact on confidence in the economy, as well as on sovereign risk perception and access to private financial markets worldwide. Capital flows underwent a favourable structural change, focusing mainly on the tradables sectors in 2010, thereby supporting the shift in Romania's economic growth pattern.

4.3.1. Current account deficit

The current account deficit – one of Romania's main vulnerabilities at the time the crisis broke out – remained at a moderate and sustainable level (4.1 percent of GDP) in 2010, in line with the expectations in the previous *Report*. The forecasts point to a slight increase in the deficit, without however exceeding 5 percent of GDP during 2011-2012. Furthering fiscal consolidation and matching pay rises with productivity gains remain essential for preserving the sustainability of the current account deficit. The National Bank of Romania's recent intentions to implement additional measures in order to deter foreign currency consumer lending will contribute, in turn, to a relative decline in the demand for imported consumer goods.

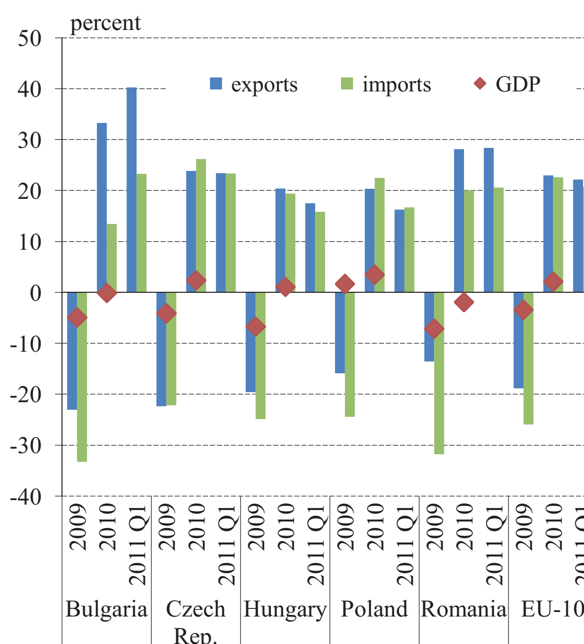
The structural issues of the trade balance saw mixed developments. The import content of exports edged slightly higher, as the share of imports in net exporting companies' exports increased to 44 percent in 2010 and 2011 Q1 from 42 percent in 2009. Export-only companies failed to strengthen their position in the foreign trade activity, accounting for only approximately 4 percent of total exports. On the other hand, the share of exports of low value added goods fell from 26.6 percent in 2009 to 22.6 percent in 2011 Q1. High tech products posted the fastest dynamics, i.e. an annual growth above 50 percent in 2010 and 2011 Q1, holding 12 percent in exports[97] (Chart 4.11.). Nevertheless, the concentration degree of this type of exports is high, a single company generating almost half of the total figure.

Chart 4.11. Exports and imports by added value



Source: NIS, NBR calculations

Chart 4.12. Dynamics of exports, imports and GDP in EU-10 emerging economies



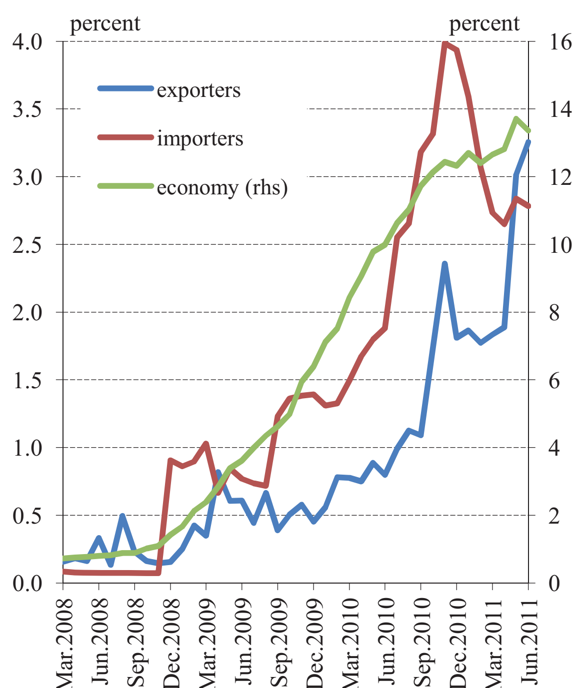
Source: Eurostat, NBR calculations

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

The breakdown analysis of the current account reveals mixed developments. The trade deficit further narrowed from EUR 6.9 billion in 2009 to EUR 5.9 billion in 2010 and EUR 2.5 billion in 2011 H1, the main trigger being the substantial dynamics of exports of goods (28.2 percent annual growth in both 2010 and 2011 H1). The increase occurred on the back of the relatively low volatility of the exchange rate[98], which was consistent with the economic fundamentals, according to the assessments of the IMF and of key institutional investors. On the other hand, the significant hike in imports by approximately 20 percent in both 2010 and 2011 H1 – amid the ongoing economic decline (in 2010) or the slight recovery (in 2011 H1) – raises concerns about the possibly faster dynamics of imports once economic growth resumes at a more sustained pace, with unfavourable consequences on the external balance. The dampening of households' expectations on the future developments in disposable income and their high indebtedness will most likely lead to imports growing at a slower pace than before the crisis. However, a prudent stance is further warranted in terms of both fiscal and income policies. Current transfers, which have a considerable contribution to net receipts in the balance of payments, dropped 17.7 percent in 2010 due to the recession and rising unemployment in the originating countries, but witnessed a significant recovery in 2011 H1 (up 63.2 percent in 2011 H1 versus 2010 H1). The services balance further posted a deficit of EUR 0.64 billion in 2010 and EUR 0.5 billion in 2011 H1, marking one of the exceptions recorded in EU-10[99]. The services balance in Romania has the potential to contribute to a narrowing of the current account deficit.

Romania's exports of goods have recently outperformed the EU-10 average (Chart 4.12.). Thus, in 2009 they reported the lowest drop among the EU-10 countries (13.8 percent, 5 percentage points below the region's average). In 2010 and 2011 H1, their growth rates were around 5 and 6 percentage points respectively higher than the EU-10 average, i.e. 28.2 percent in each of the above-mentioned periods. Nevertheless, the geographical spread of exports is a medium-term challenge. Romania's exports to euro area countries account for approximately 55 percent, against the backdrop of the euro zone's lower growth potential than the rest of the world over the medium and long term.

Chart 4.13. Developments in the non-performing loan ratio of external trade companies



Source: NBR, NBR calculations

The favourable effects from net exporting companies on economic recovery or lending revival will materialise especially via the indirect channel, through the supply chain they are part of. The relatively low contribution of net exporting companies[100] to both the economy (13.7 percent of GVA reported by non-financial corporations in 2010) and the domestic banking sector (7.6 percent of total corporate loans in June 2010) renders the pass-through of effects via the direct channel more difficult. Greater

[98] In fact, the real effective exchange rate witnessed a similar development in 2010.

[99] Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovenia, Slovakia and Hungary.

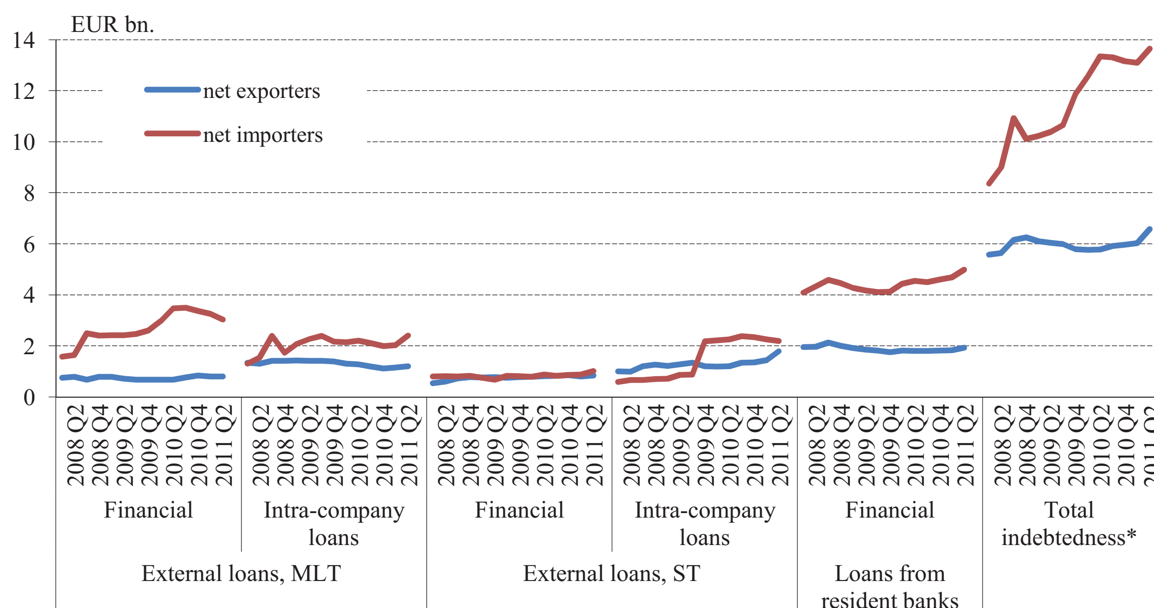
[100] Only the companies whose exports or imports exceeded EUR 100,000 each quarter were taken into account. The same criterion was used to identify net importing companies.

recourse to local resources within the supply chains comprising exporting companies would relatively dampen the dependence of exports on imports as well.

External trade companies service their debt to the Romanian banking sector adequately. The non-performing loan ratio of net exporting companies was 3.3 percent in June 2011, whereas that of net importing businesses ran at 2.8 percent versus 13.4 percent economy-wide (Chart 4.13.). Their financial structure and stronger economic performance compared to the rest of the economy explain the better capacity to service debt to banks: profitability is higher and, in most cases, on the rise, capitalisation is higher and indebtedness is low.

This latter feature and the subdued recourse of external trade companies to funding by the domestic banking sector – foreign loans account for approximately 64 percent of total borrowings – bring into discussion two opportunities. In the short run, these businesses may contribute, to a certain extent, to domestic lending revival and in the medium term to the implementation of a new banking business model in Romania, which increasingly focuses on lending to non-financial corporations.

Chart 4.14. Debt of external trade companies



* Does not include indebtedness to domestic NBFIs, for which information is available starting December 2009.

Source: NBR, NBR calculations

There will most likely be further room for growth of loans to external trade companies in 2011 as well. At end-2010, the leverage ratio (debt/equity) was below the empirical level of 2 and the decisions taken by businesses in this category acted towards a rise in total financial debt during 2010 (Chart 4.14.). In the case of net importing companies, this latter indicator[101] saw an increase of EUR 1.65 billion during December 2009 – June 2011 to reach EUR 14 billion by supplementing long- and short-term foreign loans (by 16 percent and 26 percent respectively) and domestic loans (by 21.3 percent). The rise in net exporting companies' total financial debt was of a lower magnitude, from EUR 5.9 billion to EUR 6.7 billion during December 2009 – June 2011.

[101] Includes debt to financial institutions (resident and non-resident banks and NBFIs) and to parent companies (intra-group loans).

4.3.2. Capital flows

The structural vulnerabilities from capital flows, namely their short-term volatility, the pro-cyclical nature and favouring non-tradables sectors, eased to a certain extent. The strong pro-cyclical nature of capital flows in recent years has impacted significantly upon the financing of the real economy and hindered monetary policy conduct. The authorities offset the considerable withdrawal of net short-term interest-bearing flows in 2009 (net outflows worth EUR 8.8 billion) by signing a financing arrangement with the EU, the IMF and the World Bank. Net short-term capital inflows resumed in 2010 (EUR 2.3 billion net increase) and continued into 2011 H1 as well (EUR 2.8 billion worth of net inflows), as seen in Table 4.1. The improved perception of non-resident financial investors regarding the Romanian economy led to larger inflows of volatile capital, triggering a moderate nominal appreciation of the domestic currency against the euro. Nevertheless, the prospects of ongoing and higher volatile capital flows impose constraints on the dosage of monetary policy tools.

Table 4.1. Dynamics and breakdown of net capital flows[102]

EUR million

	2008	2009	2010	2011 H1
A. Net interest-bearing flows, of which:	12,920	4,391	7,479	5,609
– short-term flows	15	-8,798	2,268	2,771
– long-term flows	12,905	13,189	5,210	2,837
B. Net non-interest bearing flows	4,251	1,968	1,558	264
C. Official reserves of the central bank	38	-1,124	-3,487	-2,954
D. Total financial account (A+B+C)	17,209	5,235	5,549	2,919

Source: NBR, NBR calculations

The further tightening of monetary policy in developed countries will most likely not have a significant impact on the current direction of speculative flows. The volatile and pro-cyclical nature of such capital flows remains however an issue, given the fluctuations in international investors' risk aversion not only to Romania, but also at global level, particularly in emerging economies.

Over the last decade, before the crisis broke out, capital flows were directed especially towards areas with a low influence on export capacity, fostering economic development based on non-tradables sectors such as trade, real estate and construction. This was manifest across all CEE countries. The services, construction and utilities sectors accounted for approximately 80 percent of foreign direct investment (FDI) flows, on average, during 2007-2009 in the EU-10 countries[103]. In 2009, the FDI stock in the non-tradables sectors held 63 percent of total FDI in Romania. During 2009-2010, the capital flows to Romania witnessed structural changes, as they focused mainly on tradables sectors such as agriculture or industry, altering the composition of the foreign private capital stock. The share of the external debt stock of companies in the tradables sectors in total external debt increased from 36 percent in 2009 to 40 percent in June 2011 and that of the FDI stock in the tradables sectors in total FDI stock remained unchanged in 2009 versus 2008, i.e. 37 percent.

The favourable shift in Romania's economic growth pattern with a focus on the tradables sectors is closely linked to the quality and destination of foreign capital flows. Romanian companies

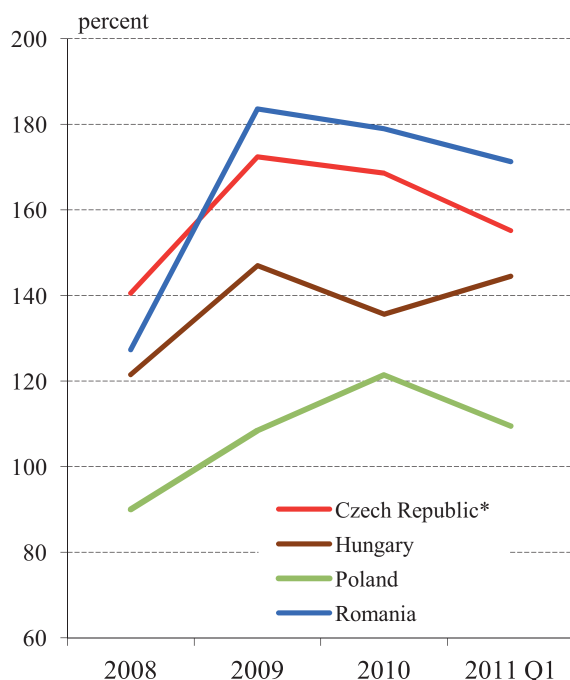
[102] Interest-bearing flows include: intra-group loans, bonds and money market tools, deposits, commercial loans, financial loans and other liabilities (repos and medium- and long-term deposits). Non-interest bearing flows comprise: equity and reinvested earnings (FDI), shares (the investment portfolio),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

[103] Except for Lithuania in 2009 (due to disinvestment, when FDI inflows were negative) and Slovakia in 2009 (no available data). Source: Eurostat.

operating in the tradables and non-tradables sectors that benefited from such resources have started to play a more important role in the economy and the domestic banking sector. The companies with external debt made an increasing contribution to gross value added, i.e. from 26.8 percent in 2009 to 28 percent in 2010, and domestic bank loans accounted for around 24 percent of total loans to non-financial corporations in June 2011. The non-performing loan ratio of such businesses is below the system-wide average (6.6 percent versus 13.4 percent in June 2011). The FDI companies made up 36 percent of gross value added of non-financial corporations in December 2010 and held 17 percent of loans granted by banks to domestic companies (June 2011), servicing debt more adequately than the rest of non-financial corporations (the non-performing loan ratio was 7.4 percent in June 2011).

The short-term external debt (STED), one of Romania's most important vulnerabilities at the time the crisis broke out, further saw its adverse potential on financial stability diminishing. Although its share in total external debt widened to 22 percent in 2011 H1 from 19 percent in 2009 and 20 percent in 2010, (i) STED was to a large extent rolled over (more than 80 percent of STED outstanding in June 2011 were accounted for by companies whose debt inflows exceeded the outflows); (ii) the annual growth rate of non-financial corporations' STED slowed down to 10 percent[104] in 2010 and 16 percent in 2011 H1 versus 2010 H1, against 19 percent in 2009; (iii) non-financial corporations' STED increase was attributed mainly to intra-group loans (60 percent); (iv) the foreign currency reserves ensure comfortable coverage of potential non-rollovers of the STED; the share of the central bank's foreign currency reserves in STED widened from nearly 130 percent at the onset of the crisis to over 160 percent in June 2011, running above the readings in the region (Chart 4.15.); (v) STED increase may be explained to a significant extent by the unfavourable exogenous developments (i.e. in international financial markets), as investors opted especially for short-term placements.

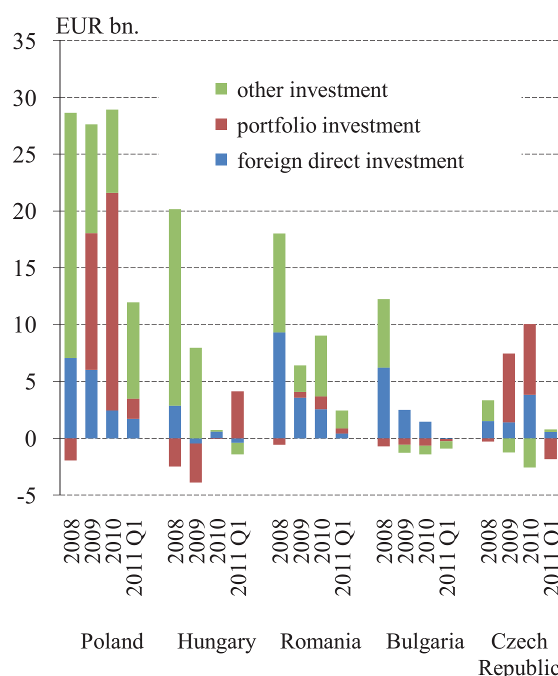
Chart 4.15. Share of foreign currency reserves in STED



* excluding intra-company loans

Source: central banks, Eurostat, NBR calculations

Chart 4.16. Net capital flows in CEE countries



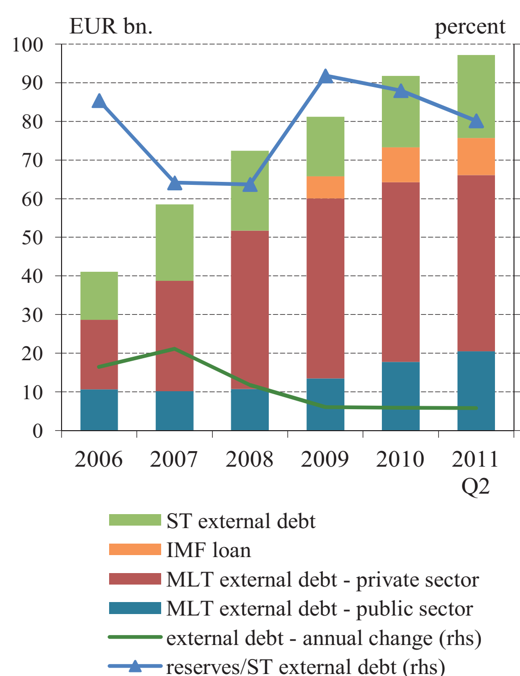
Source: Eurostat, NBR

[104] According to the microeconomic analysis.

Romania's external debt servicing capacity remains high. The central bank's foreign currency reserves rose to EUR 34.4 billion in June 2011, covering nearly 8 months of future imports of goods and services and 60 percent of external payment obligations (external debt service and financing the 2011 current account deficit). Increasing the degree of FDI coverage for the current account deficit is further a challenge, as it declined to almost 51 percent in 2010 and to 42 percent in 2011 H1 versus 72 percent in 2009. In 2010, net FDI inflows exceeded EUR 2.5 billion, down 28 percent from 2009, the flows recorded in 2010 accounting for around one fifth of this type of flows in the EU-10 countries (Chart 4.16.). In the first half of 2011, net FDI flows were similar in size to those reported in the same year-ago period, i.e. approximately EUR 1.1 billion. For 2011, the projections[105] point to a slight rebound in FDI (up to 2.9 percent of GDP from 2 percent in 2010), which is anticipated to cover two thirds of the current account deficit over the medium term (by 2015). The other types of private capital are expected to cover the remaining deficit.

The external debt stock widened to EUR 97 billion in June 2011. The increase was largely the result of the financing flows from the arrangement signed by the authorities with the EU, the IMF and other international financial institutions in 2009. The medium-term balance of loans granted by the IMF, excluding the amounts received by the Ministry of Public Finance, accounts for 10 percent of the external debt stock as at 30 June 2011 (Chart 4.17.). The total external debt stock of the private sector witnessed a marginal rise, i.e. 5 percent during December 2009 – June 2011.

Chart 4.17. Composition and dynamics of external debt



Source: NBR

The comfortable position of the balance of payments, in conjunction with the stabilisation of macroeconomic indicators, allowed Romania not to draw the last tranche worth approximately EUR 1 billion of the financing arrangement signed with the IMF in 2009. In March 2011, the Romanian authorities concluded a new financing arrangement with the EU, the IMF and the World Bank, worth EUR 5.4 billion, with a view to strengthening the already-achieved economic performance, furthering the structural reforms designed to boost the economic growth potential and covering the financing risks that may emerge in the event of an external adverse scenario materialising, which would cause capital inflows or exports to drop. In addition, Romania is expected to access financing amounting to around EUR 1.2 billion from the European Bank for Reconstruction and Development, the European Investment Bank and the investment division of the World Bank.

The capacity of the banking sector to withstand an external financing shock improved compared to the onset of the financial crisis in Romania (October 2008) thanks to the higher solvency ratio (14.2 percent in June 2011) and larger liquid asset holdings. The external debt stock of the banking sector increased at a moderate pace between early 2010 and June 2011, i.e. by approximately

[105] IMF, *Country Report,* No. 11/80, April 2011.

9 percent, to reach EUR 25 billion, accounting for 34 percent of total assets in June 2011. Loans with residual maturities of more than two years make up the largest part (around 51 percent in March 2011) of external loans[106], while those with residual maturities below six months further hold a large share (26 percent in total foreign loans). From a macro-prudential perspective, maintaining adequate liquidity and solvency levels is essential for an appropriate management of risks related to potential external liquidity shocks.

The capacity of non-financial corporations to cope with a scenario of withdrawing external capital flows has improved against October 2008 owing to cash flows in the core activity reverting to the end-2008 levels and to the moderate resumption of lending. Economic growth will magnify these effects, while mitigating the specified risk[107]. The importance to the real economy of the non-financial corporations that may be hit in the event of an external funding withdrawal shock ranks from average to high, depending on scenarios: (i) they account for 19 percent to 28 percent of total value added in their sector, (ii) they hire between 12 percent and 19 percent of real sector employees, and (iii) they hold between 21 percent and 28 percent of non-financial corporations' assets. Trade would be the hardest hit, accounting for more than 50 percent of the losses incurred in case adverse scenarios materialised, followed by manufacturing, with around 16 percent of losses. Non-financial corporations are relatively less likely to witness an external funding shock, as the STED was to a large extent rolled over and they further accessed external loans, albeit at a slow pace. Thus, the external debt stock – excluding intra-group loans – posted a 3.3 percent rise during December 2009 – June 2011.

[106] Include only the loans granted by financial institutions (accounting for 92 percent of total foreign loans).

[107] The considered shocks were the partial or total withdrawal of short-term loans (with a residual maturity of up to six months) and the results are based on the data in the balance sheet and the profit and loss account as of June 2010 (latest available). From that point on, the financial standing of most companies has most likely improved, so that the effects of potential external shocks in June 2011 may be weaker.

CHAPTER 5. COMPANIES AND HOUSEHOLDS

5.1. Risks generated by companies

The major vulnerabilities to financial stability generated by companies – debt-servicing capacity in relation to financial lenders and payment discipline between partners – persisted since the release of the previous *Report*, but with decreasing intensity. In 2011 there are prospects of improvement for both vulnerabilities. Although risks are expected to abate, the need to diminish the pro-cyclical nature of provisioning and to adequately cover all risks resulting from corporate lending calls, from the standpoint of prudent banking management, for largely unchanged provisioning after IFRS implementation starting with the 2012 financial year. Companies' economic and financial results posted uneven developments in 2010, thus ensuring certain prerequisites for a favourable change in Romania's economic growth pattern.

5.1.1. Companies' economic and financial results

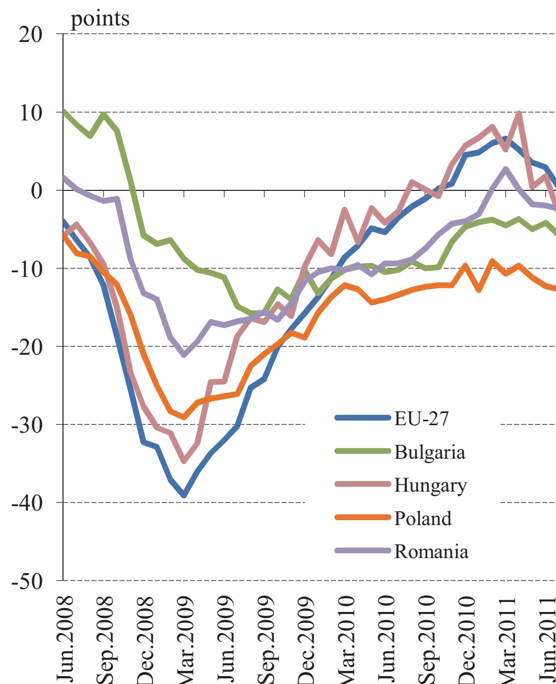
Companies' economic and financial results varied significantly by business sector, size and type of ownership. Such considerable differences as regards the capacity of market players to weather the crisis reflect the high potential of structural reforms designed to boost economic growth. Further developments in this sense will also entail a change in banks' portfolio towards a more balanced lending structure by various categories of debtor companies.

Managers' favourable expectations on their companies' economic and financial standing grew stronger starting with 2010 H2, reaching in July 2011 a level close to that recorded at the outbreak of the crisis (Chart 5.1.). Such optimism was upheld by macroeconomic developments, against the background of industrial output, exports and investments posting better readings in 2010 H2 compared with 2010 H1, which kindled certain expectations on the resumption of growth in 2011. However, the bleak outlook shared in August 2011 by certain economies, developed ones in particular, may feed through to the domestic economy. Bank financing may be resorted to for supporting economic recovery due to the degree of indebtedness that stands below the critical threshold (Chart 5.2.). The average return on equity of companies that had contracted bank loans was above the economy-wide reading (7 percent compared to 6 percent in December 2010), cash flows for investment were mainly generated by such companies (lei 37 billion of total lei 48 billion economy-wide), and the leverage ratio was lower (1.7 compared to 2.1 economy-wide in December 2010).

Companies producing tradable goods performed better during the crisis, thereby paving the way for a change in Romania's economic growth pattern, by diminishing the role of non-tradables. Financial profitability of companies in the tradables sector increased from 3.8 percent to 5.7 percent December 2009 through December 2010, while in the case of companies producing non-tradables it inched up 0.3 percentage points. Companies in the tradables sector having taken bank loans almost doubled their capacity to cover interest costs from earnings (from 123 percent to 225 percent during December 2009 – December 2010), while non-tradables companies saw slower developments. Such evolution also had an impact on the debt-servicing capacity, the non-performing loan (NPL)

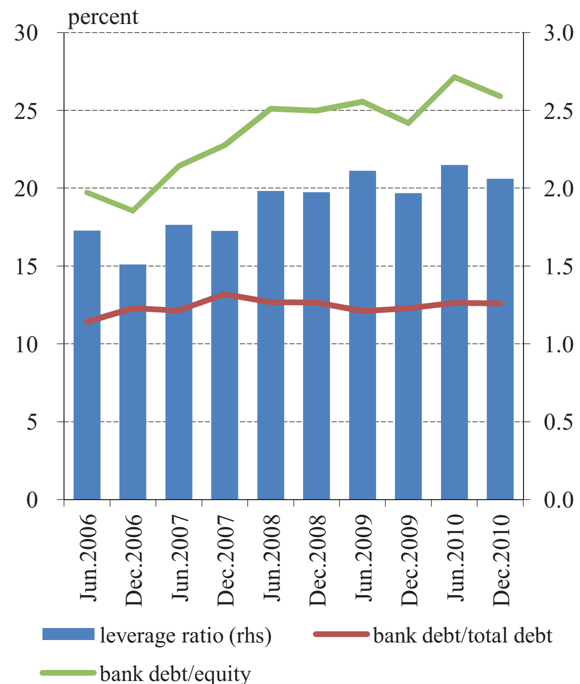
ratio[108] being lower for tradables companies than for those dealing in non-tradables (10.9 percent versus 14.5 percent in June 2011).

Chart 5.1. Confidence reported in manufacturing



Source: European Commission

Chart 5.2. Indebtedness of non-financial corporations



Source: MPF, CCR, NBR calculations

A detailed analysis by economic sector points to construction companies posting the highest NPL ratio (18.9 percent in June 2011). The NPL ratios of companies in manufacturing and trade (holding approximately half of the banks' corporate portfolio) amount to 12.3 percent and 16 percent respectively (June 2011). The sharpest rise in the NPL ratio was recorded in real estate (non-performing loans more than quadrupled during December 2009 – June 2011, but the overdue loan level is still below the economy-wide average). Net exporting companies[109] in 2010 serviced their debts better, as the NPL ratio reached 3.2 percent in June 2011. In the case of adverse scenarios materialising, the results of stress testing analyses[110] indicate that the real estate sector would be the hardest hit. On the other hand, companies in the mining and utilities sectors enjoy more comfortable profit margins and, consequently, are better positioned for withstanding more severe shocks. The debt service sensitivity analysis shows that, assuming a one percentage point increase in interest rates on leu- or foreign currency-denominated loans, companies in the services sector would be the hardest hit.

[108] In Section 5.1 (as well as in Chapters 4 and 5), the non-performing loan ratio is defined as the share of 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. The main difference between this definition and that for the "Loss 2" indicator is that outstanding interest is not taken into consideration (for lack of data). On the other hand, the definition used in this chapter allows for a thorough analysis on non-performance. The difference between the non-performing loan ratio calculated in this section and the "Loss 2" indicator is, for the entire portfolio of loans to companies, 2.1 percentage points (i.e. 13.4 percent, compared to 15.5 percent in June 2011).

[109] Foreign trade companies recording larger exports compared to imports in 2010. Only companies with quarterly exports or imports in excess of EUR 100,000 have been taken into consideration.

[110] The analysis was aimed at determining the turnover decrease threshold for gross profit to become zero.

Companies in the tradables sector have the potential to strengthen their position both in the economy and the banking sector. The share of gross value added created by companies in this sector in total has increased, since the outbreak of the crisis, to 36.4 percent in 2010 compared to 33.5 percent in 2008. Companies in this category also saw a rise in investment. Cash flows for this purpose amounted to around lei 31 billion in December 2010, compared to lei 19 billion in the case of companies in the non-tradables sector. Indebtedness, measured in terms of the leverage effect (determined as a debt-to-equity ratio), is low (1.3 in December 2010), while net borrowings are on the rise. As a result, these companies are expected to hold an increasing share in banks' portfolio. The leverage ratio of companies in the non-tradables sector stood at 3 in December 2010.

In 2010, the best performing sectors relevant to the economy[111] dealt in tradables. Companies involved in the extraction of crude oil and natural gas are the leaders, given that: (i) they posted the highest return on equity (10 percent as of December 2010), (ii) they earmarked significant amounts for investment purposes, with cash flows totalling lei 6.9 billion in December 2010 (lei 58 billion in case of private companies), (iii) the leverage effect is low (0.3), and (iv) they did not generate non-performing loans. Second come the companies involved in the manufacturing of road transport vehicles, trailers and semi-trailers, which also recorded outstanding results: (i) above-average return on equity (7 percent as of December 2010), (ii) low NPL ratio (1.1 percent versus 13.4 percent economy-wide in June 2011), and (iii) low degree of indebtedness (1.42 leverage ratio in December 2010).

In turn, foreign trade companies (included, by definition, in the tradables sectors) exceeded the average financial results economy-wide[112]. Return on equity remained above economy-wide readings (with higher values in the case of net exporting companies), in the context of a high (and even on the rise, in numerous cases) asset turnover ratio. The role of foreign trade companies in the economy augmented, their share in non-financial corporations' value added increasing to 40.3 percent in December 2010 against 38 percent in December 2009. The foreign currency exposure of foreign trade companies[113] is lower than for the rest of the economy (46 percent for net exporting companies, 31 percent for net importing companies, compared to 59 percent for the rest of the economy, December 2010), which brings forth a possible extension of the measures aimed to contain foreign currency lending to unhedged companies. Risks are, to a certain extent, alleviated given that roughly 70 percent of foreign currency-denominated loans were granted to companies with majority foreign capital. Currency exposure remains particularly concentrated, as in 2011 H1 the top 2,000 companies (in terms of the volume of foreign currency loans taken from domestic and external sources) held over 80 percent of non-financial corporations' overall indebtedness in foreign currency.

Both SMEs and corporations posted positive developments in 2010. Return on equity of SMEs rose to 7.4 percent in December 2010, while in the case of corporations it advanced to 5.5 percent. The leverage ratio has increased in the case of SMEs (3.6 in December 2010), as a result of both a decrease in equity and higher indebtedness. Companies' capacity to cover interest costs from earnings saw favourable developments in both cases, yet corporations reported a much more comfortable level (rising from 200 percent to 270 percent during December 2009 – December 2010), while the SME level stayed below par. These evolutions were reflected in the ability to service their debt to banks. The NPL ratio on loans to SMEs picked up to 16.7 percent from 8.2 percent (December 2009 – June 2011).

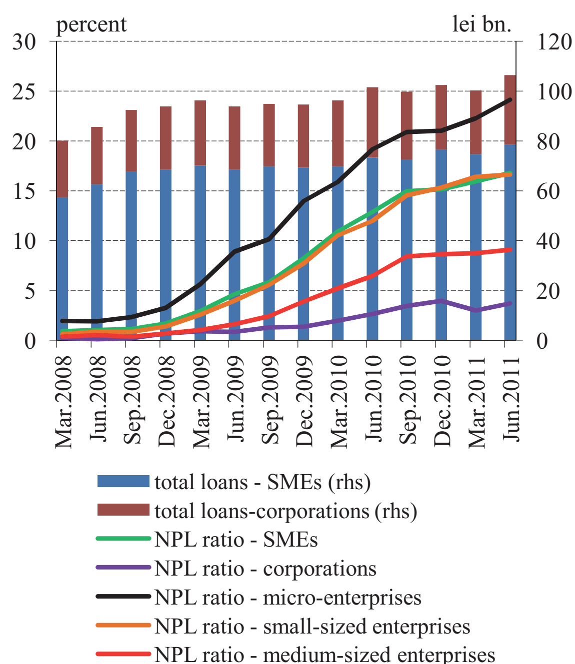
[111] Only those sectors (groupings of NACE, two-digit level) having contributed at least 2 percent to GVA for the non-financial sector of the economy (according to calculations as of June 2010) have been taken into consideration.

[112] For an in-depth analysis of these companies see Section 4.3.1 – *Current account deficit*.

[113] Calculated as a ratio of total foreign currency-denominated (domestic and foreign) loans for all companies in the above category and the equity of such companies.

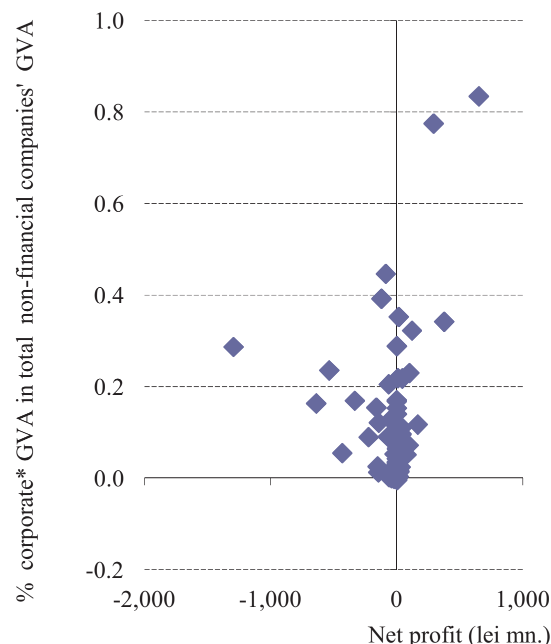
The quality of the loan portfolio to micro-enterprises witnessed the sharpest worsening (to 24.1 percent from 14 percent December 2009 through June 2011). Developments were of a lower magnitude in case of corporations, with the NPL ratio rising to 3.7 percent from 1.3 percent over the same period (Chart 5.3.).

Chart 5.3. Non-performing loan ratio by debtor company size



Source: MPF, NBR

Chart 5.4. Net profit distribution for companies with majority state-owned capital (December 2010)



* companies with majority state-owned capital

Source: MPF, NBR calculations

The implementation of the structural reforms agreed upon under the new financing arrangement concluded with the EU and IMF may significantly boost Romania's economic growth potential by improving the performance of companies with majority state-owned capital. Poor performance is not a broad-based feature of the public sector and, taken individually, the companies in this category show considerably divergent trends. For example, while most state-owned companies of lower relevance to the economy posted net results in the range of (lei -200; +200 million), large state-owned companies (with large contributions to GVA) recorded either significant losses or high profits (Chart 5.4.), resulting, however, in major net losses at aggregate level. Return on equity in the case of companies with majority private capital rose to 8.7 percent in December 2010, while in the case of state-owned companies the return on equity was negative (-1.5 percent in December 2010). This resulted mainly from the gap between the asset turnover ratios, the ratio being considerably higher for private companies (90 percent versus 28 percent, December 2010). Private companies continued to earmark substantial resources for investment in 2010, while public companies chose to disinvest (the former's investment cash flows amounted to lei 58 billion, while the latter disinvested lei 7.7 billion).

The role of companies with majority domestic capital in the economy and the banking sector diminished slightly. The share of gross value added created by such companies in total decreased to 55 percent from 56 percent (December 2009 – December 2010). In 2010, companies with majority domestic capital reported a real 5 percent decrease in their financing resources (from domestic

and non-resident lenders), while companies with majority foreign capital cut financing by around 1 percent.

Insolvency is another vulnerability to financial stability generated by the crisis, but it remained moderate (Box 4). The number of companies that have recently become insolvent saw a steep increase (around 24,700 in 2010 and 11,900 in 2011 H1), but net growth was mixed: it was negative in 2010 (194,000 companies were erased from the Register and 122,000 new companies were registered) and became positive in 2011 H1 (with roughly 36,000 being erased and 72,000 being registered). In spite of their relatively modest role in real economy, companies facing insolvency significantly affect payment discipline in the economy as well as the bank loan portfolio quality.

Box 4. Insolvency in Romania

The year-on-year growth rate of companies that have recently become insolvent picked up to 35 percent in 2010 against 3 percent a year earlier. The chief driver of this trend was weaker activity, amid a high leverage ratio. The change in the minimum amount of a claim for which a petition in bankruptcy may be filed (from lei 10,000 to lei 45,000 pursuant to *Law No. 169/2010 amending and supplementing Law No. 85/2006 on the insolvency procedure*) did little to slow down the growth pace of insolvencies. Among the companies that became insolvent, the entities with majority domestic capital (in terms of both number and turnover) prevailed.

Companies that become insolvent usually do not manage to restore to viability, whatever the point of the business cycle. Thus, in the period January 2007 – June 2011, out of the more than 75,000 companies facing insolvency, merely 0.8 percent managed to stay afloat after a shake-up, whereas bankruptcy proceedings were opened for 74 percent of them. Out of the latter group, approximately 65 percent have already been erased. In this context, the alternative to insolvency, i.e. debt-to-equity swaps, should be approached with caution and without affecting bank capitalisation. The NBR took on a proactive behaviour to this issue by publishing a regulation on banks' temporarily holding shares for 36-48 months during the financial restructuring or assistance programmes in exchange for these entities' debt write-off.

The companies facing insolvency play a relatively minor role in the real sector given that they (i) hold roughly 3.7 percent of total payrolls of non-financial corporations (December 2010), (ii) account for 2.1 percent of the value added of non-financial corporations (December 2010), (iii) take about 2.4 percent of Romania's exports and imports in 2010 and 2.3 percent of those reported in 2011 Q1, and (iv) their external debt is tantamount to EUR 0.6 billion, i.e. 2.3 percent of non-financial corporations' medium- and long-term external debt and 1.6 percent of short-term external debt (June 2011).

Nevertheless, companies facing insolvency weigh heavily on payment discipline economy-wide. In 2008-2010, the major payment incidents these companies have generated in the year when insolvency was declared accounted, on average, for almost 30 percent of the major payment incidents of all non-financial corporations in the economy. Companies facing insolvency showed a looser discipline in paying off their debts to trade partners in the years preceding insolvency and subsequently. Hence, in terms of financial stability, a more aggressive promotion of resorting to the information provided by the NBR's Payment Incident Bureau to non-financial corporations is needed when checking the business partners' creditworthiness.

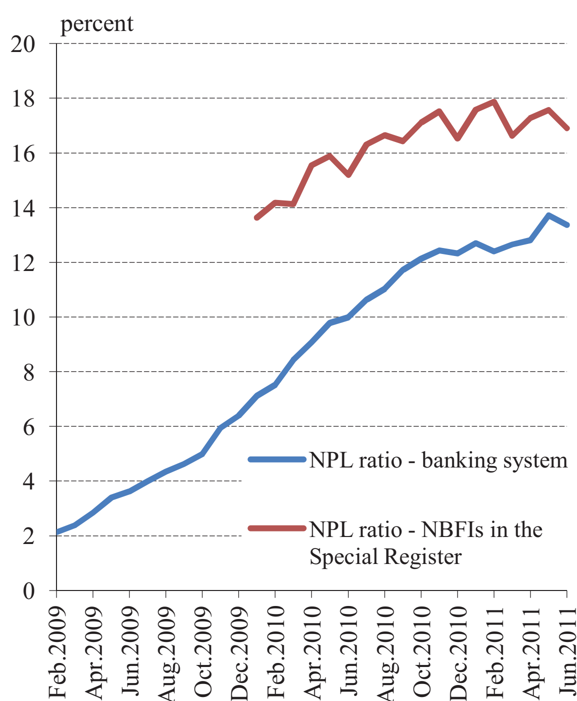
The companies facing insolvency exert relatively significant effects on the banking sector. Although only 13 percent of such firms incurred debts to banks, their borrowings account for 10.4 percent of total bank financing extended to non-financial corporations. Specifically, their amounts payable stood at lei 11 billion in June 2011, up from lei 4.6 billion in December 2009. In fact, the companies facing insolvency were accountable for around 62 percent of loans overdue for more than 90 days. Most of these exposures are collateralised with real estate assets (approximately 80 percent of total loans granted to these companies, June 2011). The loans that non-bank financial institutions extended to insolvent companies were in excess of lei 1.6 billion (11 percent of the loans these institutions granted to non-financial corporations).

5.1.2. Payment discipline of non-financial corporations

The major vulnerabilities to financial stability in Romania generated by companies – debt-servicing capacity in relation to banks and NBFIs and payment discipline in the economy – have persisted since the release of the previous *Report*. In 2011, there are prospects for both vulnerabilities to diminish. As economic growth strengthens, companies will benefit from additional resources for repaying debts and the commitments taken under the new precautionary arrangements concluded with the EU, IMF and the World Bank will also focus on mitigating structural issues such as arrears of authorities and majority state-owned companies.

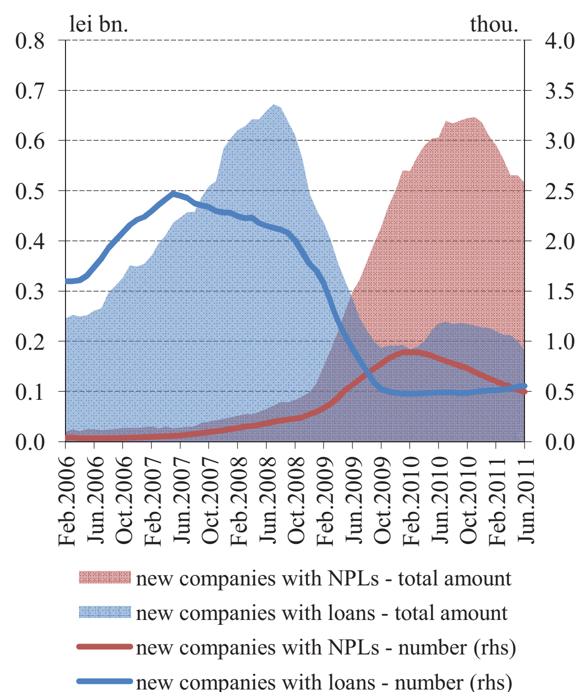
The quality of the loans granted to non-financial corporations continued to worsen (Chart 5.5.), albeit at a slower pace (the volume of non-performing loans was 40 percent higher in June 2010 – June 2011, after soaring 200 percent during June 2009 – June 2010). The NPL ratio may hit a record high in 2011 and subsequently follow a downward path as economic recovery consolidates, so that the growth rate of new loans will exceed that of new entries to the list of defaulting loans.

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



Source: NBR

Chart 5.6. Newly-established companies that were granted loans or generated non-performing loans[114]



Source: MPF, NBR calculations

The improved debt servicing entailed by strengthening economic growth is expected to be reflected in the lower NPL ratio with a certain lag, further to a non-linear relationship between overdue loans and total loans granted (i.e. the numerator and denominator in the calculation formula for the NPL ratio). The monthly number of companies reporting their first overdue payment or having taken loans which fall for the first time into a category lower or equal to "sub-standard" loans followed a contracting trend in 2010, but continues to stay high. The number of companies taking a loan for the

[114] The number of companies and their loan volumes are expressed as moving averages with a 12-month window.

first time[115] is similar to that of newly-established companies generating non-performing loans, with the latter holding however more substantial financing resources (Chart 5.6.).

Although expectations point to a higher quality of the corporate loan portfolio, a prudent banking management will most likely not entail a lower level of provisions (nor as a result of the IFRS implementation as of 2012)[116]. As a matter of fact, the NBR is preparing a set of prudential filters to be introduced for maintaining adequate levels of prudential indicators. The NBR's internal models on the probability of default show that in June 2010 – June 2011 certain banks' provisions (calculated according to market criteria rather than the Romanian accounting standards) amounted to less than it would be necessary to cover expected losses. Such models show that the probability of default[117] among companies having contracted domestic bank loans decreased to 12.6 percent (for December 2011) from 14.3 percent a year earlier. The companies in the economic sectors of highest importance to banks (in terms of the number of companies having taken bank loans as well as the volume of their loans), i.e. manufacturing, trade and services, post an average probability of default ranging between 12 and 13 percent (for December 2011). The NBR will further adopt a prudent stance and will ensure that provision levels are within an adequate range to cover expected risks and that solvency remains above comfortable thresholds, so as to allow any unexpected losses to be covered.

The easing of the pro-cyclical nature of provisioning is also necessary. In 2010, banks increased their provisions for the corporate portfolio by over 80 percent (year-on-year, as of December 2010) and further by 20 percent in 2011 H1 (June 2011 versus December 2010), which put additional pressure on the financial results of credit institutions during the crisis. If provisions had been set up gradually during the economic expansion, banks' efforts would have currently been significantly less strenuous and financial indicators would have seen more balanced developments. Under the circumstances, the fall in provisions in step with economic recovery should be avoided, so as to dampen the pronounced pro-cyclical effect of provisioning.

As companies better service their debts to banks than to NBFIs, prudential requirements should be more demanding in the case of the latter. The non-performing bank loan ratio picked up (to 13.4 percent in June 2011 from 7.2 percent in December 2009). In turn, banks are maintaining a prudent stance regarding the companies' access to finance, despite some room for adjustment of lending standards, especially in the case of SMEs. Instead, the ratio of non-performing loans granted by NBFIs to companies rose to 16.9 percent in June 2011 from 13.6 percent in December 2009. Companies having taken loans from both banks and NBFIs better service their debt with banks (the ratio of non-performing loans generated with banks by such companies was 10.5 percent, while the figure corresponding to NBFIs was 15.5 percent in June 2011).

The perception of domestic banks on the risk associated with lending to companies in Romania has not changed compared to that of euro area banks on the risk of lending to the corresponding sector of non-financial corporations (January 2010 – June 2011). The difference between the risk premium associated with Romania and that relevant to the euro area has remained broadly unchanged, i.e. 3 percentage points (Chart 5.7.).

---

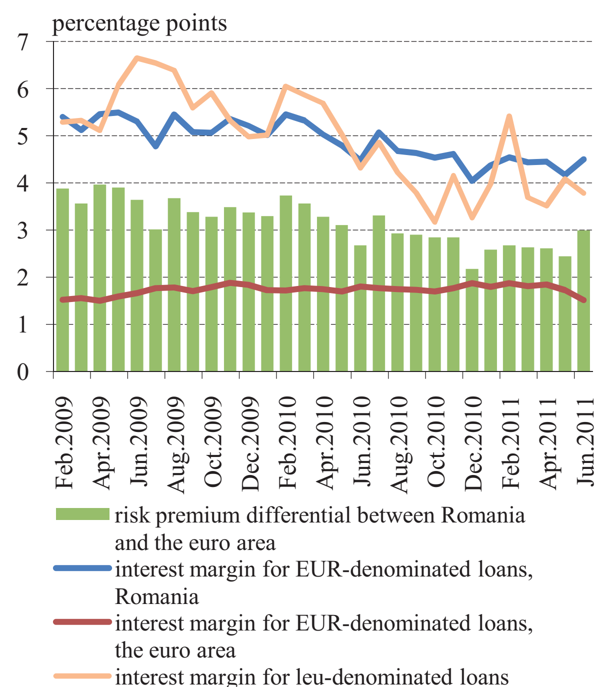
[115] Based on CCR data.

[116] The issue of the proper level of provisions set up by banks is discussed in Section 4.2. – *Corporate and household financial indebtedness* and in Section 7.1. – *The International Financial Reporting Standards and the banking sector* regarding the possible prudential filters considered by the NBR.

[117] The probability of default is defined for a 1-year horizon and for a default event under Basel II (a payment overdue for more than 90 days).

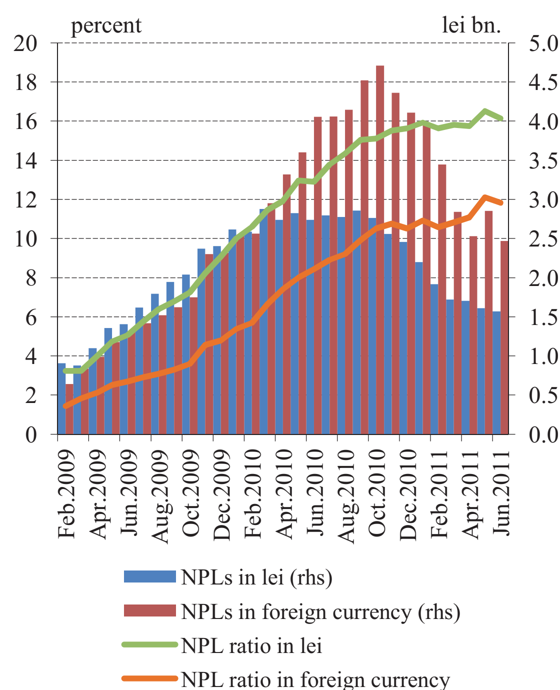
Foreign-currency loans to companies became more risky than those in lei during the crisis[118]. Although the ratio of non-performing loans in domestic currency further exceeded that corresponding to foreign-currency loans (16.1 percent versus 11.8 percent in June 2011), the worsening of banks' portfolio quality followed a steeper path in the case of foreign-currency lending (Chart 5.8.). The increase in interest rates[119] by 1 percentage point in 2011 would materialise in a 0.8 percent higher debt service to banks and NBFIs (approximately lei 54 million).

Chart 5.7. Interest margin for financing companies in Romania and the euro area[120]



Source: ECB, NBR, NBR calculations

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



Source: MPF, NBR

The second major vulnerability to financial stability generated by the corporate sector is the relatively loose payment discipline in the real economy. Payment discipline has recorded mixed developments since the release of the previous *Report*: it worsened as regards intercompany relations, but improved as concerns the relations between companies and the government budget. The amendments assumed under the new precautionary arrangements concluded with the EU, IMF and the World Bank will focus on boosting economic growth by adopting structural reforms, including tighter payment discipline on the part of the authorities and state-owned companies alike.

The loose payment discipline is not a broad-based feature of the economy, but is rather confined to a relatively low number of entities, which could require less effort on the authorities' side to improve payment discipline. Out of almost 41,000 companies having generated major payment incidents between early 2010 and June 2011, the top 50 (by volume of incidents) hold almost 20 percent of the total outstanding amount. Similarly, out of over 100,000 companies with overdue debts to suppliers (December 2010), the top 1,000 accounted for around 60 percent of total overdue payments (with

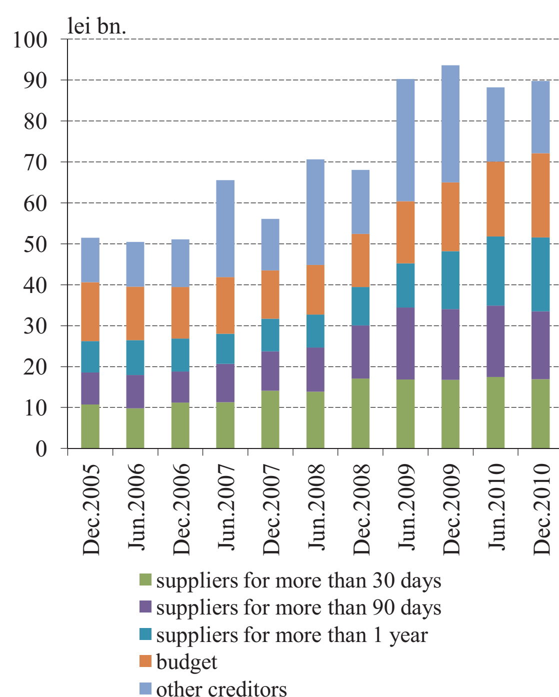
[118] The risk associated with lending in foreign currency is also discussed in Section 4.2. – *Corporate and household financial indebtedness.*

[119] Compared to December 2010 interests.

[120] Calculated as the spread between the interest rate on new loans to companies and the 3-month money market interest rate. The risk premium differential between Romania and the euro area was calculated for loans in euro only.

majority state-owned companies holding roughly 17.5 percent of total overdue payments). Almost 50 percent of companies' arrears to the government budget are generated by 10 companies, most of which are state-owned. Last but not least, out of almost 16,000 companies having failed to properly service their debt to banks, the top 1,000 account for almost 66 percent of the volume of overdue debt (June 2011).

Chart 5.9. Structure of overdue payments economy-wide



Source: MPF, NBR calculations

Companies' overdue payments to suppliers rose slightly (by 7 percent during December 2009 – December 2010, Chart 5.9.) and totalled over lei 51 billion as of December 2010, of which 18 percent were generated by state-owned companies. The economic downturn could marginally explain the dynamics of such overdue payments, as the rates of increase were significant in times of economic boom as well (18 percent in 2007 and 24 percent in 2008). Consequently, a faulty servicing of debts to own suppliers is most probably a structural issue of payment discipline. Private companies service their debts to suppliers more promptly than state-owned companies (the rate of default for commercial debt[121] was 6 percent for the former against 28 percent for state-owned companies in December 2010). Private capital corporations show a much better payment discipline than SMEs, due to a more solid economic and financial standing, as well as to the easier access to financing sources. Private companies in the construction and real estate sectors posted the highest default rates, while mining and the utilities sectors boasted the lowest default rates.

Government arrears[122] to companies amounted to lei 0.9 billion in June 2011 (down from lei 1.57 billion in December 2009). Local budgets accounted for over 87 percent of the volume of arrears. In terms of structure, the arrears of the government budget and the social security budget decreased to lei 0.1 billion in 2011 H1 from approximately lei 0.6 billion in 2009, while the arrears of local budgets stayed high (lei 0.8 billion in June 2011). Despite the favourable developments in arrears, the overdue debts of the general government budget to companies (including, besides arrears, other outstanding invoices as well) remain elevated (lei 2.65 billion). The government's failing to pay its debts in time may delay the resumption of economic growth. A large number of companies (21,000 companies[123], generating 14 percent of value added and totalling 9 percent of bank loans in December 2010) hold claims on the government budget and social security budget that might fully cover their cumulated overdue debts to: (i) suppliers, (ii) the social security budget, (iii) the special fund budget, and (iv) banks, in the form of overdue loans.

[121] Calculated as a ratio between overdue debts to suppliers and supplier-related expenses.

[122] Arrears are defined as payments overdue for more than 90 days.

[123] Including exporting companies holding approximately 17 percent of exports (2010).

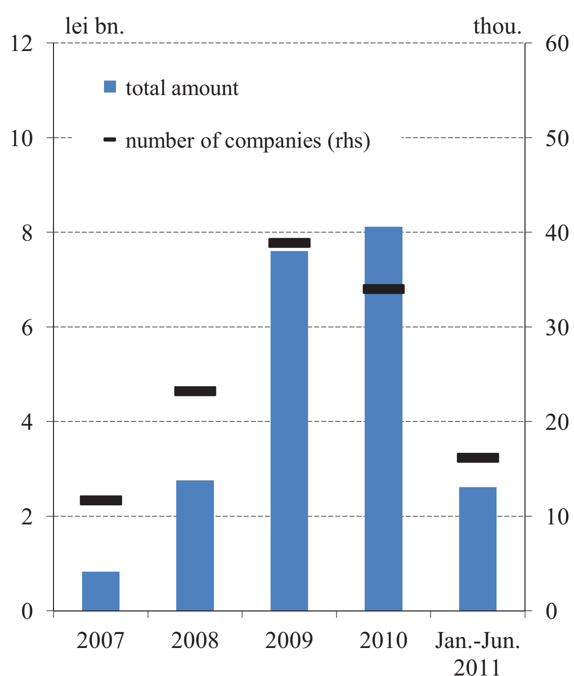
In turn, companies generate overdue debts to the government budgets which are significantly higher in volume than government arrears to companies (lei 20.5 billion versus lei 1.12 billion, December 2010). Most such overdue debts (over 63 percent, December 2010) were incurred by majority state-owned companies. Mining companies generate the largest share of overdue payments to the budget (30 percent), 80 percent of which are accounted for by a single state-owned company.

The period for converting commercial claims into liquidity was extended, which put further pressure in terms of identifying financial resources for servicing (commercial and financial) obligations at maturity. The average duration of collecting claims on SMEs rose 31 percent since the onset of the crisis (from 89 days to 117 days, December 2008 – December 2010, Chart 5.10.). Small-sized enterprises and micro-enterprises were the hardest hit by pressure from counterparties to extend the period between the delivery of goods and services and actual payment (an increase by 32 percent and 31 percent respectively in the duration of claim collection during December 2008 – December 2010). Larger-sized companies may have taken advantage of their position so as to enjoy better conditions for claim collection. The average duration of claim collection by corporations posted the slowest growth since the outbreak of the crisis (18 percent), in the context of lower original readings compared with the rest of the economy.

Chart 5.10. Claims collection period

Source: MPF, NBR calculations

Chart 5.11. New major payment incidents



Source: MPF, NBR calculations

The fast growth of major payment incidents (a vulnerability of the 2008-2009 period) recorded a slight setback in 2010 (Chart 5.11.). The volume of such incidents decreased by about 1 percent in real terms compared to 2009, along with a decline in the number of companies recording a major payment incident for the first time. Companies having generated a major payment incident during January 2010 – June 2011 exert a moderate impact on the economy, which is however sizeable in terms of the bank portfolio quality, given that, on the one hand, they generate 5 percent of the value added of non-financial corporations and use 9 percent of the number of employees in the corporate sector (December 2010), while, on the other hand, they contribute 59 percent to the volume of non-performing loans (June 2011). SMEs account for almost 95 percent of major payment incidents

(over 50 percent of which are generated by micro-enterprises). At sectoral level, construction and real estate companies further post the highest risks, as their share of payment incidents exceeds their importance to the economy (calculated based on the turnover). A shorter average duration of commercial claims collection may contribute to a decrease in the volume of major payment incidents. In 2010, companies with higher commercial claims than the amounts in respect to which they recorded payment incidents accounted for 24 percent of total major payment incidents.

5.2. Risks generated by households

High indebtedness and the significant short foreign exchange position, the major vulnerabilities of households, have seen their growth moderating since the release of the previous *Report*. Households' capacity to repay their debts continued to deteriorate, albeit at a slower pace. Banks had good default risk coverage in terms of provisioning and solvency. Over the medium term, maintaining such indicators at adequate levels in order to cover all risks remains a necessity. The high degree of indebtedness, especially in foreign currency, requires the adoption, in the near future, of additional measures for balancing household lending by currency. In the medium run, the major challenges refer to credit institutions' responsibility to improve households' financial culture and bring about a shift in the banks' business model, with more focus on corporate lending.

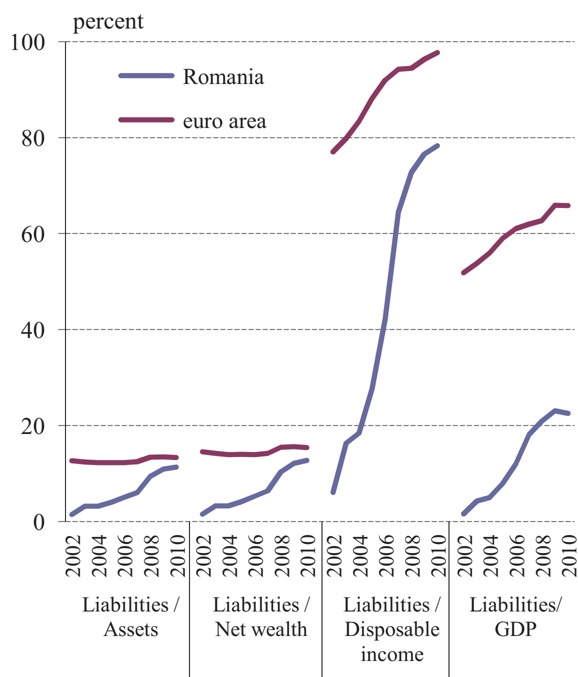
5.2.1. Households' balance sheet and saving behaviour

Indebtedness, one of the main vulnerabilities of households, witnessed a slower expansion in 2010 and the first months of 2011, but is still at a level requiring close monitoring and possibly additional remedial measures. The slowdown of indebtedness is due to both supply factors (banks' lending standards and terms remained highly restrictive) and certain demand-side influences. Debt service to disposable income ratio for debtors with real estate loans added 4 percentage points in December 2009 – June 2011 to 49 percent and the share of households' financial debt to banks and NBFIs reached, at end-2010, 11 percent of total assets and 78 percent of disposable income (Chart 5.12.). Borrowing decisions were largely resorted to by Romanian households. In June 2011, approximately 4.2 million individuals (i.e. around 43 percent of Romania's active labour force) held loans with banks or the NBFIs, 6 percent less than in 2009. Improving financial culture of households is necessary for better debt management, so that future decisions in this area be taken based on better risk awareness.

A large number of individuals (about 0.45 million) borrowed from both banks and NBFIs. Such individuals hold, on average, three loans (two with banks and one with NBFIs) and are the riskiest category of debtors (in June 2011, the NPL ratio[124] generated by this segment in the banking sector was 15.8 percent versus 7.9 percent for the entire household sector).

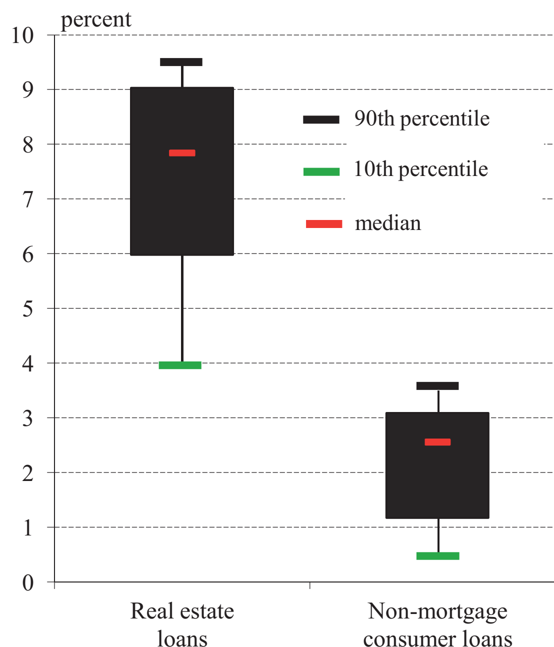
[124] In Section 5.2. (and Chapters 4 and Chapter 5), the non-performing loan ratio is defined as the share of loans overdue for more than 90 days (with contagion at debtor level) in total household loans. The main difference between this definition and that of the "Loss 2" indicator (see Section 3.2. – *Banking sector*) is that it does not take into consideration (due to lack of data) overdue interests. On the other hand, the definition used in this Chapter allows for an in-depth analysis of non-performance. The difference between the non-performing loan ratio calculated in this Section and the "Loss 2" indicator is, for the entire household loan portfolio, 2.9 percentage points (i.e. 7.9 percent against 10.8 percent, June 2011).

Chart 5.12. Households' indebtedness



Source: ECB, NBR, NBR calculations

Chart 5.13. Distribution of the impact exerted by a 1 pp increase in the euro interest rate on households' debt service (June 2011)



Note: Bar ends represent the 25th and the 75th percentiles.

Source: CCR, NBR calculations

Households' indebtedness is not concentrated with certain banks – the Herfindahl-Hirschman index[125] is below the critical threshold and decreased from 985 to 910 (in December 2009 – June 2011), and the developments by loan type (real estate or consumer loans[126]) are similar. Consequently, any additional measures for moderating indebtedness are more efficient if applied at macro-prudential level (not only at micro-prudential level).

Disintermediation may moderate in case of households: banks started to loosen their lending standards in 2011 H1, households' expectations on their financial standing have improved starting 2010 Q3, along with an anticipated lower unemployment rate and households' financing demand rebounded (starting 2011 Q1). Households' relatively low capacity to service their debt in the context of unfavourable developments in exchange rate, interest rate or disposable income call for more caution on the resumption of lending to households, also in terms of the possible consequences of renewed tightening of monetary policies internationally. In case of a one percentage point increase in interest rates on EUR-denominated loans (approximately 80 percent of the outstanding foreign currency-denominated loans in June 2011), the yearly debt service for a debtor with real estate loan[127] would rise, on average, by 7.8 percent, while for a non-mortgage consumer loan, the yearly debt service would be, on average, 2.6 percent higher (Chart 5.13.). The significant share of loans granted

[125] Calculated as the sum of squares of market shares relative to each player in the respective market. Concentration level is empirically deemed as high when the indicator (which may vary between 0 and 10,000) exceeds the critical threshold of 1,800-2,000.

[126] In Section 5.2. (and Section 5.3.) real estate loans are real-estate investment loans and consumer loans refer to all the other loans to households, except for credit cards and overdraft lending.

[127] Taking into consideration a 21-year maturity, i.e. the median of the maturity distribution for real estate loans (June 2011).

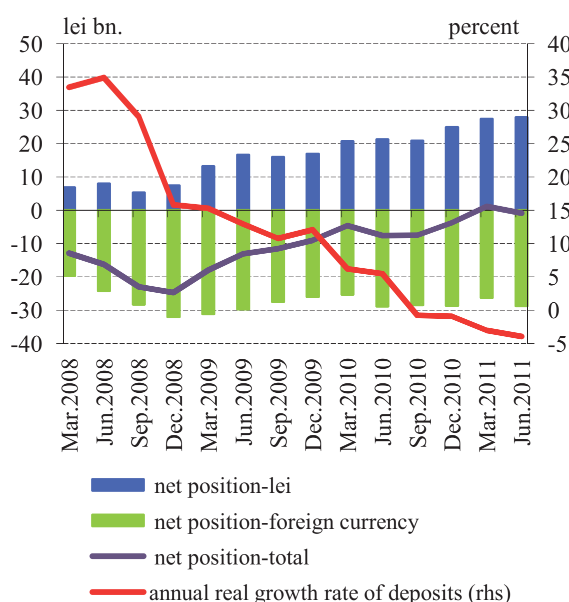
under promotional terms[128] between 2007 and 2011 H1 (roughly 40 percent of the new leu- and EUR-denominated loans) could further fuel the effect on the debt service upon the completion of the promotional period.

Households' high indebtedness could also be indicative of the need to change the current business model of banks in the medium term in order to provide a stronger focus on the private sector non-financial corporations.

The significant short foreign currency position[129], i.e. the second vulnerability of households, continued to widen in 2010 (from lei 25.9 billion in December 2009 to lei 28.7 billion in December 2010, Chart 5.14.). The pace moderated in 2011 H1, so that the foreign currency position remained at lei 28.8 billion in June 2011. The deterioration in the foreign currency position is attributed entirely to the increase in foreign currency debt by lei 4.4 billion in the period December 2009 – June 2011, with the volume of new foreign currency deposits rising by lei 1.6 billion during the same period. The risks of a short foreign currency position started to materialise, as households' capacity to service their debt for foreign currency-denominated loans is lower than that for the leu-denominated loans (for further details, see Section 5.2.2. – *Households' capacity to service debt*). As a result, new measures aimed at balancing the currency breakdown of loans and at mitigating the risks generated by unhedged borrowers need to be implemented (see also Section 4.2. – *Corporate and household financial indebtedness*).

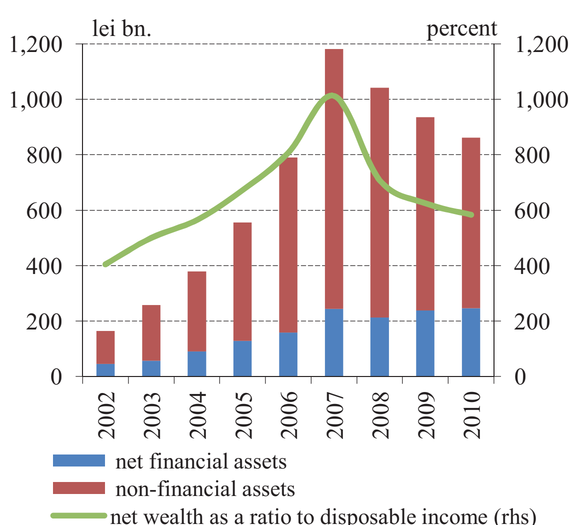
The changes in the volume and structure of households' balance sheet contributed, generally, to alleviating the two abovementioned main vulnerabilities. First, in early 2011, households resumed their net creditor position vis-à-vis the financial system (banks and NBFIs, Chart 5.14.), though the asymmetry at individual level as regards deposit holdings and indebtedness most probably diminishes the favourable aggregate influence of this feature.

Chart 5.14. Households' net position to banks and NBFIs



Source: NBR, NBR calculations

Chart 5.15. Households' net wealth



Note: Bank loans for 2009 and 2010 also include externalised loans, for which banks further provide services.

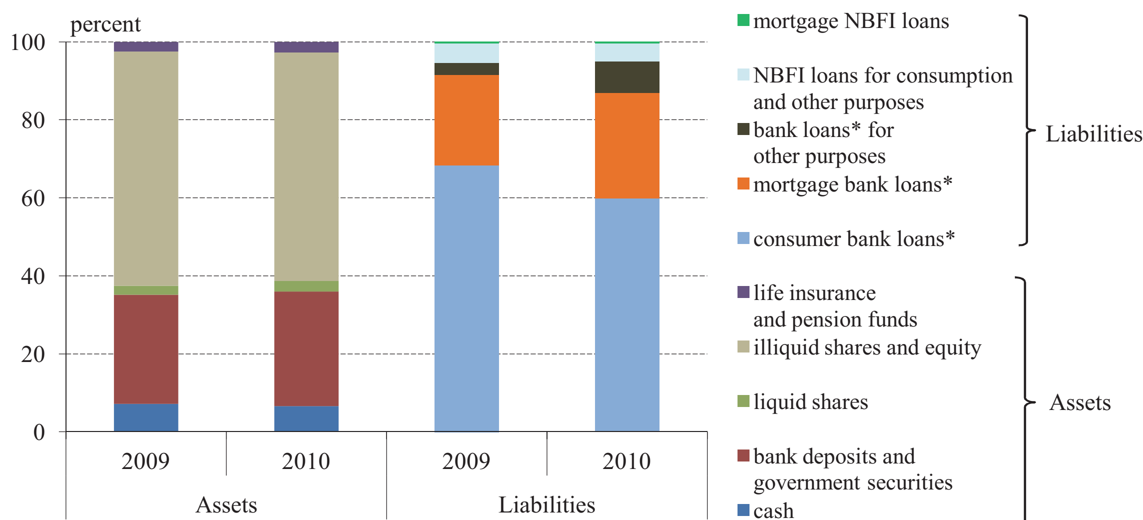
Source: NIS, NSC, ISC, PPSSC, NBR calculations

[128] The loans granted with an initial rate fixation period were taken into consideration.

[129] Calculated as the difference between assets and liabilities held in foreign currency.

Second, the further decrease in households' net wealth (by approximately 8 percent in 2010 against 2009, Chart 5.15.) was due to the decline in prices of real estate assets, which hold the largest share. The net wealth adjustment fed through, via the balance sheet channel, to the lenders' behaviour solely through the LTV component (which became more restrictive), while the risk premium component exerted a favourable influence (being on the downside in 2010).

Chart 5.16. Structure of households' financial assets and liabilities



* Bank loans include loans and externalised loans, for which banks further provide services.

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

Third, the share of liquid financial assets[130] in total balance sheet assets widened to 38.6 percent in December 2010 (Chart 5.16.), with positive consequences on the capacity to service short-term outstanding debts.

Fourth, saving followed a trajectory favourable to financial stability. Although households' bank deposits diminished in real terms (by 1.5 percent, between December 2009 and June 2011) and their potential saving resources[131] decreased given the lower disposable income (down to 9.5 percent in March 2011 from 10.3 percent in December 2009), the ratio of loans from banks and NBFIs to household deposits improved (to 101 percent in June 2011 from 109 percent in December 2009). In addition, the raising of the deposit guarantee ceiling (from EUR 50,000 to EUR 100,000) mitigated the risk of large-value deposit volatility in the event of adverse economic developments, with the share of deposits exceeding the guarantee ceiling within the total guaranteed deposits diminishing to about 17 percent[132] in June 2011. Looking ahead, saving is expected to carry on. The confirmed expectations of higher disposable income (following the reduction of more than 8 percent in real terms in 2010) will generate additional resources for saving, the persistence of risk aversion will promote precautionary savings (albeit on the upside, the consumer confidence indicator in Romania remains below the regional readings), and banks' further pursuing a prudent LTV policy will boost savings for the down-payment necessary to purchase a certain consumer good through credit.

[130] Liquid financial assets include: (i) riskless assets (cash, bank deposits and government securities) and (ii) liquid shares (shares and securities listed and traded and shares/fund units owned by closed-end and open-end investment funds).

[131] 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.

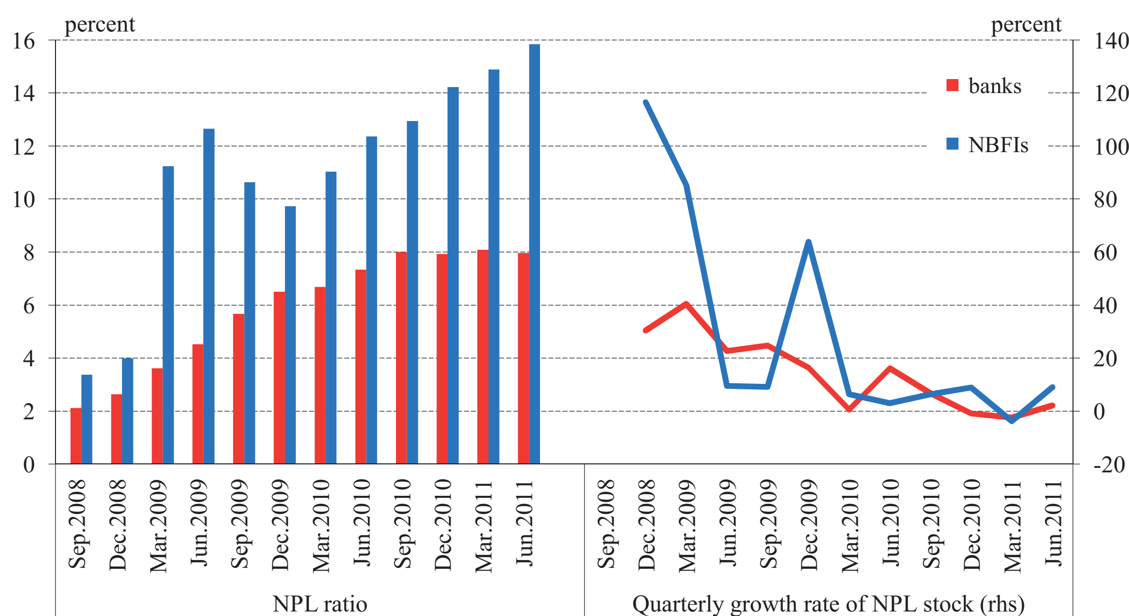
[132] According to the Deposit Guarantee Fund in the Banking System.

5.2.2. Households' capacity to service debt

Households' debt servicing capacity continued to weaken compared with the values recorded on the previous *Report*, but at a slower pace. The NPL ratio edged up some 1.5 percentage points to 7.9 percent in the period December 2009 – June 2011 (Chart 5.17.). The unfavourable labour market developments and the looser lending requirements are the main causes affecting households' capacity to pay their debts to financial institutions. Despite rising risks, banks were protected by adequate capitalisation and provisioning levels. In the period December 2009 – June 2011, the coverage with provisions of gross exposures related to "Loss 2" household loans[133] remained above par (around 107 percent) and the solvency ratio exceeded 14 percent. In order to ensure protection against risks stemming from household lending, in the medium term the preservation of adequate capitalisation and provisioning levels is assumed. Moreover, taking into consideration the resumption of economic growth, banks should avoid pro-cyclical lending standards and terms and stick to a prudent stance.

Banks made attempts to implement various solutions to improve the loan portfolio quality. The most frequently resorted to were (i) the restructuring of impaired assets (see Box 5) and (ii) externalisation of NPLs. However, these solutions may prove to have limited efficiency, as restructuring measures were often insufficient to improve debtors' repayment capacity and externalisation of impaired assets may become less attractive once the IFRS are implemented.

Chart 5.17. NPL ratio of banks and NBFIs



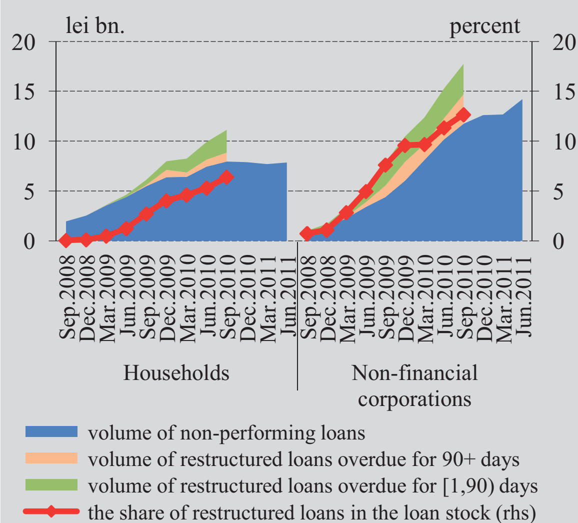
Source: CCR, Credit Bureau, NBR calculations

[133] Calculated according to the IMF-recommended methodology: Total provisions/Gross exposure corresponding to loans classified as "Loss 2".

Box 5[134]. Restructuring of loans to households and non-financial corporations

Banks resorted widely to loan restructuring in their asset management activities. The share of restructured loans to households and non-financial corporations in the loan stock reached 9.6 percent in September 2010 from 6.6 percent in December 2009. According to information supplied by credit institutions, subject to restructuring were particularly non-financial corporations (66 percent of all restructured loans, see Chart) and households (almost 34 percent of the total figure). This measure was less resorted to vis-à-vis the loans to local governments (below 0.01 percent).

The balance of restructured loans to households and non-financial corporations



The efficiency of restructuring was relatively low in the light of the adverse economic environment, so that restructured exposures might in the future put pressure on non-performing loan ratios. The recourse to a restructuring scheme was not a sufficient condition[135] to improve debtors' repayment capability, hence: (i) about 60 percent of household loans overdue for more than 90 days in 2009 Q3 failed to return to lower overdue buckets within one year, whilst for SMEs the recovery rate was below 10 percent (over the same period)[136]; (ii) in 2010, for about 15 percent and 40 percent of already restructured loans (to households and non-financial corporations respectively) one or more restructuring schemes were implemented.

Generally, foreign currency-denominated loans are subject to restructuring (70 percent in the case of non-financial corporations and 78 percent in the case of households). As for non-financial corporations, about 90 percent of the restructured forex loans were in euro, but the percentage is much lower in the case of households (60 percent were extended in euro, 40 percent in Swiss francs, Japanese yen, etc.).

The share of loans for which not a single day of delay was recorded kept declining in the case of households (from 63 percent to 51 percent in 2010 Q1-Q3), but remained relatively unchanged in the case of non-financial corporations (54 percent over the same period). In the event they had not been subject to restructuring, the loans overdue for more than 90 days at the time of implementing the restructuring scheme (September 2010) would have added almost 0.9 percentage points to the non-performing loan ratio relative to households and 2.9 percentage points in the case of non-financial corporations.

As for households, the share of restructured loans in the loan stock rose by 2.2 percentage points to reach 6.4 percent in 2010 Q1-Q3. On average, one debtor proceeded to the restructuring of one loan in amount of roughly EUR 13,000. The breakdown by type of loan shows that the prevailing share was held by consumer

[134] Information draws on the results of a survey conducted by the NBR among all the credit institutions at end-2010. The reviewed period was January-September 2010. Banks that provided feedback on loan restructuring account for about 99 percent of overall exposure to households and non-financial corporations.

[135] According to the results of the previous survey, the appropriateness of implementing several restructuring measures was cited, given that restructuring does not warrant customers' payments return to normality.

[136] The analysis covered a one-year period (September 2009-September 2010) for the loans still in the banks' portfolios and for which other restructuring schemes were no longer implemented after the initial time.

loans (77 percent against only 20 percent for mortgage loans), but only 35 percent of the restructured consumer loans were not mortgage-backed and amounted, on average, to less than EUR 5,000. The share of restructured loans granted to debtors under the scope of *Law No. 118/2010 regarding some necessary measures for the restoration of budgetary balance* was 15.4 percent of total restructured loans in September 2010.

In regard to non-financial corporations, the dynamics of loan restructuring slowed down in 2010, but there is still a risk arising from the higher average value of restructured loans (from EUR 60,000 at end-2009 to EUR 110,000 in September 2010). Restructured loans accounted for 12.65 percent of the loan stock in September 2010 against 9.6 percent in December 2009. Although the loans to SMEs prevailed (about 70 percent of total), there was a hefty increase in restructured loans to corporations (up 170 percent for non-financial corporations compared to 13 percent for SMEs in 2010 Q1-Q3).

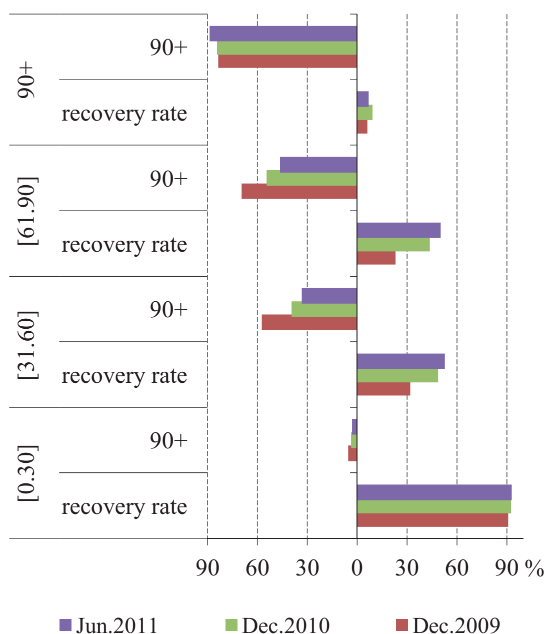
These developments call on banks to improve their risk management techniques especially as regards: (i) assessment of customer creditworthiness under unfavourable economic conditions and (ii) transparent disclosure of credit risks in order to increase customers' financial culture. The National Bank of Romania took a prudent approach to loan restructuring and improved the monitoring framework of this loan category[137].

The prospects for the NPL ratio evolution are mixed. On the one hand, (i) the economic rebound and the possibility of a recovery in the reduced disposable income, (ii) the significant slowdown in the growth rate of overdue payments, (iii) the decrease in the number of debtors with loans higher than lei 20,000 and which first recorded more than 90 days overdue (25 percent lower during July 2010 – June 2011, year-on-year) and (iv) an improvement in the recovery rate[138] of loans overdue for at least one day (June 2011 versus December 2009, Chart 5.18.) heralds a peak in non-performance in 2011. On the other hand, a number of factors put pressure on the loan portfolio quality: (i) households' high indebtedness (especially in foreign currency), (ii) the possible increase in the debt service as a result of higher interest rates internationally and the expiry of the grace period for promotional loans, (iii) the moderate efficiency of restructuring, and (iv) a possible re-inclusion of previously externalised NPLs into the loan portfolio. Last but not least, the NPL ratio will also hinge on the velocity at which the denominator (lending recovery) exceeds the numerator (non-performance slowdown).

[137] Regulation No. 18/2009 on governance arrangements of credit institutions, internal capital adequacy assessment and the conditions for outsourcing their activities, as amended and supplemented by Regulations Nos. 1/2010 and 25/2010, reads as follows: "On the first classification subsequent to the operations to replace exposures to loans in the impaired assets category that resulted in loans which following individual evaluation remained, after the replacement, in the impaired assets category and which entailed a lower debt service, credit institutions shall consider, for the purpose of including those loans into various classification categories, the financial performance of the debtor by using more stringent standards than those used prior to the said operations, by adequately reviewing the quantitative and/or qualitative factors based on the updated information at the date of those operations". Based on Order No. 25/2010, credit institutions submit to the National Bank of Romania regular reports "allowing their replacement operations to be monitored".

[138] The recovery rate is the effective probability of including loans into lower overdue buckets or retaining the same level compared with the initial standing, for a one-year period.

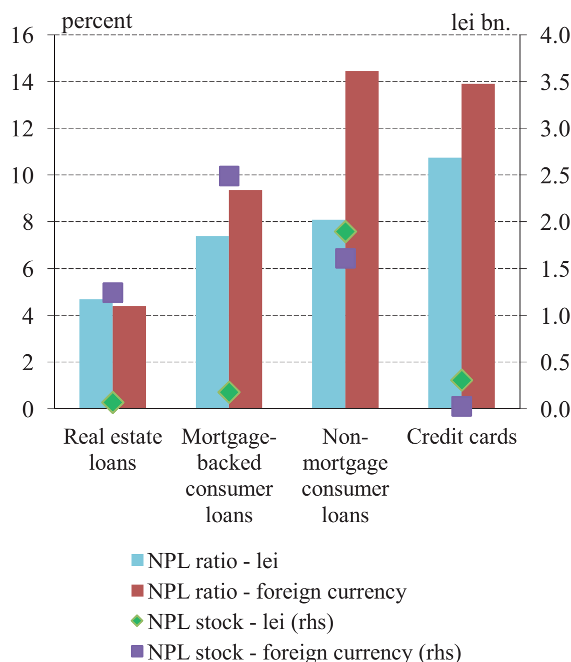
Chart 5.18. Transition probability between overdue buckets for a one-year period (loans exceeding lei 20,000)



Note: For non-performing loans (90+) the recovery rate was counted as reclassification.

Source: CCR, NBR calculations

Chart 5.19. NPL ratio by loan type and by currency (June 2011)



Source: CCR, Credit Bureau, NBR calculations

A relevant vulnerability of household indebtedness, with implications on debt servicing capacity, consists in the large share of foreign currency loans (66 percent of total financial household indebtedness[139] in June 2011). Foreign-currency loans have become riskier than leu-denominated loans, both at aggregate level and by sub-portfolio. At aggregate level, foreign currency-denominated loans wiped out the spread between them and the leu-denominated loans and the NPL ratio rose above the leu-denominated NPL ratio (8.1 percent, against 7.7 percent in June 2011). The volume of foreign currency-denominated NPLs was 60 percent higher[140] (June 2011 versus December 2009), while the volume of leu-denominated NPLs posted a 17 percent decrease during the same period. The sub-portfolio structure further witnessed a higher forex NPL ratio than for the leu counterpart, similar values being registered only in case of real estate loans (Chart 5.19.). By currency, the loans denominated in Swiss francs (CHF) entail the highest risks (with a 12 percent NPL ratio compared to 7 percent for EUR-denominated loans in June 2011). The NBR adopted, at an early stage, a prudent stance of moderating CHF lending by requiring banks to consider higher stress coefficients for this currency, as against those used for the euro when establishing debtors' indebtedness, as well as by resorting to moral suasion and public interventions in order to emphasise the risks of households' taking such loans. Following the implementation of such measures, the share of new CHF-denominated loans dropped to 2 percent in 2009 and 2010 from 17 percent in 2008, so that, compared with other countries in the region, the share of loans in this currency within the household loan portfolio is relatively low (13 percent in June 2011), i.e. less than 7 percent of total non-government credit.

[139] Includes total loans granted by banks and NBFIs as well as externalised loans.

[140] According to banks' balance sheets. The actual figure is higher, taking into consideration that roughly 70 percent of the non-performing portfolio sales recorded in 2010 were denominated in foreign currency.

Arbitraging the National Bank of Romania's prudential measures (also by externalisation of part of the loan portfolios) and/or pro-cyclical easing of prudential standards so as to boost profits in the short term weigh, in the medium term, on the quality of loan portfolios of the entities that resorted to such practices. As far as NBFIs are concerned, the loans with the highest NPL ratio were granted in 2005-2006 when banks, in their attempt at countering the impact of measures that the NBR took in order to dampen the fast-paced expansion of bank loans, especially foreign currency-denominated loans, redirected part of the credit flow towards the NBFIs in the same group[141]. In early 2007, the central bank sought to enhance harmonisation of the national prudential regulatory framework with the European guidelines and replaced some of its prudential measures with measures that allow banks to draw up their own norms on lending to households. In this context and amid ample liquidity (basically credit lines extended by foreign parent banks), credit institutions eased their lending terms and standards in a pro-cyclical manner (2007-2008 period) so as to boost lending and increase their market share.

The loans that those banks granted during the above-mentioned period have the highest NPL ratio (9.8 percent for loans granted in 2007 and 12.4 percent for the 2008 loans in June 2011), since the arbitraging of prudential standards aimed at increasing their market share in the short term led to a weakening of these institutions' asset quality in the medium term. Hence, as the NBR exercises close monitoring, both banks and NBFIs need to avoid renewed resort to the pre-crisis lending pattern and shift the focus of their risk management approach from the short term to the medium and long term in order to attain a sustainable and accountable financial intermediation.

Some developments in households' behaviour in terms of debt repayment capacity require special attention from both banks and NBFIs in order to ensure adequate prudential rules on credit risk management. First, the maturity of loans and their destination must be better matched. Non-mortgage consumer loans, with original maturities of over 5 years hold a majority share of non-mortgage loans (approximately 80 percent in June 2011). The NPL ratio for these loans was 8.5 percent in June 2011, which exceeds both the average (7.9 percent) and the NPL ratio for the non-mortgage consumer loans with original maturity of up to 5 years (3.8 percent)[142]. Such payment behaviour is an argument in favour of granting non-mortgage consumer loans, especially for maturities of up to 5 years.

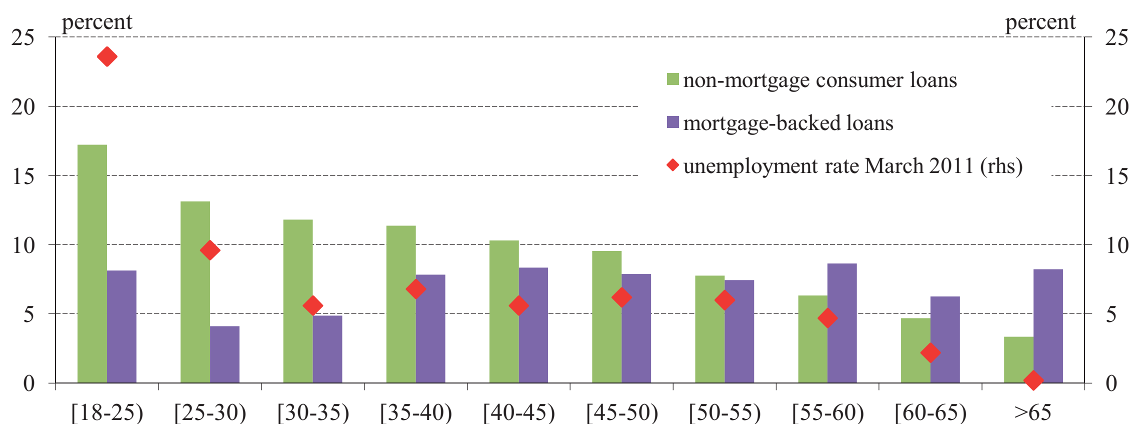
Second, the more pronounced deterioration of the NBFIs' portfolio of loans to households (Chart 5.17.) requires tougher prudential requirements for NBFIs than for banks. Banks' NPL ratio remained lower than in the case of NBFIs (7.9 percent versus 15.8 percent in June 2011), a feature that has proved stable over time.

Third, prudential regulations should make a distinction in terms of loan destination rather than the collateral type. Mortgage-backed consumer loans posted one of the strongest quality deteriorations among household loans (the NPL ratio increased by 3 percentage points during June 2010 – June 2011, reaching 9.2 percent in June 2011). Real estate loans reported significantly lower quality deterioration, with the NPL ratio standing at 4.4 percent (June 2011). The share of CHF-denominated loans in the case of mortgage-backed consumer loans (approximately 28 percent in June 2011) which is almost double compared with real estate loans, together with a modest volume of new mortgage-backed consumer loans, could explain most of the decoupling in the repayment behaviour of the two types of real estate collateral loans.

[141] Since 2006, prudential measures targeting credit institutions have been applied to NBFIs as well.

[142] Non-mortgage consumer loans with positive original and residual maturities were taken into consideration.

Chart 5.20. NPL ratio by age group and by loan type (June 2011)



Source: NIS, CCR, Credit Bureau, NBR calculations

Fourth, the debtor's age could represent a variable that might be used with a larger share in the models assessing the eligibility to apply for a non-mortgage consumer loan. An inverse, relatively stable relation over time can be noted between the debtors' age and the NPL ratio (Chart 5.20.). Moreover, the unemployment rate associated with each age group of debtors had a significant impact upon the capacity to repay mortgage-backed consumer loans.

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

The NPL ratio of the mortgage-backed loan portfolio posted a moderate increase since the previous *Report*. The main vulnerabilities consist in the large share of mortgage-backed loans in banks' balance sheets, together with the risks associated with the deterioration of the quality of such exposures and of the further corrections in real estate asset prices.

Banks' and NBFIs' mortgage-backed loan portfolio is significant and follows an uptrend. The stock of this type of loans amounts to approximately lei 138 billion (54 percent of the total loans to households and 66 percent of corporate loans in June 2011). The flow of mortgage-backed loans granted by banks and NBFIs to households since early 2010 until June 2011 was considerable (around lei 13.6 billion), most of them in foreign currency. The "First Home" programme[143] made a considerable contribution to this development.

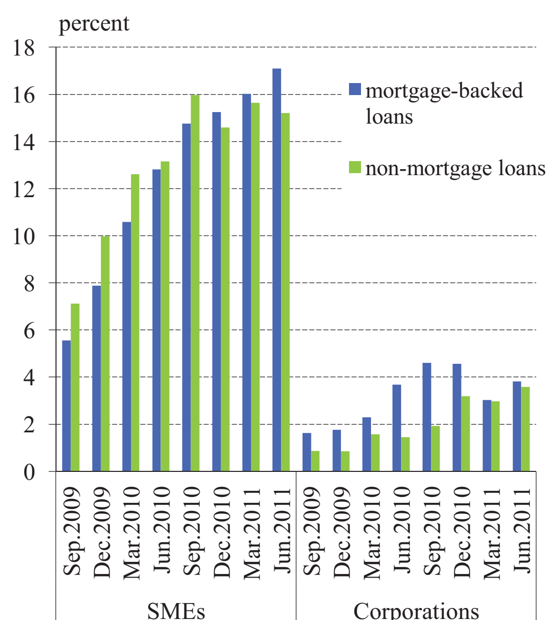
Banks' policy to require mortgage collateral for hedging against credit risk yielded modest results. The volume of non-performing mortgage-backed loans doubled between early 2010 and June 2011 (while the volume of all non-performing loans to companies and households increased during the same period by 65 percent). In the case of companies' non-performing loans, the difference between the NPL ratio[144] corresponding to mortgage-backed exposures and that related to non-mortgage exposures is low (Chart 5.21.).

[143] In 2010, the "First Home" programme accounted for approximately 60 percent of the flow of new real estate loans (approximately lei 3.9 billion, the equivalent of over 20,000 government-guaranteed loans).

[144] In Section 5.3., the NPL ratio is defined as the share of loans held by debtors with payments overdue for more than 90 days (with contagion at debtor level) or facing liquidation proceedings (for non-financial corporations) in total loans to households or non-financial corporations respectively. The main difference between this definition and that of the "Loss 2" indicator (as used in Section 3.2. – *Banking sector*) resides in that it does not consider (for lack of data) overdue interests. On the other hand, the definition used in this Section allows for a more in-depth analysis on non-performance.

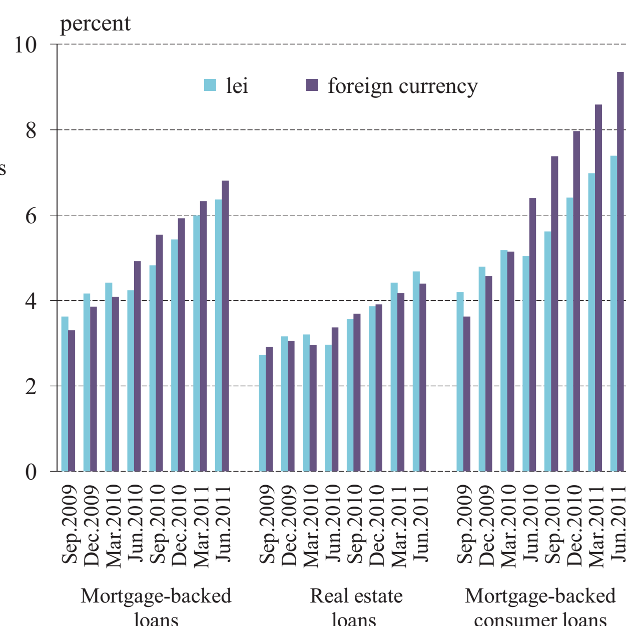
The NPL ratio of mortgage-backed bank loans to households went up between December 2009 and June 2011 (from 3.9 percent to 6.8 percent), but its rate of increase slowed down. The number of first-time defaulters was 14 percent lower between early 2010 and June 2011, compared with the period between early 2009 and June 2010. Foreign currency-denominated mortgage loans posted a higher NPL ratio than those denominated in domestic currency, i.e. 6.8 percent against 6.4 percent in June 2011 (Chart 5.22.). The highest risks came from CHF-denominated loans (with an NPL ratio of 11.4 percent in June 2011) as well as from loans granted in 2008, when real estate asset prices were at record highs (in this case, the NPL ratio reached 10.4 percent in June 2011).

Chart 5.21. Ratio of non-performing loans to companies by company size and collateral type



Source: CCR, NBR, NBR calculations

Chart 5.22. NPL ratio for mortgage-backed loans to households by currency



Source: CCR, NBR, NBR calculations

The atypical behaviour of the two categories of mortgage-backed loans (mortgage-backed consumer loans versus real estate loans) became more pronounced in 2010 and 2011 H1. Such developments call for a differentiated prudential treatment by category of mortgage loans. The spread between the NPL ratio for mortgage-backed consumer loans and real estate loans reached 4.8 percentage points in June 2011, from 1.5 percentage points in December 2009. Besides, between June 2010 – June 2011, real estate loans reported a higher recovery rate[145] than mortgage-backed consumer loans. Moreover, in banks' opinion[146], the loss given default (LGD) on real estate loans is the lowest of all types of loans granted to households (LGD of around 30 percent in 2011 H1).

The risk associated with the worsening quality of mortgage-backed loans to companies and households is closely related to the risks of low liquidity and of further shrinking prices of (commercial and residential) real estate assets. The real estate market posted mixed developments in 2010 and 2011 H1:

[145] The recovery rate is the effective probability of including loans into lower overdue buckets or retaining the same bucket compared with the initial standing, for a one-year period. The analysis relies on capturing the migration of real estate and mortgage-backed consumer loans disclosed in banks' balance sheets at two moments in time (June 2010 and June 2011).

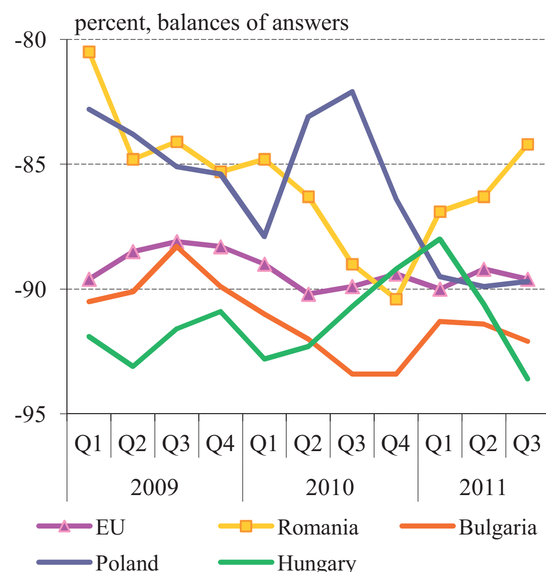
[146] *The NBR Bank Lending Survey*, August 2011.

- House prices saw further corrections (down 12.1 percent in 2010 versus 2009 and down 11.9 percent in 2011 Q1 versus 2010 Q1), in line with regional developments. In banks' opinion, an additional correction took place in 2011 Q2, with the trend being expected to continue over the third quarter of 2011.
- The intention to purchase a house has been on an upward trend starting 2011 (Chart 5.23.). Households' high indebtedness and the large share of households owning a real estate property uphold the idea of a slow recovery in the demand for real estate loans.
- The number of real estate transactions remained virtually unchanged in 2010 versus 2009 (and around 30 percent down from the 2008 reading). The first half of 2011 saw a modest recovery in the number of transactions (up 6.3 percent year on year). According to private sector analyses, commercial investment may resume the upward trend in 2011, given the attractive yields on the local market.
- The number of construction permits for residential buildings issued in 2010 decreased by 13 percent against 2009, but the share of investments in this sector in total economy-wide investments rose to 11 percent (2 percentage points higher than the 2009 reading). During the first five months of 2011, the number of construction permits decreased another 3 percent versus the same period of 2010.
- Expectations of companies in the construction sector have improved starting with 2010 Q3, especially amid looser financial constraints (Chart 5.24.). Market operators' improved sentiment is supported by expectations of moderate growth in the output volume and the relative stability of contracts and of the number of employees.

The fall in real estate asset prices may have a moderate impact on the Romanian banking sector, given the triple protection shields of credit institutions. First, the LTV ratio for the outstanding mortgage loans to households (74.2 percent in June 2011) can accommodate a stress scenario during the reference period[147]. The same conclusion applies to mortgage-backed corporate loans for 2011 (with an average LTV ratio of 78.4 percent in June 2011). However, if the adverse scenario of real estate asset price deflation persists into 2012 at full intensity, it could put pressure on these banks' portfolios. Consequently, from a macroprudential perspective, it is further necessary to maintain prudent LTV ratios, which should be lower for commercial real estate loans. Second, banks display an adequate provisioning level to cover expected credit risks. Last but not least, the solvency ratio is and must remain adequate in the event of any unexpected risks materialising.

[147] The working assumptions used in this case are the values provided by the European Banking Authority in the adverse scenario for Romania within the March 2011 stress-testing exercise. Under the adverse scenario, the value of commercial real estate assets would shrink by 15.5 percent in 2011, while the value of residential real estate assets would decrease by 7.7 percent. For 2012, both types of assets would witness a further decline in terms of value, by 22.2 percent and 11.1 percent respectively.

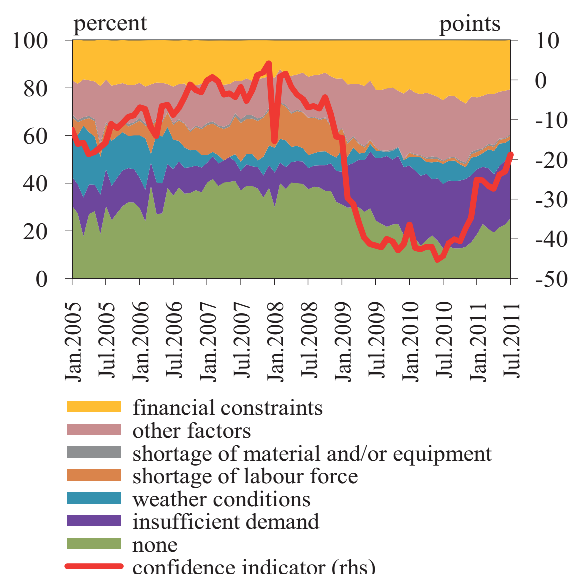
Chart 5.23. Intention to purchase or build a house during the following 12 months*



* seasonally-adjusted data

Source: European Commission

Chart 5.24. Confidence indicator in the construction sector and the structure of impact factors (Romania)*



* seasonally-adjusted data

Source: European Commission

The National Bank of Romania further pursued its proactive stance of managing risks associated with mortgage lending in 2010. The first set of measures was aimed at creating more room to accommodate the impact of a potential drop in the value of real estate collateral. As a result, the LTV ratio decreased for new loans to companies (Chart 5.25.)[148]. Although LTV was on the rise for households in 2011, it remains at a prudent level. Another set of measures consisted in identifying solutions for an adequate regular revaluation of real estate collateral. In this respect, in 2010, the NBR, the RBA and the ANEVAR took the initial steps to improve the collateral valuation framework in the banking system. Such efforts resulted in the preparation and publication by ANEVAR of the *Guidelines for the valuation of loan collateralisation* as well as the NBR amending the banking regulatory framework for the *Guidelines*[149] to become operational. The document includes principles for collateral valuation, both at the time of granting the loan and during its life or in case of foreclosures.

The decline in real estate asset prices also has negative consequences on non-financial corporations, which hold a large share of land and buildings, accounting for almost 30 percent of their total assets as of December 2010. An adverse scenario of lower value for buildings and land[150] would call for an adjustment[151]: (i) of total assets (by approximately 5 percent), (ii) of equity (by around 16 percent), and (iii) of the ROE (by 16 percentage points to -10 percent). This would have a detrimental impact in terms of companies' access to financing and their decisions on new investments.

[148] The rise in LTV for outstanding residential loans is most probably due to collateral revaluation.

[149] Regulation No. 18/2009 on governance arrangements of credit institutions, internal capital adequacy assessment and the conditions for externalising their activities, as amended and supplemented by Regulation No. 25/2010, provides that, while valuating real tangible collateral to acknowledge its credit risk mitigation effect in compliance with NBR regulations, "credit institutions shall consider the international valuation standards and Guidelines for the valuation of loan collateralisation issued by the ANEVAR".

[150] Using the same values applied by the European Banking Authority (footnote 147).

[151] Market-based (fair value) revaluation of buildings and land is required under the accounting treatments provided by IAS 16 and IAS 40. The results are in line with the worst-case scenario of all companies in Romania performing an asset revaluation simultaneously.

Chart 5.25. Developments in the loan to value ratio

Source: NBR – Bank Lending Survey

The real estate and construction sectors continued their downward adjustment in 2010. Companies in the construction sector played a less important role in the economy and in the Romanian banking sector. Their contribution to GVA fell to 8.9 percent in 2010 from 9.9 percent a year earlier. Construction works diminished in terms of volume by 14.4 percent in 2010, a trend that persisted into 2011 H1 (4.7 percent lower than in 2010 H1), and the average number of employees decreased by around 7 percent between December 2009 and April 2011. Bank loans to this sector accounted for 10.3 percent of total loans of non-financial corporations (June 2011). Construction companies' external debt made up 3.2 percent of the total private external debt of non-financial corporations and is mainly concentrated over the long term (June 2011). Risk-related information for companies in the construction sector is mixed: (i) the NPL ratio rose to 18.9 percent in June 2011 and the spread against the economy-wide average widened to 5.6 percentage points in June 2011 from 3.2 percentage points in December 2009; (ii) non-resident parent companies provided a larger volume of funds to their Romanian subsidiaries during 2010 and 2011 H1, the share of intra-group loans reaching 41 percent in June 2011, up from 36 percent in December 2009; (iii) major payment incidents generated by construction companies decreased in terms of volume by around 3 percent in 2010 against 2009 (although the volume of payment incidents still accounted for a worrisome 16.3 percent of total incidents), whereas payment incidents economy-wide went up 6.8 percent. The positive performance continued into 2011 H1, with a 34 percent decline in the volume of payment incidents versus the same year-earlier period, in line with developments economy-wide; (iv) these companies' overdue payments to suppliers rose by 8.4 percent in 2010 to lei 5.7 billion (December 2010).

Real estate companies saw their role in the real economy declining, but maintained their significant share in terms of bank lending and Romania's external indebtedness. The average number of employees decreased 8.5 percent and the turnover fell 5 percent (December 2010 versus December 2009). The sector may be slower in recovering from the crisis fallout, as its reported loss is significant (lei 1.7 billion, December 2010). Bank loans taken by companies in this sector accounted for 15.7 percent of the loans to non-financial corporations, with an NPL ratio of 13.3 percent (June 2011). Romanian banks granted more than lei 3 billion in loans to these companies in 2010, i.e. over 50 percent of total new credit flows. However, part of this lending activity may be accounted for by redemptions of portfolios externalised in previous years. External debt fell to 32.6 percent of the total private external debt of non-financial corporations in June 2011 against 34.6 percent in December 2009. After the 10 percent decline in 2010 in the volume of major payment incidents related to these companies, developments in 2011 H1 point to a slight upturn of roughly 1.6 percent against the same period in 2010.

CHAPTER 6. FINANCIAL SYSTEM INFRASTRUCTURE

6.1. Central bank actions aimed at containing the risks to the functioning of payment and settlement systems

The payment and securities settlement systems are systemically important components of the financial system architecture. These systems have not faced any major events since their go-live, owing to the adherence to high standards in terms of operating safety and efficiency, as well as to central bank actions.

The safe and efficient operation of payment and securities settlement systems, along with the optimal functioning of financial markets and institutions, is a fundamental prerequisite for safeguarding financial stability in a modern economy. From this standpoint, one of the statutory tasks of the National Bank of Romania is to promote and oversee the smooth functioning of payment and securities settlement systems[152], with a view to identifying, assessing and implementing the measures aimed at mitigating associated risks, based on the most relevant international standards and recommendations[153].

The ReGIS payment system stands out as one of the key components of the financial infrastructure in Romania[154]. ReGIS qualifies as a systemically important system because it is the only large-value payment system in Romania, which processes primarily large-value payments, and it is used for the settlement of transactions concluded within other payment and securities settlement systems[155]. It also acts as a monetary policy transmission channel.

In order to preserve public confidence in payment and settlement systems and, hence, in the domestic currency, the National Bank of Romania has promoted – both prior to the go-live of the systems and subsequently – various measures aimed at mitigating major risks likely to disrupt the smooth functioning of these systems, namely liquidity risk, credit risk, legal risk, settlement risk, operational risk and systemic risk.

Some of the most important actions taken to mitigate specific risks in payment and settlement systems include:

i) Provision of an intraday repo facility in ReGIS by the central bank, along with the existence of liquidity management tools within the system, such as the prioritisation of payments, the active

---

[152] The following systems have been authorised to operate in Romania:
- ReGIS – real-time gross settlement system of large-value payments.
- SENT – payment system enabling the netting of funds related to retail payments.
- SaFIR – a system enabling the settlement of operations in government securities issued by the MPF and certificates of deposit issued by the NBR.
- RoClear – securities settlement system for operations conducted on the Bucharest Stock Exchange.
- DSClear – securities settlement system for operations conducted on the Sibiu Stock Exchange.

[153] Core Principles for Systemically Important Payment Systems (BIS, 2001); Business Continuity Oversight Expectations for Systemically Important Payment Systems (ECB, 2006); Recommendations for securities settlement systems and recommendations for central counterparties in the European Union (ESCB-CESR, 2009).

[154] The value of payments processed via ReGIS was more than 11 times higher than the 2010 GDP; by comparison, payments effected through SENT accounted for merely 44 percent of the 2010 GDP.

[155] In 2010, the settlement ratio within ReGIS, calculated as a ratio of the volume and the value respectively of settled transfer instructions and those accepted in the system, stood at 99.96 percent and 99.97 percent respectively. The settlement ratio was 100 percent for securities settlement systems.

management of the payment queue, real-time notification of participants on their available funds, and the set up of reserves on participants' own account.

ii) ReGIS enables the real-time gross settlement of payment instructions, with intraday settlement, thus addressing credit risk.

iii) Payments initiated in ReGIS are settled in central bank money, which eliminates the risk that the settlement agent might find it impossible to complete the settlement, as participants in ReGIS are bound to have a current account opened with the central bank.

iv) All payment and settlement systems authorised to operate in Romania are designated under the provisions of Law No. 253/2004 on settlement finality in payment and securities settlement systems. This means that, in the event of insolvency proceedings being opened against a participant in a system, the collateral set up in connection with the participation in these systems shall be insulated from any claims formulated by creditors, while the settlement, once accomplished, shall be final. Furthermore, the rules governing these systems define the moments as of which the instructions initiated in the system become irrevocable.

v) The payment and settlement systems authorised to operate in Romania need to have a high degree of operational safety[156] and must have business continuity procedures in place for contingency cases and disaster.

During 2010, as part of its oversight policy, the central bank moved towards mitigating the risks associated with the functioning of payment and settlement systems first and foremost by tailoring the legal framework so as to adequately respond to the global financial environment. In this vein, the goal was to render more flexible the provisions of specific regulations in the area of payment and settlement systems, while also updating the legal framework in force based on the latest developments worldwide.

Thus, with a view to reducing the liquidity risk in ReGIS and streamlining the use of eligible assets set up as collateral, the NBR has enhanced the regulations governing the settlement risk management procedure and the facilities granted by the central bank for smoother settlement within this system. These actions brought about, above all, an adjustment in the conditions in which a participating credit institution may benefit from the intraday repo facility when the said credit institution no longer meets the eligibility criteria for monetary policy operations or its access to such operations has been limited or suspended. Secondly, the measures led to the creation of a general framework whereby credit institutions may ask the National Bank of Romania to convert the intraday repo facility into a Lombard facility, thus allowing the delayed repayment of funds received via the intraday repo facility and the use of the same eligible assets as collateral in both operations. The adoption of these measures does not foster the occurrence of negative externalities or moral hazard in the payment systems, since all operations conducted by the central bank with ReGIS participants are conditional upon the prior setup by the latter of adequate collateral for reducing the settlement risk. No participant in ReGIS has so far called upon the central bank to turn the intraday repo facility into a lending facility. Recourse to the intraday repo facility has been relatively muted in 2010, with its value accounting for 0.18 percent of the overall value of transactions settled within the system, which points to a comfortable level of liquidity in ReGIS.

[156] For instance, during 2010, ReGIS displayed an average degree of availability of 99.99 percent, calculated as a ratio of the real operating duration of the system during the period under review to its scheduled operating duration. The availability level exceeded that agreed upon in the contract signed between the National Bank of Romania and the system's technical operator.

Another action taken by the central bank meant that participants in ReGIS were no longer required to set up a minimum level of unilateral guarantees, whose role had been to ensure the settlement of net debtor positions calculated within card payment schemes. Preserving such a minimum level would have currently been tantamount to an inefficient blocking of funds in ReGIS or of securities in SaFIR, without however eliminating the settlement risk.

The National Bank of Romania has prepared and submitted to the Government a draft piece of legislation amending and supplementing Law No. 253/2004 on settlement finality in payment and securities settlement systems and Government Ordinance No. 9/2004 on financial collateral arrangements, as approved and amended by Law No. 222/2004, thus ensuring the transposition of applicable EU Directives[157] into domestic legislation. Key changes relate both to limiting systemic risk, given the increased propensity for linking various systems globally, and facilitating the use of credit claims as eligible collateral for credit operations, central bank operations included, which will smooth credit institutions' access to liquidity.

Moreover, in order to improve credit institutions' access to liquidity, by broadening the range of eligible collateral for monetary policy operations and hence for collateralisation and credit operations within payment systems, the National Bank of Romania took the necessary steps to implement direct links between SaFIR and the central depositories for EUR-denominated government securities issued by the MPF and RON-denominated bonds issued by international financial institutions on the domestic market.

Other measures taken by the central bank were aimed at enhancing the operating safety and efficiency of securities clearing and settlement systems on the domestic capital market, which needs to develop so as to consolidate its role as a viable alternative for the funding and capitalisation of companies in Romania. The central bank's concern for the proper functioning of these systems also derives from the interdependencies between payment and settlement systems, meaning that any asymmetries in regulating such systems should be avoided.

Thus, in order to prevent legal risk and hence systemic risk from materialising, Order No. 1191 of 29 November 2010 issued by the NBR Governor, supplementing Order No. 34 of 17 January 2008 issued by the NBR Governor designating the systems that are subject to the provisions of Law No. 253/2004 on settlement finality in payment and securities settlement systems, updated the list of systems that the aforementioned law applies to.

With a view to fostering liquidity growth and mitigating the settlement risk related to transactions conducted on the capital market, at the request of the RoClear and DSClear securities clearing and settlement systems administrators, the central bank examined and approved the amendments to the operating rules of these systems, thus paving the way for expanding the range of services supplied to participants in the above-mentioned systems, namely using the omnibus account system, securities lending and short-selling.

In order to fend off any financial risks, the central bank approved the request submitted by the RoClear administrator for opening a current account with the NBR for the safekeeping of the amounts representing the guarantee fund, the margins and the collateral set up by participants in RoClear.

[157] Directive 2009/44/EC of the European Parliament and of the Council of 6 May 2009 amending Directive 98/26/EC on settlement finality in payment and securities settlement systems and Directive 2002/47/EC on financial collateral arrangements as regards linked systems and credit claims.

For the same purpose, the NBR gave its nod to the same administrator's request for opening a securities account with SaFIR showing the government securities purchased as a result of the placements made on the RoClear administrator's own behalf.

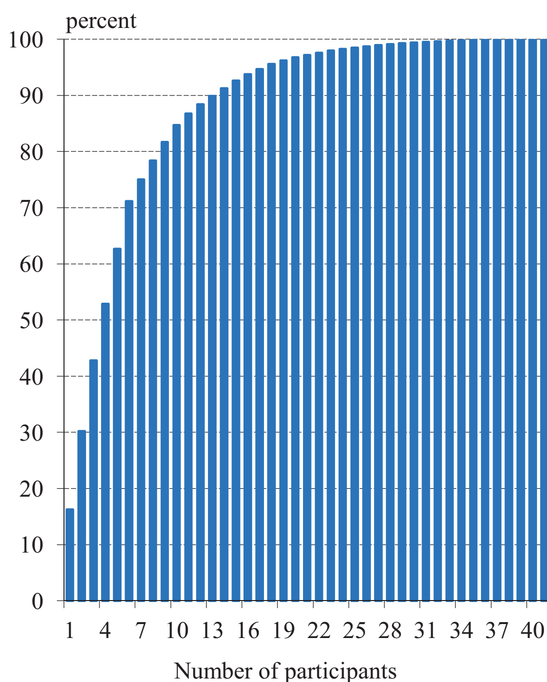
6.2. ReGIS payment system stability

ReGIS did not face any significant risks during 2010 and in 2011 H1, being capable of absorbing liquidity shocks thanks to the comfortable level of funds held by participants and the government securities available in credit institutions' portfolios. These securities may be used as collateral upon making recourse to the intraday repo facility and the lending facility provided by the NBR.

The analysis of transactions carried out by credit institutions participating in ReGIS has not revealed a significant concentration risk in 2010 and in 2011 H1, given that the top four participants (ranked by the value of interbank transfers initiated by credit institutions) totalled around 55 percent of the overall value of interbank payments (Chart 6.1.).

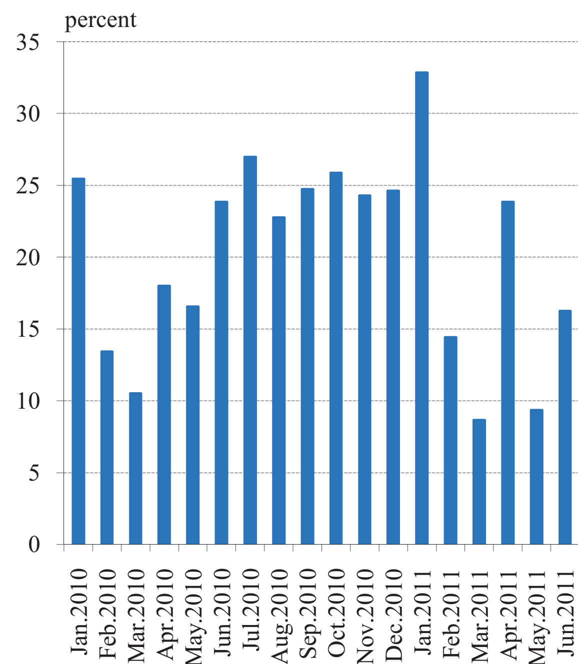
Credit institutions' recourse to available liquidity was rather muted and consisted both of interbank transfers and payments to the State Treasury and the NBR. ReGIS has sufficient funds to accommodate a potential liquidity shortfall reported by any of the participants. The liquidity utilisation rate followed an uptrend in the first part of 2010 to around 25 percent, with the volatility of this indicator increasing in 2011 H1 (Chart 6.2.). Credit institutions' liquidity surplus paves the way for strengthening the stability of the ReGIS payment system, although keeping large liquidity buffers in place might generate additional costs for such institutions.

Chart 6.1. Cumulative share of credit institutions participating in ReGIS January 2010 – June 2011



Source: NBR

Chart 6.2. Liquidity utilisation via ReGIS January 2010 – June 2011



Source: NBR

ReGIS is highly resilient to liquidity shocks. Based on a methodology implying stress-test scenarios (plausible, yet low-probability scenarios), it has been noticed that the resources available to credit institutions participating in the system are at a comfortable level, meaning that an event with a major impact on liquidity should not trigger a contagion risk across ReGIS. Available resources consist both of funds in domestic currency and government securities held by credit institutions, which may be used as collateral upon making recourse to the intraday repo facility and the lending facility provided by the NBR.

CHAPTER 7. RECENT DEVELOPMENTS AND THE OUTLOOK

7.1. The International Financial Reporting Standards and the banking sector

As part of the arrangement signed with the IMF, the EC and the World Bank in 2010, the Romanian authorities committed themselves to introducing the International Financial Reporting Standards (IFRS) in the banking sector as of 1 January 2012[158]. The adoption of the new standards is in line with the global trend of harmonising national standards with international financial reporting ones, given the current economic and financial developments, which point to the globalisation of banking operations and hence to an increased need for consistency worldwide of the accounting rules underlying the released financial information.

The IFRS implementation provides the following key benefits: (i) accurate perception of financial reports, regardless of the users' origin; (ii) avoiding competitive disadvantages for credit institutions operating in the global marketplace, also in terms of access to international capital markets; (iii) ensuring a higher degree of transparency and comparability of financial statements; (iv) ensuring the consistency of accounting treatments and disclosed information by applying unitary accounting standards across all credit institutions both individually and at a consolidated level; (v) warranting comparability between the information disclosed in publishable annual financial statements, at consolidated and individual levels, and – if applicable – between such information and the data disclosed for prudential supervision purposes. Major drawbacks include: (i) the emergence of specific operational risks, since the IFRS rely on professional judgment; (ii) the need to revise the regulatory framework in the prudential and statistics areas, including the IT applications used by credit institutions and the central bank (SIRBNR); (iii) additional costs in terms of customising/updating credit institutions' in-house methodologies and IT systems.

Although the past few years have seen an increasing conceptual harmonisation of domestic regulations with international standards in the field (IFRS), the approach is still divergent in several areas, the most important being the methodologies for determining credit risk provisions.

Major novelties inspired by IFRS-compliant accounting standards consist of: (i) using expert judgment in estimating the value of impairment losses[159]; (ii) a financial asset or a group of financial assets is deemed to be impaired in case of objective events that have an impact on future cash flows and that can be reliably estimated; estimated losses as a result of future events, regardless of their probability of occurrence, shall not be recognised; (iii) the effective interest rate method shall apply to the deferred payment of the amounts representing the effective remuneration of a financial instrument; (iv) the introduction of new accounts (such as: for the distinct disclosure of adjustments related to the impairment of groups of insignificant financial assets and of collective adjustments related to generated, yet unidentified losses from the impairment of both significant and insignificant financial assets; for disclosing the amounts, other than receivables and related payables, taken into account when calculating the effective interest rate – e.g., commission fees received and paid respectively – and which need to be amortised via the effective interest rate method); (v) account restructuring (e.g., the accounts covering the three categories of securities, namely trading, placement

[158] The IFRS implementation takes into account the procedure laid down in Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards.

[159] According to regulations currently in place, when determining the minimum level of provisions, assets representing credits and placements are assessed based on uniform criteria: debt servicing; financial standing and opening of legal proceedings; the methodoloy also provides for the principle of downgrade by contamination.

and investment securities, shall be restructured in line with the types of financial assets laid down in the IFRS; the income statement shall be renamed according to asset and liability accounts; derivatives accounts shall be restructured in line with IFRS classification and disclosure requirements); (vi) the elimination of several accounts (such as *Receivables written-off, still followed up* and *Penalties claimed*, considering the asset recognition criteria; off-balance-sheet receivables shall be assessed in terms of fulfilling the asset recognition criteria, so as to be reincorporated in the balance sheet, where they will remain until such assets no longer generate future benefits); (vii) harmonising the terminology with the IFRS.

Prudential implications of introducing the IFRS

The areas identified by the National Bank of Romania as being influenced by the conversion to the IFRS refer to provisioning, solvency, currency position and Tier 1 capital.

The bookkeeping of the minimum level of specific provisions related to credits/placements is currently governed by 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. The IFRS introduction means that any accounting entry related to provisions shall be operated according to the new accounting standards. Resorting to professional judgment when estimating impairment losses by applying the IFRS might lead to the setup of provisions whose level could stand below that deemed adequate.

The conversion to the IFRS is expected to release a significant volume of the provisions set up pursuant to NBR Regulation No. 3/2009, as subsequently amended and supplemented. In case of foreign currency positions, such a release could lead to an increase in net currency assets and hence to a long currency position via a rise both in individual currency positions and in the overall position, while also entailing higher capital requirements related to capital risk. In order to comply with regulated thresholds, credit institutions would have to resort to currency sales, with a potentially detrimental impact on the forex market via pressures on the exchange rate irrespective of changes in the economic fundamentals.

Introducing the IFRS may have an impact on determining the credit risk-based capital requirements under the standardised approach, namely an increase both in Tier 1 capital and in the net value of risk-weighted assets, primarily by releasing provisions.

Aside from the impact triggered by the release of provisions, the individual application of IFRS specific rules may lead to the recognition in credit institutions' Tier 1 capital of certain amounts that do not correspond from a prudential perspective to the definition and specific criteria of own funds in terms of permanence, availability for loan coverage and assessment credibility.

The NBR is drafting the necessary rules to be enforced ahead of IFRS implementation, so as to maintain a prudent approach after 1 January 2012 as well, across credit institutions applying the standardised approach to credit risk. In this vein, the accounting records shall incorporate the impairment adjustments determined exclusively in line with IFRS treatment. If their level is insufficient from a prudential perspective, own funds and prudential indicators – whose calculation requires the use of the net value of related exposures – shall be adjusted accordingly.

7.2. The new European financial system architecture

Changes operated in the European financial regulatory framework aim to ensure the transition towards a more resilient financial system, capable of weathering any future financial crises, as well as to strike a balance between economic growth and financial system stability.

The global financial crisis has unveiled significant flaws in the regulation and supervision of the international financial system. The deepening of financial markets via the use of complex instruments, the development of financial institutions with an intense cross-border activity, and the higher degree of interconnectivity between financial institutions were but a few of the elements conducive to the global financial system's increased vulnerability to risks.

7.2.1. The reform of the European institutional framework

The idea of creating a new financial system supervisory architecture was prompted by the recent financial crisis, which highlighted the deficiencies in terms of supervising the system in its entirety as well as the impossibility of accurately identifying *ex ante* both systemic risks and the interlinks between institutions and markets jeopardising its stability. The need to approach financial supervision both from a micro-prudential and a macro-prudential perspective also entailed the rethinking of the institutional framework governing financial system supervision. Thus, the new European System of Financial Supervision (ESFS) became operational at the beginning of 2011, covering two areas: (i) macro-prudential issues via the European Systemic Risk Board (ESRB) and (ii) micro-prudential issues through the European Supervisory Authorities (ESAs), consisting of the three European authorities tasked with the supervision of financial markets – the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA) – the Joint Committee and national supervisory authorities. The ESRB is in charge of the macro-prudential oversight of the financial system, while micro-prudential supervision is mainly the task of the ESAs. Moreover, the exchange of information between the two entities (the ESRB and the ESAs) will enable a more effective oversight of the Union financial services.

Pursuant to Regulation (EU) No. 1092/2010[160], the mandate of the ESRB is twofold: to prevent systemic risks and to mitigate them should they occur. The scope of its activity encompasses the single market, i.e. the entire EU, but should not exclude risks from outside the EU as well as vulnerabilities in single countries or regions that could spread[161]. In this vein, some of the key tasks to be carried out by the ESRB include determining and/or collecting and analysing all the relevant and necessary information, as well as identifying, assessing and prioritising systemic risks. Major tools available to the ESRB consist of the possibility of issuing warnings where such systemic risks are deemed to be significant and issuing recommendations for remedial action in response to the risks identified.

[160] Regulation (EU) No. 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (the "ESRB Regulation"), effective as of 16 December 2010, defines the ESRB mission: "*The ESRB shall be responsible for the macro-prudential oversight of the financial system within the Union in order to contribute to the prevention or mitigation of systemic risks to financial stability in the Union that arise from developments within the financial system and taking into account macroeconomic developments, so as to avoid periods of widespread financial distress. It shall contribute to the smooth functioning of the internal market and thereby ensure a sustainable contribution of the financial sector to economic growth.*"

[161] Jean-Claude Trichet, President of the ECB, ESRB Chair, at the Eurofi G20 High Level Seminar, 17 February 2011.

The organisational structure of the ESRB comprises: (i) a General Board (decision-making body); (ii) a Steering Committee (which assists in the decision-making process of the ESRB by preparing the meetings of the General Board); (iii) a Secretariat (responsible for the day-to-day business of the ESRB), and (iv) two advisory committees. The Advisory Technical Committee (ATC) provides advice and assistance on issues relevant to the work of the ESRB and consists of representatives of: the ECB, national central banks and national supervisory authorities of the Member States, EBA, EIOPA, ESMA, the European Commission, the Economic and Financial Committee and the Advisory Scientific Committee (ASC). The mandate of the ASC aims at improving analytical methodologies to detect risks and assess the potential impact of their materialisation, designing and calibrating effective macro-prudential policy tools (along with improving current tools or models, as well as proposing new and/or complementary analytical tools and models). Consultative tasks refer to the review of macro-prudential strategies in order to contribute to the ESRB policy framework.

Based on the cooperation principles between the parties to the ESFS, the ESRB will develop in collaboration with the ESAs a common set of quantitative and qualitative indicators (risk dashboard) to identify and measure systemic risk, while also providing the ESAs with the information on systemic risks required for the performance of their tasks. This exchange of information between ESFS members is both necessary and beneficial in terms of detecting and mitigating micro- and macro-prudential risks. As regards the ESRB projects, the General Board meeting of March 2011 discussed the interaction between the parties to the ESFS and explored the role the ESRB could play in (i) implementing countercyclical capital buffers once the Basel III agreements are transposed into EU law (together with the EBA), (ii) the stress tests carried out (along with the ESAs) from a macroeconomic perspective, and (iii) the peer review organised by the EBA in May 2011. Furthermore, the ESRB needs to coordinate its actions with those of international financial organisations, particularly the IMF and the Financial Stability Board (FSB) as well as the relevant bodies in third countries on matters related to macro-prudential oversight.

Box 6. The NBR's macro-prudential mandate

The National Bank of Romania has been entrusted with specific tasks related to financial stability, representing the central bank's macro-prudential mandate.

Pursuant to the legal provisions in force, the NBR performs specific duties in the financial stability area in its capacity as (i) monetary authority; (ii) regulatory and supervisory authority for credit institutions, non-bank financial lenders and payment institutions; (iii) overseer of payment systems; and (iv) provider of immediate liquidity and lender of last resort, in exceptional cases, to credit institutions. Its institutional tasks and the structure of the domestic financial system (credit institutions accounted for approximately 84.4 percent of the financial system's net assets at end-2010) point to the NBR's key role in maintaining financial stability. However, the central bank does not have an exclusive mandate to safeguard financial system stability, as the other regulatory and supervisory authorities have been entrusted with sectoral tasks[162].

The NBR's macro-prudential policies are primarily aimed at maintaining financial stability. In this vein, the central bank prepares specific analyses assessing and monitoring systemic risk. The analyses for detecting financial system risks and vulnerabilities encompass all system components, namely markets, institutions, infrastructures and related interlinks, the interactions between the financial system and the real economy and, last but not least, ongoing market evolution and financial system innovation. The central bank's policy decisions in its areas of competence rely on these macro-prudential analyses. The analytical toolkit includes regular stress-test exercises, early warning exercises, as well as qualitative and quantitative analyses based on econometric techniques. Detected risks are contained via specific measures (e.g., prudential instruments for

[162] The Cooperation Agreement between the Ministry of Economy and Finance, the National Bank of Romania, the National Securities Commission, the Insurance Supervisory Commission and the Private Pension System Supervision Commission in the area of financial stability and financial crises management entered into force on 31 July 2007.

limiting aggregate risk and negative externalities) taken by the competent authorities depending on their own areas of responsibility. Such measures are aimed at mitigating/avoiding cyclicality and limiting contagion in case of potentially systemic disruptions and inefficiencies.

As regards the accountability and transparency requirements implied by the macro-prudential mandate, the NBR has improved its communication with the public over the recent years. The central bank publishes an annual Financial Stability Report describing the latest developments in the financial system (institutions, markets and infrastructure), while also assessing specific vulnerabilities. Furthermore, messages and appraisals regarding financial system stability are conveyed via other communication channels as well, such as publications (Annual Report, quarterly Inflation Report, etc.), press releases, press conferences, speeches and seminars. Their role is to draw the public's attention to key issues related to financial stability (macro-prudential analysis included), monetary policy, banking supervision and other specific topics (non-performing loans, foreign currency lending, etc.).

The NBR participates in ESRB structures and is also a member of the EBA. In order to streamline its activity in the area of macro-prudential supervision, the NBR seeks to strengthen its European-wide cooperation with the other supervisory authorities[163]. There are currently distinct approaches across EU Member States when it comes to defining and setting the objectives and the scope of the macro-prudential or financial stability mandate, the authorities' accountability, macro-prudential policies, organising macro-prudential supervision and the macro-prudential tools employed. Given that, in general, the statutes of the competent authorities do not explicitly set forth the types of powers or tools in terms of macro-prudential supervision, the institutional groundwork should be laid so as to streamline the implementation and have a better control from the onset over the enforcement of ESRB recommendations or warnings (which are actually binding upon national authorities). In this sense, the harmonisation of the macro-prudential mandate across all national authorities via an EU-wide uniform approach would contribute to a clearer understanding of responsibilities and enhanced governance. An explicit mandate confers the institutional power to issue macro-prudential regulations and assess their enforcement. In light of its prerogatives, the ESRB is expected to assume an active role in defining macro-prudential supervision concepts, methodology and elements, for a higher degree of convergence across the EU.

Amid the financial crisis, the international community called for the restructuring of the global financial supervisory framework by refining micro-prudential oversight standards and introducing a new approach from a macro-prudential perspective[164]. The G20 and other international entities, such as the FSB and the Basel Committee on Banking Supervision (BCBS) also supported the macro-prudential approach of global supervision, making progress in promoting and implementing macro-prudential standards (e.g., countercyclical capital buffers; instruments for the resolution of systemically important financial institutions in distress, such as capital and liquidity surcharges, resolution and insolvency mechanisms). They are part of a broader set of measures aimed at eliminating the underlying roots of the crisis: excessive indebtedness, reduced loss absorbency, faulty liquidity management, inadequate incentives, and the lack of transparency. At the same time, the G20 also focus their attention on excessive capital flows and increasing financial institutions' resilience. Key actions include: (i) enhancing capital level and quality, aligning capital requirements so as to better capture market risk, counterparty risk, and securitised portfolio risk; (ii) setting a ceiling for the leverage ratio; (iii) defining the measures to increase liquidity buffers and reduce unstable funding structures. The FSB has also announced the introduction of a set of measures applicable to systemically important institutions. Such measures refer to the bank resolution framework, additional loss absorbency capital, closer supervision, tighter standards for the financial

[163] The Memorandum of Understanding on cooperation between the financial supervisory authorities, central banks and finance ministries of the European Union on cross-border financial stability was signed on 1 June 2008.

[164] In the summer of 2010, the US Congress passed the Dodd-Frank Act, whose macro-prudential provisions have been transposed into Federal Reserve regulations.

infrastructure and the regular assessments of domestic policies in case of systemically important financial institutions worldwide. Enhancing the macro-prudential policy framework, in collaboration with the IMF, the FSB and the BIS, is currently on the G20 agenda as well. The IMF has conducted an exercise assessing the European financial stability framework for the euro area on bilateral and multilateral bases. The exercise may be looked upon as the forerunner of the IMF's Financial Sector Assessment Program (FSAP).

7.2.2. The new Basel III capital requirements

The reform of the financial system regulatory framework proposed by the BCBS[165] is aimed at promoting a stronger and more resilient banking sector, via measures meant to improve its ability to absorb shocks arising from financial and economic stress, whatever the source, as well as to reduce the risk of spillover from the financial sector to the real economy. The new standards also aim to improve risk management, strengthen banks' transparency and disclosure requirements, while also strengthening the resolution of systemically significant cross-border banks. The set of measures developed by the BCBS involves, first and foremost, tighter standards for banks in terms of capital adequacy, liquidity requirements and the leverage ratio. The objective of these reforms is to increase benefits to the financial system by reducing both the frequency and the intensity of financial crises, thereby lowering associated economic costs.

The new Basel III standards are fundamentally different from the Basel I and Basel II standards in that their scope is much broader and the measures they propose are both micro-prudential (addressing bank-level risks) and macro-prudential (system-wide risks that can build up across the banking sector) in nature. Micro-prudential standards refer to: (i) raising the quality of the capital base by increasing the regulatory equity requirement (common stock and retained earnings) and the required ratio of Tier 1 equity (own capital and hybrid instruments), as well as by introducing stricter eligibility criteria for the instruments that may be taken into consideration upon determining Tier 1 equity; (ii) enhancing risk coverage, with a focus on the risks highlighted by the crisis, such as trading book exposures, counterparty credit risk (CCR), securitisation exposures and securitisation positions; (iii) supplementing the risk-based capital requirement with a leverage ratio; (iv) introducing global liquidity standards meant to ensure short-term (30 days) resilience to shocks/liquidity disruptions and to address longer-term (1 year) structural liquidity mismatches[166].

But the newest developments in terms of capital adequacy to risks relate to macro-prudential standards. They promote the creation of both a countercyclical buffer, aimed at insulating the financial system and the real economy from systemic risks associated with periods of excess credit growth, and a capital conservation buffer, whose role is to cover losses if the credit institution finds itself in financial distress[167]. In addition, the goal is to introduce a leverage ratio benefiting the entire financial system by constraining the excessive build-up of leverage in the banking sector during periods of economic boom. The aforementioned macro-prudential elements are countercyclical in nature.

The proposed changes meant to raise minimum capital requirements and enhance the quality of items used in the calculation of Tier 1 capital will lead to a lower leverage ratio, thus spurring investor confidence. Moreover, additional capital requirements are expected to ensure higher capital charges

[165] *Basel III: A global regulatory framework for more resilient banks and banking systems* (2010) and *Basel III: International framework for liquidity risk measurement, standards and monitoring* (2010).

[166] By funding long-term assets with at least a minimum amount of stable liabilities.

[167] Banks failing to meet the minimum capital ratios according to the two categories shall be subject to capital distribution constraints (restrictions on dividend payments and share buybacks).

for banks' credit risk and easier access to market funding. At the same time, the countercyclical capital buffer (with loss absorbing capacity) is intended to help banks overcome any future systemic shocks without being bailed out from public funds.

A key factor determining banks' response to the new capital and liquidity standards is the length of the period during which the new requirements are phased in. If the transition period is short, banks may choose to curtail credit supply in order to lift capital ratios and adjust asset composition and holdings quickly. The phasing out of the new standards, as laid down in the Basel III document and in CRD IV[168], could mitigate the impact, allowing banks additional time to adapt by retaining earnings, issuing equity, shifting liability composition and the like. Whether the transition is long or short, decisive action to strengthen banks' capital and liquidity positions could boost confidence in the long-term stability of the financial system, while also enabling banks to mitigate any adverse effects on lending conditions and, eventually, on aggregate activity.

The capital conservation buffer stands at 2.5 percent above the regulatory minimum capital requirement (Tier 1 equity consisting of common stock and retained earnings), while the countercyclical buffer varies within a range that may not exceed 2.5 percent depending on the actual stage of the economic cycle, supplementing the aforementioned requirements. The level of the countercyclical buffer is proportional to the imbalances it reflects (i.e. systemic risk) and is calculated according to a reference indicator (credit/GDP) in line with ESRB principles and EBA technical standards. It may vary depending on national authorities' decisions and ESRB recommendations. The rationale behind these decisions is subject to transparency requirements.

As regards the global nature of the financial system, banks are internationally active, supervisory authorities are confined to national jurisdictions, while risks in a particular country are not necessarily linked to risks in another country, even assuming similar competitiveness conditions among banks. For these reasons, it was decided to comply with national authorities' decisions on the measures to maintain financial stability at a national level. Thus, the level of the countercyclical buffer will be set by the supervisory authorities in the jurisdictions where the obligors are located, irrespective of the creditor's country of origin. The decision on the capital buffer level taken by the authorities in the host country shall be binding upon banks and supervisory authorities in the country of origin (up to 2.5 percent[169]). The buffer that will apply to each bank will reflect the geographic composition of its portfolio of credit exposures. Internationally active banks will calculate their countercyclical capital buffer requirement as a weighted average of the buffers that are being applied in jurisdictions to which they have an exposure.

For an internationally active bank, the reliance on its geographic exposure and the elimination of the arbitrage risk are key components of an effective protection mechanism of the European financial system, since they allow stability to be preserved even within a financial system characterised by relatively high volatility of capital flows (as is the case of Romania). Furthermore, the countercyclical capital buffer needs to be determined and held at individual, sub-consolidated and consolidated level.

---

[168] Prior to introducing the new capital and liquidity standards in national legislation, they will be subject to an observation period. Thus, capital adequacy requirements will enter into force on 1 January 2019 (1 January 2018 for the leverage ratio), following a transition period that is due to start in 2013. Similarly, the Basel III document sets an observation period beginning in 2011 for liquidity requirements as well; afterwards, the Liquidity Coverage Ratio (LCR) will be introduced on 1 January 2015 and the Net Stable Funding Ratio (NSFR) will move to a minimum standard by 1 January 2018.

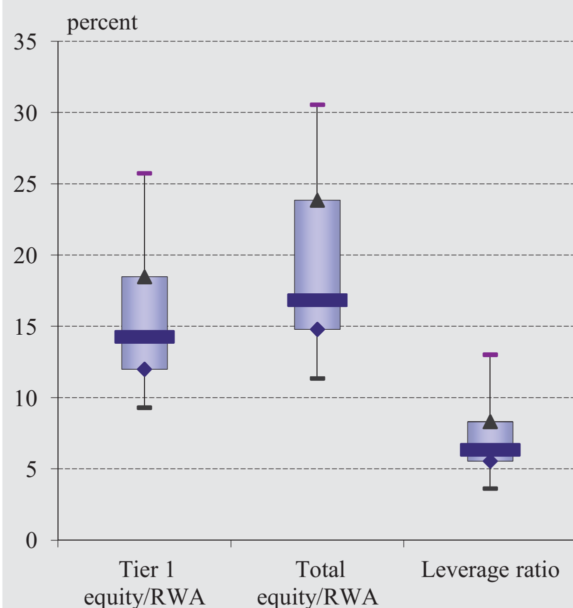
[169] Most EU Member States have so far agreed on the possibility of raising the proposed level of 2.5 percent.

Macro-prudential standards also include the measures targeting systemically important banks. Such measures were designed to reduce both the likelihood and the impact of a systemically important bank's default, to lower the intervention costs incurred by the public sector and, last but not least, to ensure fair competition by narrowing these banks' competitive edge when it comes to financing. Systemically important banks are credit institutions that simultaneously fulfil the criteria[170] on size, interconnectedness, complexity, substitutability and global activity. The BCBS methodology allows for the differentiated treatment of systemically important banks. The steps taken by the BCBS in this area are in line with the FSB objective of addressing risks facing systemically significant financial institutions, which are likely to impair the stability of the global financial system. The BCBS also contemplates additional requirements for systemically important banks' loss absorbency, as well as the potential introduction of capital surcharges.

Box 7. The impact of introducing the new Basel III capital requirements on the Romanian banking system

The assessment of the possible effects of applying Basel III standards across the Romanian banking system points to a moderate impact (Chart).

Distribution of regulatory capital indicators across the Romanian banking system, determined based on data available as of 30 June 2011, in line with Basel III proposals[171]



Note: The edges of the vertical lines indicate the minimum and maximum values respectively. Horizontal lines indicate the median, as well as the 25th and 75th percentiles.

RWA = risk-weighted assets

Source: NBR

Data available as of 30 June 2011 indicate that total equity across the domestic banking system consists primarily of Tier 1 equity (80 percent), while hybrid instruments are absent. Thus, the equity structure helps cushion the potential impact of implementing the Basel III capital requirements.

Given the comfortable level of the aggregate leverage ratio, i.e. 6 percent[172], the introduction of the new requirement will not have a direct impact on the Romanian banking system. Certain effects may become manifest as a result of the impact of the new standards on banking groups with subsidiaries and/or branches operating in Romania. Moreover, according to calculations made at individual level as of 30 June 2011, all credit institutions reported a leverage ratio above the 3 percent threshold laid down in the Basel III document.

The analysis of (total and Tier 1) equity shows that banks operating in Romania comply with the new Basel III standards on capital adequacy. Thus, the value of total equity accounts for 14.2 percent of total risk-weighted assets, while the system-wide share of Tier 1 equity in total risk-weighted assets stands at 13.6 percent.

[170] BIS methodology.

[171] Outliers have been excluded from the distribution.

[172] A bank's leverage ratio has been calculated by dividing its Tier 1 equity, as the numerator of the ratio, by the sum between total assets and off-balance sheet items (unadjusted value), as denominator.

Basel III standards will be implemented across EU Member States (Table 7.1.) by amending the Capital Requirements Directive (CRD IV). For financial stability reasons, during the 2010 EU-wide consultation on the proposed amendments to CRD IV, the NBR advocated that the competent authority in the host Member State preserve its prerogative of supervising subsidiaries' liquidity, while also promoting the application of liquidity standards at individual level as well, irrespective of whether such standards are met at consolidated level. The recommendations on their implementation will be forwarded to the ESRB, the EBA, the national supervisory authorities and directly to banks, in order to safeguard the utmost coherence of financial regulations and sustainable economic growth.

Table 7.1. Summary of EU-wide measures (Basel III)

	Causes/effects of the crisis	Solutions laid down in the regulatory initiatives	Objectives of the measures
Capital requirements	Insufficient capital base to absorb losses (recapitalisation need has led to the use of public funds)	Raising the quality of the capital base by: – including common stock, aside from retained earnings, in Tier 1 common equity; preferential shares are excluded; – introducing stricter eligibility criteria for the items included in the additional Tier 1 equity, by removing items with insufficient loss-absorbency capacity	Limited exposure to risks; increased resilience to crises
		Raising the Tier 1 capital ratio from 4 percent to 6 percent and the core Tier 1 capital ratio (common equity after deductions) from 2 percent to 4.5 percent	Limited exposure to risks; increased resilience to crises
		Introducing requirements on the countercyclical capital buffer (which will be met with common equity)	Reducing systemic risk (flattening the credit cycle curve); limited exposure to risks; increased resilience to crises
		Introducing requirements on the capital conservation buffer (2.5 percent), which will be met with common equity	Limited exposure to risks; increased resilience to crises
	Lack of transparency on banks' capital structure	Ensuring harmonisation of and compliance with requirements	Enhanced transparency and disclosure requirements
		Enhancing the transparency and disclosure requirements on regulatory capital applicable to banks	

Leverage ratio	Excessive leverage (default risk)	Introducing the leverage ratio as a supplemental measure	Reducing systemic risk (flattening the credit cycle curve); increased resilience to crises
Liquidity standards	Over-reliance on short-term resources for funding long-term assets	Introducing minimum global requirements on liquidity risk	Reducing systemic risk (flattening the credit cycle curve); increased resilience to crises
	Misperception of market liquidity		
Systemically important banks	Recapitalisation need has led to the use of public funds	Additional requirements for systemically important banks	Mitigating risks generated by systemically important banks
	Absence of an adequate regulatory framework on banks' restructuring and default without jeopardising financial stability	Introducing a new crisis management framework	Reducing the risks generated by credit institutions; enhanced transparency; reduced likelihood of earmarking public funds for bailing out credit institutions

7.2.3. Taxation of the financial sector

The European Commission's initiative on the taxation of the financial sector is a matter of interest to the NBR in terms of its impact both on the stability of the domestic financial sector and on the latter's development potential over the medium and long term.

Domestic financial markets have not recorded highly risky transactions such as those that led to the outbreak of the global financial crisis, whose effects spilled over to the Romanian economy only via indirect channels. The public authorities have not provided financial assistance to credit institutions in Romania, as the strengthening of their capital bases was fully ensured by the respective shareholders. However, in its capacity as an EU Member State, Romania's major goal is to achieve convergence with the single market, which also calls for the harmonisation of laws. In this sense, although the Government of Romania has not promoted a unilateral initiative on the taxation of the domestic financial sector, Romania will enforce the relevant decisions taken at a European level. Furthermore, it is the NBR's opinion that the taxation issue should be approached by EU institutions so as to avoid regulatory arbitrage (likely to entail the delocalisation of financial sector investments) and the risk of public policy inconsistency. Regardless of the technical solution promoted across the EU for the taxation of the financial sector (financial transactions tax – FTT or financial activities tax – FAT, etc.), the collected amounts should be transferred to a distinct fund for financing the interventions required for maintaining financial stability.

The potential objectives of EU-wide taxation include: (i) complementing the extensive financial sector reforms underway, taxes could contribute to enhancing the efficiency and stability of financial markets (corrective taxation); (ii) involving the financial sector in making a fair and substantial contribution towards paying for any burdens associated with government interventions at times of crises, in order to support the fiscal consolidation process (in which case implementing this tax needs to be harmonised with the fund resolution/bank restructuring decisions taken by EU institutions); (iii) financial sector contribution to government finances, given that most financial services are

exempt from value added taxation, which could lead to a sub-taxation of the sector. In light of these objectives, the EU needs to structure the categories of taxes, to define the technical details (tax base, percentage quota / amount, etc.), the collection and administration mechanisms, as well as to agree on the destination of funds. An assessment should also be conducted on the possible impact of applying simultaneously the changes in the prudential framework and those related to the uniform taxation of the financial sector. Since the current stage of debates on the taxation of the financial sector has not yielded a clear and unanimously-accepted objective across Member States, the technical details could be further refined following the ongoing impact analysis conducted by the European Commission. Both the literature and empirical evidence point to a low FTT efficiency. A tax on institutions might prove more efficient instead.

The NBR believes that the taxation of the financial sector should ensure the consistency of economic objectives, while also avoiding the burdening of the sector with excessive costs likely to generate distortions or to delay the sustainable resumption of economic growth. Introducing such taxes, along with stricter capital requirements (EC Directives CRD III and CRD IV) and higher contributions to the deposit guarantee schemes, as well as the set-up of bank restructuring funds are all likely to exert additional pressure on the banking sector and may even distort financial intermediation costs. The actual level of financial sector taxation should be determined by also taking into consideration the costs incurred by financial institutions when implementing the specific regulatory framework. Capital, solvency and liquidity requirements, high operating expenses, the reports requested by supervisory authorities, the contributions paid to the deposit/investor/insurance guarantee fund, all generate costs for the financial institutions. In addition, the exemption from VAT payment renders impossible the deduction of VAT paid. In this sense, the potential adoption of a decision to harmonise the fiscal framework across all economic sectors should strike a balance between sectoral regulatory costs and fiscal obligations.

Defining, determining the scope and applying a financial transactions tax (if such a decision is taken) should be globally harmonised so as to ensure a level playing field for all market participants. Introducing this tax worldwide might help avoid geographical relocation. At the same time, confining the FTT only to the European Union might put the financial institutions in the area at a disadvantage in relation to other international financial institutions, given the increased globalisation of financial markets, with potentially sizeable effects on delocalisation and portfolio restructuring. Distortions are also likely to occur within the European Union if the tax applies solely to banking institutions, excluding the other financial institutions, thus diminishing the efficiency of such a decision.

As regards the taxation of financial transactions, excluding derivatives from the taxation base has negative consequences on one of the stated objectives of applying the tax, namely reducing speculative trading and mitigating the risk assumed by financial institutions. Some of the derivatives contracts are concluded for risk-hedging purposes, yet this category of financial instruments is likely to generate systemic crises unless transactions are transparent and adequately monitored by financial institutions or supervisory authorities. If the derivatives market at aggregate level is seen as a potential source of systemic risks, resorting to an extended taxation base would underpin the stability of the financial system. On the other hand, confining the taxation base to high-risk transactions is not an easy decision, in light of (i) the difficulty of defining risky transactions (given the heterogeneity of theoretical approaches, the peculiarities of local and/or regional financial markets, etc.) and (ii) the high likelihood of financial institutions circumventing the tax (e.g., financial innovations with a high degree of asset substitutability). The tax should be applied at the notional value of the derivatives, since the price of a derivative fluctuates, while the notional value is directly linked to the investors' need of protection or assumed risk. When assessing the optimum level of the tax, due consideration

should be given to the amounts to be collected to the government budget and to the achievement of the objectives on enhanced financial system stability, on one hand, as well as to the costs incurred by the beneficiaries of financial services, on the other.

As far as the financial activities tax is concerned, it is the NBR's opinion that an efficient approach in terms of financial stability would be the taxation of risky activities, as such a mechanism would not involve the inconveniences implied by the FTT.

The impact analysis currently conducted by the European Commission is expected to clarify such issues as the need and the timeliness of taxing the financial system in the EU (costs vs. benefits) both across the EU and in each Member State. Given the major differences among national financial sectors in terms of development, performance and their role in generating the crisis, the NBR reckons that both the objective and the technical details of the tax (taxation base, level, way of collection and administering collections, etc.) should be configured so as to avoid the unfair distribution of the net tax burden between countries with developed financial markets – which will see higher revenues and a potentially lower volume of speculative trading – and countries with relatively smaller financial markets, especially those belonging to EU-10. The financial sectors of this latter category have not assumed excessive risks, while the additional costs generated by the financial sector taxation could delay the catching-up process and the development of financial markets.

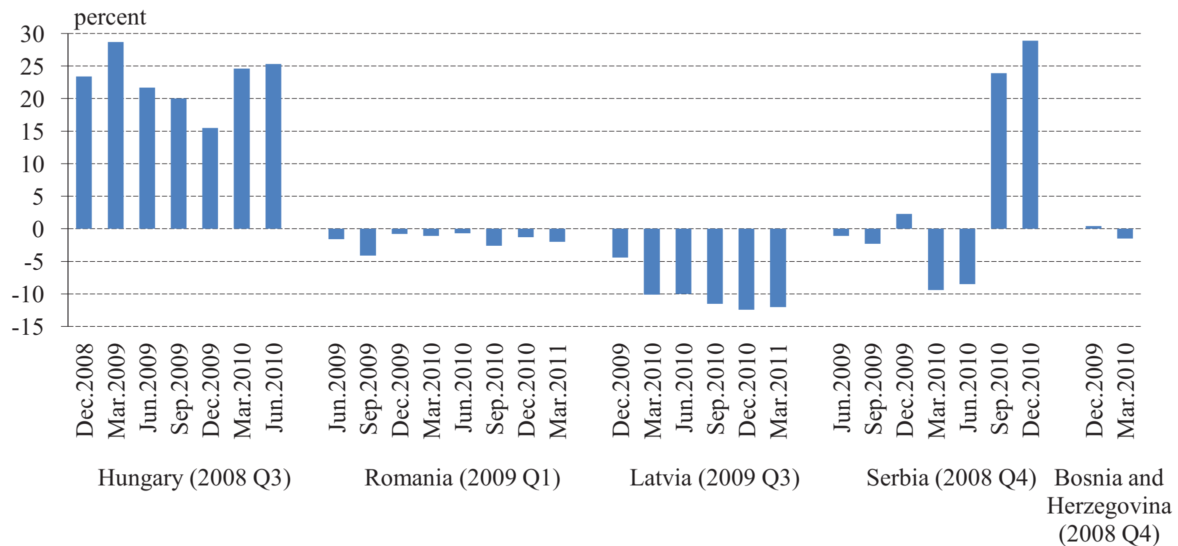
7.3. The European Bank Coordination Initiative (the Vienna Initiative)

The European Bank Coordination Initiative has played a major role in safeguarding financial stability in the region, while its key objective – i.e. parent bank groups maintaining their exposures to participating countries – has been largely fulfilled. Looking ahead, the *Initiative* seeks to further identify solutions to address the challenges in the region. As regards Romania, the Initiative had a beneficial role in terms of financial stability, as the signatory banks have met at aggregate level the commitments to maintain their exposures and to ensure an adequate capital level above the 10 percent threshold.

The *Initiative* was launched in January 2009 in Vienna as a public-private partnership, with a view to ensuring coordinated action for maintaining financial stability and confidence in the local markets, as well as promoting sustainable economic growth. Romania was the pilot country along with Hungary and Serbia. The *Initiative* was based on the cooperation between: (i) home country authorities of systemically important European banking groups that are active on emerging European markets, (ii) international financial institutions (IMF, European Commission, EBRD, EIB and the World Bank), (iii) representatives of participating banking groups, and (iv) the local authorities in emerging European countries. The ECB participated with an observer status.

The *Initiative's* aims included: (1) preventing a large-scale withdrawal of bank groups from the region. Bank groups have publicly committed themselves to maintaining exposures and recapitalising their subsidiaries in countries having concluded financing arrangements with the IMF and the EC (Hungary, Romania, Serbia, Bosnia and Herzegovina, Latvia); (2) agreeing on common crisis management and crisis resolution principles, involving both the host and home country authorities, and (3) strengthening cross-border regulatory cooperation and information sharing.

Chart 7.1. European banks' exposures to emerging European countries, depending on the reference period for maintaining exposures*



* Dates in parentheses mark the reference periods for maintaining exposures.

Source: European Bank Coordination Initiative, March 2011

The objectives of the *Initiative* have been largely accomplished. The major credit institutions with foreign capital in Romania, Hungary, Serbia, Bosnia and Herzegovina[173] have met their commitments undertaken via bilateral letters for maintaining exposures (Chart 7.1.). Parent banks supplied their subsidiaries with additional capital on an *ex ante* basis during 2009-2010, so that the solvency ratio was kept at comfortable levels. Last but not least, the international financial institutions (EBRD, EIB and the World Bank Group) have delivered on their commitments to provide financial assistance to the CEE banking sectors, as laid down in the Joint IFI Action Plan of February 2009[174].

In Romania, the credit institutions that joined the *Initiative* were: Alpha Bank, Banca Comercială Română, Bancpost, BRD – Groupe Société Générale, Banca Românească – Member of the National Bank of Greece Group, Piraeus Bank, Raiffeisen Bank, UniCredit Ţiriac Bank and Volksbank. These banks jointly account for around 70 percent of the credit portfolio extended to companies and households as of June 2011. The overall exposure of these entities' parent banks to Romania remained, during 2009 – March 2011, close to the reference level (set at the March 2009 reading), while the additional capital contributions increased the average solvency ratio above the initially-agreed 10 percent threshold (the average solvency of banks participating in the *Initiative* rose from 12 percent in March 2009 to 13.3 percent in June 2011). Signatory banks agreed to maintain their commitments under the *Initiative* throughout the duration of the first financing arrangement concluded by Romania with the EU and IMF, namely May 2009 – March 2011. Upon completion of the arrangement, in March 2011, the parent banks of the nine largest foreign-owned credit institutions operating in Romania reaffirmed their long-term commitment to the country in terms of maintaining the capitalisation of their local subsidiaries above the 11 percent level set as minimum threshold for all credit institutions in Romania.

[173] Foreign-owned banks in Austria, Italy, Greece, France, Slovenia, Germany, Belgium and northern states (except for Iceland) have committed themselves to maintaining their overall exposure as follows: 95 percent in Hungary and 100 percent in Romania, Bosnia and Herzegovina, and Serbia. During 2010, exposure margins were eased to 95 percent in Romania and 80 percent in Serbia.

[174] According to the Final Report on the Joint IFI Action Plan, international financial institutions' commitments amounted to EUR 33 billion during 2009-2010, compared to EUR 24.5 billion assumed initially.

The lending behaviour of banks participating in the *Initiative* is likely to have influenced the other banks' lending decisions. Thus, the lending activity of non-signatory banks grew at a faster pace than that of signatory banks (probably with a view to maintaining their market share as much as possible), especially in case of household loans. More than half of the signatory banks of the *Initiative* reported a lower deterioration of their credit portfolio compared to the other banks in the system. The non-performing loan ratio[175] went up 5.3 percentage points during December 2009 – June 2011 (compared to an advance of 5.9 percentage points for the other banks during the same interval). Signatory banks' profitability stayed in positive territory throughout 2010 and in 2011 H1 (the monthly average profitability stood at 3.2 percent during the period under review compared to an average loss of 6.1 percent reported by the other banks in the sector during the same interval).

The lower risk of withdrawing funding from parent banks in case of credit institutions participating in the *Initiative* might not have generated sufficient incentives to adjust the vulnerabilities associated with the above-par loan/deposit ratio. With only a few exceptions, signatory banks felt a lower pressure to compete with the other banks in raising funds on the local market. The average loan/deposit ratio of participating banks stood at a high level in June 2011 (133.7 percent), close to that recorded at the outbreak of the crisis, while the ratio calculated for the rest of the banking sector dropped from 104 percent in 2008 to 93.8 percent in June 2011.

In addition to the objectives already mentioned, the European Bank Coordination Initiative also aimed to investigate possible policy initiatives addressing the structural challenges facing the banking sectors in the region. In this sense, two Working Groups were established, with the purpose to assess: (i) financial market development in local currency in order to contain foreign currency lending and (ii) the role credit institutions could play in absorbing EU funds. The Working Group assessing foreign currency lending[176] concluded that ensuring the efficiency of the measures aimed at containing this type of lending requires stronger coordination among home and host country authorities of foreign parent banks. The Working Group on the absorption of EU funds[177] tackled the issue of the low absorption rate in several countries that have only recently joined the EU, while also reviewing the solution of a closer involvement of commercial banks in evaluating and determining the projects eligible for EU funding. The *Initiative* is currently active via new Working Groups dealing with issues such as: (1) the implications of Basel III measures on the banking sector in emerging Europe and (2) the management of non-performing loans to companies and households.

[175] The non-performing loan ratio is the ratio between the gross exposure of principal and interest that are more than 90 days overdue and/or for which legal proceedings have been initiated, and total classified loans and interest ("Loss 2").

[176] The Working Group consisted of representatives of supervisory and fiscal authorities in Romania, Serbia and Hungary, of the banking groups operating in these countries, as well as of the IMF, EBRD, EIB and the World Bank. The Group prepared the *Report by the Public-Private Sector Working Group on Local Currency Development* and the key measures agreed upon were: reducing foreign currency lending to unhedged borrowers, developing local capital markets, and fostering domestic saving.

[177] The Working Group prepared the report *The Role of Commercial Banks in the Absorption of EU funds*, which draws on the experience of three of the countries participating in the Initiative (Romania, Hungary and Latvia), as well as that of Bulgaria, Greece and Italy.