FINANCIAL STABILITY REPORT

NOVEMBER
2014

'...a nation is strong where property and independence are guarded by free hands.'

Ferenc Deák

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Financial stability is a state in which the financial system, including key financial markets and financial institutions, is capable of withstanding economic shocks and can fulfil its key functions smoothly, i.e. intermediating financial resources, managing financial risks and processing payment transactions.

The Magyar Nemzeti Bank's fundamental interest and joint responsibility with other government institutions is to maintain and promote the stability of the domestic financial system. The role of the Magyar Nemzeti Bank in the maintenance of financial stability is defined by the Central Bank Act.

Without prejudice to its primary objective - to achieve and maintain price stability -, the MNB shall support the maintenance of the stability of the financial intermediary system, the enhancement of its resilience, its sustainable contribution to economic growth; furthermore, the MNB shall support the economic policy of the government using the instruments at its disposal.

The MNB shall establish the macro-prudential policy for the stability of the entire system of financial intermediation, with the objective to enhance the resilience of the system of financial intermediation and to ensure its sustainable contribution to economic growth. To that end and within the limits specified in the Central Bank Act, the MNB shall explore the business and economic risks threatening the system of financial intermediation as a whole, promote the prevention of the development of systemic risks and the reduction or elimination of the evolved systemic risks; furthermore, in the event of disturbances to the credit market it shall contribute to the balanced implementation of the function of the system of intermediation in financing the economy through stimulating lending and by restraining lending it in the event of excessive credit outflow.

The primary objective of the Financial Stability Report is to inform stakeholders about the topical issues related to financial stability, and thereby raise the risk awareness of those concerned as well as maintain and strengthen confidence in the financial system. Accordingly, it is the Magyar Nemzeti Bank's intention to ensure the availability of the information needed for financial decisions, and thereby make a contribution to increasing the stability of the financial system as a whole. The scope of the report broadened in parallel with the MNB's new macro- and microprudential supervisory mandate.

The analyses in this Report were prepared by the Financial System Analysis, the Macroprudential Policy directorates, the Resolution and reorganisation department, and the Financial Institutions Supervision Executive Directorate, under the general direction of Márton NAGY, Executive Director. The Report was approved for publication by Dr. Ádám BALOG, Deputy Governor.

The Report incorporates the Financial Stability Council's valuable comments and suggestions following its meetings on 28 October and 4 November 2014, and those of the Monetary Council following its meeting on 28 October 2014.

This Report is based on information in the period to 31 October 2014.

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Executive summary

In 2014 H1, as forecast by the MNB, lending in Hungary continued to improve, primarily as a result of cuts in the central bank policy rate and, in the SME sector, the Funding for Growth Scheme. The extension and increase of the FGS credit facility additionally support lending in the SME sector. However, no significant improvement has been seen in market-based corporate lending. Overall, the banking system can still be considered as contractionary and is not sufficiently supportive of economic growth, which to a great degree can be traced back to the risks being carried in banks' balance sheets. These risks primarily involve households' FX loans and commercial real estate loans, which have burdened banks' balance sheets since the outbreak of the crisis.

With regard to commercial real estate loans, the asset management company to be set up by the MNB may induce more dynamic portfolio cleaning, as a voluntary option for banks. Due to the subdued demand and significant oversupply in the commercial real estate segment and workout market, these exposures would weigh on banks' balance sheets for many years. According to the decision of the Monetary Council, the MNB will provide HUF 300 billion in financing to the asset management company for the purchase of commercial real estate claims, and for foreclosed collaterals backing these claims. This will relieve much of the strain on banks, which may in turn decrease the pro-cyclicality of the banking system and thus increase the efficiency of monetary policy.

The risks related to households' FX loans are handled by nullification of the exchange rate spread, settlement of the unfair interest rate and fee increases, the transition to a "fair banking system", and conversion of foreign currency denominated mortgage loans into forints. These measures will have impact on all aspects of the banking sector's operations. Settlement will lead to immediate losses this year, as well as decrease in interest revenues in the future. In contrast to these expenses, household indebtedness will decrease, and the return to fair interest margins will increase households' repayment ability. Moreover, conversion to HUF will lead to predictable instalments. FX loans measures will lower banks' HUF liquidity, but also reduce banks' reliance on foreign funding. Finally, these measures strengthen competition among banks in retail HUF lending, as well as in HUF deposit collection activities.

The central bank is playing an active role in the settlement of households' FX debt and the transition to a "fair banking system", both in terms of macroprudential regulation and consumer protection. With regard to the former, it has elaborated the detailed methodology for settlement and the briefing of customers; with regard to the latter it will establish the objective criteria for increases in lending rates and interest margins. Furthermore, the MNB has launched foreign exchange tenders to mitigate the impacts of settlement and conversion on the forint spot market stemming from the need for hedging.

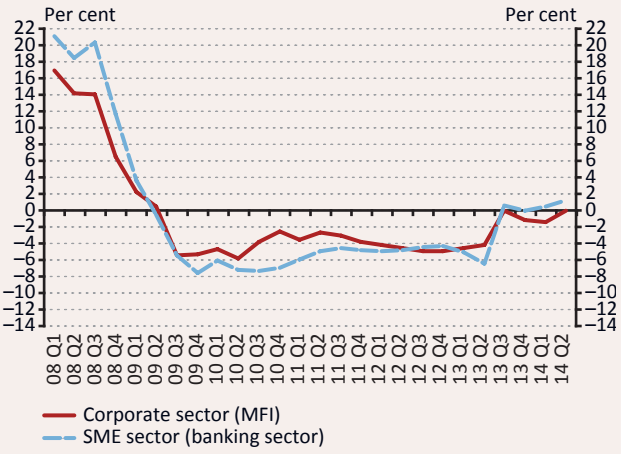
Over the short run, these measures weaken the banking system's resilience and propensity to lend, but the banking system has adequate buffers to absorb the losses and remain stable. It must be taken into consideration that, due to these risks, the banking system has built up significant capital and liquidity buffers which can mitigate the impact of these losses on lending. The stability of the banking system will be further reinforced by the planned capital increases of HUF 350 billion by owners in 2014 H2, after capital injections totalling HUF 150 billion during the first six months. Based on the solvency stress test, which also considers the results of the Asset Quality Review, in an unfavourable macroeconomic scenario a manageable amount of HUF 90 billion additional capital is required from banks at which capital shortfalls appear, in order to meet the regulatory requirements.

Over the medium term, the measures to manage problematic assets contribute to the clean-up of banks' balance sheets and help to mitigate risks, which may accelerate consolidation in the sector. As a result of all of this, a stable, profitable banking system, which consist of fewer, but more competitive and cost efficient banks, and which supports sustainable growth may evolve in the years ahead.

V.1 Corporate lending has improved significantly as a result of the FGS, but an upturn in market-based lending is also needed

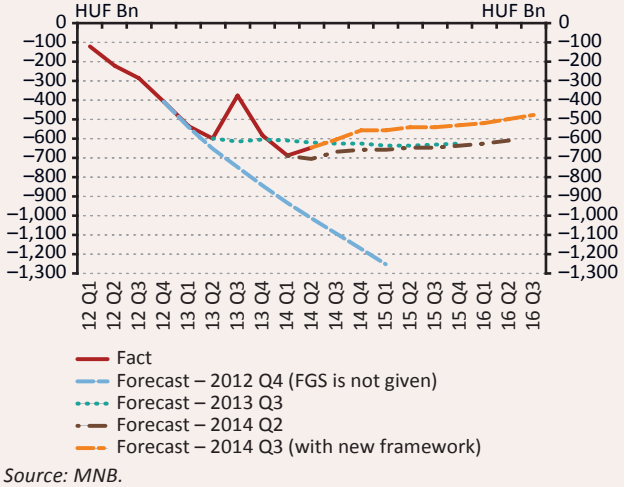
Further acceleration was seen in lending to non-financial corporations in 2014 Q2, with the Funding for Growth Scheme (FGS) making a considerable contribution in this regard. Simultaneously with this, cyclical improvement was also observed. Following the increase of the FGS limit, corporate lending is expected to continue expanding over the forecast horizon. At the same time, there are no signs of significant easing in credit conditions, while a sustainable uptrend would also require an improvement in market-based lending.

Chart V1
Annual growth rate of lending to the corporate and SME sectors



Source: MNB.

Chart V2
Forecast for corporate lending in various periods
(cumulated transactions)



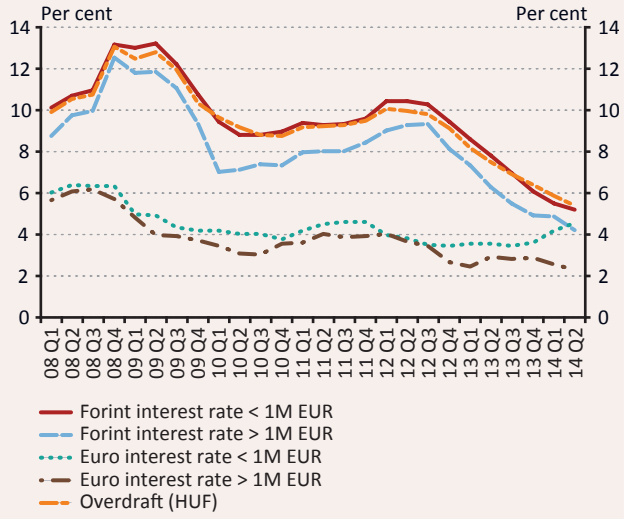
Source: MNB.

Signs of improvement are being seen in corporate lending. With the exception of the first-quarter contraction which was mainly due to technical effects, overall credit growth has been seen on a transactional basis in 2014. In parallel with the positive economic dynamics, the annual growth rate remained stable in the positive domain in the SME segment, and by the end of the second quarter, overall corporate lending turned positive, although to a slight extent (Chart V1).

To a great degree, these positive developments are due to the impact of the FGS on SME lending. In line with our expectations, there was a sharp increase in the second stage of the Funding for Growth Scheme from Q2, and thus by the end of September, 4/5 of the original limit had been utilised. Overall, the programme played a significant role in breaking the downward trend in the loan portfolio (Chart V2). Furthermore, the scheme also had a substantial impact on the quality of the loan portfolio, as reflected by the longer maturities and a shift in the denomination structure toward the forint. The Monetary Council first raised the volume of the second phase of the FGS to HUF 1,000 billion, and then extended the programme until end-2015, which may further boost corporate lending.

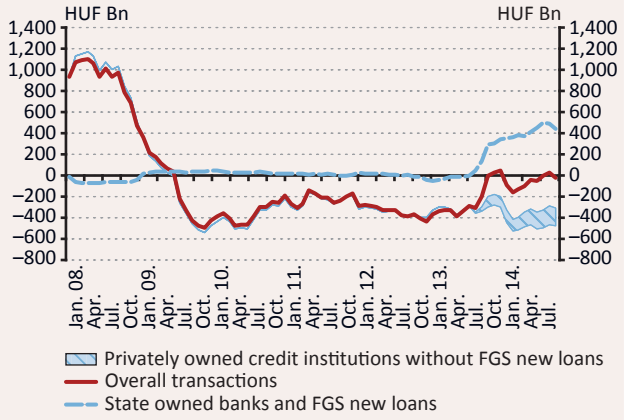
In the wake of policy rate cuts, corporate lending rates continued to decline in the past six months. Funding costs for forint loans declined by approximately one and a half percentage points (Chart V3), following the policy rate cuts. As a result, funding costs in Hungary sank to a level near the regional average. However, the average premium applied to new loans remained broadly unchanged compared to end-2013. It must be stressed that interest rates continue to only reflect the conditions applicable to creditworthy companies, which have been decreasing in number ever since the crisis due to repeated tightening of the borrowing conditions.

Chart V3
Interest rates on new corporate loans



Source: MNB.

Chart V4
12-month cumulated corporate transactions vis-à-vis the government and privately-owned institutions



Note: The band show the level of uncertainty due to the market substituting effect of new FGS loans.
Source: MNB.

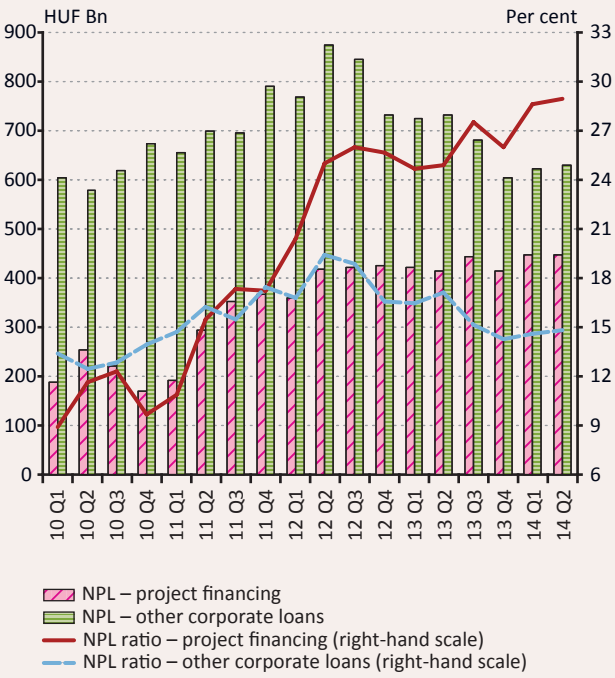
Credit supply continues to be subject to severe constraints. Based on the responses to the credit survey, banks reported unchanged overall corporate credit conditions in 2014 H1. Accordingly, corporate credit conditions still reflect the tightening measures adopted between 2008 and 2012, whereas relaxing these conditions would be a prerequisite for a long-term turnaround in lending. This is because no turnaround has been observed in market-based lending (without FGS and state-owned banks) (Chart V4). Looking forward, however, one favourable development is that, according to banks' responses, cyclical factors have recently started to point towards easing, as credit constraints may slowly ease in the event of lasting economic growth.

Banks' loan portfolios must be cleaned up and the sector's operation must be normalised in order for there to be a sustained improvement in the credit market. Overall, while corporate lending is characterised by favourable developments compared to previous years, the problems in the credit market have not been resolved; this requires a clean-up of banks' loan portfolios, i.e. the problems with household FX loans and commercial real estate exposures must be managed. While this may result in substantial losses over the short run, it may contribute to normalisation of financial intermediation and a prolonged fall in pro-cyclicality over the medium term.

V.2 Slow portfolio cleaning impedes healthy lending

In terms of non-performing corporate loans, the problem is concentrated in commercial real estate loans, as the stock of distressed loans continued to grow in recent years and there was little workout in the portfolio in contrast to other corporate loans. This impedes sustainable and stable lending, thus weakening the efficiency of monetary policy. The fundamental problem is caused by the oversupply of distressed assets along with subdued demand, which could be most efficiently managed by the asset management company proposed by the central bank, as a voluntary option for the banks. According to the Monetary Council decision, the MNB will provide HUF 300 billion in financing to the asset management company for the purchase of commercial real estate claims, and for the purchase of the foreclosed properties serving as collateral for these claims. This will relieve much of the strain on the banking system, which may moderate the pro-cyclical operation of the banking system and thus increase the efficiency of monetary policy.

Chart V5
Non-performing corporate loans in the banking sector

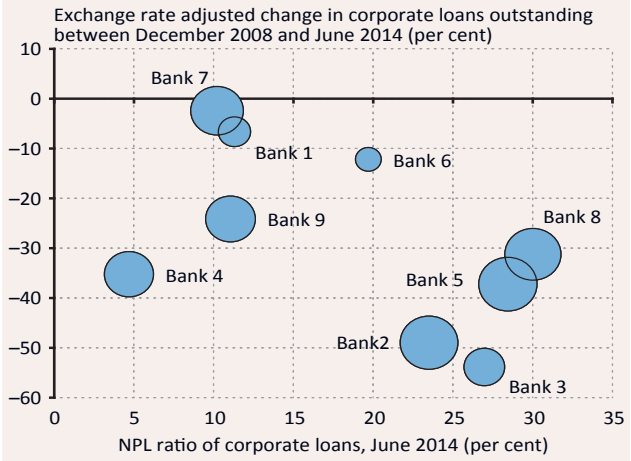


Source: MNB.

In terms of corporate portfolio quality, the main problem is still commercial real estate loans. In 2014 Q2, the ratio of non-performing corporate loans increased at a rate similar to Q1, and now it exceeds 18.5 percent. The high NPL ratios can be traced back to real estate project loans. In other corporate loans, the NPL ratio peaked in 2012 H2 and has now fallen to below 15 percent, whereas in the case of project loans, the ratio saw an uninterrupted rise and remained at 29 percent at the end of June 2014 (Chart V5). However, restructuring conceal part of the distressed portfolio, and if these hidden parts are also taken into account, nearly half of all distressed corporate loans are commercial real estate loans.

In the past six years, banks have made little progress in cleaning up this segment. Efficient portfolio cleaning is rendered practically impossible by the lack of a market for purchasing receivables, particularly in the case of project loans. While banks regularly sell their non-performing, unsecured loans in smaller packages, typically larger-amount loans secured by real properties were sold on very few occasions after the crisis. The reason for this is the oversupply and subdued demand. Consequently, there is a large distressed portfolio stuck over the long term in banks' balance sheets, and this requires a considerable amount of resources. All of this has an adverse impact on banks' lending activity, and weakens the efficiency of monetary policy (Chart V6).

Chart V6
Correlation between corporate lending and non-performing loans



Note: Banks with at least 2 percent market share in the corporate segment. Bubble size is proportionate to the corporate loan portfolios.
Source: MNB.

The asset management company proposed by the central bank could efficiently remedy the problem of the distressed corporate portfolio. The establishment of an asset management company serves the purpose of managing the strains in the credit and real estate market. Eligible assets are restructured or non-performing commercial loans with real estate collateral, as well as properties that serve as collateral and have previously been repossessed. According to the decision of the Monetary Council, the MNB will provide HUF 300 billion in financing to the asset manager. The advantage of the asset management company is that a significant amount of resources, including capital and liquidity can be released in the bank system with the transfer of relatively few receivables/ properties, while the ratio of non-performing corporate loans would drop considerably. In the case of the portfolio that includes the overwhelming majority of distressed commercial loans secured by real estate, cleaning can be utilised and optimised with higher economies of scale and more successfully than on an bank-by-bank basis.

V.3 Risks related to households' FX loans may decrease significantly from 2015 H1

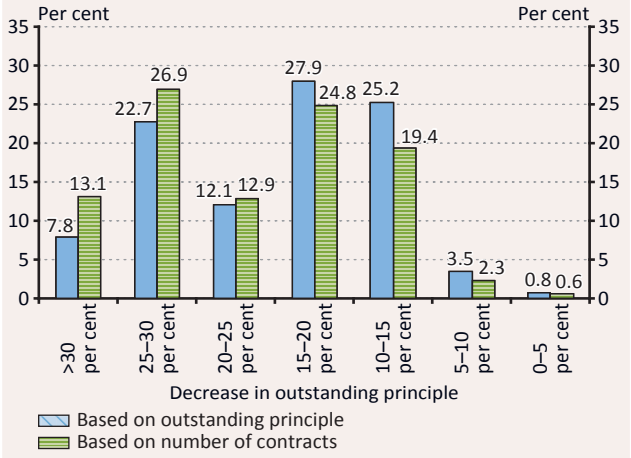
The risks related to households' FX loans are handled by nullification of the exchange rate spread, settlement of the unfair interest rate and fee increases, the transition to a "fair banking system", and conversion into forints,. These measures will have a substantial impact on all aspects of the banking sector's operations and will, as a result, significantly enhance competition in the banking sector. This settlement will lead to substantial losses this year, as well as a prospective decrease in interest margins. At the same time, the banking system is robust enough to absorb losses and remain stable, with capital increases by owners also playing an important role. Over the medium term, the settlement of the issues related to FX loans will contribute considerably to the evolution of a healthier banking system.

Table V1
Estimated impact of settlement on exchange rate spread and unfair contract amendments

	Estimated gross effect			Estimated net effect on income
	FX mortgage loans	Terminated contracts and other loans	Total	
Banking sector and branches	695	89	784	608
Total financial intermediary system	786	156	942	731

Source: MNB calculations.

Chart V7
Estimated distribution of debt reduction of performing CHF-denominated mortgage loans following the settlement



Source: based on CCIS and the MNB's estimate.

Settlement will result in significant burdens for the banking system. According to our calculations, the total cost may amount to almost HUF 950 billion, the overwhelming majority of which – nearly HUF 700 billion – is generated on the FX-denominated mortgage loan portfolio included in the balance sheet of the banking sector. Based on the settlement act, consumers' claims (the amount of overpayment) will be offset against the outstanding debt for contracts which are still in force. The effective net loss of the financial intermediary system may be lower than that, amounting to roughly HUF 730 billion, and about HUF 600 billion for the banking sector (Table V1). In the case of non-performing loans, settlement will not necessarily result in losses impacting the balance sheet and profit or loss for two reasons: firstly, contingent liabilities (costs, missed fees, interest) are settled first, and secondly banks have already accounted for considerable impairment of this exposure.

As a result of settlement, the portfolio of household FX loans will fall substantially. Settlement of the exchange rate spread and unfair interest rate increases will affect the debtors in various ways depending on the individual loan conditions (term, degree of interest increases, exchange rate spread, date of origination, etc.). Based on the Central Credit Register and interest rate statistics, we estimate that after settlement the principal debt outstanding on mortgage loans would decrease by 16 per cent on average, but with considerable heterogeneity. More than half of performing debtors with CHF-denominated mortgage loan contracts may see their debts decrease by more than 20 percent, but the number of debtors whose debts will be reduced by less than 15 percent is also significant. Given that lending rates will drop to a fair[1] level with an interest-rate moratorium of one and a half years, the charges payable by performing debtors may fall by nearly 25 percent on average (Chart V7).

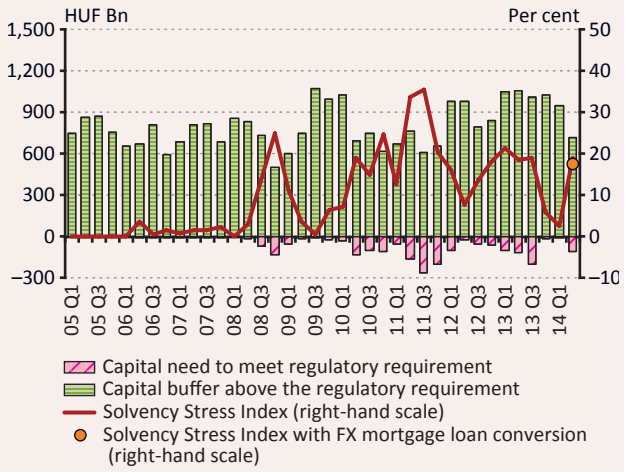
[1] The interest-rate that is held fair as of the Civil Legal Unification Resolution 2/2014 of the Supreme Court and the Act No. XXXXVIII of 2014.

Table V2
Household loans in 2014 H1

		Banks (incl. Foreign branches and savings co-operation)		Banks (incl. Foreign branches and savings co-operation and financial enterprises)	
		Mortgage loans	Other loans	Mortgage loans	Other loans
FX	Outstanding amount (HUF Bn)	3403	260	3607	540
	Number of contracts (thousands)	474	288	495	377
	NPL (HUF Bn, outstanding amount)	776	44	863	110
	NPL (thousands, nr of contracts)	83	84	89	106
	NPL ratio	22,8%	17,1%	23,9%	20,3%
HUF	Outstanding amount (HUF Bn)	2088	1044	2122	1670
	Number of contracts (thousands)	666	4283	670	5885
	NPL (HUF Bn, outstanding amount)	279	152	291	375
	NPL (thousands, nr of contracts)	56	570	58	1 136
	NPL ratio	13,3%	14,6%	13,7%	22,4%
Total	Outstanding amount (HUF Bn)	5491	1304	5729	2 211
	Number of contracts (thousands)	1140	4570	1165	6262
	NPL (HUF Bn, outstanding amount)	1055	197	1153	484
	NPL (thousands, nr of contracts)	138	654	147	1242
	NPL ratio	19,2%	15,1%	20,1%	21,9%

Source: MNB, CCIS.

Chart V8
Capitalisation of the banking sector in stress

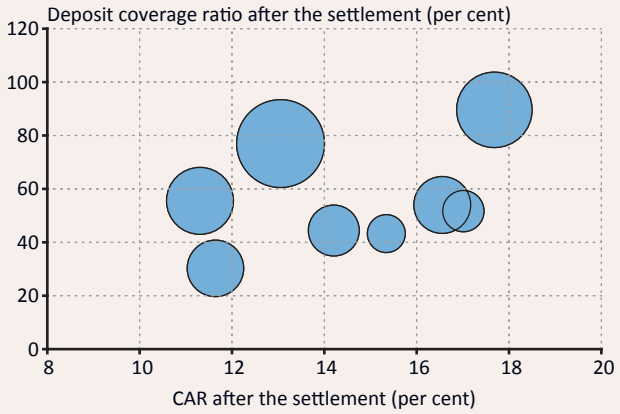


Note: The indicator is the sum of normalised capital shortages relative to the minimum regulatory requirement, weighted by the capital requirement. The higher the value of the index, the higher the solvency risk in the stress scenario.
Source: MNB.

Overall, settlement may have a positive impact on portfolio quality. As a result of the drop in the principal debt and the simultaneously decrease in instalments, a lower probability of default (PD) can be expected. Disappearance of the exchange rate risk of FX-denominated mortgage loans following conversion will significantly reduce credit risk. Over the medium term, this will in turn drive improvement in portfolio quality. At the same time, no significant improvement is expected for non-performing loans: in the case of these loans, any overpayment must primarily be accounted to cover interest and fees in arrears, and under identical conditions their debt will decrease at a slower pace than in the case of performing debtors. All in all, the NPL portfolio will still remain significant.

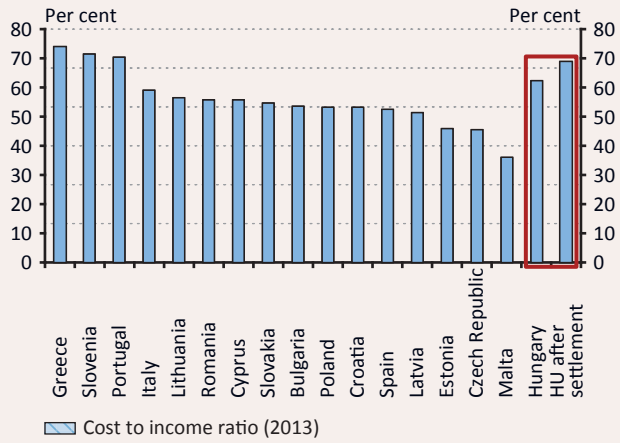
The banking system will suffer losses this year. Nearly half of the banks have already recognised their expected losses, and as a result the banking system recorded high loses at mid-year. It must be taken into account that the banking system has maintained and built up a considerable capital buffer recently, and therefore it is currently in a better situation than it was during the time of the final early repayment. To a great degree, this is presumably due to the risks related to FX-denominated contracts including their regulatory risks.

Chart V9
Estimated level of capital adequacy and deposit coverage ratio after the settlement, by banks



Note: The estimation of deposit coverage ratio was made by assuming that banks will accomodate in their swap exposure.
Source: MNB.

Chart V10
Cost to income ratio in international comparison



Source: ECB CBD.

The banking system remains solvent. However; its resilience to shocks will decline considerably. Settlement will result in a significant deterioration in banks' capital position. The banking system remains solvent, primarily due to the owners' HUF 150 billion capital increase in 2014 H1 and the expected increase of HUF 350 billion in H2. According to the stress test, under unfavourable macroeconomic conditions the banking system would face HUF -90 billion capital shortage (Chart V8), which is considered manageable. In consideration of the liquidity, settlement and especially the conversion of FX loans could affect liquidity negatively, but it would still remain adequate while reliance on foreign funding will decrease.

Settlement will be followed by conversion to a "fair banking system" and the planned FX loan conversions into forints. Besides to settlement, the planned loan conversions and the legal regulation of the process under the "fair banking system" are equally important steps. In the fair banking system, pricing policies are set such that interest rates may only be raised objectively within the framework of the regulation, while the fair system also makes refinancing easier.

These measures may substantially boost competition in the banking system. After resetting interest margins to the fair level and converting to HUF, the pricing of new loans remains a key issue, which may be regulated according to the framework of the fair banking system. With the fair banking regulation, loan redemption will become easier, while competition among banks will rise, which may be further strengthened by the rising importance of economies of scale due to shrinking portfolio. Finally, the decrease in liquidity stemming from settlement and conversion may boost competition for forint funds. In stimulating competition, banks which have a robust position following settlement and conversion may play a more active role (Chart V9).

Looking forward, profitability of the banking sector is expected to decline. Interest rate reset to the fair level and the lowering outstanding amount result in a reduction of the banking

Table V3
Average pricing in different types of loans at the time of contracting, and before and after the settlement

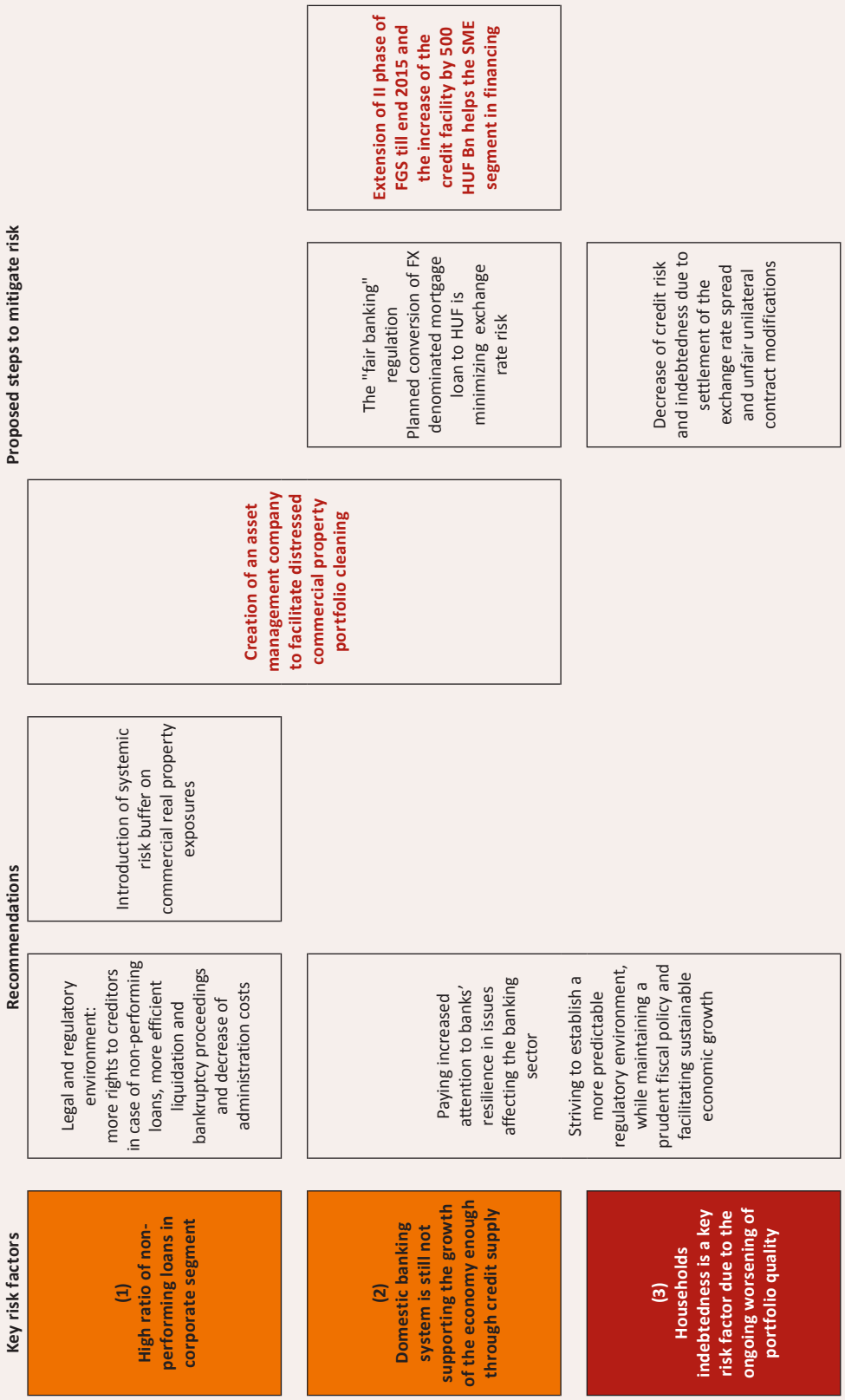
per cent		Housing loans	Home equity loans	Personal loans	Car financing
At the time of contracting	Interest rate	5.5	6.7	14.3	9.5
	Spread over 3-month CHF LIBOR	3.4	4.4	12.1	7.8
Currently	Interest rate	7.8	9.1	16.3	9.8
	Spread over 3-month CHF LIBOR	7.8	9.1	16.3	9.8
After the settlement (estimation)	Interest rate	5.5	6.7	14.3	9.5
	Spread over 3-month CHF LIBOR	5.5	6.7	14.3	9.5

Note: In case of mortgage loans interest rates of loans contracted before April 2009 were used. In case of personal loans and car financing interest rates of loans outstanding in September 2008 and February 2009 were used, because of the more intense composition effect. We increased the interest rates by 1.5 percentage points in order to control for other costs and fees not included in interest rates.
Source: MNB.

sector's profitability: the interest rate spread is expected to decline with 2 percentage points (Table V3), which lead to a HUF 100 billion decrease in net interest income. Accordingly, the net interest margin of the banking sector is expected to decline with 0.4-0.5 percentage points, while ROE on the sector level may decrease with 3 percentage points, respectively. Due to its lower profitability, cost efficiency of the banking sector may also deteriorate (Chart V10); furthermore, these developments might be exacerbated by the introduction of the "fair banking" framework and the above mentioned boosting competition.

Settlement of the FX loan problem leads to a healthier banking system. The settlement, the introduction of the "fair banking" framework and the conversion together contribute to cleaning-up of banks' balance sheets, risk mitigation and competition as well. This may lead to speeding-up in consolidation of the banking sector, which may also help in finding synergies in expenditures. Altogether, these developments may result in a less pro-cyclical, resilient and profitable banking sector over the next 2-3 years, which is more supportive to economic growth. Moreover, this may generally reduce the country's vulnerability.

Key risks and risk mitigating measures



Note: Orange: high risk, Red: severe risk.

1 Macroeconomic and financial environment – Persistent risks, strong steps by ECB

Six years after the onset of the current crisis, the global economy still relies on lax monetary policy, while risks are evolving due to the low interest rate environment and quantitative monetary easing. However, both lax monetary policy and its abandonment pose risks. In the period under review, economic growth in Europe was disappointing, and at the same time deflationary risks increased. Banking systems in the Eurozone are characterised by low activity and weak profitability, enhanced by the uncertainty and risks surrounding the quality of banks' assets. Risks continue to be concentrated in the Eurozone's southern countries. In response, the European Central Bank (ECB) took several economic stimulus measures that were more powerful than the previous ones. In 2014, Hungary set out on a sustained growth trajectory, and the favourable developments seen in the real economy had a positive impact on the risk assessment of the country. However, risks evolving in the global economy, especially in Europe, continue to pose significant downward risks for Hungary.

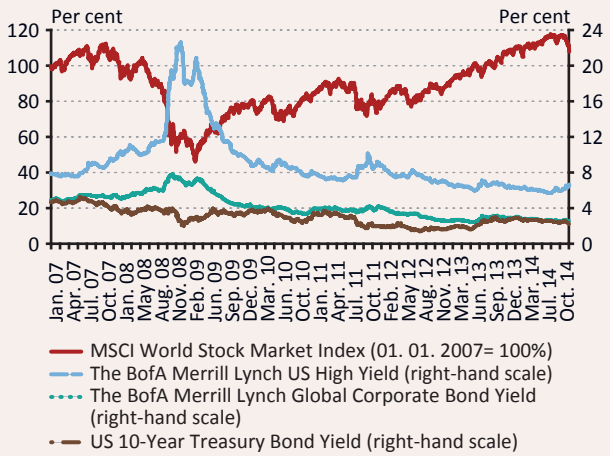
1.1 Weak economic growth and deflationary risks in Europe

Table 1
Measures taken by the Governing Council of the ECB

Measure	Timing
Rate cut to -0.1 per cent on deposit rate, to 0.15 per cent on main rate and 0.4 per cent on marginal rate	From 11 June 2014
Ending SMP (Securities Markets Programme) sterilisation	Last one-week operation on 10 June
Targeted longer-term refinancing operations (TLTROs), alloting four-year loans	Two autions in September and December 2014, and four auctions until 2016, credit line: EUR 1,000 billion, interest rate: actual base rate + 0.1 per cent
Outright purchases of SME-backed vanilla Asset-Backed Securities (ABS)	Preparatory work will be intensified from autumn 2014
Extended fixed rate, full allotment on ordinary monetary policy operations	Until at least December 2016

Source: ECB.

Chart 1
Equity prices and bond yields in Europe and the USA

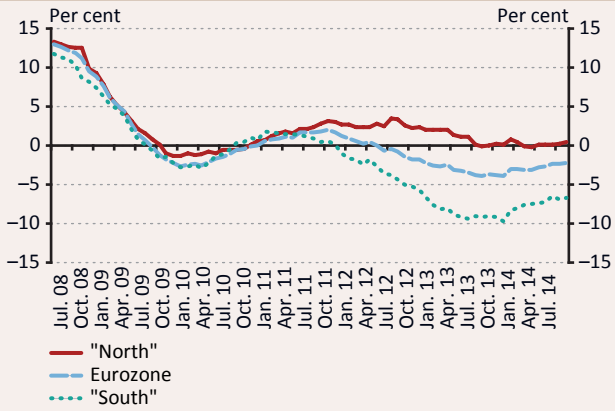


Note: Yield on high-grade corporate bonds = the BofA Merrill Lynch Global Corporate Bond Yield, yield on risky corporate bonds = the BofA Merrill Lynch US High Yield.
Source: Bloomberg.

The ECB has launched massive monetary easing. Following a longer break, in June 2014 the ECB changed the interest rates (Table 1), and then after waiting another two months, it cut rates again in September, in view of the unfavourable changes in the euro area's economic fundamentals. At the rate-setting meeting in early September, the ECB's Governing Council lowered the policy interest rate to 0.05 percent, the deposit rate to -0.20 percent, and the overnight rate to 0.30 percent. The ECB also launched its targeted refinancing scheme (TLTRO) with a volume of EUR 1,000 Bn, which provides fixed, low interest rate, 4-year central bank loans to the banking system in order to boost the credit market. At the first auction in September, EUR 83 billion was placed. In addition, in October the ECB will start purchasing asset-backed securities (ABS) and secured corporate bonds denominated in euro. The ECB also indicated that additional unconventional monetary policy measures will be taken if it is unable to reverse the unfavourable economic trends. According to the preliminary estimates, the TLTRO allotments and the ABS purchases would increase the ECB's balance-sheet total by EUR 1,000 billion.

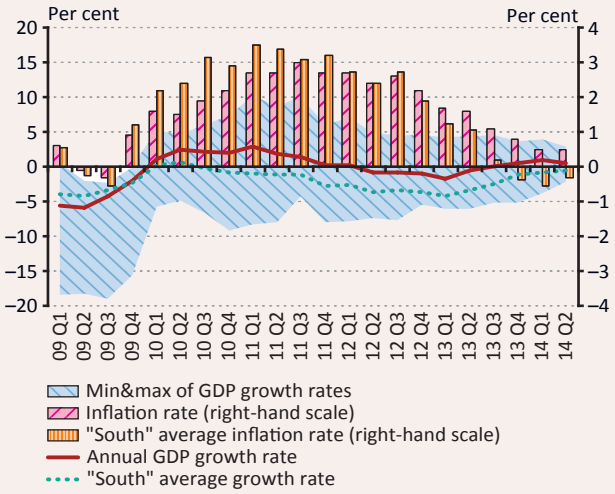
Both lax global monetary policy and exiting such pose risks. Since our last *Report,* tapering by the US Federal Reserve (Fed) has not caused any major turmoil on the securities markets. However, a sudden rise in global yields remains a key risk, as the global economy continues to rely on lax monetary policy, and financial strains may develop on markets with lower liquidity. Lax monetary policy, however, may lead to the build-up of risks as a result of "search for yield" (Chart 1). The challenge is to mitigate these risks and improve the efficiency of monetary policy.

Chart 2
Annual growth rate of corporate loans in the euro area



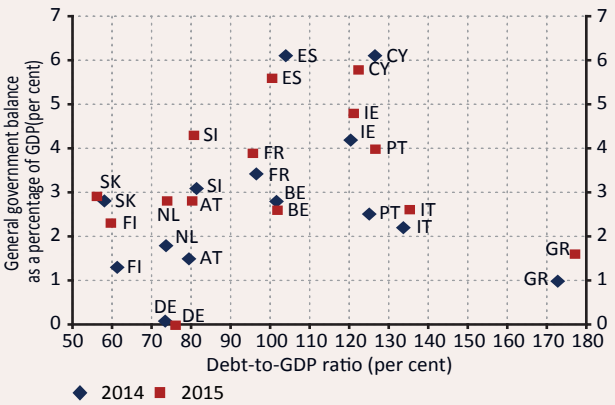
Note: North: Austria, Germany, the Netherlands and Finland. South: Greece, Spain, Italy and Portugal.
Source: ECB.

Chart 3
Growth and inflation in the euro area



Note: South: Spain, Portugal, Greece, Italy, Cyprus.
Source: ECB.

Chart 4
Government debt and deficit in the euro area



Source: Eurostat forecast.

Lending remains sluggish in the Eurozone. Corporate lending has been unable to recover, and the credit portfolio continues to contract, shrinking most rapidly in the southern EU Member States (Chart 2). Both demand side and supply side factors play a major role in this: the European banking system remains fragmented and vulnerable, banks' balance sheets contain numerous risks and their profitability is low. The problem is exacerbated by uncertainty about the quality of banks' assets. The European asset quality review (AQR) and stress tests[2] have been carried out to alleviate this uncertainty. Lending activity may be boosted by the ECB's facilities, but this also requires an improvement in monetary policy efficiency, which can be supported by consolidation of banks' balance sheets.

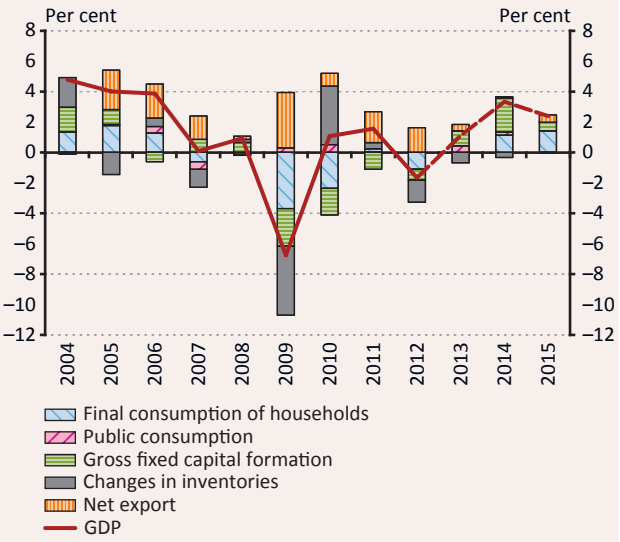
There is still a risk that the sovereign debt crisis may re-emerge. In the euro area, the GDP growth rate is lower than expected, unemployment is still very high, and the risk of deflation has increased (Chart 3). As a result of these factors, fiscal consolidation and controlling the increased level of government debt involve mounting risks. Overall, the risk of the sovereign debt crisis re-emerging is still high (Chart 4), and moreover the negative feedback loop between sovereign debt and the banking system may strengthen, despite the regulatory efforts (creation of the Banking Union).

Increasing risks in emerging countries. Worrisome, prolonged geopolitical conflicts have appeared all over the world, and their impacts are being felt to various extents by the EU Member States. In Europe, the most serious problem is the Russian-Ukrainian conflict, as – together with the sanctions imposed on Russia – it has negative effects on the growth of the already weak, fragile European economy. All of these tensions present risks to financial stability through adverse real economic impacts and worsening market sentiment.

[2] According to the results of the AQR and the EBA stress tests published in October, both OTP Bank which is directly involved and the parent banks of foreign-owned Hungarian banks would have a satisfactory capital position (Core Tier 1 capital in excess of 5.5 per cent) at the end of the three-year stress scenario.

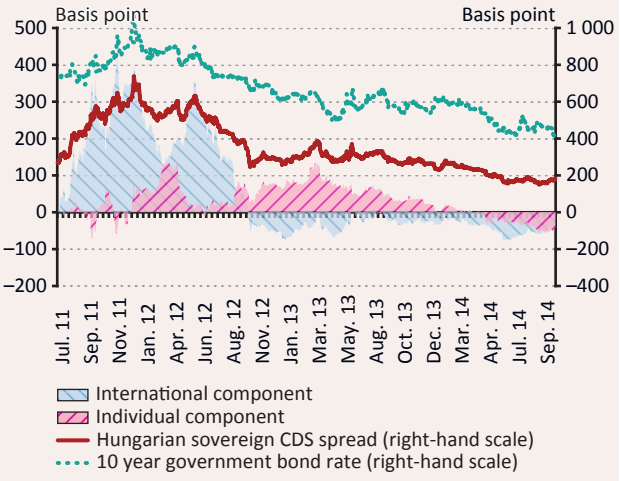
1.2 Continuing real economic improvement in Hungary

Chart 5
Changes in Hungarian GDP
(y-o-y)



Source: Report on Inflation, September 2014, MNB.

Chart 6
Hungarian sovereign 5-year CDS spread and its decomposition, and the 10-year government securities yield

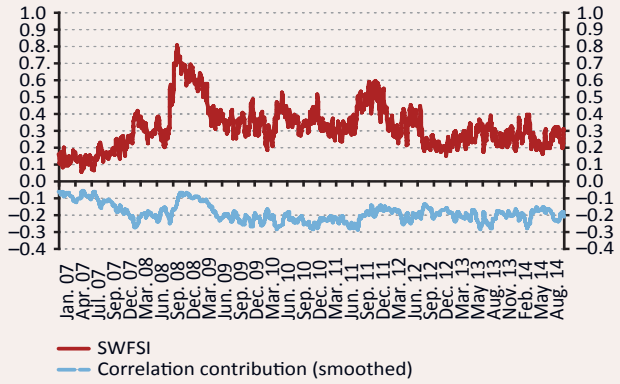


Note: Actualization of the estimated parameters' decomposition retroactively modified the time series of certain components, thus those figures may differ from the formerly estimated values.
Source: Thomson Reuters, MNB.

The real economy continued to grow in the second quarter. In 2014 Q2, Hungary's GDP expanded by 3.9 per cent on a year-on-year basis, and the annual GDP growth rate forecast for the end of this year is 3.3 per cent (Chart 5). In terms of the structure of growth, domestic demand components are becoming increasingly significant. The expansion in investment activity is supported by EU funds and the Funding for Growth Scheme (FGS). Labour market improvements and the rise in real wages resulting from low inflation tend to boost household consumption, but due to strong precautionary motives the expansion of consumption may be subdued. As in previous quarters, export was mainly driven by motor vehicle manufacturing and the related sectors, but the growth problems and deflationary risks in the euro-area economy represent a downward risk.

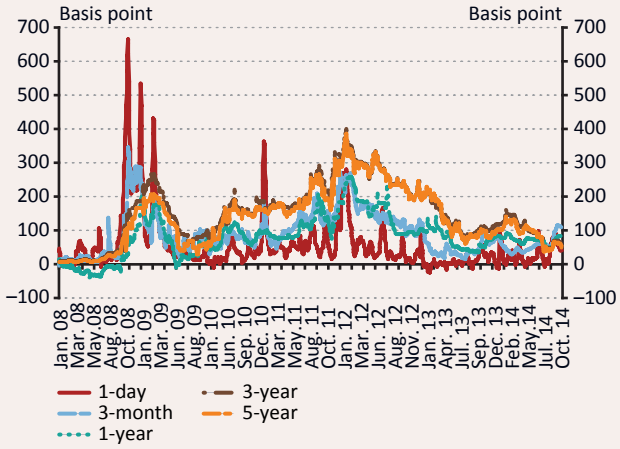
Moderate volatility characterised the financial markets in Hungary. Developments in the real economy had a favourable impact on Hungary's risk assessment, and consequently, the risk premia continued to fall. In September 2014, the CDS premia was around 150 basis points, which was far more favourable than at the end of April, and reached the regional average (Chart 6). Fluctuation in the forint exchange rate was also moderate: some temporary weakening resulted from escalation of the Russian-Ukrainian conflict in August. Yields on long-term government bonds continued to fall, amidst low volatility: the yield of 10-year Hungarian government bonds decreased from around 5.3 per cent at the end of April to 4.8 per cent by the end of September. Restructuring of the MNB's monetary policy toolkit to help to facilitate self-financing by banks also helped to reducing government bond yields in recent months.

Chart 7
System-Wide Financial Stress Index
(SWFSI)



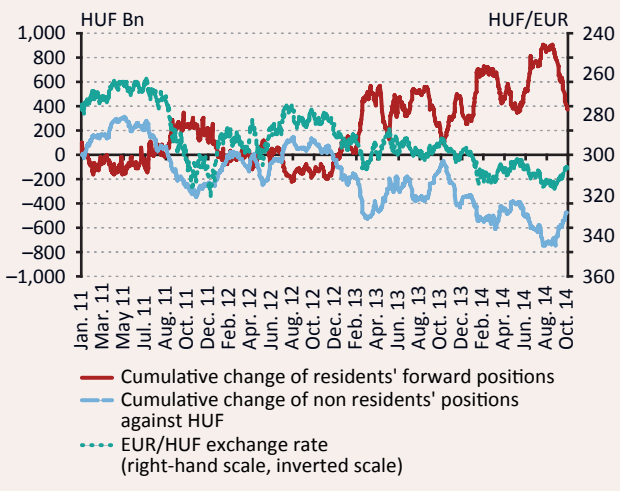
Note: A higher value of the SWFSI denotes higher stress. The correlation indicator of the SWFSI measures co-movement among markets.
Source: MNB.

Chart 8
FX swap spreads



Note: Premia calculated based on EUR/HUF quotes. Exponential moving averages are included in the case of short-term maturities.
Source: MNB, Bloomberg.

Chart 9
Cumulative changes in the short forint positions of resident and non-resident actors
(January 2011= 0)



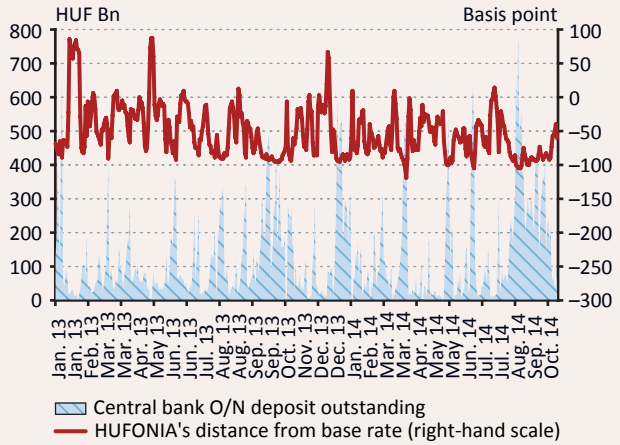
Source: MNB, Bloomberg.

Along with improving liquidity, the level of stress in the domestic financial markets remains low. Despite the stable, low level of stress, however, there are opposing movements in some sub-markets (Chart 7). In 2014 Q3, the stress level of the spot FX-market component in the System-Wide Financial Stress Index (SWFSI) continued to fall, but was offset by an increase in the stress observed in the capital market. Up to September 2014, spot FX-market liquidity improved as a result of a decline in bid-ask spreads, while the average transaction size and the number of contracts increased the liquidity index of the government bond market. The latter may have been partly due to the adjustment triggered by the transformation of the key central bank policy instrument. The liquidity of the unsecured interbank deposit market remained unchanged up to the end of September 2014, but temporary tensions were seen on the FX swap market due to semi-annual balance-sheet settlements.

Long-maturity FX swap premia also fell. Following the strains at the end of June, overnight FX swap market liquidity recovered, but the number of contracts remains below pre-crisis levels. In the 3-month segment, domestic swap prices were broadly unchanged, while premia on long-term (higher than 1 year) FX swaps continued to decline, in parallel with the narrowing of Hungary's sovereign CDS premia. The decline in long-term premia is also favourable regional standards. At the same time, since the end of August 2014 after the two-week MNB bond was transformed into a deposit FX swap premia have increased, as the increase in overnight forint liquidity in the banking system lowered the implied forint yield on the swap market (Chart 8).

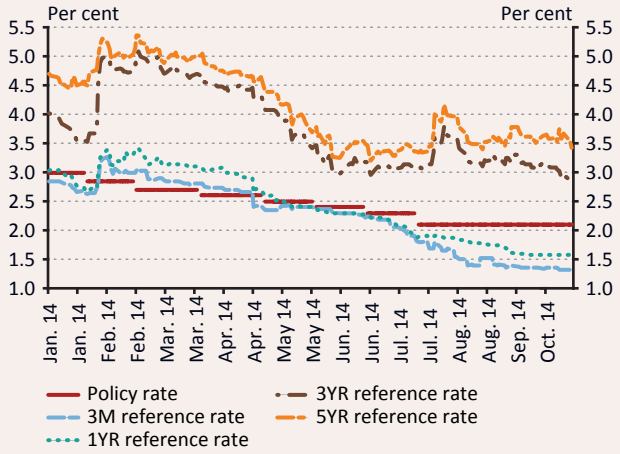
Although non-residents' short forint position increased on the foreign currency market, it was offset by residents' long position. Using spot and FX swap transactions, between January and September 2014, non-residents increased their short synthetic futures positions considerably, by about HUF 400 billion (Chart 9). By contrast, as the forint weakened, residents increased their long forward positions significantly, by about HUF 600 billion, which was supported the forint exchange rate. Their total forward portfolio thus rose to a historical peak of HUF 1,300 billion.

Chart 10
Central bank overnight deposits outstanding and the distance of the HUFONIA from the policy rate



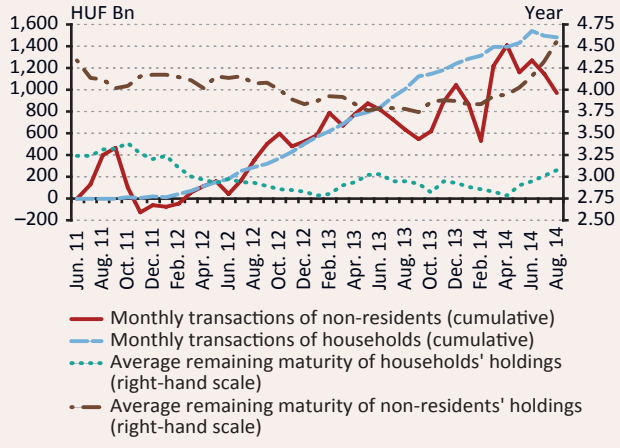
Source: MNB.

Chart 11
Benchmark yields of government securities and the policy rate



Source: ÁKK, MNB.

Chart 12
Households' and non-residents' cumulative net transactions with government securities, and the average remaining duration of government securities



Source: ÁKK, MNB.

Abolishing the two-week MNB bond contributed to the fall in the unsecured overnight interbank HUF interest rate. In 2014 H1, HUFONIA remained broadly below the policy rate, explained on a macro-level by the ample surplus in overnight forint liquidity (freely disposable reserves + O/N central bank deposit). At the same time, in August 2014, following the transformation of the key policy instrument, significant extra liquidity flowed into the overnight interbank market, and as a result the O/N interbank interest rate sank slightly below the interest rate corridor on several occasions (Chart 10).

Transformation of the key policy instrument also facilitated the decline in short-term government yields. Much of the liquidity released from the termination of the central bank's two-week bond appeared as demand on the government bond market. Despite the fact that in the case of banks, the purchase of longer-term government securities was underpinned by the MNB's IRS tool, additional demand for T-bills primarily came from the banking sector. Non-bank financial institutions – primarily investment funds – adjusted by depositing the majority of the released liquidity at banks rather than investing in government bonds. Demand-side pressure on short maturities was further enhanced by the restriction on the issue of T-bills by the State Debt Management Agency (ÁKK). As a result of all these factors, yields on three-month and one-year government fixed income securities fell by 50-70 basis points below the two-week policy instrument rate (Chart 11).

Households' holdings of government bonds continued to grow, while the share of non-residents remains considerable. Between April and July 2014, on a transactional basis non-residents reduced their exposures to government securities by approximately HUF 260 billion, while households increased their portfolio by HUF 100 billion, which is favourable from the perspective of the vulnerability of the government bond market (Chart 12). Growth in the household portfolio continues to be explained by the interest rate difference between bank deposits and government retail securities. In terms of financing risks, it is also a favourable development that the average duration of the HUF-denominated government bond portfolio in owned by both households and non-residents has become longer, partly because in 2014 the State Debt Management Agency (ÁKK) limited the offer of short-term government securities. However, due to the high ratio of foreign ownership (51 percent at the end of July 2014) and to the portfolios held by some non-resident investors in volumes suitable for influencing the market, the vulnerability of the market of government securities remains considerable.

2 Developments in domestic lending – improvement in corporate lending mainly reflects the impact of the FGS and not a pick-up in this market

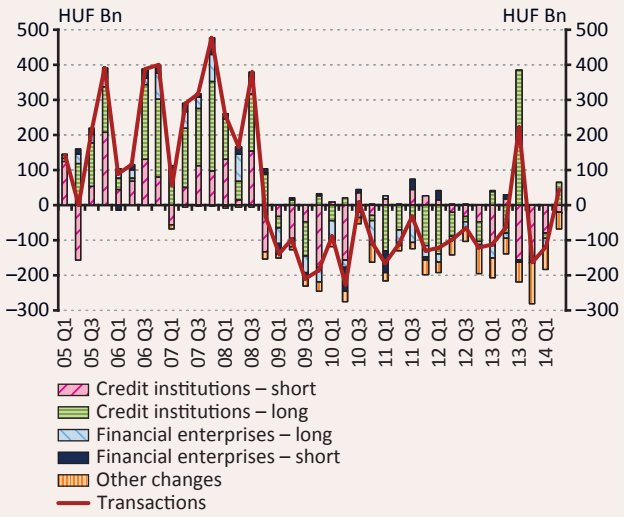
Although overall lending to non-financial corporations decreased in the first half of 2014, there were some signs of a recovery in the second quarter, particularly in HUF lending, mainly supported by the Funding for Growth Scheme(FGS). In parallel with the improvement in the economic outlook, corporate loans outstanding accelerated on a year-on-year basis: from the second half of 2013 investment activity increased markedly, and expansion was even observed in industries relying mainly on domestic demand. At the same time, developments in lending do not show significant improvement, whereas a sustainable turnaround would require a pick-up in market-based lending, in addition to the MNB's programme.

The household loan portfolio declined further primarily in foreign currency lending, while HUF lending increased in the period under review. The share of housing loans in new loan disbursements increased substantially: rising employment, higher real wages and decreasing lending rates had a positive joint impact on household borrowing through consumption and household investments. Credit conditions started to ease slowly in the first half of 2014, but lending standards can be still considered tighter compared to before the crisis. Thus, the new MNB decree introducing new LTV and PTI limits does not imply a significant restriction in lending to households.

In terms of lending developments, short-term risks are posed by the massive losses sustained due to the settlement arising from nullification of the exchange rate spread and unilateral interest rate and fee increases. In the corporate segment, this may be offset by more active participation of the state and the increase in the available loan facility under the FGS. Over the medium term, sustained growth may support the easing of loan supply constraints. Managing the problem of household FX loans and non-performing commercial real estate loan portfolios may lead to a healthier and less pro-cyclical banking sector capable of supporting the economy in a sustainable manner.

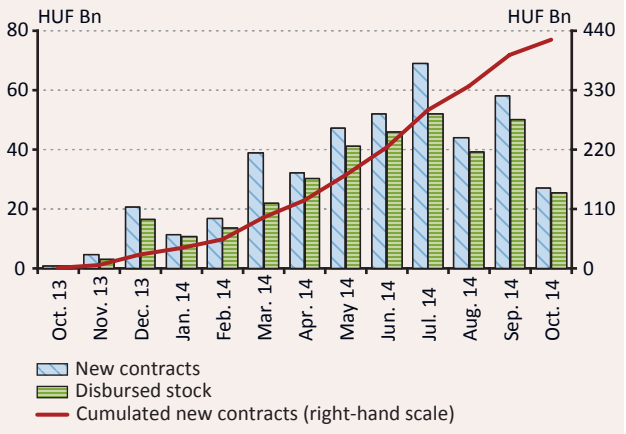
2.1 No signs of significant improvement, aside from the central bank's programme

Chart 13
Quarterly transactions of corporate lending



Source: MNB.

Chart 14
Contracts concluded in the second round of FGS and loan disbursements in a monthly breakdown

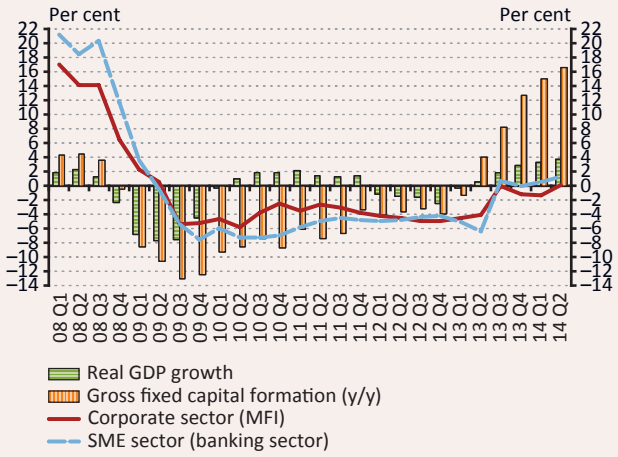


Source: MNB.

Following a decrease in Q1 2014, corporate lending turned positive in Q2. Financial intermediaries' lending to non-financial corporations declined to a similar degree in the first quarter as in the preceding period at the end of 2013. In Q2, however, net new borrowing showed signs of a pick-up: the expansion from transactions amounted to HUF 43 billion (Chart 13). The increase in loans outstanding mainly affected long-term HUF loans, which were also supported by increased utilisation of the Funding for Growth Scheme, within the framework of which credit institutions concluded contracts for around HUF 131 billion in Q2 (Chart 14). The improved outlook for economic activity may have also supported corporate lending.

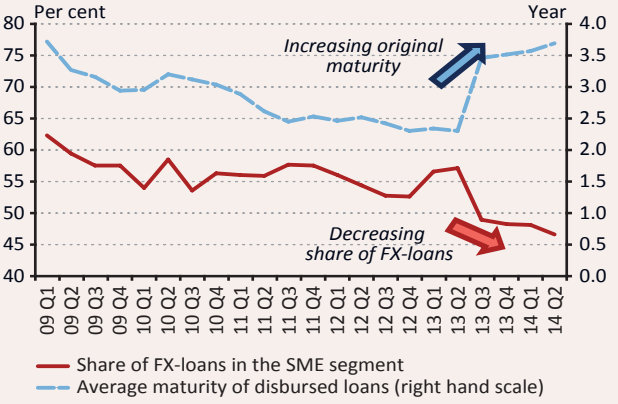
Real economy and lending developments also improved on an annual basis. Although the MNB's lending programme significantly affected the quarterly distribution of loan extensions, there was a notable annual improvement in corporate lending compared to the trends in recent years. The annual growth rate of corporate loans total based on transactions amounted to 0.1 per cent among credit institutions at the end of the first half of the year, while outstanding SME loans in the banking sector increased by 1.2 per cent between June 2013 and June 2014 (Chart 15). The increase in corporate lending occurred in parallel with the upswing in the real economy. The investment activity of non-financial corporations rose further in 2014 H1, and even industries relying primarily on domestic demand showed a considerable improvement. According to our estimates, the Funding for Growth Scheme may have substantially contributed to this improvement, both through new investment loans that might increase potential output, and through new working capital loans that might mainly stimulate aggregate demand. The overall impact of the programme could be 0.5-1.0 per cent on the level of GDP.

Chart 15
Annual growth rate of lending to non-financial corporates total and SMEs



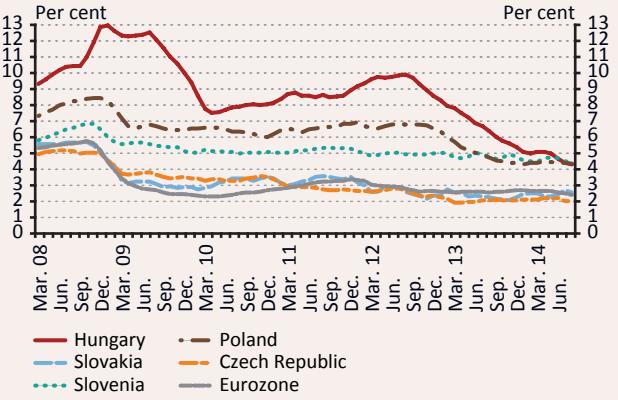
Note: The corporate sector time series is calculated based on transactions, while the SME time series is calculated based on the estimated number of transactions from 2013 Q4.
Source: HCSO, MNB.

Chart 16
Share of foreign currency loans in SME loans outstanding and original maturity of new disbursements



Source: MNB, CCR.

Chart 17
Interest rates on corporate loans in domestic currency

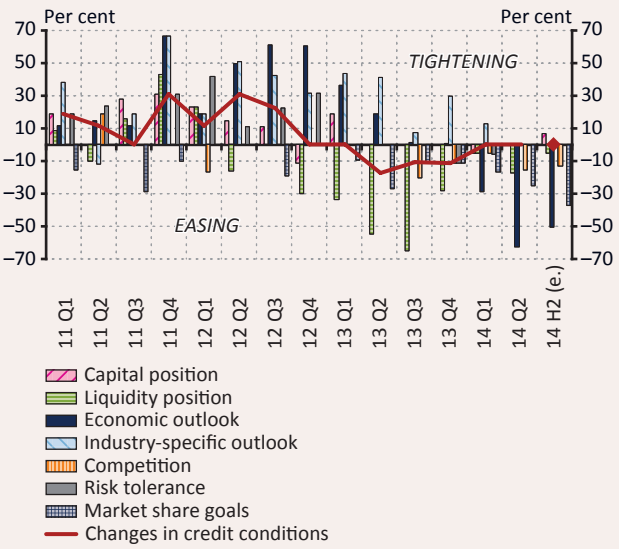


Source: MNB, ECB, national central banks.

The Funding for Growth Scheme mitigated the roll-over and foreign exchange risks of corporate loans. Loans disbursed under the FGS affected the outstanding SME loans from the second half of 2013, not only in terms of quantity, but also in terms of quality. On the one hand, the share of foreign currency loans in the outstanding portfolio decreased substantially (thanks to refinancing), thus this redenomination may have reduced the vulnerability stemming from the open foreign currency position of SMEs. On the other hand, loans granted under the FGS typically have longer maturities (both in the case of investment and working capital financing), which lowers the roll-over risks of these contracts (Chart 16). Both these factors lower the vulnerability of SMEs considerably in case of an external liquidity shock and/or a credit crunch.

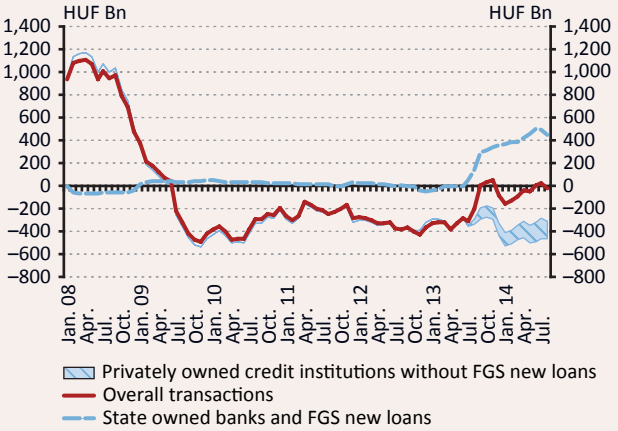
Domestic enterprises' cost of finance is no longer considered extremely high. As a result of the central bank's easing cycle, the average interest rate on HUF-denominated loans dropped to 4.4 per cent, thus approximating the level of interest rates observed in the region (Chart 17). In March and April, the spread over the benchmark interest rate (i.e. 3-month BUBOR) increased temporarily due to a composition effect, but it returned to a value close to 2 per cent by July, which can be considered favourable by international standards. Moreover, solvent small and medium-sized enterprises can access low-cost financing under the expanded facility of the second phase of the Funding for Growth Scheme. Improving outlook, the FGS and the decreasing interest rates all point to an increase in credit demand. Among the respondents to the Lending Survey, a significant share of banks indicated this development: in net terms more than 60 per cent of the respondents perceived an increase in the demand for long-term loans, while around 20 per cent reported an increase in the demand for short-term loans in 2014 Q2.

Chart 18
Changes in credit conditions and factors contributing to the changes in the corporate segment



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share.
Source: MNB based on banks' responses.

Chart 19
Cumulative corporate lending of public and private credit institutions
(12-month moving total)



Note: State bank data include direct credits only, i.e. without refinancing provided to commercial banks. The band indicates the uncertainty arising due to the market lending replacement effect of FGS loans.
Source: MNB.

No signs of easing in credit conditions have been seen so far. According to the Lending Survey, banks did not change their credit conditions significantly in the first two quarters of 2014 and do not anticipate major changes in 2014 H2. Although all respondents indicated that standards had not changed considerably in general, non-price conditions were eased, while price conditions were tightened somewhat. In recent periods, several factors have played a role in the shaping of credit conditions which could have pointed to easing, for example, the improving economic outlook or banks' market share (growth) objectives (Chart 18). Although sector-specific problems – which consistently pointed to tightening in the previous periods – were no longer acute in 2014, looking forward to the second half of the year, banks' capital position has emerged again as a factor indicating tightening. On the whole, however, banks' credit conditions remained unchanged despite strong mitigating factors. This suggests that banks' uncertainty with respect to the future outlook and their own lending capacity warrants the maintenance of their cautious lending policy.

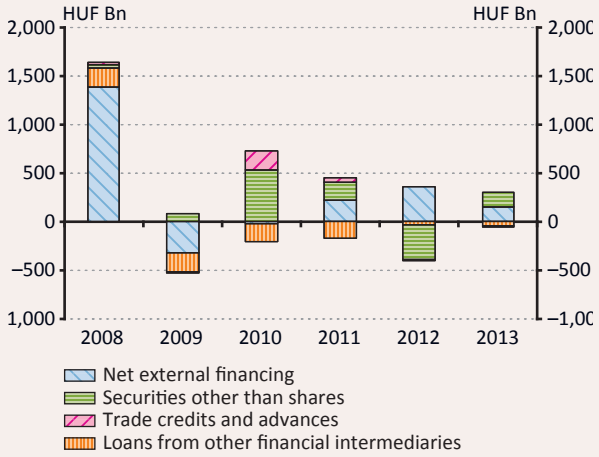
For a sustainable turnaround in lending, an upturn in market-based lending activity is needed. As a result of increased state bank involvement and especially, owing to the FGS, by the end of 2014 H1 the steady decline seen in the corporate loan portfolio in recent years came to a halt (Chart 19). However, market-based lending contracted in the last three quarters as well, partly due to the fact that a significant portion of market-based lending is occurring within the framework of the FGS. At the same time, a recovery in market-based lending is an important factor in sustainable economic growth, particularly as most Hungarian companies have limited access to funding outside of the banking system (see Box 1). Looking forward, it is a favourable development that based on banks' responses, cyclical factors have recently pointed to the easing of credit conditions and accordingly, in parallel with sustained economic growth, a slow easing of credit supply constraints may begin. This requires an improvement in banks' risk appetite.

Box 1

Alternative channels for corporate finance

Owing to the weak economic prospects, the recently increased capital requirements and the rising cost of funding, banks were driven to deleverage, and consequently lending conditions have been tightened considerably since 2008. Since bank loans are the traditional source of finance for non-financial corporations, subdued credit supply affects smaller and less creditworthy clients adversely.

Changes in non-financial corporation liabilities other than bank loans in Hungary



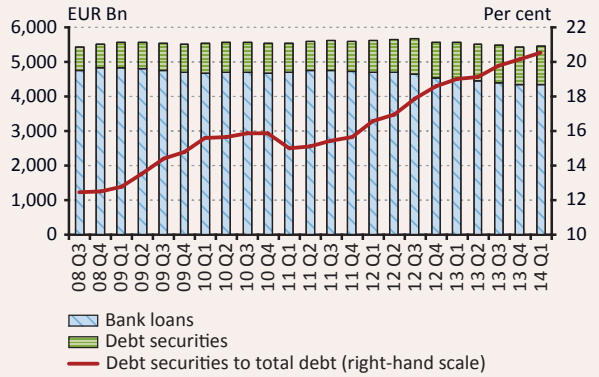
Source: MNB.

In Hungary, total loans of banks per GDP decreased by 7.2 per cent since the onset of the crisis. Alternative resources for corporations are only partially substituting the effects of this decrease in the corporate loan volume. Trade credit started to rise in 2010-2011, but the tendency stopped in 2012. Between 2008 and 2013 the weight of trade credit in funding decreased on the whole. Furthermore, the data are skewed due to the rise of circular debt among corporations during the crisis. The decline in banking loans was not substituted with loans from other financial enterprises, as their loan volumes also fell during the crisis. The ratio of common shares and other equity rose by 24.4 percentage points compared to GDP, but since the cumulated capital need rose steadily, aside from an interruption in 2009 (in contrast to the dynamics of bank loans, in which there was a clear change in the trend in 2008), this growth did not offset the decline in bank loan volumes. The volume of debt securities also rose in 2010-2011, but this financing option is only available to a small group of corporations due to the small size of the domestic bond market, and therefore it has minimal effects (the bond portfolio rose by 0.9 percent of GDP over 5 years) Finally, net foreign financing – which gives a more accurate picture due to temporarily items –increased overall since 2008, but this also only affects a small group of corporations and only partially offsets the decrease of more than HUF 2000 billion by financial enterprises and credit institutions.

Companies throughout Europe are also faced with the decline in bank lending. In the euro area, bond issues are used primarily to offset the downturn in bank loans, and the share of debt securities has been growing continuously on the liability side of non-financial corporations since the outbreak of the crisis. This replacement, however, is not perfect: larger corporations have easier access to the bond market; therefore, bond issuers and rejected loan applicants do not represent the same group of companies.

In the Central and Eastern European region, the corporate sector faces similar difficulties: Between 2008 and 2013 commercial bank loans contracted in most countries in the region as a percentage of GDP. In these countries the bond market is not deep enough to ensure that the funds thus obtained can replace bank lending; accordingly, lost funds are typically replaced from three sources: commercial loans, capital increases and bond issuances.

Non-financial corporations' bank loans and debt securities in the Eurozone



Source: ECB, OECD.

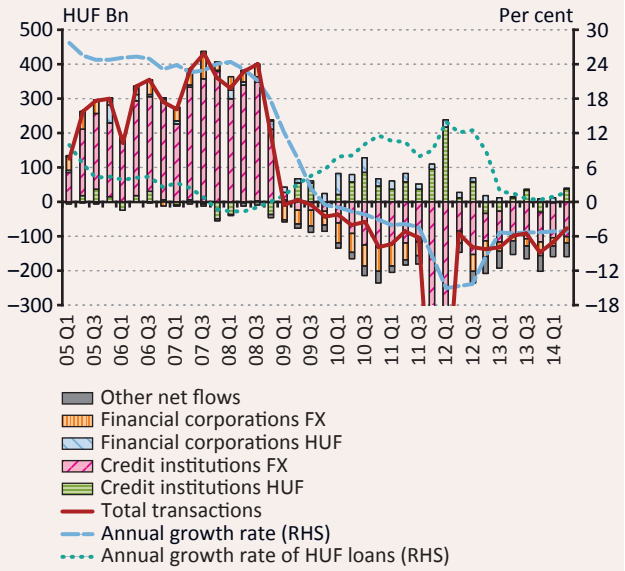
Corporation liabilities to GDP

Outstanding amount/GDP	Bank loans			Trade credit			Shares and other equities			Securities		
	2008	2013	Share*	2008	2013	Share*	2008	2013	Share*	2008	2013	Share*
Hungary	30.2	23.0	↓	45.9	47.7	↓	111.9	136.3	↑	1.4	2.2	↑
Poland	18.5	18.7	↓	40.4	46.5	↑	80.0	92.9	↑	3.5	5.2	↑
Czech Republic	25.9	26.6	↓	58.7	74.1	↑	107.7	108.7	↓	3.7	10.8	↑
Slovakia	31.8	30.8	↓	34.3	39.7	↑	74.9	88.7	↑	0.8	4.3	↑
Slovenia	61.7	47.0	↓	56.3	49.8	↓	108.2	121.1	↑	1.4	2.7	↑
Latvia**	75.1	52.3	↓	99.5	74.2	↓	95.3	115.1	↑	0.6	2.2	↑
Lithuania	40.5	30.0	↓	44.4	48.2	↑	101.7	122.4	↑	0.2	0.6	↑
Estonia	57.7	48.1	↓	55.8	79.7	↑	209.4	252.6	↑	6.1	10.4	↑

** Direction of the change in the share of given category to all liabilities, between 2008 and 2013;*
*** data from 2010 were used instead of 2008.*
Source: ECB, MNB.

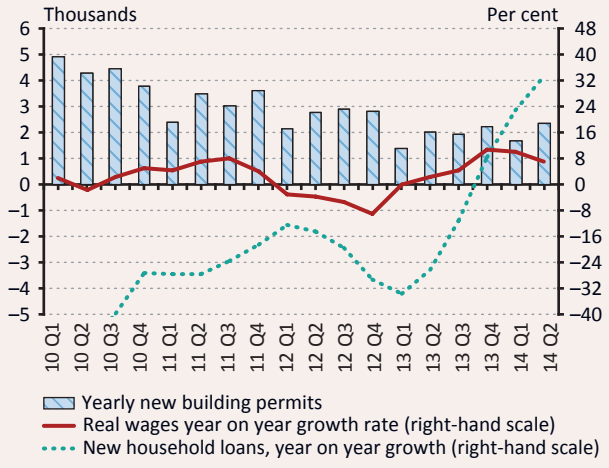
2.2 A recovery is observable in forint lending to households

Chart 20
Quarterly transactions of household lending
(domestic financial intermediaries)



Note: Seasonally unadjusted data with rolling exchange rate adjustment.
Source: MNB.

Chart 21
New household loan volume, real wages growth rate, and new building permits

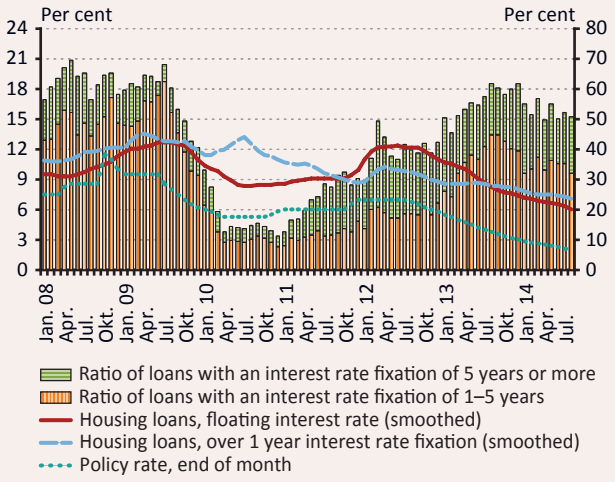


Source: MNB, HCSO.

Foreign currency loans to households continued to contract, while a pick-up was observed in HUF-denominated loans. In 2014 H1, domestic financial intermediaries' foreign currency lending to households fell by HUF 191 billion on a transaction basis (Chart 20). By contrast, borrowing of households in forints exceeded repayments by nearly HUF 51 billion during the first half of the year and therefore, the share of HUF loans within the total portfolio continued to increase. Consequently, similar to the previous quarters, the annual rate of portfolio contraction was around 5.1 per cent. In addition to the growing portfolio of HUF loans, the volume of new loan disbursements also picked up noticeably. New disbursements of credit institutions to households totalled HUF 96 billion and around HUF 145 billion in the first and the second quarters of 2014, respectively. The volume of new loans granted rose by 33 per cent on an annual basis (Chart 21).

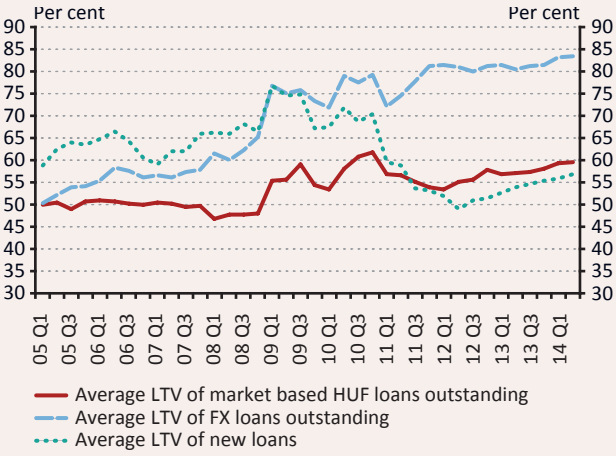
Households' consumption and investment activity may support the upturn in new lending. Within new disbursements, it was the volume of housing loans that expanded the most during the period under review. Based on the number of building permits issued, the housing market showed signs of a pick-up: in H1 2014, the number of permits issued was up 20 per cent annually and the number of transactions is also increasing in the market of used homes. The improvement in real wages and employment, as well as the low interest rate level may have stimulated the consumption of households and, overall, new borrowing as well. The general improvement in the economic outlook may moderate the precautionary motives that have previously determined households' behaviour.

Chart 22
Financing cost of new housing loans and the share of loans with initial interest rate fixation in new loans



Note: Interest rates smoothed by using a 3-month moving average.
Source: MNB.

Chart 23
Average loan-to-value ratio of housing loans



Note: Banking sector data. From 2011 Q1, the LTV ratio is based on the market value instead of the collateral value.
Source: MNB.

The cost of finance of new loans declined. Based on contracts realised, between January and July 2014 the nominal interest rate on new housing loans with floating rates dropped by almost one percentage point to 6.3 per cent, while those with an initial interest rate fixation of at least one year decreased by 0.6 percentage points to 7.6 per cent (Chart 22). The share of loans with an interest rate fixation fell to 50 per cent compared to 60 per cent at the end of 2013. Besides housing loans, the average interest rate on new consumer credit declined by nearly 1 percentage point to 17.4 per cent during the first half of the year.

Overall, non-price conditions on loans to households are tighter compared to before the crisis. Although nearly 40 per cent in net terms of the banks participating in the Lending Survey[2] eased conditions on consumer credit and housing loans in 2014 Q2, credit conditions can still be presumed to be tight. Indeed, in preceding years banks had reported a broad tightening of these conditions according to the Lending Survey, which was not followed by a period of easing comparable in length and intensity. This is manifested in the development of the average loan-to-value ratio (LTV) of housing loans. The LTV value of credits granted has been on a rise since Q1 2012 and it approached 57 per cent by Q2 2014 (Chart 23), which is, however, still lower than the LTV ratio of HUF loans outstanding (59 per cent). Since more than 90 per cent of new housing loans were disbursed with an LTV value below 80 per cent, the new LTV limit of 80 per cent prescribed by a recently adopted MNB decree does not entail a considerable constraint in respect of the current pick-up in new lending (Box 2). The decree's provision pertaining to the payment-to-income ratio (PTI) limit may reduce the borrowing capacity of persons with partially declared or undeclared income.

Settlement of the exchange rate spread and unfair contract amendments will reduce households' FX debt significantly. As the contractual terms allowing for the application of exchange rate spreads and unilateral contract amendments have been declared invalid, financial institutions must settle accounts with the customers concerned. According to our estimate, as a result of the settlements, the outstanding amount of foreign currency loans to households may decrease by around 17 per cent (by 16 per cent in the case of foreign currency mortgage loans), with a parallel decline in households' GDP-proportionate foreign currency debt in the banking sector from 12.2 per cent to 10 per cent. This level would not be extreme even by regional standards. In Romania and Poland, which also experienced an expansion in foreign currency

[3] http://english.mnb.hu/Penzugyi_stabilitas/publications/hitelezesi_felmeres/senior-loan-officer-survey-on-bank-lending-practices-november-2014

Box 2

Debt cap rules – a new macroprudential central bank regulation for the prevention of excessive household indebtedness

Excessive household indebtedness is a damaging process from a macroeconomic, financial stability and social perspective. On the one hand, it can lead to the build-up of significant imbalances (e.g. asset price bubbles) and on the other hand, it may require stronger adjustment on the part of banks during economic recessions. In addition, the foreign currency indebtedness of households increases the external vulnerability of the country, as loans are typically backed by foreign currency funds. Finally, excessive household indebtedness is a severe social problem, as it may significantly raise the number of households unable to repay their loans, which in turn may lead to evictions. In Hungary, many households have been caught in a debt trap due to the accumulation of foreign currency loans between 2003 and 2008.

Based on its authorisation granted by the new MNB Decree effective from 1 October 2013, as a macroprudential authority, the MNB adopted a regulation aimed at the prevention of excessive household loan outflows in the form of an MNB Decree equivalent to a government decree in the legislative hierarchy. Entering into effect on 1 January 2015, the new regulations are applicable to all new loan contracts concluded in the territory of Hungary. The MNB has consulted the ECB and market participants in drafting the new regulation, which basically consists of two main pillars. The payment-to-income ratio (PTI) reduces customers' debt accumulation by limiting the debt-servicing burden that can be undertaken by customers when they take out a new loan in a pre-specified proportion of their regular legal income. In the case of collateralised loans (e.g. mortgage loans), the loan-to-value ratio (LTV) limits the size of available loans in proportion to the collateral (home value).

Compliance with the payment-to-income ratio must be examined for all new loans exceeding HUF 200,000 (consumer credit, mortgage loans, vehicle loans, etc.). In addition to the debt service associated with the new loan, the regulation takes into account all debt service payments linked to all credits held by the customer, and only certified, legitimate net income (wage, pension, family allowance) is considered as disposable income. This may clearly stimulate the whitening of the grey economy as well, given that customers will be required to have reported, legitimate income in order to obtain a loan.

In the case of new HUF-denominated loans granted after 1 January 2015, the payment-to-income ratio may not exceed 50 per cent and, for customers in higher income brackets (a net income of HUF 400,000 or above), 60 per cent. In the case of multiple debtors, incomes and debt-service burdens must be treated on an aggregate basis. In view of the more lenient limits applicable to forint loans, the new regulation is not expected to restrain lending; however, as a macroprudential authority, the MNB may subsequently tighten the limits at any time if it perceives excessive household lending growth.

As regards new EUR loans and other foreign currency loans, the prescribed PTI limits are far more stringent (25 per cent and 10 per cent and, in case of higher-income customers, 30 per cent and 15 per cent, respectively) in order to offset the adverse effects of potential exchange rate depreciation. These constraints rule out the possibility of a revival and a surge in foreign currency lending. As regards loan-to-value ratios, the MNB decree basically adopted the currently prevailing provisions[3] with a view to securing the continuity of legislation.

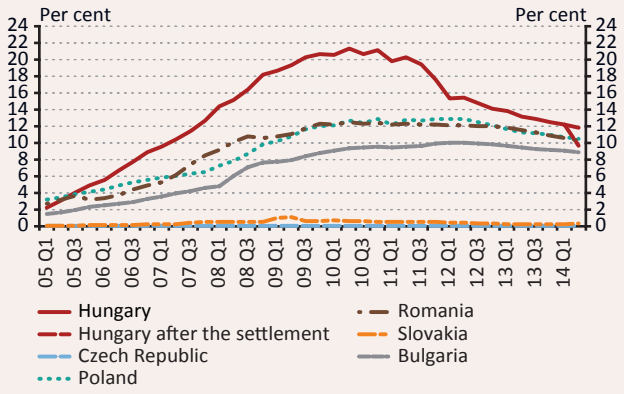
Maximum payment-to-income ratios and loan-to-value ratios
(per cent)

		HUF	EUR	Other currency
Payment-to-income ratio	**For monthly income below HUF 400,000**	50	25	10
	For monthly income of HUF 400,000 or above	60	30	15
Loan-to-value ratio	**On mortgage loans**	80	50	35
	On vehicle loans	75	45	30

Note: The LTV limits applicable to financial lease are higher by 5 percentage points.
Source: MNB.

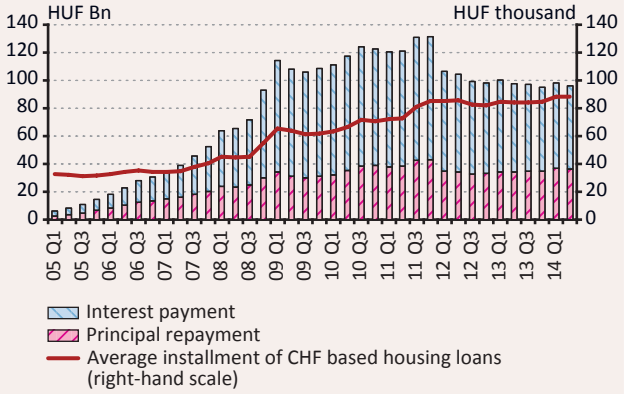
[4] For further details, see Government Decree No. 361/2009.

Chart 24
Household foreign currency loans as a percentage of GDP in regional comparison



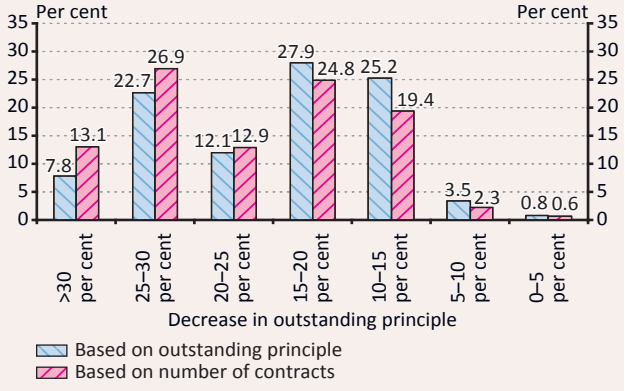
Note: Banking sector data.
Source: MNB, national central banks.

Chart 25
Estimated quarterly debt servicing burden of households on banking sector mortgage loans, versus the debt burden on an average CHF-denominated housing loan



Source: MNB, own calculations.

Chart 26
Estimated distribution of debt reduction of performing CHF-denominated mortgage loans following the settlement



Source: MNB, estimation based on data from CCR.

lending, this value peaked at around 12–13 per cent (Chart 24). By contrast, at the end of 2009 the foreign currency debt of Hungarian households exceeded 20 per cent of annual GDP. Looking forward, the conversion of mortgage loans – which constitute the bulk of the FX-denominated debt – into HUF would essentially eliminate the open foreign currency position of households.

Settlement is expected to significantly reduce households' regular monthly instalments. After the 2008 crisis, the debt servicing burden of household loans increased steeply in parallel with, among other things, the depreciation of the HUF exchange rate (Chart 25). While the aggregate debt servicing burden decreased substantially owing to the preferential early repayment scheme, individual monthly payments did not decline. After settlement, however, both aggregate and customer-level debt servicing burdens are expected to ease substantially, for two reasons. On the one hand, financial institutions are required to deduct debtors' overpayments stemming from the invalid exchange rate spread and unilateral interest rate increases from their outstanding debt. An average 'Swiss franc' mortgage borrower's debt may decrease by 16 per cent (for performing debtors by 19 per cent, respectively) which, *ceteris paribus*, leads to a commensurate reduction in monthly payments. On the other hand, if the interest rate on loans is reset to a 'fair'[5] level, this in itself may reduce debtors' burdens further. Taken together, after settlement, the decline in principal debts and the reset of fair interest rates may reduce the monthly instalments of foreign currency mortgage loans by 20–25 per cent on average (Box 3).

Substantial heterogeneity is expected in the reduction of borrowers' principle. There were major differences between financial institutions in terms of the extent of the applied exchange rate spread and unilateral modifications. Consequently, borrowers may be entitled to very different rates of debt relief. More than the half of borrowers with a Swiss franc denominated mortgage loan are expected to see debt relief of at least 20 per cent, however, the share of borrowers with less than a 15 per cent relief is also significant (Chart 26).

[5] The interest rate level specified as fair pursuant to the No. 2/2014 legal uniformity decision of the Supreme Court (Curia) and Act XXXVIII of 2014.

Box 3

The impact of the settlement arising from nullification of the exchange rate spread and unilateral contract modifications on the financial intermediaries and on the future regulations concerning consumer credit agreements

Effect of settling the exchange rate margin and unilateral contract modifications on the financial intermediary system
(HUF Billion)

	Estimated gross effect			Estimated net effect on income
	FX mortgage loans	Terminated contracts and other loans	Total	
Banking sector and branches	695	89	784	608
Total financial intermediary system	786	156	942	731

Source: MNB, estimation based on CCR.

During the second half of the year, the overall restructuring of the legal framework for consumer credit regulations started, which has a significant impact on every almost every aspects of the banking system and beyond. Restructuring of the legal framework of current agreements and future credit supply is legally formalised by several Acts, of which two (Act of XXXVIII of 2014 and Act XL of 2014 adopted on the basis of the legal uniformity decision of the Curia dated 16 June 2014) have already been passed by the Parliament and one has been submitted. The Acts which have been passed pertain to current agreements, while the latter one is formulated to regulate future lending practices and the credit market. In the near future, submission of the Act on FX loan conversion to HUF is expected. This Act will also govern the conditions of loans to be converted next year.

Pursuant to the act on settlement adopted in September, the overpayments of debtors arising from the application of unfair conditions must be considered, on a retrospective basis, as principal pre-payments in relation to every credit facility, except state-subsidised loans, and credit card and current account credits, which was disbursed after 1 May 2004 and was not terminated before 26 July 2009. Consumer claims, i.e. the settlement costs of the exchange rate spread and the unfair contract modifications, are calculated as the difference between the original outstanding debt and the recalculated outstanding debt, and the difference between the original and the recalculated past due claims. In the case of ongoing contracts, the calculated amount will be deducted first from the amount of past due claims, then from the principle debt. When quantifying the consequences of the measure for customers and financial institutions, four different effects can be distinguished.

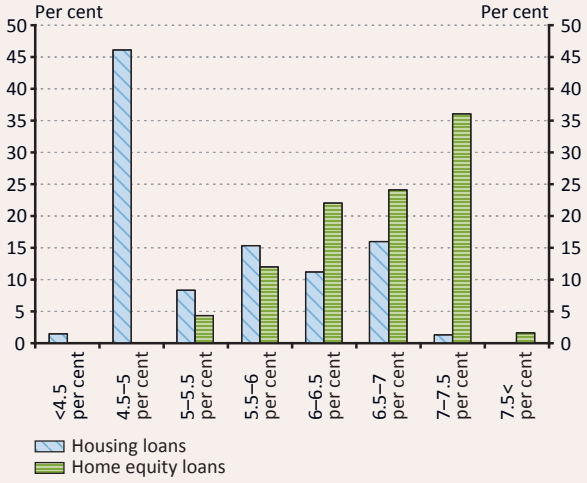
Gross effect of the measure: According to our conservative estimate, the full impact of the measure may amount to HUF 900–1,000 billion in the financial system as a whole, of which HUF 800 billion may be incurred by the banking sector and non-resident credit institutions.[6] This estimate includes the total difference between the original and the recalculated loans in the case of ongoing contracts, and the present value of the repaid amount in the case of terminated contracts. While this amount will be used to reduce the outstanding debt in the first case, an actual cash refund will be provided in the second case. Allowances provided by lenders during the settlement period (e.g. debt relief, or allowances in the context of the exchange rate cap scheme) will be deducted from the original consumer claims.

Impact of the measure on the balance sheets of financial institutions: The decrease in lending volumes on the asset side causes an equal decrease in capital among liabilities. Moreover, the closing of banks' foreign exchange position decreases the available currency swaps and/or foreign resources, with the latter burdening liquid assets. The impact on banks will be mitigated by the fact that consumer claims in the case of non-performing loans will be settled primarily through the reduction of past due claims. Banks have accumulated a significant amount of late payment interests, fees and other cost vis-à-vis their non-performing clients, which is recognised as an off-balance sheet item. In the case of defaulted loans, the gross impact of the measure will be realised mainly on these claims; thus the main debt recognised on-balance sheet will only be affected by the part uncovered by these past due claims.

[6] Upon the calculations of the foreign exchange margins and unfair contract modifications, we estimated monthly payment paths based on the information gained from the Central Credit Information System – CCIS – (date of borrowing, credit amount, maturity), supplemented by interest rate statistics. In estimating the monthly payment paths we reckoned with monthly changing interest rates, which we derived from the MNB's interest statistics pertaining to new contracts and to the outstanding portfolio, supplemented with bank-level interest rate statistics. In each case, we assumed annuity type loan constructions.

Impact on the profitability of the financial institutions: In the case of non-performing loans the programme's final balance-sheet effect will be smaller, due to the realised provisioning[7]. The reason for this is that for collateralised loans, assuming constant collateral values, the decline in gross exposure will also reduce expected losses, and thus part of the recognised loan-loss provisioning can be released in line with the decline in gross exposure. In addition, according to their business considerations, some banks may keep their provisions unchanged to increase the loan loss coverage of the portfolio or to write back the impairments over a longer period of time. Based on points 2 and 3, we do not expect banks to recognise substantial additional losses on non-performing loans; accordingly, the overall impact of the programme on the profitability of the financial institutions may be around HUF 730 billion, of which the banking sector and foreign branches will incur about HUF 600 billion.

Distribution of FX mortgage loans by the initial APR



Source: MNB.

In addition to settlement, the cost of loans (interest rate, fees) will be adjusted to the fair level. The average costs of FX-denominated housing loans will decrease with a substantial heterogeneity, but on average a 2-percentage decrease is expected, so new levels will be around 5-6 per cent (in case of home equity loans 6-7 per cent). This would correspond to a 3-4 per cent margin upon origination, whereas the level is now around 5-6 per cent, due to the decrease in reference rate[8].

Another important measure to be taken is the modification of consumer credit regulations, in other words the creation of the "fair banking system". In its current form, the draft prescribes the use of fix, or reference-based interest rates in the case of every new and currently existing consumer credit agreement, which essentially extends the rules of "transparent pricing" that have been in force since April 2012 in relation to new mortgage loans. In the case of credit agreements where the repayment period is shorter than 3 years the interest rate or the spread is fixed without the possibility for change. If the repayment period is longer than 3 years, then the interest rate may be modified once in every three years, but a maximum of five times during the whole repayment period. As per current plans, interest rate modifications will be possible along the change of strictly objective ratios and under the supervision of the MNB. The value of the ratios is set to change along factors that are not affected by the operations of credit institutions (for example: cost of resources, liquidity premium).

Finally, the third important measure to be taken is FX loan conversion into HUF. At the time of the formulation of this paper, the exchange rate at which the conversion will be performed and the pricing to be followed afterwards are still undecided questions. Similar to settlement, these measures will result in a decrease in currency swaps and foreign resources (see Box 6 for more details). Keener competition can be expected for the currently outstanding loan portfolio after settlement, since the pricing of the newly converted loans will be regulated by the Act on consumer credit supply, especially in regards of free cancellation rights at the end of the repayment period. These effects may be reinforced by economies of scale that will become more important in the light of the contracting portfolio. Furthermore, the decline in liquidity due to settlement and conversion may reinforce competition for forint funding sources. In this environment of stronger competition, banks with appropriate levels of liquidity and capital buffe rs are expected to be active after conversion. Competition will be concentrated around good clients, while a significant group of clients will not be affected due to credit risk and ultimately because of high loan coverage ratios, which will persist nonetheless of the decreasing debt the outstanding debt volumes.

[7] However, part of the net effect on profits appears before the settlement, since banks set aside provisions equal to their expected losses in anticipation of the settlement.

[8] It has to be noted that, parallel with the decline in the reference rate, Hungary's sovereign risk has also risen, and therefore actual costs of finance have not fallen as much as the decline in the reference rate.

With regard to the effects outside the banking system, households' indebtedness and repayment obligations will decrease, and the sectors' open currency exchange position will essentially disappear. Both gross and net external debt may significantly decrease on a national economy level due to decrease in household's loan portfolio. The FX loan conversion to HUF only decreases gross external debt to the extent by which total assets of the banking system decreases.

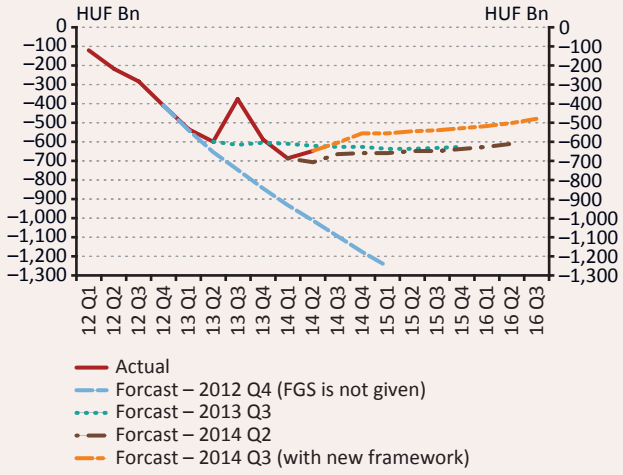
FX household debt measures

	Settlement	"Fair" banking system	Loan conversion to HUF
Banking system	One-off losses, decreasing interest margins due to the set back of interest rates to the fair level Decreasing liquidity, but external funds and net FX swap position decrease as well Decreasing loan to deposit ratio	Intensified competition in the banking system Decreasing interest margins	Increased competiotion for HUF funds, and for HUF deposits Decreasing liquidity, but the external funds and net FX swap position are decreasing as well Minimization of "currency mismatch" Still significant "expiry date mismatch" Reduction in financing risks
Households	Decreasing household indebtedness, and repayment obligations	Decreasing repayment obligations	Household's open FX position esentially diminishes
National economy	Gross and net external debt decreases		Gross external debt decreases

Source: MNB.

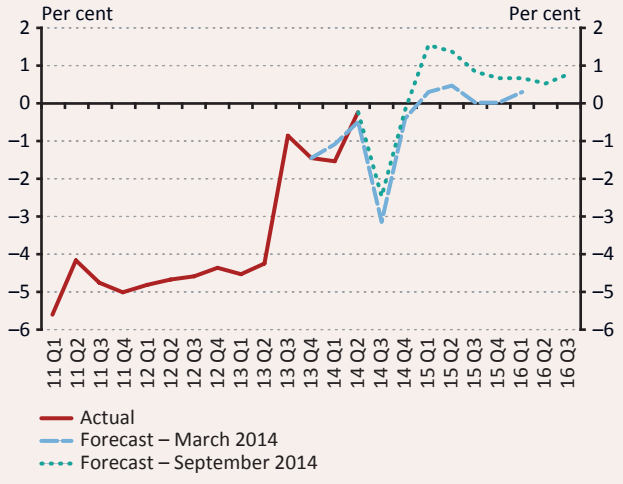
2.3 Corporate lending is expected to continue increasing

Chart 27
Forecast for lending to non-financial corporations in selected periods
(cumulative transactions)



Source: MNB.

Chart 28
Forecast for lending to non-financial corporations
(transaction-based, year-on-year data)



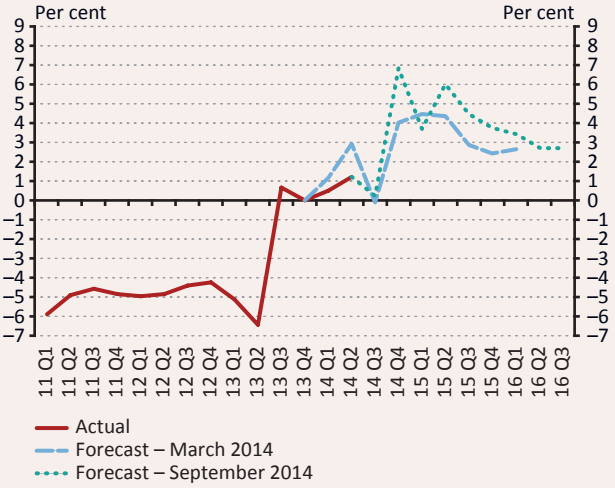
Source: MNB.

Corporate lending developments are in line with our previous expectations. Although the quarterly volumes of lending and FGS disbursement deviates from our previous forecasts (November 2013), their cumulative effect on total loans outstanding is in line with our expectations (Chart 27). The unprecedented volatility of lending may be attributed to two main reasons. On the one hand, 2013 Q3 saw substantial credit outflows under the first phase of the FGS (borrowings brought forward). On the other hand, the FGS may have affected corporations' behaviour in early 2014 through another channel as well, as companies may have decided to postpone their scheduled borrowings in the planning and application stage of the second phase of the FGS (postponed borrowings). In line with the acceleration in new disbursements, by the middle of 2014 these effects may have offset each other on a cumulative basis, bringing actual data in line with our previous forecast, according to which 40 per cent of the FGS loans had an additional effect.

Setting up the central bank asset management company may improve banks' restrained risk appetite. Looking forward, the low interest rate environment and economic growth should result in rising credit demand, while banks' subdued risk tolerance may be eased by sustained economic growth. On short term FX household debt measures may pose significant downward risks, which, however, may be mitigated by the increasing role of the State in corporate lending. Over the medium term, the measures in relation to household FX loans, in particular conversion into HUF, and the asset management company created by the central bank to carry out commercial property project portfolios may contribute to the clean-up of banks' balance sheets and thus improve the sector's lending capacity.

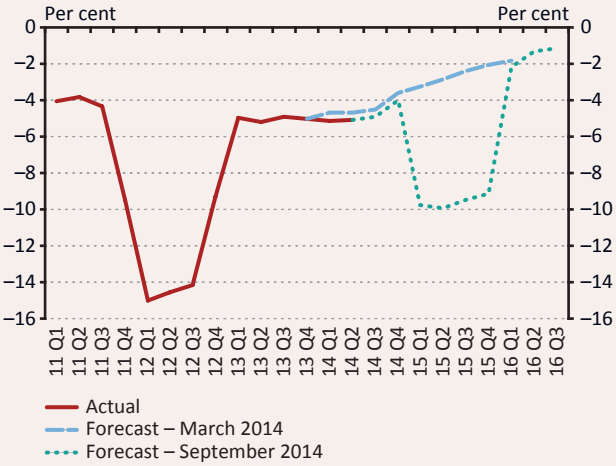
Corporate lending may accelerate further after the increase in the loan facility available under the FGS. In addition to decreasing interest rates on corporate loans, the expansion of the second phase of the FGS, which adds another HUF 500 billion to the facility, resulted in an increase in our projection of corporate lending. Over the forecast horizon, we now project a moderate increase in corporate lending, instead of near stagnation (Chart 28), and the banking sector's lending to the SME segment is forecast to grow at a rate of 3-5 per cent, due to the FGS (Chart 29).

Chart 29
Forecast for lending to the SME sector
(transaction-based, year-on-year data)



Note: The SME forecast was derived from the model-based forecast available for total corporate lending, taking into account the weight of SME lending and the FGS programme.
Source: MNB.

Chart 30
Forecast for lending to households
(transaction-based, year-on-year data)



Source: MNB.

Settlement of consumer loan contracts will lead to a significant decline in the portfolio of outstanding household loans. Owing to the legal uniformity decision of the Curia and the resulting settlement, a substantial, one-off decline is expected in household loans outstanding at the beginning of 2015. In the case of ongoing contracts, this settlement will reduce the outstanding principal debt; this, however, will also affect lending developments looking forward: monthly instalments will decline in line with the outstanding debt for the remaining maturity, which will reduce future lending transactions slightly. This latter effect, however, may be dampened by the decline in interest rates, as this will increase the share of principal payments in monthly instalments. That notwithstanding, the debt servicing burden of households will ease significantly, which may stimulate credit demand over the medium term.

Owing to settlement, a significant but temporary decline is expected in the household loan portfolio. Consistent with our previous expectations, the volume of new disbursements showed a notable upswing; this expansion affected housing loans and unsecured consumer credit as well. On the supply side, we perceived an easing of credit conditions: according to the Lending Survey, a large share of banks eased conditions both on housing loans and consumer credit, and they anticipated further easing in the period ahead. Nominal interest rates on new disbursements declined in parallel with the reductions in the central bank base rate. The new, mainly preventive regulations of the MNB do not imply a significant constraint on household lending over the forecast horizon; on the demand side, however, households may maintain their essentially cautious behaviour. Looking ahead, apart from the steep fall caused by the one-off settlements, we expect a decline in household lending over the forecast horizon, however, at a slowing pace (Chart 30).

3 Portfolio quality – Additional regulatory and central bank measures are required to facilitate acceleration of portfolio cleaning

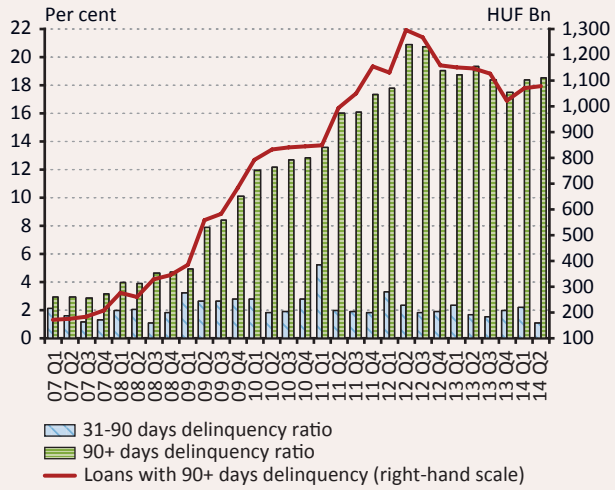
After almost two years of decline, the ratio of the non-performing corporate loans once again increased and at the end of June 2014 it amounted to 18.5 per cent. The increase in the NPL ratio is mainly attributable to the real estate project loans, reported earlier as performing after restructuring, which have now become non-performing. The cost of provisioning in the corporate segment, which showed a further moderate decrease during the half-year, amounted to 2 per cent, while the coverage ratio for non-performing loans increased to 63 per cent.

Reduction of the very high corporate NPL ratio can only be achieved with a significant acceleration in portfolio cleaning; this, however, is hindered by several factors. The most important obstacle is that there is practically no demand for real estate project loans on the workout market, and the high vacancy rate experienced in the office market also limits the reduction of the problem portfolio. The unsound structure of banks' balance sheets also reduces lending capacity, since the problem portfolio ties up significant capital and resources, and also erodes profitability. In addition to this, the risks included in the balance sheet make the banks cautious. Risky exposures have a negative impact on lending activity, rather than jeopardising the banking system's shock absorption capacity, thereby undermining monetary policy efficiency. Regulatory and central bank measures are required to address these issues. On the one hand, these may include prescribing the obligation to recognise higher impairment and higher capital requirement in respect of the problem real estate project loans, which reduces the uncertainty in the balance sheet and, by making it more expensive to keep them in the balance sheet, encourages the banks to undertake more substantial cleaning. Another important step is the asset management agency, announced and to be set up by the central bank, which may facilitate the acceleration of the portfolio cleaning by the partial substitution of the market.

In the first half-year, the NPL ratio did not change on aggregate within the household portfolio, and it thus remains at 18.6 per cent, which can be considered very high. Deterioration in the quality of the portfolio of FX-denominated mortgage loans, representing the main problem, is still significant. Although the non-performing loan ratio may increase somewhat immediately after the settlement of unfair pricing practices, over the medium term, thanks to the lower instalments, a drop in the amount of the new non-performing loans can be expected. However, the lower instalment obligation most probably will not be able to restore clients' solvency in the case of already non-performing loans, and thus further measures may be necessary to address this issue. In the case of FX-denominated mortgage loans, portfolio cleaning is a slow process. The biggest problem is posed by the fact that outstanding debt considerably exceeds the value of the property and by the unpredictability of the regulatory environment.

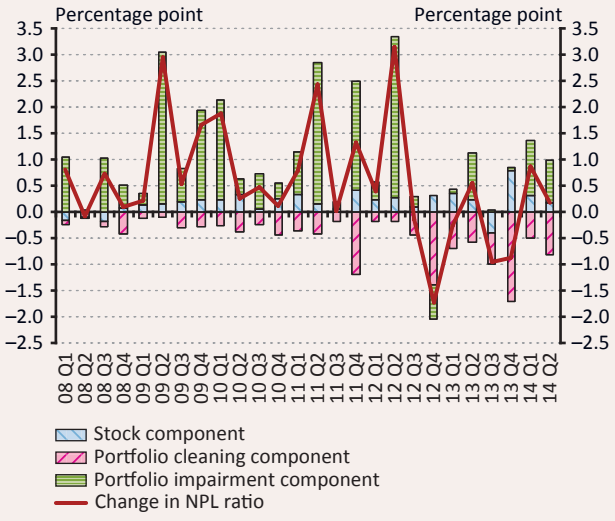
3.1 In the first half of 2014, the quality of the corporate loans deteriorated again

Chart 31
Share of non-performing corporate loans of the banking sector
(by customers)



Source: MNB.

Chart 32
Factors affecting changes in the ratio of non-performing corporate loans in the banking sector



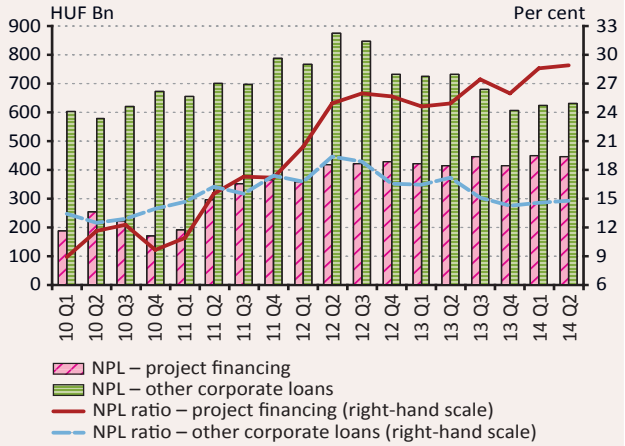
Source: MNB.

After decreasing for almost two years, the non-performing corporate loan ratio once again increased. The ratio of non-performing corporate loans in the portfolio of the banking sector increased by almost 1 percentage point compared to the end of the previous year and rose to 18.5 per cent by the end of June 2014 (Chart 31*)*. Although this level is considerably lower than the maximum value of 21 per cent recorded during the crisis, it can be still regarded as an extremely high value in international comparison. The deterioration in portfolio quality is not a general phenomenon in the banking sector, as most of it can be linked to three large banks. At the same time, the ratio of loans overdue for 30-90 days declined somewhat during the half-year, reducing the probability of further deterioration and thus improving the prospects for the next quarter. Breaking down the change into factors, it is obvious that the portfolio deterioration component considerably impaired the quality of corporate loans both in Q1 and Q2 (Chart 32). Although portfolio cleaning also remained at a high level in the last half-year, this was not able to offset the large volume of loans that became non-performing. The stock component has continuously raised this ratio since the crisis – except for during Phase 1 of the FGS – and thus the same trend was also observed in the first six months of this year.

The deterioration of the corporate loan portfolio can be clearly linked to real estate project loans. Breaking down non-performing loans by products, it is clear that the rising NPL ratios in the corporate segment are attributable to project loans, the vast majority of which can be linked to commercial property (office buildings, commercial centres, hotels, industrial properties, plots). While in the case of the other corporate loans the non-performing portfolio peaked in 2012 H2 and the NPL ratio has now already fallen below 15 per cent, in the case of project loans – after an almost continuous increase – it reached almost twice this figure, namely 29 per cent, by the end of June this year (Chart 33).

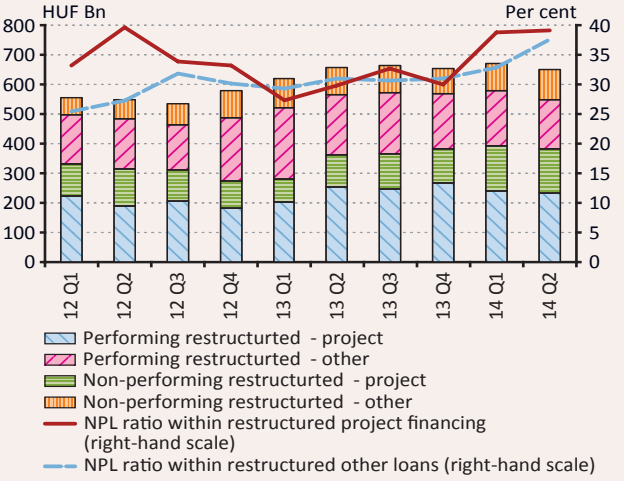
Restructuring often merely postpones realisation of the losses, and this phenomenon is present more strongly in the case of project loans. In the corporate loan segment, restructuring is estimated to affect about 11.5 per cent of the total loan portfolio. Due to the typically much higher loan

Chart 33
Non-performing project and other corporate loans within the banking sector



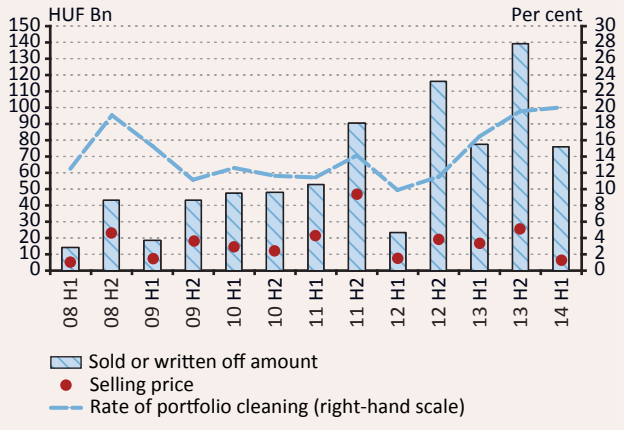
Source: MNB.

Chart 34
Restructured loans of the banking sector



Source: MNB.

Chart 35
Non-performing corporate loans sold and written off, and the cleaning rate in the banking sector



Source: MNB.

amount of project loans (and as a result of that the higher potential loss), banks used restructuring more actively; accordingly, in this segment the ratio of restructured loans is over 25 per cent. However, the easing of payment conditions is often not accompanied by full termination of the non-performing status, and consequently non-performance is still considerable among restructured loans, i.e. almost 40 per cent for both project loans and other corporate loans (Chart 34). Furthermore, in relation to restructuring, it is possible that banks actually only wish to postpone realisation of the losses, rather than to achieve any real improvement in portfolio quality. A good example of this was seen in 2014: a project loan of very high amount – which practically has not been performing since the crisis, but was reported as "performing" due to restructuring – was moved to the non-performing category, which alone increased the NPL rate of the banking sector by one-half of a percentage point.

At the present rate of portfolio cleaning, the high NPL ratios would remain in place over the long run. In past years, credit institutions primarily reduced their portfolios of non-performing loans by selling the receivables, while write-offs are significantly less frequent. However, the pace of portfolio cleaning can still be deemed as slow, despite the fact that the amount of the sold problem portfolio has been continuously increasing (Chart 35). Even if we take last year's figure, which was the most favourable one, as a benchmark, it would still take as long as 5-6 years to clean the current non-performing corporate loan portfolio, not to mention the transactions becoming non-performing.

The depth of the workout market is not sufficient for the acquisition of the non-performing real estate project loans. In the case of commercial properties the problem is even more severe. Efficient portfolio cleaning is rendered practically impossible by the absence of a workout market for project loans. While the banks regularly sell their non-performing unsecured corporate loans in smaller packages, loans of typically higher amounts, which are secured by property, were sold extremely rarely after the crisis. This is mainly attributable to the fact that domestic workout companies do not have sufficient liquidity, while the foreign actors are not active, which is partly due to the fact that the size of the market is too small for them, and their demand appears at a depressed price, substantially lower than the fundamental values. As a result of this, the stock of non-performing commercial property project loans is continuously expanding. In order to manage the systemic risks emerging in relation to these commercial property loans, it is justified to apply more stringent capital requirements, which may reduce the uncertainties inherent in the balance sheet and encourage the banks to clean their portfolio more actively by making it more expensive to keep these portfolios in the balance sheet (Box 4).

Box 4

Potential introduction of the systemic risk capital buffer to manage systemic risks arising as a result of the high stock of problem project loans

The currently high ratio of the problem loans in the Hungarian banking sector is a key macroprudential risk. Although non-performing loan portfolios may be regarded as a natural accompanying feature of banking, if they increase too fast and persist for too long, they pose severe problems to financial stability, since these assets hamper the banking sector's supporting role in economic growth (e.g. corporate lending). Moreover, the large stock of problem project loans further increases stability risks due to its high concentration.

One of the macroprudential regulatory tools to manage the problem is the so-called Systemic Risk Buffer (SRB), which can be prescribed depending on the institutions' individual contribution to systemic risk. Based on the European banking regulation effective since 2014, the designated authorities of all Member States may require the credit institution sector or certain sub-groups of the sector to accumulate Systemic Risk Buffers in addition to the minimum capital requirement. This is allowed when it is required for preventing the build-up of or for the reduction of non-cyclical systemic risks, or for the strengthening of the resilience of the financial intermediary system. In Hungary, based on the Credit Institution Act, the MNB – as the macroprudential authority – is authorised to prescribe SRB, with regard to the following:

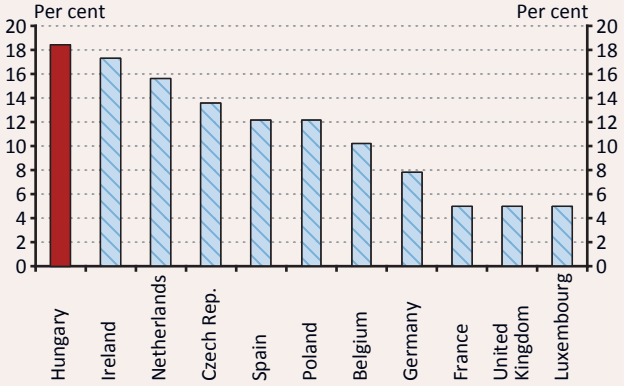
- The buffer rate can be set between 1 and 3 per cent of the Risk-Weighted Assets (RWA), by steps of 0.5 per cent, but in particularly justified cases it may also be set above this level (buffer rates must be reviewed at least every two years);
- If the buffer rate exceeds 3 per cent, the approval of the European Commission, as based on the opinions of the EBA and ESRB, is required, while below that level the Member States have a notification obligation only (so-called ESRB notification);
- The capital buffer must be accumulated from Tier 1 capital for exposures to domestic, EEA and third country counterparties;
- The credit institution must accumulate the buffer on an individual, sub-consolidated or consolidated basis, but for institutions subject to consolidated supervision, compliance on both the individual and the consolidated bases may also be prescribed;
- The buffer rates must be set in a way that does not jeopardise the operation of the EU internal market.

At present, the largest stability risks primarily consist of the large volume of non-performing and restructured project loans. Thus, when the new macroprudential tool is introduced, there may be a case for the SRB rate to be set depending on the share of problem project loans in the given institution's total assets or risk-weighted assets.

The introduction of SRB may have effect essentially from two directions: on the one hand, in the case of institutions failing to perform any balance sheet cleaning, it may increase their shock absorption capacity due to the higher capital requirements, while and on the other hand – as a sort of negative incentive – by increasing the capital requirements and therefore capital costs, it may efficiently encourage the institutions to clean their balance sheets. However, it should be noted that banks may also theoretically react to the introduction of the capital buffer by curbing their lending activity, which should by all means be avoided from a macroeconomic point of view. This risk can be managed by the proper scheduling of the introduction of SRB, since, if the macroprudential authority provides credit institutions with sufficient time to perform the cleaning of problem loans before the application of the new tool, the incentive to perform the balance sheet cleaning may as well exert its impact already before its practical implementation. Thus it can be avoided that banks respond to the introduction of SRB by curbing their lending activity in the long term.

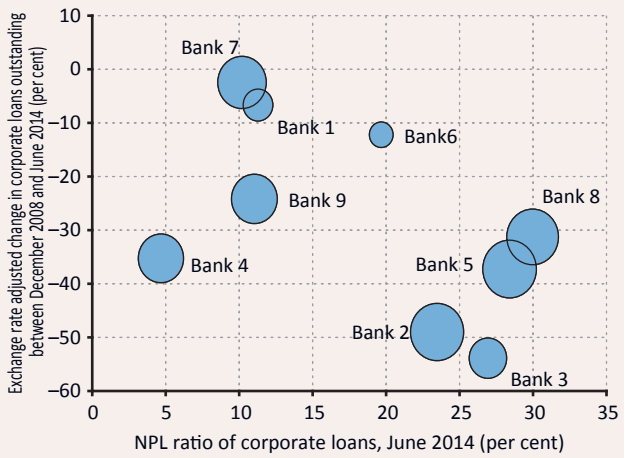
In relation to the introduction of SRB, the central bank also has wide-scale consulting obligations. When elaborating the general rules it is recommended to consult the market participants, then – at least one month before the application of the decisions passed on the systemic risk buffer – the European Commission, the European Banking Authority and the European Systemic Risk Board, as well as the competent authorities of the EEA state or of any third country that might be affected by the requirement, must be notified.

Chart 36
Vacancy rate of capital city office markets in international comparison
(2014Q1)



Source: Jones Lang LaSalle.

Chart 37
Change in loans outstanding and NPL ratio in the corporate segment



Note: Banks with higher than 2 per cent market share in the corporate segment. The size of bubble is corresponding the market share.
Source: MNB.

The high vacancy rate in the office market may limit the ability of project loans to become performing. In the case of office building project loans, which account for a considerable part of banks' exposure, there would be a chance for completing the projects and making them performing if there was a significant acceleration in economic growth. However, a precondition for this would be a healthy vacancy rate in the office market. This ratio is extremely unfavourable by international standards (Chart 36). Within those European Union countries where such figures are available, Hungary's ratios are the highest. Accordingly, no substantial improvement can be expected on the demand side over the short term. Similar problems can also be observed in the commercial property segments other than office buildings.

The financial stability risk of the high NPL portfolio is significant, and therefore portfolio cleaning must be accelerated. The rise in the NPL ratio has a negative impact on financial stability not only directly through impairments, but it may also be the source of additional losses through indirect channels and may hinder the banking sector in the full performance of its task with regard to financial intermediation. The problem with distressed assets which are stuck in the balance sheets is that they restrain lending (Chart 37), first by tying up significant capital and funds and thus lowering profitability, and second by making banks cautious, in light of the risks being carried in the balance sheet. Accordingly, the unsound balance sheet lowers the efficiency of monetary policy, since a sound banking sector is a prerequisite for an effective monetary transmission mechanism. The purpose of the MNB's proposal to set up an "asset management agency" is to address the credit market and property market disturbances, which can be regarded as the most efficient solution for the problem (Box 5).

Box 5

Asset management agency proposed by the central bank

As a result of the exaggerated commercial real estate financing in the pre-crisis years this segment accounts for half of the problem corporate loan portfolio, i.e. non-performing or restructured. Moreover, in the case of commercial real estate loans the problem has been continuously escalating, while in the case of other corporate loans a considerable portfolio cleaning took place. The oversupply of problematic commercial properties, as well as the absence of demand for such type of receivables are fundamental problems.

In order to address this problem, in the spring of 2014 the MNB decided to set up an asset management agency. It should be emphasised that the MNB established the asset management agency under the name of *Magyar Reorganizációs és Követeléskezelő Zrt. (*MARK Zrt) not for the purpose of rescuing the banks but rather to purchase the commercial real estate problem loans and the related commercial properties – already included in the banks' balance sheets, and to thus facilitate portfolio cleaning in a way that creates a market for these assets which is economically accessible for international investors too. Consolidation of banks' balance sheets may help stimulate their lending and through that increase the efficiency of monetary policy.

MARK Zrt. plans to purchase *receivables* (project loans) related to commercial properties (or plots on which the construction of commercial property was planned or to semi-finished projects) located in Hungary or *commercial properties* (or plots) already included in banks' balance sheets during foreclosure. According to the plans the loans must be overdue for longer than 90 days or already restructured. An additional condition is that the receivables or the properties had to be already in the balance sheet of the bank or its property management subsidiary since a certain date which will be defined later. According to the plans, as regards the transaction size, in the case of receivables the banks and their property management subsidiaries belonging to their consolidation circle may offer their assets for purchase to MARK Zrt. or to its property management subsidiary over the limit of HUF 500 million or HUF 200 million in the case of receivables or properties, respectively. With the last condition, the preponderant majority of the potential portfolio could be covered by fewer than 500 transactions.

The banks may offer their assets to the MARK Group for purchase on voluntary basis. The purchase price will be subject to the agreement between the two parties; the details are currently being elaborated and no conciliations have taken place with the banks. The transfer price may be below book value. The asset management agency will announce a single, fixed term registration period for the banks and plans to commence purchases in the first half of 2015. Given the uncertainty of the portfolio size, decomposition (restructured, nonperforming loans, or real estates' share), and the transfer price, we provide at this stage only qualitative assessment in the relevant chapters.

The main characteristics of the asset management agency initiated by the Central Bank	
Eligible counterparty	Any solvent and liquid credit institution (both corporations and co-operatives) active in the EU, which has commercial real estate exposure in Hungary or holds Hungarian commercial real estate on its balance sheet.
Eligible assets	Commercial real estate loan or foreclosed commercial property, where the bank provided financing for property development for future sales or rentals, partly or totally, or where the source of repayment is the cash-flow generated by the real estate property.
Minimum value threshold for assets	For commercial real estate loans min HUF 500 million. For foreclosed real estate properties min HUF 200 million.
Time of origination	Will be determined later on.
Transfer price	The pricing technique remains to be determined, no conciliations have taken place with the banks. The transfer price may be below book value.
Financing	MNB credit line up to HUF 300 billion, with a term of maximum 10 years.
Planned operating period of the Asset Management Agency	10 years maximum

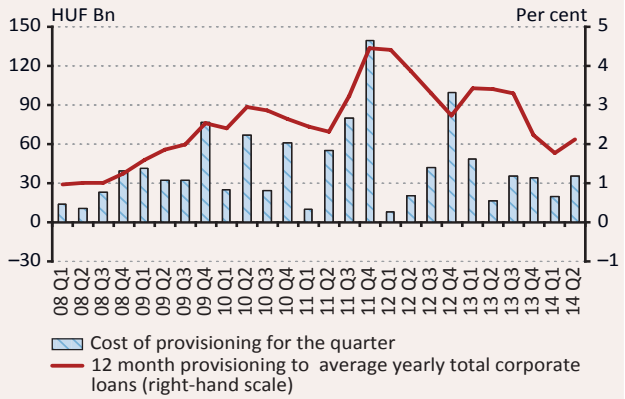
Source: MNB.

MARK Zrt. is wholly owned by the MNB, which will also provide financing for the group. The financing limit approved by the Monetary Council is HUF 300 billion, which allows the MARK Group to buy up a significant part of the potential portfolio estimated around HUF 800 Bn on book value. The denomination, term and repayment conditions of the financing will correspond to the portfolio of assets taken over.

The pricing of the funding will be determined over the short-term money market of the given currency. It is not the intention of MARK to sell the assets as soon as possible at a depressed price, as a result of which it would actually undermine market prices, but rather to wait for the appropriate market environment to sell the assets at a fair price, in the meantime ensuring optimum management and where possible reorganization and restructuring, thus also ensuring the highest possible recovery. The anticipated lifetime of the MARK Group is maximum 10 years.

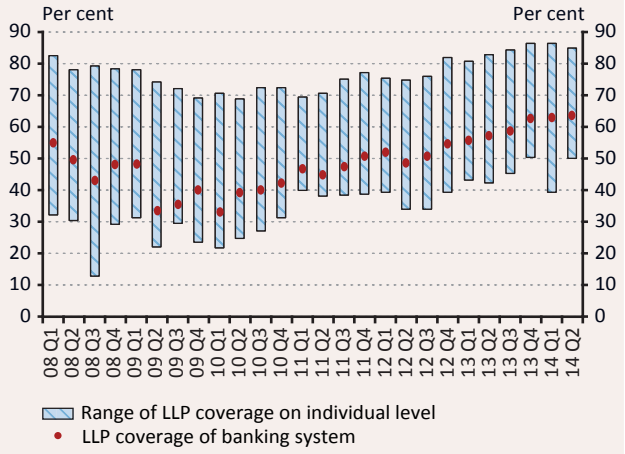
The added value of MARK will appear in several channels. Due to the large size of the loans, by accepting relatively few – a couple of hundred – commercial property loans, the banking sector would be able to release considerable resources, including capital and liquidity, while the ratio of non-performing corporate loans could decrease significantly. An additional advantage of the asset management agency is that its primary focus is on addressing the problem and on reorganization, over a long horizon. Moreover, it is much more favourable for the national economy if this takes place in a detached asset management agency rather than burdening banks' balance sheets with these risky exposures for many years. Finally, in the case of the portfolio covering the vast majority of the commercial property problem loans existing in the banking sector, the cleaning and reorganisation can be utilised and optimised with greater economies of scale and more efficiently than with a bank-by-bank approach.

Chart 38
Cost of provisioning to total loans in the corporate segment



Source: MNB.

Chart 39
Loan loss coverage of non-performing corporate loans



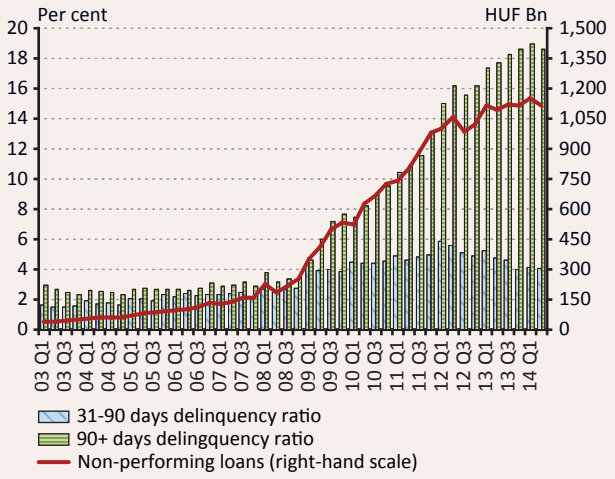
Note: Banks at least 2 per cent market share in corporate lending.
Source: MNB.

The cost of provisioning continued to decrease moderately for corporate loans in the first half-year. In relation to average corporate loans outstanding, the cost of provisioning was 2.1 per cent at the end of June, which is a slight decrease compared to the end of the previous year. Although the value of the indicator, which may be interpreted as the cost of risk, is only half of the maximum measured at the end of 2011, it is still more than twice as high as the level observed before the crisis (Chart 38).

Loan loss coverage continued to increase minimally, but the differences between banks are still high. The coverage ratio for non-performing loans continued to increase moderately in the last half-year and was already over 63 per cent at the end of June. This level is already well above the pre-crisis values. The coverage of project loans and other corporate loans no longer differs materially. The increase in the average collateral coverage is favourable on the whole, but the variance among the banks is still considerable: the collateral coverage of the banks with the worst indicators just exceeds 50 per cent, while that of the best one is over 85 per cent (Chart 39). Similarly large differences may be observed in the collateral coverage of project loans as well among the largest banks interested in the segment.

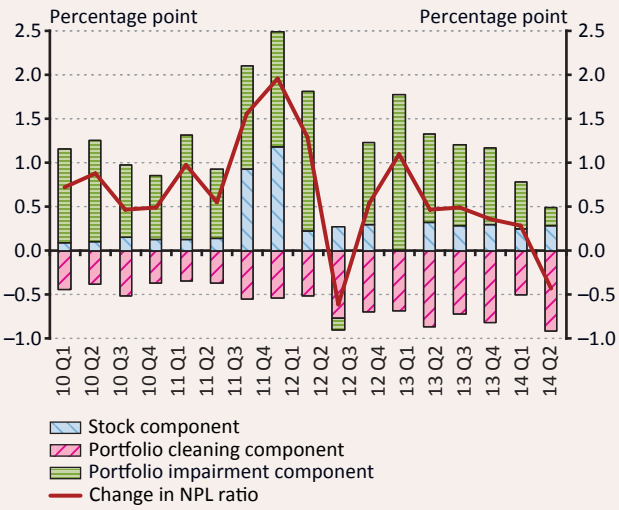
3.2 There was no significant change in the quality of the household portfolio

Chart 40
Share of non-performing household loans of the banking sector



Note: Before 2010 by customers, thereafter by contracts.
Source: MNB.

Chart 41
Factors affecting changes in the ratio of non-performing household loans in the banking sector



Source: MNB.

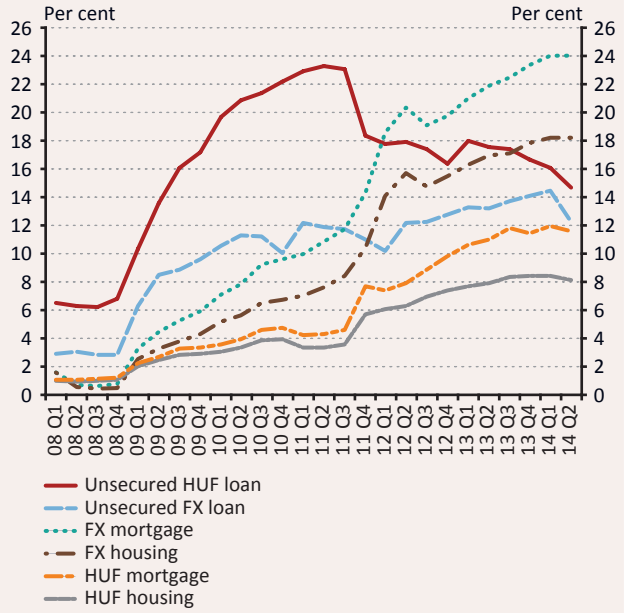
The non-performing loan ratio in the household segment is practically unchanged. In 2014 Q1, the non-performing loan ratio increased in the household segment, and then in Q2 it decreased to a similar extent. Thus, taken together, the NPL ratio at the end of June corresponded to that at the end of the previous year, i.e. 18.6 per cent (Chart 40). If the change is broken down into components, favourable trends can be identified. On the one hand, the components of the deterioration in the quality of the portfolio are the lowest among the values observed in recent years, and on the other hand, the portfolio cleaning component took the highest value. From quarter to quarter, the value of the indicator continues to be slightly increased by the continuous, slow decline in outstanding loans (Chart 41).

The ratio of overdue FX mortgage loans is still increasing. There are significant differences in the performance of the various product types. For unsecured loans, the NPL ratio already declined significantly in the previous quarters, which is partly related to the fact that portfolio cleaning typically affects unsecured loans. It is important to note that these loans account for merely 20 per cent of total outstanding household loans. At the same time, there is still an undiminished increase in FX-denominated mortgage loans, although a significant slowdown was seen in Q2. For FX mortgage loans, which account for the larger part of the outstanding borrowing of households, the NPL ratio increased to an extremely high level, namely to 24.1 per cent (Chart 42).

The end of portfolio quality deterioration is partly attributable to the government's measures. In recent years, several government measures were taken to address households' FX mortgage loan problems. Of these the exchange rate cap scheme, which is still available, serves the prevention of the further deterioration in the portfolio quality, while the National Asset Management Agency (NAMA) aims to reduce the number of existing non-performing loans. The decreasing ratio of new non-performing loans is presumably also attributable to the improving employment, income and macroeconomic environment.

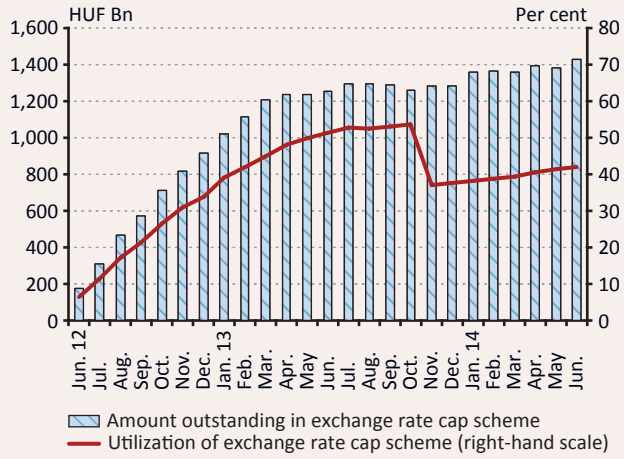
There was no significant increase in the utilisation of the exchange rate cap scheme. At the end of June 2014, all in all over 167,000 contracts were participating in the exchange rate cap scheme. After the initial dynamic expansion in the number

Chart 42
Household NPL ratio by products



Source: MNB.

Chart 43
Changes in the utilisation of the exchange rate cap
(credit institution sector)



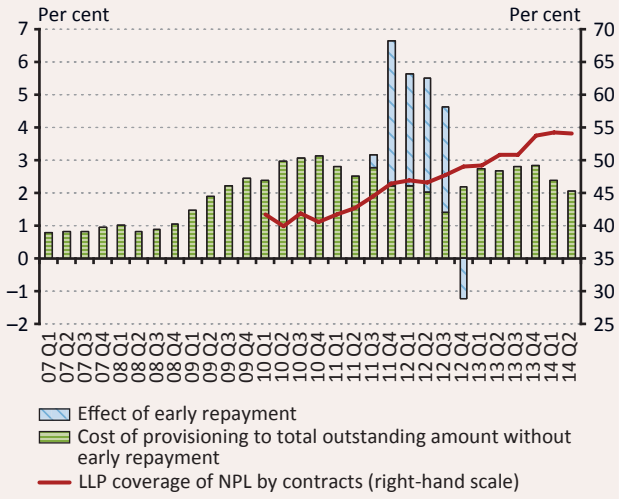
Source: MNB.

of contracts, since mid-2013 the quarterly growth rate fell to about one per cent. As a result of extending the scheme to non-performing outstanding loans, the utilisation rate fell to 40 per cent from the former level of over 50 per cent, while it is about 42 per cent at present (Chart 43). Based on feedback from the banks, the obstacle to entering the exchange rate cap scheme for already non-performing loans is that the 20-25 per cent instalment reduction achievable by doing so is not sufficient to restore the client's income position. This is the reason why the extension does not act as significant means of further improving portfolio quality, in spite of the regulator's intention.

The settlements related to the unfair pricing may improve portfolio quality in the medium term. Immediately after the settlements, quite paradoxically, the NPL ratio is expected to increase slightly in the household segment. This is attributable to the fact that in the case of non-performing clients the compensation for overpayment must be primarily used for settling overdue interest and fees; therefore in their case, under identical conditions, the outstanding borrowing will decrease to a lesser extent than in the case of performing clients. For this reason the numerator of the NPL ratio will decrease to a lesser extent than its denominator. At the same time, thanks to the lower outstanding principal and to the changeover to a typically lower level of interest rates under the contract, the instalments will also decrease, which is expected to result in a lower probability of default (PD) for loans that are still performing at present. In the medium term, this points to an improvement in portfolio quality.

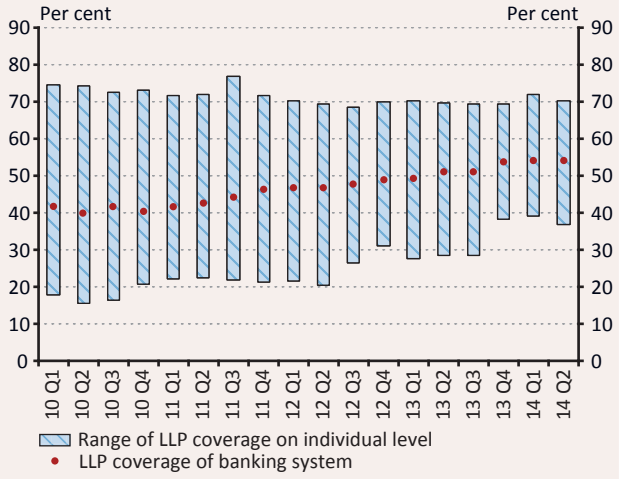
Holding the banks accountable does not offer a real solution for already non-performing clients. At majority of already non-performing clients, the decrease of principal debt is expected to be materially lower than in the case of performing loans, due to the above mentioned settling method, and as such it will not help restore these clients' solvency. This means that due to social policy considerations further steps may become necessary for the complete elimination of the problem. At the same time, when applying these measures, it is important to avoid the moral hazard risks and to choose such solutions that do not make impossible the removal of the non-performing portfolios from the balance sheet under reasonable losses.

Chart 44
12- month rolling cost of provisioning to total loans and LLP coverage of NPL in the household segment



Source: MNB.

Chart 45
LLP coverage of non-performing household loans



Note: Banks with at least 2 per cent market share in household lending.
Source: MNB.

The first half-year was characterised by declining new provision requirements and stable coverage. The 12-month rolling cost of provisioning fell to 2.1 per cent from 2.8 per cent at the end of the previous year (Chart 44). Although this is a significant improvement, in terms of its level it can be still deemed high. At the systemic level, the loss coverage ratio of the non-performing household loans was over 54 per cent at the end of Q2, which represents a historical peak (Chart 45). Nevertheless, the considerable asymmetry between banks continues to be a risk. While the coverage is only around 37 per cent for the worst-performing bank, this indicator exceeds 70 per cent for the best one. After the settlements related to the unfair pricing, in the case of non-performing clients where the overpayments exceed the past due fees and interest payable, the principal debt may decrease. Calculating with constant property values for the collateral, the banks in theory will have the opportunity to reverse impairments. For this reason, a decrease can be expected both in the cost of provisioning and in the loan loss coverage, while the loss will appear in the provisions.

3.3 For cooperative credit institutions, the costs of risk have significantly declined

Table 2
Key indicators of corporate portfolio quality at cooperative credit institutions

per cent	2011 H1	H2	2012 H1	H2	2013 H1	H2	2014 H1
90+ days delinquency ratio	24.9	25.9	27.0	28.8	28.7	22.8	22.1
Loan loss coverage of NPL	30.4	32.2	35.6	36.1	36.8	39.2	48.6
Cost of provisioning to total loans	2.3	2.0	1.9	1.9	1.8	1.0	0.7

Source: MNB.

Table 3
Key indicators of household portfolio quality at cooperative credit institutions

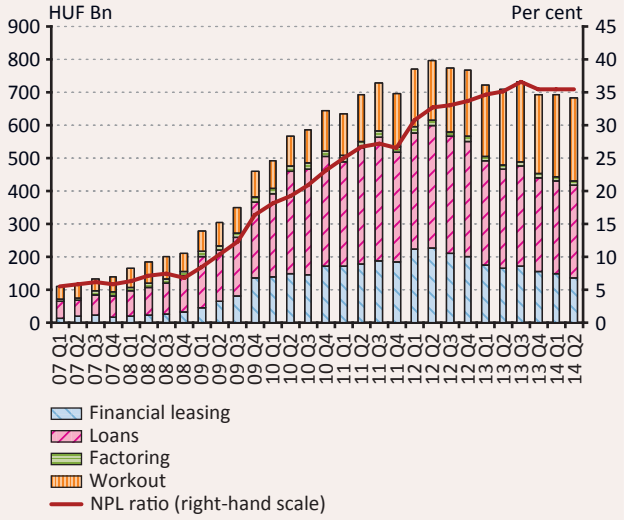
per cent	2011 H1	H2	2012 H1	H2	2013 H1	H2	2014 H1
90+ days delinquency ratio	16.3	16.0	14.6	15.3	15.4	14.6	12.8
Loan loss coverage of NPL	47.0	48.7	49.8	50.4	53.4	56.6	64.6
Cost of provisioning to total loans	1.2	1.7	1.3	1.6	0.9	-0.1	-0.5

Source: MNB.

Although the portfolio of cooperative credit institutions improved both in the corporate and the household segments, this is fully attributable to the change of cooperative sector. In the last half-year there was a modest decrease in the case of the corporate segment (Table 2) and a significant decrease in the case of the household segment (Table 3) in respect of the ratio of non-performing loans. However, the favourable change is fully attributable to the changes of cooperative credit institution sector. In the first half-year, the licences of two institutions were withdrawn, while three institutions were reorganised into banks. The ratio of non-performing portfolio was materially higher at these institutions, thus – if we ignore these – in fact the portfolio quality deteriorated somewhat in the remaining institutions in both segments. The household segment's figure, which is close to 13 per cent, is substantially more favourable than the banking sector's indicator, which is mostly attributable to the fact that FX lending risks only have a marginal impact on the cooperative credit institutions. At the same time, in the case of corporate loans an NPL ratio that substantially exceeds that of the banking sector can be observed, which is primarily attributable to the poorer risk management and less efficient portfolio cleaning. The cost of provisioning decreased in both segments and is much lower than in the banking sector. Moreover, in the case of households, in the first half of this year, on aggregate a reversal of impairments loss took place. The situation with the coverage ratio for non-performing loans is similar as for the NPL ratios: the improving collateral coverage is only attributable to the former lower collateral coverage of the cooperative institutions that left the system.

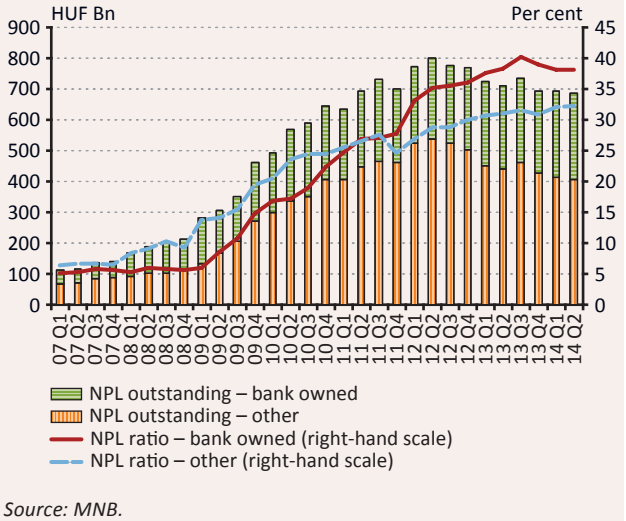
3.4 There was no major change in the portfolio quality of financial enterprises

Chart 46
Non-performing loans at financial enterprises by product



Source: MNB.

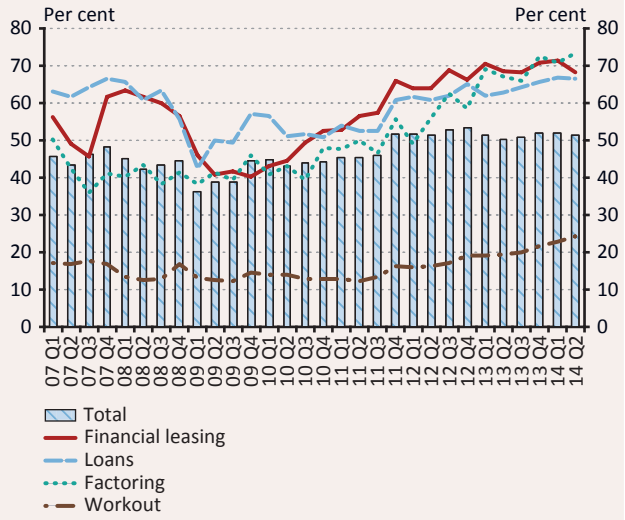
Chart 47
Non-performing loans at financial enterprises by ownership



Source: MNB.

In 2014 H1, the ratio of the non-performing loans practically did not change for financial enterprises. In 2014 H1, the ratio of non-performing assets exceeded 35 per cent, which almost corresponds to the figure at the end of last year (Chart 46). At the same time, this ratio is significantly higher than that seen in the banking sector. However, this may be regarded as a natural phenomenon, as part of these institutions is specialised in the purchase and management of overdue receivables. When examining non-performing assets by ownership, two-third of those are held by financial enterprises owned by Hungarian banks, while in this segment the NPL ratio is also somewhat higher (Chart 47). The latter is essentially attributable to the fact that several banks transfer their non-performing loans to their own workout enterprise.

Chart 48
Loan loss coverage of non-performing assets at financial enterprises

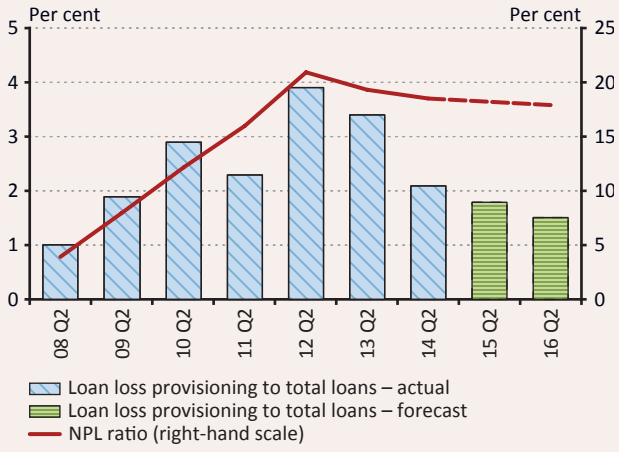


Source: MNB.

In the case of financial enterprises, loan loss coverage is somewhat higher on average than in the banking sector. At financial enterprises, the average loan loss coverage is slightly above 50 per cent. Examining the indicator product by product, we can see considerable differences. The loan loss coverage for loans, financial leasing and factoring is around 70 per cent, it is only 23 per cent for the workout transactions (Chart 48). While the former ones slightly exceed the corresponding figures of the banking sector, the latter one is extremely low. However, this is mainly attributable to the fact that the purchase price of the assets taken over for workout already includes the expected losses, and therefore it is often not necessary to recognise additional losses. Due to this, the lower collateral coverage does not necessarily represent a risk.

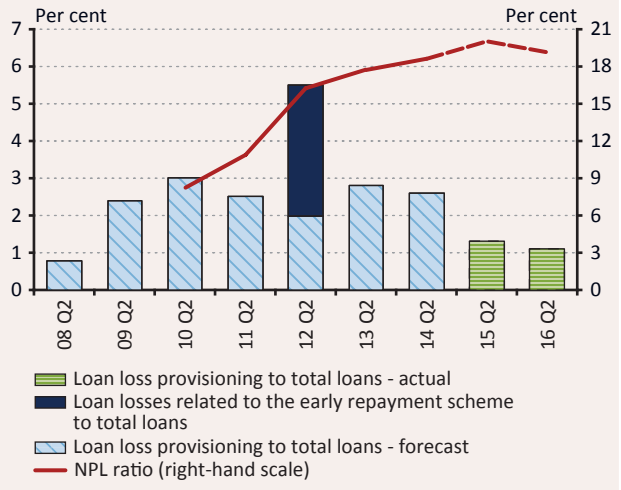
3.5 In the next two years, portfolio quality may start to improve in the banking sector

Chart 49
Ratio of non-performing loans and cost of provisioning in the corporate segment



Source: MNB.

Chart 50
Ratio of non-performing loans and cost of provisioning in the household segment



Source: MNB.

With a more favourable future path of the economy in the next two years, we expect a slow improvement in the corporate portfolio. Although the share of non-performing loans in the corporate portfolio showed signs of improvement in 2013 H2, the NPL ratio once again increased slightly at the beginning of this year. However, this is partially attributable to idiosyncratic factors (typically project loans of some banks). Due to the improving economic performance, we do not expect major defaults in the next period. Slow improvement in the portfolio quality may also be facilitated by the fact that the cleaning ratio has increased considerably in the last eighteen months. In our forecast, we project this to continue. In addition to this, after the former steady contraction, we now expect the portfolio to remain constant. Accordingly, this factor no longer increases the NPL ratio in the forecast. Thus, on the whole, in the next two years we project a slow decrease in the corporate NPL ratio[9] (Chart 49). It is important to note that in our calculations we ignored the positive impacts of the asset management agency, which may help reduce this ratio significantly. In addition to the slowly declining NPL ratio, we also expect a decrease in the cost of provisioning. This ratio may fall from the current 2 per cent to about 1.5 per cent in the next two years.

Over the next two years, the loan performance may somewhat improve in the household segment as well. The development of portfolio quality in the household segments may be mostly determined by the impact of FX loan settlement. The instalments payable by debtors will decrease significantly in the next 2 years, mitigating the probability of default. Thus, on aggregate the non-performing portfolio may at last embark on a long-term decline. In addition to this, the development of the NPL ratio is also determined by the dynamics of the entire portfolio. Due to forgiving part of the debts in 2015 Q1, the gross outstanding loan portfolio of households will decrease to a large extent. As a result of this technical impact, at the beginning of 2015 we can expect to see a significant increase in the NPL ratio (as the denominator of the indicator will decrease). However, later on the NPL ratio may also embark on a decline. With a declining NPL ratio, the cost of provisioning may also decrease in the next two years (Chart 50). It is important to emphasise that in this forecast we ignored the one-off losses arising from the settlement of the foreign currency loans.

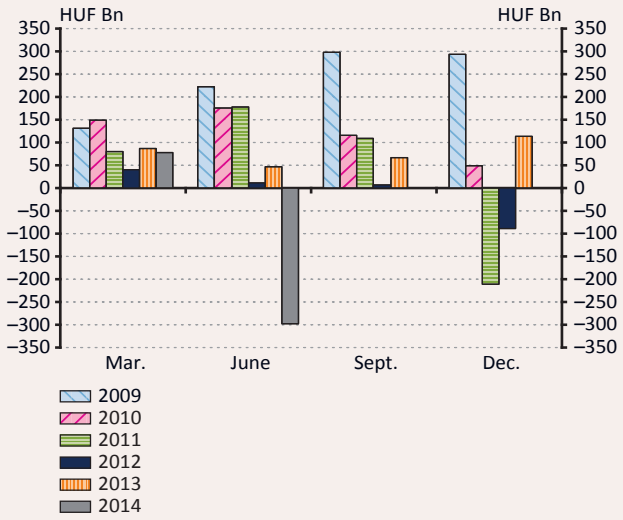
[9] Obviously, in case of a significant acceleration of portfolio cleaning, the NPL ratio may well embark on a gradual decline. Our assumptions regarding the cleaning process are based on historical data

4 Profitability and capital adequacy of the banking sector – substantial losses, but balance-sheet cleaning may improve profitability over the medium term

At the end of June 2014, the cumulative pre-tax profit of the banking sector amounted to HUF -300 billion, mainly due to provisions set aside to cover the exchange rate margin and unilateral increases in interest rates. The profitability of the banking sector deteriorated significantly, while the asymmetry of profitability rose sharply and shifted towards loss-making banks. This year, the package for foreign currency debtors may weaken the profitability of the banking sector even further. Next year, profitability may continue to decline with participation in the asset management agency. Nevertheless, facing up to the losses is indispensable for the sector in order to clean up the balance sheet and pave the way to becoming profitable over the medium term. The restoration of profitability may be supported by balance-sheet cleaning as the process may also accelerate consolidation of the banking sector, enabling it to take advantage of cost-side synergies. The capital adequacy ratio decreased due to the losses, but its level is adequate. The available capital buffers cover expected further provisioning at the sectoral level, but on an individual bank basis capital injections are expected to take place in the second half of the year. The high level of concentration in capital buffers increased further during the past six months.

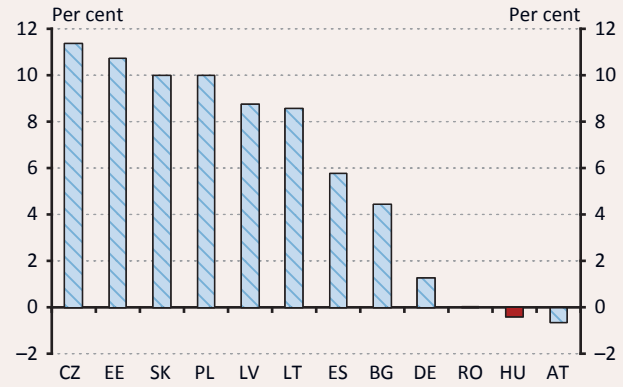
Cooperative credit institutions posted a pre-tax profit of HUF 2.9 billion, which surpasses the sector's entire performance for last year. At the sectoral level, the adequate capitalisation of cooperative credit institutions conceals a strong asymmetry at the individual level, which decreased by widening of the Integration Organisation's system of cross-guarantees. Similarly to banks, the result of financial enterprises deteriorated sharply, reflecting the increased need for provisioning.

Chart 51
Pre-tax profit of the banking sector and branches



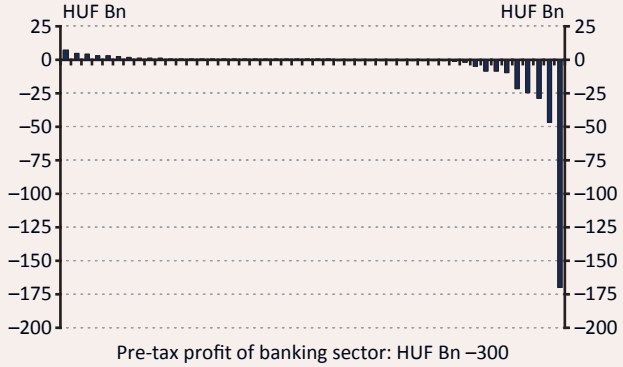
Source: MNB.

Chart 52
After tax ROE indicator of selected countries
(December 2013)



Consolidated data applicable to the banking system as a whole.
Source: ECB CDB database.

Chart 53
Pre-tax loss and profit of banks and branches at the individual level
(June 2014)



Source: MNB.

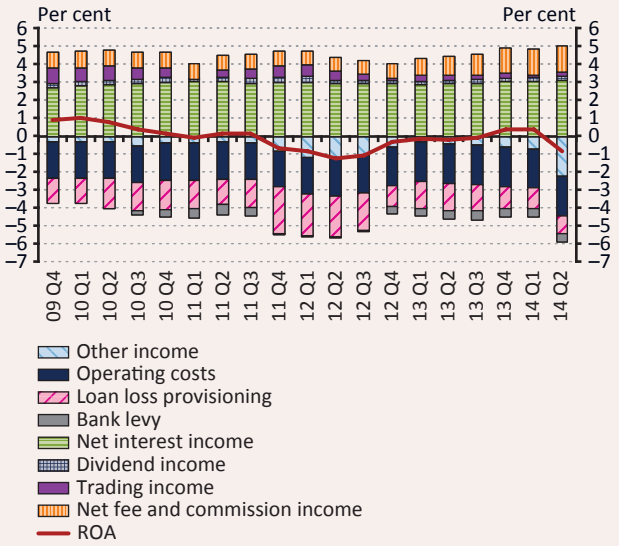
In June 2014, the cumulative pre-tax profit of the banking sector decreased sharply compared to the previous year. The cumulative pre-tax six-month loss of HUF –300 billion represents a steep fall compared to the profit of HUF 47 billion posted last year (Chart 51). The deterioration of profits in the banking sector as a whole can mainly be attributed to banks' provisioning HUF 392 billion in total to cover the foreign exchange margins and unilateral raises in interest rates. It is important to note, however, that this amount is only about a half of the estimated expected losses (for banks and their financial enterprises), as some banks have not or only partly included these items for lack of precise calculation rules. Consequently, the losses of the banking sector may increase significantly during the year. In the first half of the year profitability was reduced further by one-off items, for instance, the recognition of goodwill write-offs and the sale of foreign interests at certain banks.

Profitability is low in international comparison. The pre-tax 12-month rolling ROA indicator of the banking sector was –0.8 per cent, while its ROE indicator stood at –8.3 per cent. In international comparison, the profitability of the domestic banking sector was low in the last two years already, and it will worsen considerably with the current developments. Based on after-tax results, the Hungarian banking sector lags behind its peers both in the region and in parent bank countries, pointing to continuing competitive profitability disadvantage in respect of access to external funds and capital (Chart 52).

The asymmetry of profitability increased drastically within the banking sector, shifting toward loss-producing banks, due to the extremely high losses sustained. At the end of June 2014, the number of loss-making banks was 22 (compared to 16 in December 2013). Their market share in total assets amounted to nearly 78 per cent, well above the 35 per cent registered in December 2013. On the whole, the banking sector's pre-tax loss of HUF –300 billion this year represents the balance of losses amounting to HUF –332 billion and profits amounting to HUF 32 billion. Of all major banks, only one posted a positive result, while all of the remaining large banks reported substantial losses. The rest of the banks more or less broke even. Loss-making banks exhibit considerable concentration: the three banks with the largest losses account for 74 per cent of the gross loss of the banking sector as a whole (Chart 53).

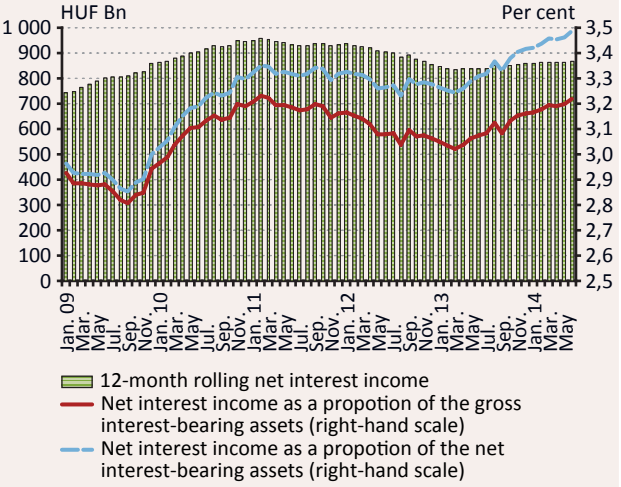
Interest income remains the most stable source of revenue for the banking sector, while the level of other expenditures is extremely high. Comparing the 12-month rolling time series of banking sector data to the average 12-month balance sheet total, we find that interest income consistently represents the most important source of revenue for the banking sector. Earnings from financial operations increased slightly on the back of an increase in profits from investment securities. The vast majority of the strikingly high losses recognised under

Chart 54
12-month main rolling profit items of the banking sector and branches as a proportion of the 12-month average balance sheet total



Source: MNB.

Chart 55
Net interest income as a proportion of the gross and net interest-bearing assets of banks and branches



Source: MNB.

other profits/losses stems from goodwill write-offs and the aforementioned provisioning in June. The level of operating costs remained roughly the same. No outlier values were reported in respect of provisioning for loans this year. Fiscal burdens remain significant: apart from the bank levy, the transaction tax and the cost of certain consumer protection measures add to the burdens of the banking sector (Chart 54).

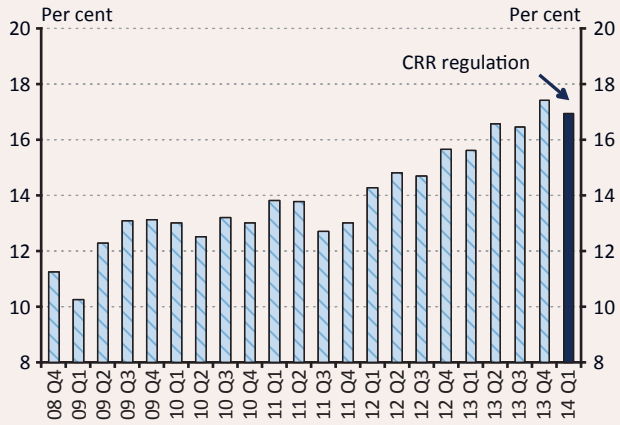
The interest margin increased this year, however, it is expected to decrease on the medium term. 12-month cumulative interest income has been stagnating for about a year; on an annual basis, interest income has remained virtually unchanged, while interest income compared to both gross and net interest-bearing assets has been continuously on the rise. The growth for the year was achieved even with significant declines in the volume of gross and net interest-bearing assets; indeed, banks succeeded in maintaining a steady interest income levels on a continuously decreasing loan portfolio (Chart 55). Based on currently available consolidated international data, interest income as a ratio to total assets remains extremely high in international comparison. The interest margin may decrease, by 0.4-0.5 percentage points, due to falling household debt and interest rates declining to a fair level and this decrease may be further strengthened by the conversion to a "fair" banking system. This in itself decreases the ROE by 3 percentage points and worsens cost efficiency at the same time.

The profitability of the banking sector may deteriorate further this year and be weak next year, but these developments are a prerequisite for a turnaround. Additional factors lowering the financial results may come in the form of further provisioning for foreign exchange margins and unilateral increases in interest rates, and the transfer of project loans by affected banks to the central bank's asset management company. Starting from 2016, the capacities freed up in the wake of the measures described above can be dedicated to the financing of loans promising higher returns, the elimination of bad loans' cost of finance and higher potential returns, pointing to an improvement in profitability. The restoration of profitability may be supported by balance-sheet clean-up, as this process may also accelerate consolidation of the banking sector, as the decreasing uncertainty in the balance sheets can accelerate strategic decisions, and allow the advantages of cost side synergies to be exploited.

Capital adequacy is satisfactory at the sectoral level, but capital buffers are concentrated. From a figure of 17.4 per cent at the end of December 2013, the capital adequacy ratio (CAR) dropped to 16.9 per cent by June 2014.[10] At the sector level,

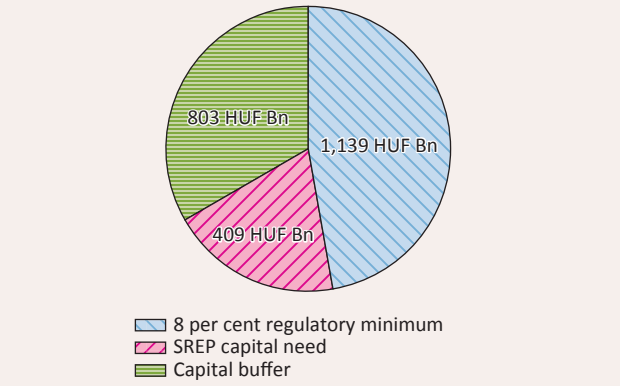
[10] From 1 January 2014, when Regulation (EU) No. 575/2013 of the European Parliament and of the Council entered into effect, capital adequacy must be assessed on the basis of uniform data reporting standards and uniform legislative requirements across the EU. Uniform EU-level data disclosure on capital adequacy figures pertaining to the end of 2014 Q1 and Q2 was first available in August, but since we still perceive minor problems in the disclosure, we adjusted the figures during our calculations. The reason for the modification of the regulation was, on the one hand, the intention to improve the quality of capital elements and, on the other hand, to put in place a number of capital-related regulatory options.

Chart 56
Banking sector capital adequacy ratio



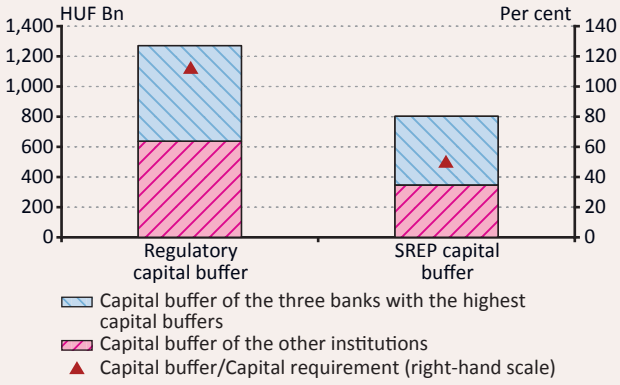
Source: MNB.

Chart 57
CAR and SREP CAR versus available capital buffers of the banking sector, June 2014



Source: MNB.

Chart 58
Capital buffer of the banking sector (June 2014)



Source: MNB.

capital adequacy remains satisfactory, with all banks registering CAR values above 8 per cent at the end of June 2014[11] (Chart 56). The decline was caused by the increasing level of losses, while there was a capital increase of HUF 153 billion in total in the first half of the year. Despite the provisioning in June, the banking sector continues to have ample capital buffers, even over and above the stricter, additional SREP capital requirement necessitated primarily by credit risks (Chart 57). At the systemic level, this is usually more than enough to cover further provisioning for impairment; however, due to the high concentration of capital buffers, further capital increases are expected to take place in the second half of the year on an individual bank basis. The three banks with the largest SREP capital buffers account for 57 per cent of the entire banking sector's capital buffer, while their market share by total assets is around 35 per cent (Chart 58).

Compared to last year, the profit of financial enterprises[12] deteriorated significantly this year. The pre-tax loss of the sector stood at HUF –27.6 billion in the middle of the year, which is a substantial decline compared to losses of –2.4 billion reported at the end of last year. The increase in net interest income was offset by a comparable decline in profits from financial operations, while – as was the case in the banking sector – there was a higher provisioning requirement in preparation for the settlement of the foreign exchange margins and unilaterally increased interest rates (Table 4). As a result, financial enterprises owned by banks reported losses, while others posted positive results. It is noteworthy, however, that at the individual level non-bank financial enterprises may face additional capital needs due to the provisioning requirements occurring typically in the second half of the year, which may lead to a further cleaning of the market. Sector-level comparison to previous years is distorting as, on the one hand, financial enterprises restrained their activity and, on the other hand, several banks have merged with their subsidiaries.

[11] The CAR value of one small bank fell marginally below the minimum level.

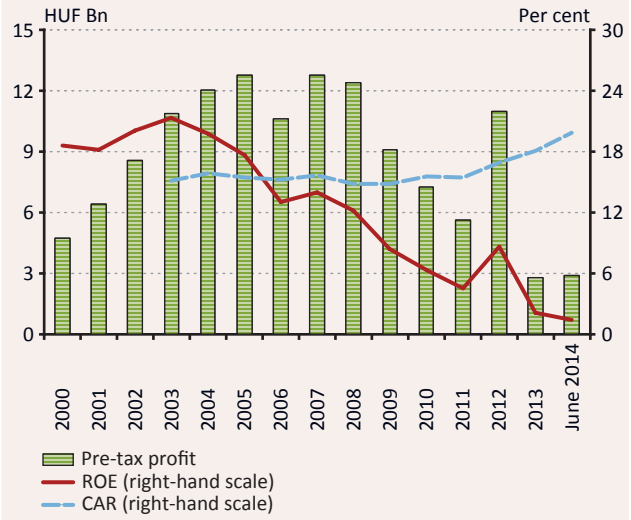
[12] Aggregate data do not include the data of those enterprises which, in possession of a supervisory license, operate as financial enterprises, but perform only intra-group financial intermediation within their non-resident corporations. For the purposes of economic statistical data disclosures, these enterprises are considered to be special purpose entities (SPE); however, they are included in supervisory statistics.

Table 4
Pre-tax profit/loss of financial enterprises

	Owned by banks	Owned by others	Sector total
2008	31.9	11.6	43.5
2009	–17.8	7.9	–9.9
2010	–47.7	5.2	–42.5
2011	–51.0	–3.1	–54.1
2012	–53.5	6.0	–47.5
2013	–14.9	12.5	–2.4
June – 2014	–34.2	6.6	–27.6

Note: Bank ownership means domestic ownership and direct ownership by non-resident banks.
Source: MNB.

Chart 59
CAR and ROE indicators and pre-tax profit of cooperative credit institutions



Source: MNB.

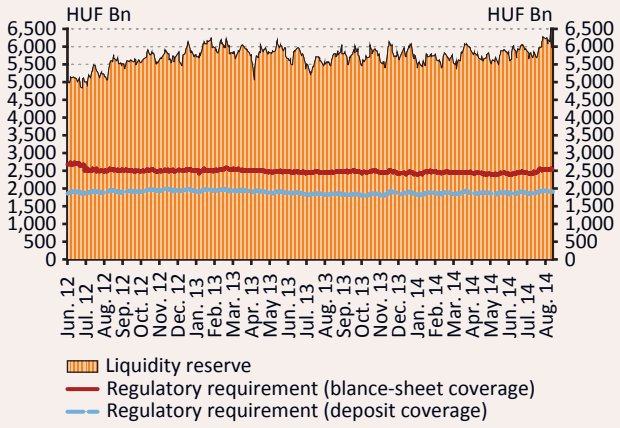
Cooperative credit institutions show a positive pre-tax result, with profits surpassing their entire performance last year. The pre-tax profits of cooperative credit institutions amounted to HUF 2.9 billion in June, outperforming the HUF 2.8 billion annual result last year. It is important to consider, however, that several cooperative banks were converted into banks during the past year; in addition, the supervisory authority revoked the licenses of the largest cooperative bank and a medium-sized member of the sector. Although these developments distort the time series significantly, it can be stated that the performance of credit institutions operating in the form of cooperative credit institutions has improved in recent months (Chart 59).

At the sectoral level, the adequate capitalisation of cooperative credit institutions conceals a strong asymmetry at the individual level, which may be practically eliminated by the Integration Organisation's system of cross-guarantees. At the end of June 2014 the capital adequacy ratio for the sector of cooperative credit institutions stood at a high level, 19.9 per cent, indicating a 1.8 per cent growth for the year (Chart 59). The growth can be attributed to the fact that the relatively low capital levels of the aforementioned, eliminated cooperative banks were removed from the sector. At the same time, significant asymmetry is observed in capital adequacy at the individual level, but the associated risks will be practically eliminated by the continuously expanding cross-guarantee system of the Integration Organisation. One of the underlying reasons for the high capital adequacy ratio is that the proportion of loans is low on the asset side of the balance sheet of cooperative credit institutions, while the ratio of government securities and interbank loans with low capital requirement remains high.

5 Bank liquidity – banking sector liquidity is sufficient for the settlement and conversion of foreign currency denominated loans

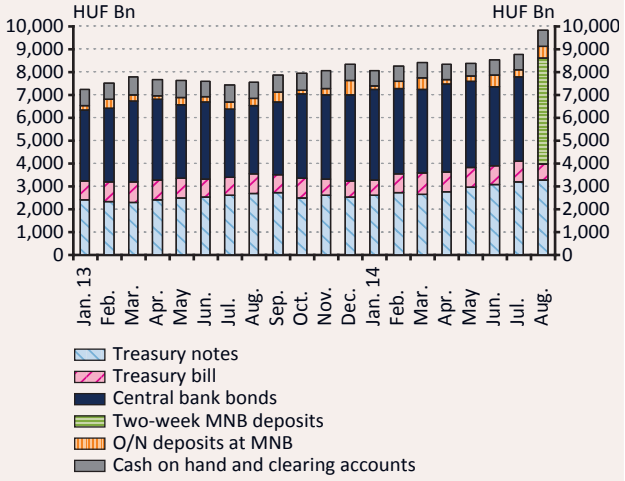
Liquidity in the banking sector remains ample; the settlement due to the exchange rate spread and the unfairness of unilateral interest rate hikes as well as the conversion of FX-denominated mortgage loans into forints may reduce the current liquidity reserves by at most 20 per cent even in an extreme case, but the remaining buffer will still be appropriate: the deposit coverage ratio of the sector would drop to 53 per cent and the balance-sheet coverage ratio to 20 per cent. All of this may accelerate the outflow of external funding, which is also promoted by the MNB's conditional facility. Due to the central bank's self-financing concept, there was a rise in banks' portfolios of government securities, and the ratio of longer-term government bonds increased.

Chart 60
Liquidity reserve and the regulatory liquidity requirements of the banking sector



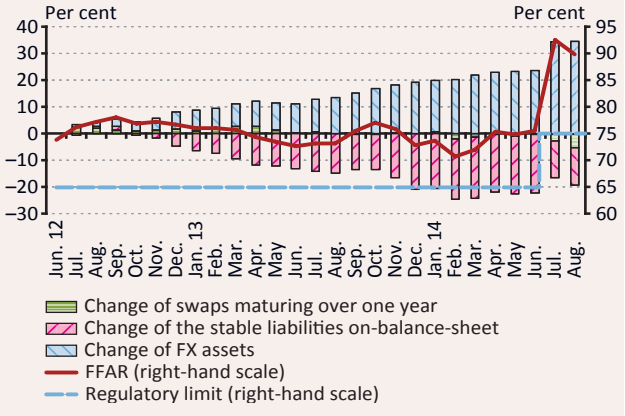
Source: MNB.

Chart 61
Composition of liquid assets in the banking sector



Source: MNB.

Chart 62
Foreign Exchange Funding Adequacy Ratio (FFAR) and the decomposition of its change



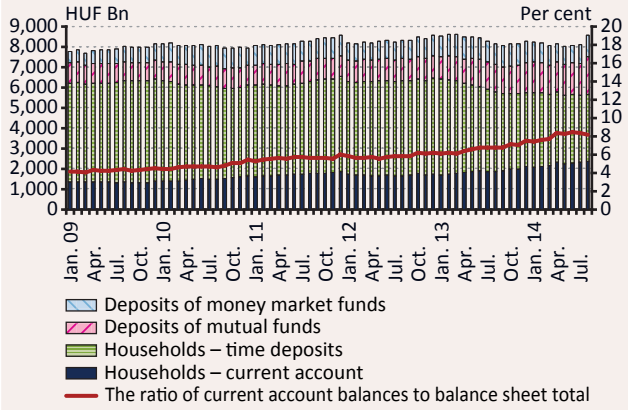
Source: MNB.

Banks' liquidity position remains robust. Banks' operative liquidity reserve exceeds HUF 6,000 billion, which is about two and a half times the regulatory minimum requirement (Chart 60). With this liquidity reserve, the sector's deposit coverage ratio stood at 66 per cent, and the balance-sheet coverage ratio at 24 per cent at the end of August. Although Hungarian banks are only required to meet the 60 per cent LCR indicator requirement from 1 October 2015, based on the data recorded at the end of July 2014, the institutions are properly prepared in this respect as well: the ratio estimated for the entire sector is 70 per cent.

Thanks to the central bank's self-financing concept, there was a rise in banks' portfolios of government securities. Between the announcements of the MNB's self-financing scheme in April 2014 and the end of August, within the securities portfolio of banks the longer-term government bonds rose by HUF 510 billion, while short-term treasury notes fell by HUF 180 billion (Chart 61). Thus, the ratio of government bonds in the balance sheet total rose from 10.0 per cent to 11.3 per cent, while the ratio of treasury notes dropped from 3.1 to 2.4 per cent. This means that the changes that took place in the balance sheets of banks up to the end of August 2014 were in line with the objectives set for the programme. However, the transformation of the MNB bond in early August increased the portfolio of two-week deposits considerably, by HUF 900 billion, as foreign investors and domestic non-bank financial intermediaries, who were squeezed out of the bonds, both transferred their funds for the most part to bank deposits.

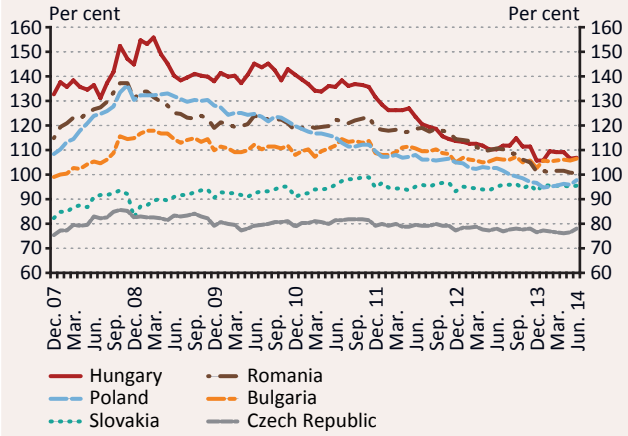
Longer-term FX financing in the banking sector remains stable. At the end of June 2014, the banking sector's Foreign Exchange Funding Adequacy Ratio (FFAR) was 76 per cent, and calculated on the basis of the new regulation that entered into force in July, it was up above 90 per cent (Chart 62). Simultaneously, the regulatory limit also rose from 65 per cent to 75 per cent. The improvement was mainly due to the fact that the new regulation only requires stable foreign exchange funding for the net foreign currency loans, i.e. provisions accounted in foreign currency are also taken into account. The foreign exchange adequacy was also improved by the fact that the regulator no longer expects stable foreign exchange funding for shares and other participations held in foreign exchange. With the planned conversion of foreign currency denominated mortgage loans, it may be necessary to rethink the FFAR and overall the regulation of stable funding requirements.

Chart 63
Deposits of households and mutual funds, and the ratio of current account balances of households to balance sheet total



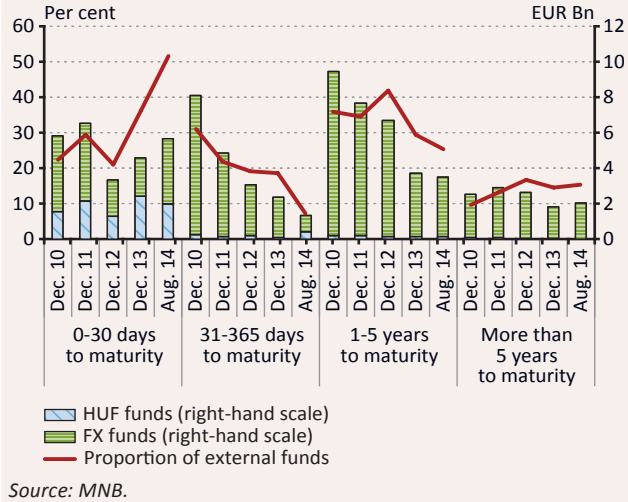
Source: MNB.

Chart 64
Developments in the loan-to-deposit ratio in an international comparison



Source: MNB.

Chart 65
Developments in the maturity structure of external interbank funds



Source: MNB.

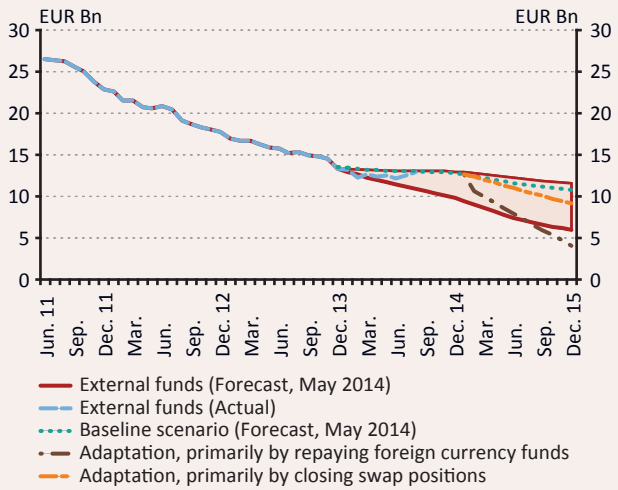
The outflow of household deposits came to a halt in 2014 H2, but the ratio of overnight deposits and current account balances rose to a historical peak. In terms of financing, it is favourable that the outflow of household deposits slowed considerably in 2014 H1 and practically came to a halt in June (Chart 63). Another favourable development was that, following stagnation in 2014 Q2, the deposits of money market and investment funds were up again. In terms of liquidity risks, however, it was unfavourable that the ratio of overnight deposits and current account balances in the balance sheets has continued to rise in 2014. At the end of August, this ratio exceeded 8 per cent, which is nearly double the figure recorded after the crisis.

The loan-to-deposit ratio has not improved further. Although favourable developments were observed in both lending and deposit collection in 2014 H1, they had roughly identical impacts on assets and liabilities, and therefore the loan-to-deposit ratio did not improve further, and its value fluctuated between 105 and 110 per cent in the period under review (Chart 64). In 2015 Q1, the one-off effect of the settlement related to foreign currency denominated loans will result in a 4-percent reduction of the loan-to-deposit ratio.

Transformation of the main policy instrument and preparation for phasing out households' FX-denominated loans resulted in the shortening of external funding. The majority of external funds (about EUR 12.5 billion) is granted by foreign banks. After transformation of the main policy instrument, a considerable part of the external funds, which were squeezed out of the two-week bonds, was channelled into short-term bank deposits, and this resulted in a massive reduction in the remaining maturity of external interbank resources (Chart 65). Another factor that may have contributed to the shortening of interbank funding included the fact that the banking system started preparation for the settlement related to FX-denominated loans and the following conversion into forint loans (see Box 6). As a result of these factors, the ratio of external interbank funds maturing within one month rose up from 36 per cent at the end of the previous year to above 50 per cent by the end of August 2014. The majority of this, i.e. EUR 3.6 billion represents a portfolio denominated in foreign currency.

In line with our forecast, the outflow of external funding came to a halt in 2014. The EUR 13.5 billion in external liabilities recorded in the banking sector at the end of 2013 fell by merely EUR 0.5 billion by the end of August 2014. Relative to the balance-sheet total, this represents a share of 15 per cent, still the second highest value in the region. The net swap position in the banking sector decreased from EUR 9.0 billion at the end of 2013 to EUR 8.7 billion in late August 2014, without any substantial change in its maturity structure.

Chart 66
Changes in the external funds of the banking sector over the forecast horizon



Note: The data depicted in the chart are exclusive of the figures of foreign banks' branches in Hungary.
Source: MNB.

The outflow of external funds may pick up again as a result of the settlement and conversion related to FX-denominated loans. In the extreme case if banks use all their freely disposable liquidity for the repayment of foreign currency denominated external liabilities, their external funding would be reduced by EUR 6.6 billion (Chart 66). EUR 1.7 billion of this amount would arise during settlement, expected between mid-January and late February 2015. The remaining part, which is related to conversion, is presumed to be prepaid by the end of 2015 in equal portions. In this case, the portfolio of external liabilities would fall to EUR 4 billion by the end of the forecast horizon, i.e. EUR 2 billion less than specified in the pessimistic scenario given at the beginning of the year. However, if banks accommodate primarily by closing their swap positions, then their external funding would be reduced by no more than EUR 1.6 billion. As there are liquidity and maturity barriers to the prepayment of long-term external financing, actual reduction in these funds may take place between the above-mentioned two extremes.

Box 6

Effects of settlement of FX-denominated loans and subsequent conversion to forint on banking sector's liquidity

The draft act on settlement stipulates that in the case of consumer loans, any overpayment made as a result of the unfair application of the foreign exchange spread and unilateral interest rate and interest premium hikes must be accounted as prepayment of the principal. This means the repayment of nearly HUF 1,000 billion to the customers mainly in relation to debt reduction. However, the part that affects the balance sheets of banks is considerably smaller, partly because a portion of the aforementioned repayment will be accounted at non-bank institutions (cooperative credit institutions and financial enterprises), and partly because the net effect of the settlement is also reduced by previously accounted loan loss provisions and default interest. As the losses of banks also depend on the exchange rate, the banks will make efforts at closing their exchange rate positions, which in turn generates foreign exchange demand.

After the settlement, conversion into forints will also trigger demand for foreign exchange. As FX-denominated loans will be converted, the banks' foreign exchange position will open up again, and they will need to close them to hedge the exchange rate risk. For the purposes of closing, the banks will purchase foreign exchange. At its 23 September 2014 meeting, the Monetary Council decided that the Magyar Nemzeti Bank (MNB) would ensure the amount of foreign exchange required for the phasing out households' FX-denominated loans for the banking sector – including settlement as well as conversion into forint loans – and thus the exchange requirement will not appear on the financial markets and put pressure on the exchange rate of the forint. This programme could be widened out in case of conversion. Foreign exchange supply will be ensured from the central bank's reserve. In order to ensure the foreign exchange demand generated by the settlement, the MNB has established a conditional facility with a limit in the amount of EUR 2 billion (a spot euro- sale transaction conditional upon short-term external debt reduction), and an unconditional facility including a EUR 1 billion limit (longer-term foreign currency swap transaction combined with spot euro sale). In the case of the conditional facility, the MNB takes account of the characteristic features of the banks' various balance-sheet structures and requires that banks must reduce their short-term external debts in an extent corresponding to 50 percent of the foreign exchange received. The longer-term unconditional facility introduced in addition to the conditional one is the combination of a euro spot sale transaction and a long-term currency interest rate swap (CIRS). This facility provides a coverage opportunity primarily for banks, as due to their financing structures built on long swaps or long-term funds, they cannot reduce their external debt maturing over the short term.

The amount payable in respect of terminated contracts must be settled either by transfer or by cash payment. According to estimates, this requires the payment of HUF 40 billion in the banking sector, and the part paid in cash will reduce liquidity in the banking sector. In the case of

FX-denominated contracts that have not been terminated, the net effect of the settlement (above the previously accounted loan loss provisions and default interests) on the entire banking sector will represent additional obligations in the amount of HUF 570 billion. As the banks are allowed to account this amount to reduce customers' credit principal, in 2015 Q1 their net foreign exchange loan portfolios will decrease accordingly. Thus the banks' foreign exchange positions will be open, and they can hedge it in two ways: either they repay FX-denominated external liabilities or they close their FX swap positions. Whether they repay FX debts maturing within 30 days or close swap positions, their current liquidity reserves remain unaffected, but the repayment of FX-denominated external liabilities exceeding thirty days already reduces them. If we only expect the repayment of balance-sheet liabilities, given the differences between the maturity structures of the individual banks, HUF 380 billion would be required for the repayment of FX liabilities maturing within 30 days, and HUF 190 billion would be spent on reducing longer-term FX debts. So in this case the liquidity reserve made by the banking sector would decrease by HUF 190 billion (3 percent), which cannot be considered as significant.

However, the conversion of FX-denominated mortgage loans into forint loans may reduce reserves more strongly. Similarly to the reduction in the FX loan portfolio, conversion opens the FX positions of banks, and they can be hedged by the repayment of their FX liabilities or by closing their FX swap positions. Based on our estimate, after settlement the net foreign currency mortgage portfolio would decrease to HUF 2,380 billion (EUR 7.7 billion) in the banking sector. Going by the extreme presumption that within the limits of their liquidity surpluses, banks would exclusively adjust to the forint conversion by prepayment of the FX liabilities, in addition to the payment of nearly HUF 1,700 billion external liabilities, their liquidity reserve would also drop by an additional HUF 1000 billion. Thus, the sector's deposit coverage ratio would fall to 53 per cent and its balance-sheet coverage ratio to 20 per cent, which can still be considered adequate according to the present liquidity requirements. Complete adjustment within the balance sheet would not be realised even in this case, as the net swap position would need to be reduced by nearly HUF 700 billion to that end.

The prepayment of balance-sheet liabilities may be limited by several factors. One of them is the maturity structure of these items, as a considerable part of the balance-sheet liabilities are long-term ones, and so their prepayment may be problematic. The other barrier is the freely disposable liquidity that can be used for prepayment. From October 2015, banks will be required to meet the 60-per cent requirement related to the LCR ratio, which will presumably require higher liquidity reserves than the credit and deposit coverage ratios formed the basis of the above calculations. All of this suggests that a significant part of the adjustment may be realised in the swap positions. Presuming that in the course of the settlement and the conversion, adjustment is made primarily in swap positions, and balance-sheet FX funds are only reduced subsequently, then the liquidity reserve of the banking sector would decrease marginally, by barely more than HUF 100 billion (1.6 percent), while the net swap portfolio would fall by nearly HUF 2,600 billion. Naturally, closing long-term swaps may cause problems in this case as well, but their average remaining maturity is considerably shorter than that of long-term FX liabilities, and therefore adjustment can take place faster.

Thus, under a pessimistic scenario, settlement and the conversion of FX-denominated mortgage loans into forint loans would cause a significant reduction in the banking sector's liquidity reserve, but nevertheless the sector's liquidity would not drop to critical levels. Actual adjustment will presumably take place somewhere between the aforementioned two extremes, the accurate ratio of which is also affected by the conditions of the FX liabilities provided for settlement and conversion. If the conditional facility is used to the maximum, EUR 1 billion repayment of short term external liabilities is expected, which is meant by MNB to boost the repayment of external liabilities at a ratio of 1:3 in the course of the settlement. After disclosing the details of the regulation of the conversion of households' FX-denominated loans to forint ones the MNB will increase the limits of the aforementioned two facilities in the required extent.

Possible changes in the liquidity of the banking system after the settlement and the forint conversion

	Foreign interbank funds maturing within 30 days (HUF Bn)	Liquitiy reserves of the banking sector* (HUF Bn)	Net swap position of the banking sector (HUF Bn)	Deposit coverage ratio (per cent)	Balance-sheet coverage ratio (per cent)
Actual (Aug-2014)	980	6,262	2,944	66	24
Adaptation, primarily by repaying foreign currency funds					
After settlement	638	6,036	2,944	63	23
After conversion	115	5,036	2,257	53	20
Adaptation, primarily by repaying foreign currency funds					
After settlement	945	6,244	2,430	65	24
After conversion	869	6,154	384	64	24

Note: Liquidity reserve means the balance of the eligible assests and the 30-day funding gap.
Source: MNB.

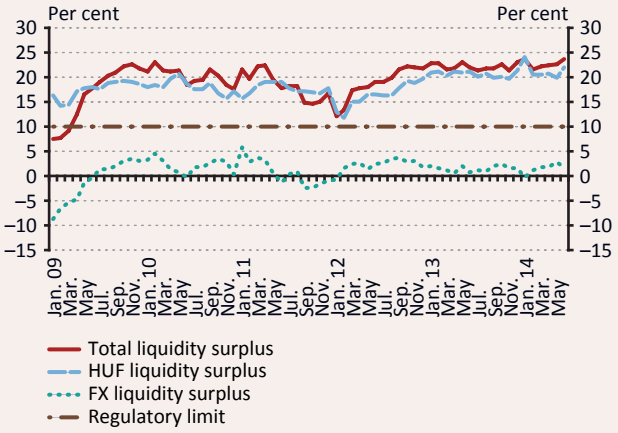
6 Stress tests – Deteriorating resilience, Rising capital needs

Banks' short-term liquidity is mainly available in forints and the level of this liquidity is significantly higher than the regulatory minimum. The stressed liquidity surplus of banks has increased and also exceeds the regulatory minimum, but only consists of forint reserves. As a result, smooth functioning of the swap market continues to be indispensable for securing the required foreign currency sources in a protracted stress situation. The Liquidity Stress Index is 5.6 per cent, which means that, under the stress scenario, only a few actors in the banking sector would fall below the regulatory minimum. The available liquidity buffers show a modest increase in comparison to end-2013. At an individual level, all banks would remain liquid even in a stress situation.

The capital adequacy ratio of each institution has been calculated in regard to a solvency stress situation with a scenario based on materialisation of key macroeconomic risks. Credit losses resulting from stress are significantly smaller than they were during the years of the crisis, and thus the entire banking sector would face a HUF 90 billion capital shortfall, considering a 9.25 per cent capital requirement. This is not regarded as high, especially taking into consideration that the required additional provisioning established by the AQR and the expected resolution of the issues relating to household foreign currency loans as prescribed in the Curia's decision will also result in losses for the banking sector. Moreover, the banking sector's solvency will also be negatively affected by the capital requirement increase from 2016. If the effect of the currency conversion of household mortgage loans is accounted for, and from now on their exchange rate risk is not taken into account, the capital shortage would be even smaller, amounting to HUF 78 billion, because in this case both the expected losses and the capital requirement decrease. The stress test index has increased considerably during the recent period, as, besides a number of smaller institutions, two large banks would not be able to meet the regulatory requirements in a stress situation. However, in a historical comparison, the level of the index is not extremely high.

6.1 Based on the stress tests, the banking sector's liquidity is high in a historical perspective

Chart 67
30-day liquidity surplus as a proportion of balance sheet total by currency



Source: MNB.

Table 5
Main parameters of the liquidity stress test

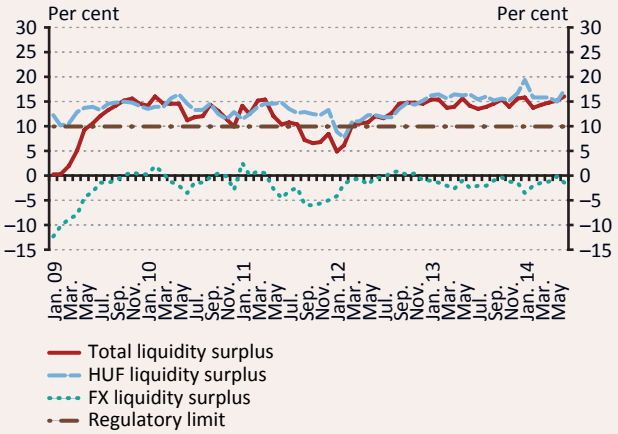
Item	Degree (per cent)	Currencies affected
Assets		
Default on interbank assets	20	HUF
Exchange rate shock on swaps	15	FX
Depreciation of assets eligible at the central bank	10	HUF
Liabilities		
Default on interbank assets	10	HUF/FX
Exchange rate shock on swaps	15	HUF/FX

Note: The forward-looking treasury gap assumes no active treasury management on the part of the bank; hence it does not take into account the rollovers of maturing interbank and foreign funds. Source: MNB.

During the half-year period under review, banks had high short-term liquidity, but this was available in HUF for the most part. The level of 30-day forward-looking liquidity surpluses continuously increased during the first half of the year, thus significantly exceeding the regulatory limit of 10 per cent to total assets. The bulk of the surplus was available in HUF. The amount of surplus liquidity in foreign currencies was small, equalling the amount recorded at the end of the previous year (Chart 67).

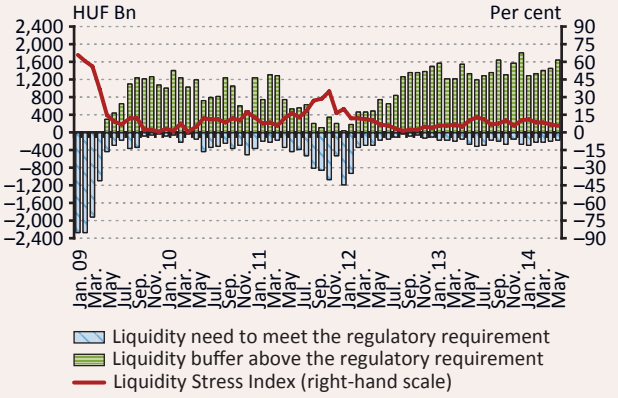
The short-term complex liquidity stress test measures the effect of an assumed simultaneous occurrence of financial market turmoil, deposit withdrawal and exchange rate shock. In determining household and corporate deposit withdrawals and the price decline of central bank eligible securities, we applied so-called value-at-risk (VaR) type stresses calculated on the basis of historical data. The magnitude of the exchange rate shock is consistent with the data of our macro stress scenario. Crisis experiences were taken as a basis for determining the other stress measures (Table 5).

Chart 68
30-day stress liquidity surplus to total assets by currency



Source: MNB.

Chart 69
Liquidity Stress Index and banks' liquidity surplus or deficit relative to the regulatory level in the stress scenario



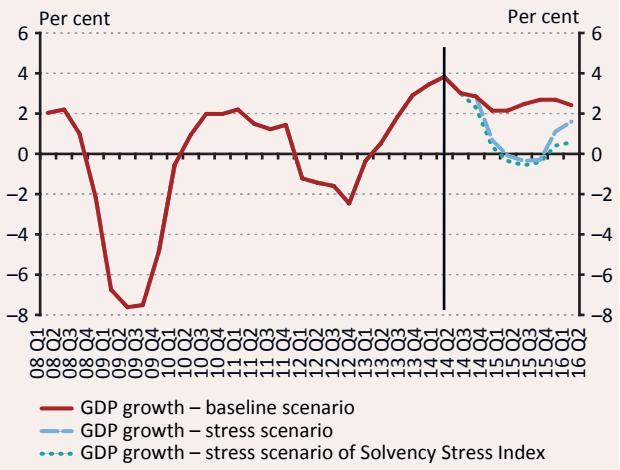
Note: The LSI is the sum of normalised liquidity deficits relative to the 10 per cent regulatory limit, weighted by the balance sheet total. The higher the value of the index, the higher the liquidity risk in the stress scenario.
Source: MNB.

The stressed liquidity surplus of banks exceeds the regulatory minimum and increased in comparison to the level recorded in December. The surplus is, however, only available in HUF, with a marginal foreign currency shortage. The 30-day forward-looking stressed liquidity surplus was higher than the required minimum, the level of which rose during the first half of the year. After the stress, however, only forint liquidity would remain. Moreover, a shortage of foreign exchange would evolve, albeit only to a marginal extent (Chart 68). As a result, smooth functioning of the swap market continues to be indispensable for securing the required foreign currency sources in a protracted stress situation.

The Liquidity Stress Index increased somewhat in January, and then continuously improved until June. The Liquidity Stress Index shows the extent to which the liquidity buffer of banks falls short of the regulatory limit of 10 per cent to total assets, and the number of banks experiencing a shortfall. Taking account of the extent of the deviation from the regulatory limit as well, and then weighting by banks' total assets, the value of the index amounts to 5.6 per cent, the same as in December. This means that if the stress scenario took place, the banking sector would be only slightly below the regulatory minimum. Compared to their level at the end of the year, available liquidity buffers increased. It is a positive finding that all banks would remain liquid even in a stress situation (Chart 69).

6.2 A number of large banks face a need for capital under stress, primarily owing to one-off impacts[13]

Chart 70
GDP growth rate in the scenarios
(y-o-y)



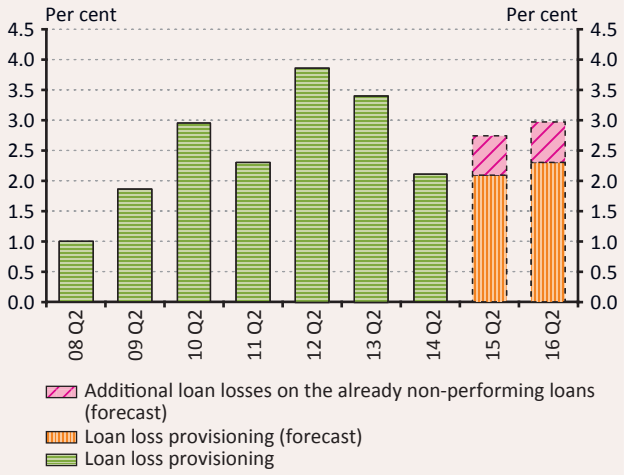
Source: MNB.

The stress scenario consists of a significant economic downturn, exchange rate and interest shock, caused by the combined effect of a number of unfavourable external shocks. The current macroeconomic baseline scenario is identical with the forecast published in the September issue of the Inflation Report. While the baseline scenario outlines the most probable scenario, the stress scenario examines the consequences of a low-probability, severe but plausible series of events over the next two years. This scenario is determined primarily by the simultaneous occurrence of three risk factors. An escalation of the conflict between Ukraine and Russia would negatively affect the Hungarian economy directly through external demand and indirectly through the money and capital markets. Another negative impact may be caused by less favourable-than-expected trends in external demand in Hungary's key partner countries, leaving external demand persistently low. Finally, domestic economic growth may also be negatively affected by globally dominant central banks tightening their strategies earlier than expected. Accordingly, the two-year accumulated real growth would fell short of the rate envisaged in the baseline scenario by about 3 percentage points (Chart 70). Moreover, the HUF/EUR rate would also weaken significantly (by nearly 15 per cent), and the HUF interest rate would go up by 240 basis points.

The results of our stress test are dominated by some special measures affecting the banking system. In 2014, a number of measures in both Europe and Hungary had substantial impacts on banks' profitability. The AQR exercise at large European banks affected a number of Hungarian subsidiaries as well, through their parent banks. Portfolio reviews found significant additional provisioning requirements in many cases which were taken into account in the stress test in relation to the institutions concerned. The banking system is also profoundly affected by the settlement of issues relating to household FX loans in accordance with the Curia's decision. These impacts are also represented in various parts of our stress test. The resulting one-off losses were accounted for in regard to all of the institutions concerned. Moreover, as regards expected profitability, it was also taken into account that interest rates will probably be fixed

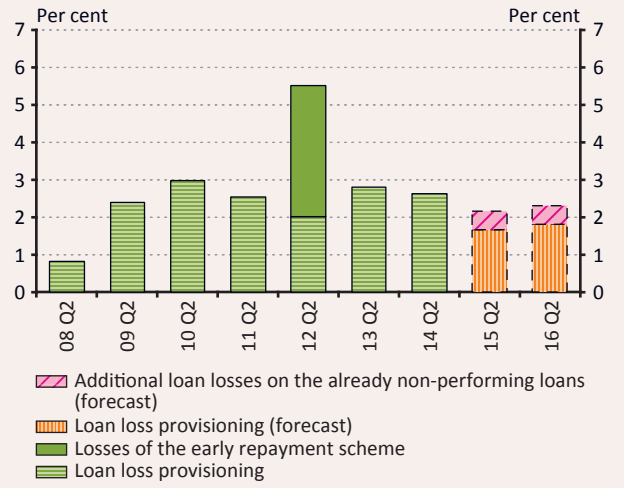
[13] For a detailed analysis on the stress testing framework, refer to: Ádám Banai – Zsuzsanna Hosszú – Gyöngyi Körmendi – Sándor Sóvágó – Róbert Szegedi: Stress testing at the Magyar Nemzeti Bank, MNB Occasional Papers 109, 2013, http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Kiadvanyok/mnben_muhelytanulmanyok/OP109_final.pdf

Chart 71
Loan loss rate for the corporate portfolio in the stress scenario



Source: MNB.

Chart 72
Loan loss rate for the household portfolio in the stress scenario



Source: MNB.

at a rate lower than those prevailing at present. This lower rate was calculated on the basis of the interest rates weighted by the amount of outstanding of the various banks before the recent economic crisis. Finally, the probabilities of default were calculated in view of the fact that borrowers' outstanding debts and so their subsequent repayments will decrease considerably, reducing the PD rates. Owing to the resolution of the above mentioned issues however, we will no longer take the exchange rate cap into account – instead, this programme is considered to have been brought to an end. Finally, it should be noted that the conversion of FX loans into HUF has been contemplated at a variety of forums, but no concrete decisions have been made so far, and therefore, this option was not taken into account in case of the scenarios demonstrated in detail. However, in order to present the risk-mitigating effect of the conversion of FX loans into HUF, we calculated an alternative scenario in which the conversion takes place regarding the household FX mortgage loans before the materialisation of the exchange rate shock, and thus, this part of the portfolio will not be affected by the change in the forint exchange rate.

The weak profitability experienced in the last several years is expected to remain in our stress test. The income generating capacity of the banking system has weakened considerably in the last two to three years. In our view, no significant positive change is expected in the next two years either, for the following two main reasons: no highly performing profitable portfolios can be built up without an upswing in lending; and the lower interest rates announced in relation to the settlement of issues relating to household FX loans will substantially erode the income generating capacity of the performing portfolio as well. Ultimately, the income before credit losses is not expected, even in the baseline scenario, to amount to more than 80-90 per cent of the average of the past five years. An even lower level – 60 per cent of the past five years, on average – is expected under stress. If the conversion of retail FX mortgage loans into HUF is included in the stress scenario, the income before credit losses is even lower. This is due to the fact that the exchange rate shock will no longer raise the forint value of the performing part of the converted portfolio, which also appears in net interest income.

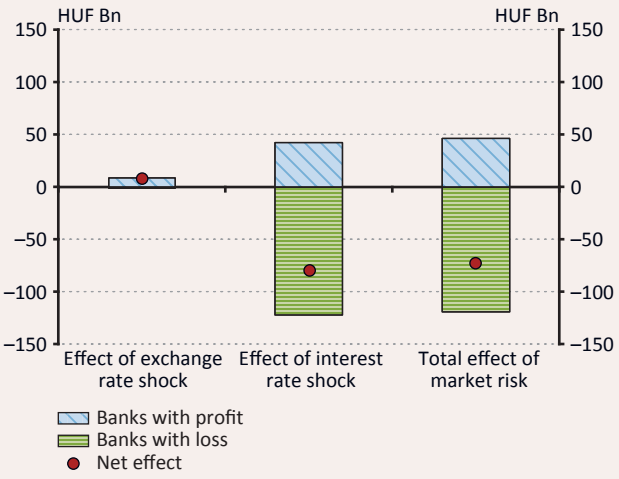
Even under the stress scenario, loan loss provision would still be lower than it was during the worst years of the economic crisis. The need for loan loss provisioning stems from two sources: the expected loss on loans that become non-performing and additional provisioning on the outstanding non-performing portfolio. In the corporate business, considerable losses are taken into account owing to the increasing number of defaults resulting from the marked economic downturn and the higher interest rates. Following a series of rather dramatic defaults, the still performing portfolio is now much more shock resistant, and thus loan loss provision would not be as dramatic as it was during the

Table 6
Impact of main risks on the profit of the banking sector in the stress test, over a two-year time horizon

	Main components of losses of banking sector over a two-year time horizon (HUF Bn)			
	Baseline scenario	Common stress scenario	Stress scenario	Stress scenario with FX mortgage loan conversion
Loan losses on corporate and household portfolio	**351**	**703**	**675**	**603**
Loan losses on new non-performing corporate loans	201	297	293	293
Loan losses on new non-performing household loans	150	251	234	195
Additional loan losses on the already non-performing loans		155	148	115
Loan losses on local government portfolio	0	1	1	1
Exchange rate risk of open position		-7	-7	-7
Interest rate risk		106	80	80
Bank levy	234	234	234	234
Interest cost of the exchange rate cap scheme	0	0	0	0

Source: MNB.

Chart 73
Market risk stress test impacts



Source: MNB.

worst of the crisis, even under stress. A similar trend is observed in relation to household loans, partly as a result of the decrease in the total debt in the wake of the resolution of outstanding issues relating to FX loans. On the whole, in the household sector the ratio of loan loss to total loans would be 2.3 per cent under the stress scenario, while in the corporate sector the ratio would be 2.9 per cent under stress (Chart 71 and Chart 72). In the case of households, an alternative calculation was performed assuming that the conversion of FX mortgage loans into HUF takes place before the exchange rate shock, thus eliminating their exchange rate risk. While the two-year accumulated need for loan loss provisioning under the former stress scenario was HUF 234 billion on loans that become non-performing, in this alternative case it is only HUF 195 billion. Besides, the amount of loan losses on the outstanding non-performing portfolio would also decrease by HUF 33 billion (Table 6).

The profit from assuming market risks is determined by the negative impact of the interest rate shock. In the market risk stress test, we look at the impact of interest and exchange rate shocks through the immediate revaluation of market exposures. In the case of the interest and exchange rate shocks as well, the average difference between the baseline and stress scenarios was used as the size of the shock. The resulting profit impact was evenly distributed over the two-year forecast horizon. The shift in the yield curve results in a system-level loss of approximately HUF 80 billion, stemming mainly from revaluation of the government bond portfolio. The exchange rate shock, however,

Table 7
Capital need of banks in the stress test

	Capital need of banks (HUF Bn)		
	End of first year	End of second year	
	8 per cent required capital adequacy ratio	8 per cent required capital adequacy ratio	9.25 per cent required capital adequacy ratio
Baseline scenario	5	6	8
Stress scenario	6	56	90
Stress scenario with FX mortgage loan conversion	6	44	78

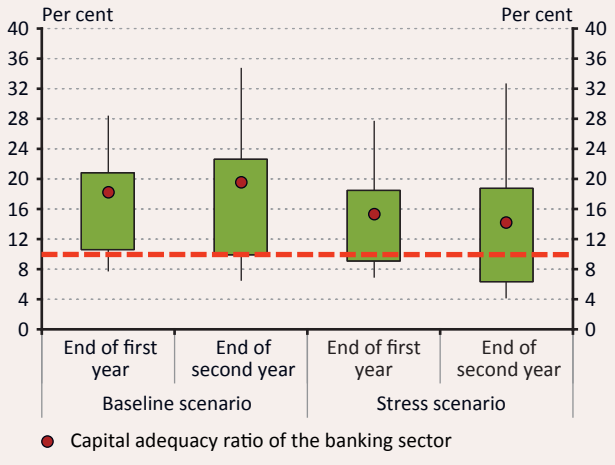
Source: MNB.

Table 8
Capital buffer of banks above the required capital level in the stress test

	Capital need of banks (HUF Bn)		
	End of first year	End of second year	
	8 per cent required capital adequacy ratio	8 per cent required capital adequacy ratio	9.25 per cent required capital adequacy ratio
Baseline scenario	1420	1612	1442
Stress scenario	1101	975	823
Stress scenario with FX mortgage loan conversion	1143	1027	878

Source: MNB.

Chart 74
Distribution of the capital adequacy ratio based on number of banks



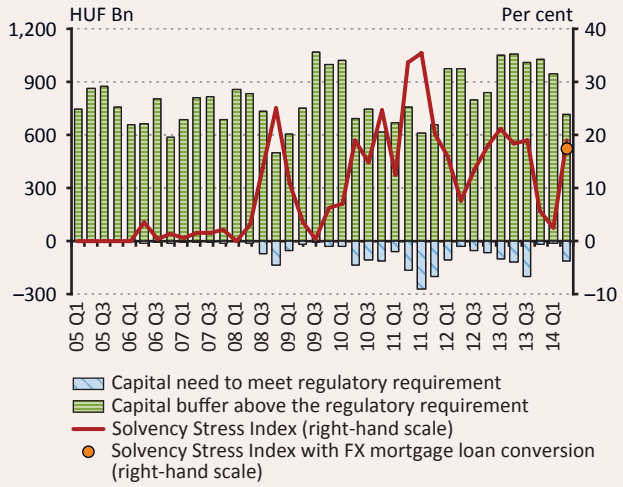
Note: Vertical line: 10–90 per cent range, rectangle: 25–75 per cent range.
Source: MNB.

entails a positive profit of only HUF 7 billion, since the banking system's exchange rate position is nearly fully closed, apart from strategic open positions. The combined result is a HUF 73 billion loss from market risks (Chart 73).

In the baseline scenario, the banking system will face a marginal need for capital, but in the stress scenario the capital shortage would amount to HUF 90 billion. Domestic banks continue to receive significant capital injections from their parent banks. Despite the continuous losses, in the baseline scenario the banking system can meet the regulatory minimum requirement on the whole, even in the case of the higher regulatory minimum that will be in place from 2016. The capital deficit is negligible in the baseline scenario, which is crucially important because the significant burdens stemming from the AQR and the resolution of the issues relating to household FX loans are already taken into account in the baseline scenario. At the same time, these losses will erode the banking system's capital buffer to a large degree, and therefore the banks will become less stress resistant. A manageable HUF 56 billion capital need is envisaged in the stress scenario for the end of the second year, taking into account an 8 per cent capital adequacy ratio. In accordance with CRD IV, the capital adequacy ratio may be increased up to a maximum of 9.25 per cent in 2016. With this taken into account, the capital shortage reaches HUF 90 billion. If our calculations also include that the expected loss on household mortgage loans will be lowered by the conversion of FX loans into HUF, the capital shortage considering the 8 per cent requirement drops to HUF 44 billion, or to HUF 78 billion in view of the 9.25 per cent requirement (Table 7). At the same time, capital buffers decrease significantly, by more than HUF 500 billion compared to the baseline scenario (Table 8).

The amount of the capital deficit is not extremely high in comparison to the amounts calculated in earlier stress tests; besides a number of smaller institutions, the capital adequacy ratio of two large banks falls below the regulatory minimum. Despite the heavy losses, the banking system's capital adequacy ratio is still favourable. In the baseline scenario, at the end of the second year it is over 19 per cent (assuming no dividend payments), while in the stress scenario the system's average is 14.2 per cent (Chart 74). If conversion of FX loans into HUF is taken into account, the indicator is 14.7 per cent at the end of the two-year stress scenario. These are favourable levels even in view of an increased regulatory requirement. However, this indicator masks considerable heterogeneity: the capital adequacy ratios of individual institutions are dispersed in a wide range by the end of the two-year stress period. Moreover, there are some smaller institutions which cannot meet the regulatory requirement, and in some cases even the 8 per cent level, even in the baseline scenario. The main reason for this is the heavy losses suffered as a result of the settlement of the issues relating to household FX loans. In the stress scenario, there would be two

Chart 75
Solvency Stress Index, and banks' capital surplus or deficit relative to the regulatory level in the common stress scenario



Note: The indicator is the sum of normalised capital shortages relative to the minimum regulatory requirement, weighted by the capital requirement. The higher the value of the index, the higher the solvency risk in the stress scenario.
Source: MNB.

large banks whose capital adequacy ratios would be below the regulatory minimum, along with some other smaller institutions.

The Solvency Stress Index is high, although it is still not at an extreme level in a historical perspective. The stress test index was calculated again on the basis of the stress level used in earlier Financial Stability Reports, which is somewhat different from the one applied in the stress test discussed here, albeit the resulting overall picture is similar. The capital deficit under stress is not an extreme deficit in a historical perspective, but two large banks are unable to meet the regulatory minimum and some smaller institutions would also face problems in terms of the equity position under stress. Therefore, the index has increased to 19 per cent (Chart 75). Accordingly, nearly one fifth of the banking system might need substantial capital injections in the case of a serious stress scenario. The decreasing exchange rate risk caused by the conversion of FX loans into HUF slightly improves the results: in this case, the index would be 17.4 per cent. It should also be noted that the capital buffer in the banking system as a whole would also plummet in this scenario, with a negative impact on the lending capacity as well.

Box 7
Resolution - a new dimension of MNB activities

The lessons from the 2007–2008 crisis have given rise to numerous global initiatives both in the areas of regulation and crisis management. The international standards governing the resolution of troubled institutions and the European Union and national legislation devised on their basis are part of the measures aimed at crisis management, the main objective of which is to maintain financial stability, to fund the crisis management of financial institutions by the stakeholders primarily affected (shareholders and certain creditors) and to minimise the use of taxpayers' money for bailing out banks.

The regulation of resolution in the European Union

In response to the crisis, the institutions of the European Union reviewed their practices and began elaborating the Bank Recovery and Resolution Directive (BRRD) in 2010, which, following extensive debate, was finally passed in April 2014. Member States have until the end of 2014 to transpose the BRRD's provisions into national law.

The Directive requires all Member States to designate the authority vested with resolution powers and rights. The resolution authority is responsible for drawing up a resolution plan in order to prepare for managing the crisis situations of institutions, specifying the resolution measures that would be applied in case of an intervention. The EU directive identifies the following four key resolution tools:

(1) *sale of business* (the institution can be sold, in part or in full, to a market participant),
(2) *bridge institution* (the institution can be sold, in part or in full, to a temporary bridge bank or bridge investment firm set up by the state),
(3) *asset separation* (the separation of clean and toxic assets), and
(4) *bail-in* (a mechanism to write down or convert into capital certain liabilities of the distressed institution).

Resolution can be regarded as an alternative to winding-up proceedings, and besides serving public interest, it also serves the interest of shareholders and creditors, as the Directive's rule on safeguards states that no shareholder or creditor may be worse off under resolution

than it would have been if the insolvent institution had been wound up under liquidation proceedings (if they prove to be worse off during the resolution proceeding, they will be entitled to claim compensation for the damages incurred).

The preservation of financial stability and the protection of public funds can be served by powers other than those of the resolution authority. The EU Directive also stipulates that each Member State must set up a national resolution fund based on market participant contributions to cover any expenses incurred. (A joint fund will be set up by participating member states in the context of the Banking Union.)

The Directive designated the European Bank Authority (EBA) to propose several detailed rules and to prepare the relevant drafts, and the MNB actively participates in the legislative work of the EBA.

Domestic resolution regulations and the significance of the MNB's responsibilities in this regard

Hungary was among the first Member States to implement the resolution-related parts of the BRRD in domestic legislation when Parliament adopted Act XXXVII of 2014 on the further development of the institutional framework strengthening the security of certain actors of the financial intermediary system, the main provisions of which entered into force on 16 September 2014. The provisions of the Act are aligned to the European Union framework; pursuant to the new regulation – and in line with the Act on the MNB – the MNB is entitled to exercise the powers vested in the resolution authority under the BRRD, and it will be responsible for resolution authority functions. The legislation regulates the preparation process for crisis situations (resolution plans, assessment of impediments to resolvability, etc.), the conditions for ordering the resolution, and the measures applicable in the context of resolution, and defines safeguards for shareholders and creditors. Before ordering resolution, an independent valuer must define the real value of the assets and liabilities of the institution under resolution in order to enable the MNB to make the appropriate resolution decision. The MNB maintains a registry of independent valuers complying with the legislative requirements and published a call for tenders on its website for this purpose.

In accordance with the legislative provisions, the Resolution Fund has been set up, and credit institutions and investment firms have made their initial contributions through their first, regular risk-based payment covering the last quarter of 2014. The fee policy of the Resolution Fund has been developed by the MNB. In identifying the risk levels, the policy considers four categories (risk, profitability, systemic risk and other). Contributions to the Resolution Fund do not entail an increased burden for the sector; indeed, in case of a potential resolution, the National Deposit Insurance Fund (OBA) does not have to pay indemnity; therefore, on the whole a far more efficient crisis management system has been established.

The Act also defines the framework of international cooperation, including the operation of resolution colleges, the forum where resolution decisions are made regarding internationally active banking groups. In its role as a resolution authority, the MNB will have to cooperate with the Single Resolution Board of the Banking Union, with whose coordination the work on the preparation of the resolution plans and resolvability assessments of groups with a parent bank headquartered in the Eurozone will begin during the course of 2015.

By setting up a national framework for resolution, Hungarian legislators have put into place an alternative to costly bank bailouts from public funds, thereby bolstering the safety and stability of the financial intermediary system.

7 Institutional investors – unchanged low risk level

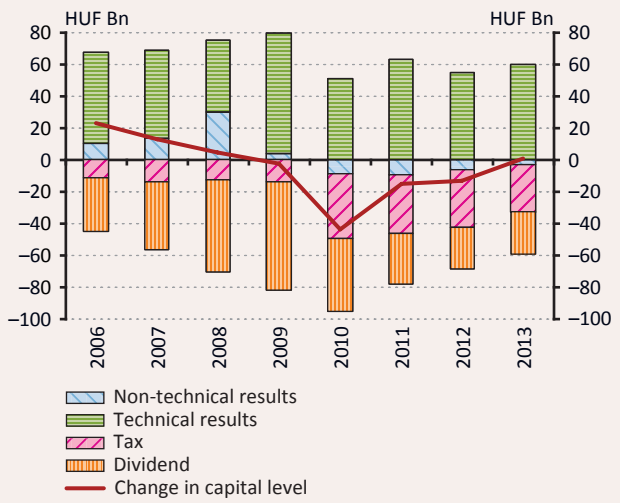
The activity of the insurance sector still has not expanded; the tax allowance provided for pension insurance did not bring a breakthrough in life insurance. Despite the fact that government bond yields followed a downward trend in the last two years, the risk level of the Hungarian insurance sector arising from the exposure to a sustained low-yield environment is not significant, in contrast to Western European insurance companies. Dividend outflows exceeding the profit after tax of the given year, which became typical during the crisis and was attributable to the deterioration of profitability and to foreign parents' increased capital demands, stopped by 2013.

Due to the outstanding investment result, which was mainly the consequence of falling government bond yields, the assets of the voluntary pension fund sector continued to increase in 2014 H1 and at the end of June it reached a historical peak of HUF 1,056 billion. The two substantial risks affecting the voluntary pension funds continue to be the degree of disbursements following expiry of the waiting period, but still within the accumulation period, and the management of loss-making operation.

In the capital market sector, the risk level on aggregate did not change in 2014 H1, and the institutions in the sector continued to be characterised by a moderate risk level. The capital inflow to the various sub-sectors (investment firms, mutual funds) has continued, albeit at a slower rate than before.

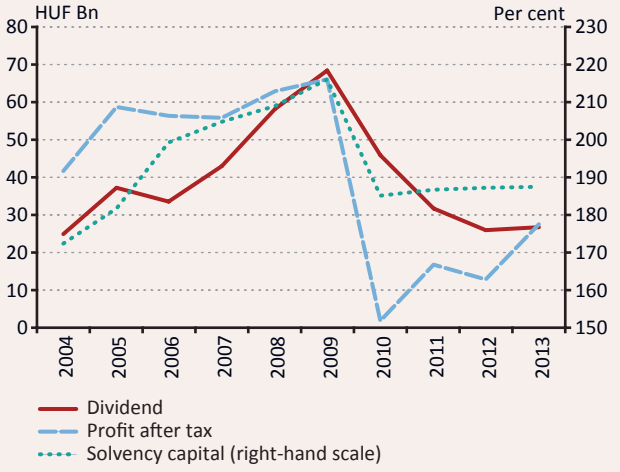
7.1 The profitability and capital position are stable; conversion to Solvency II will not generate any sector-level capital problems

Chart 76
Changes in main determinants of insurance sector capital levels



Source: MNB.

Chart 77
Relation between dividends and capital level



Source: MNB.

The profitability and capital position of the insurance sector are stable; the development of the capital level is substantially influenced by the dividend policy. Due to the robust profitability of insurance activity, the capital position of the sector is stable and is expected to remain stable even after Solvency II comes into force (Box 8). Since 2010, the sector's year-end solvency ratio has stabilised at the level of 185-190 per cent; net internal capital loss stopped by 2013. In the past, foreign parents' capital demands rose due to the prolonged crisis, while simultaneously with that the after-tax profit of the sector declined considerably. As a result of these factors, it was a general phenomenon in the sector that dividends significantly exceeded the after-tax profit realised in the given year. This process was curbed by the capital level that the owners deemed necessary for the safe operation. Future capital adequacy essentially depends on the sector's profitability and the dividend policy of the individual insurance companies, which seems to be stabilising with the crisis coming to its end (Chart 76 and Chart 77).

Box 8

Solvency II quantitative impact analysis for end-2013

In 2014, MNB initiated the performance of a Solvency II quantitative impact analysis at Hungarian insurance companies. The survey, which was performed with the voluntary participation of the insurers, was based on the 2013 Q4 figures and the technical methodological documents of EIOPA. The purpose of MNB with the impact analysis was to assess the impact of macroeconomic environment – which has significantly changed since the last study performed in respect of the end of 2011 – and of the Omnibus II directive, regulating the quantitative elements. The knowledge of insurers' financial position as at end of 2013 under Solvency II and the comparison thereof with the financial and capital position under Solvency I, rendered it possible to identify the risks of the changeover to Solvency II regime at the institutional and systemic level. The results provide a good representation of the sector, since the participating institutions cover 85 per cent of the insurance market in terms of premium income and technical reserves.

Solvency II expects insurers to perform a so-called economic valuation, which is consistent with the market price, if the given balance sheet item does have a market. The economic value of those items that do not have a market price (e.g. receivables, technical reserves, etc.) must be determined by some sort of modelling technique. As a result of the economic valuation, the government bond holdings, accounting for over 80 per cent of the insurance companies' investments, appreciated on average by 10 per cent in their 2013 end of year Solvency II balance sheet's compared to their book value, while the technical reserves – primarily due to discounting as well as due to taking into account the profit included in the future premium – depreciated by 17 per cent on average. As a result of these two impacts, the value of the solvency capital increased to HUF 437 billion from the Solvency I figure of HUF 167 billion.

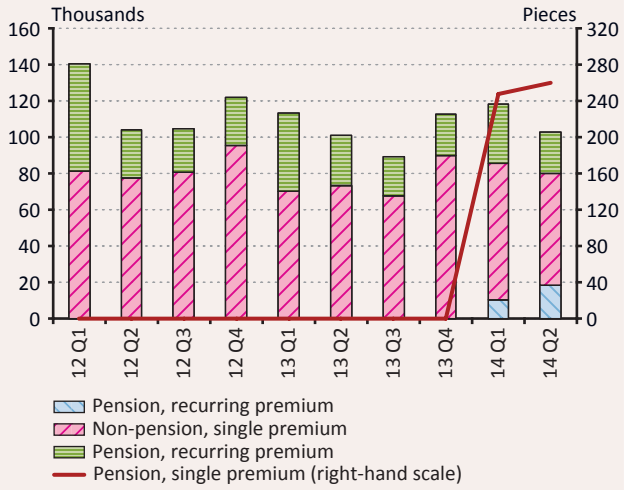
The new regime will also result in a substantial change in the definition of the solvency capital requirement: the present capital requirement calculation, based on premium, claim and reserves, will be replaced by the value at risk (VaR) approach. The methodological change doubled the solvency capital requirement compared to Solvency I. The larger part of the capital requirement is attributable to life and non-life risks, as well as to market risks.

Of the increase in the solvency capital and the solvency capital requirement, the quantitative effect of the first aspect was stronger, which resulted in the improvement of the sector-level solvency compared to Solvency I (from 187 per cent to 237 per cent). However, behind the relatively high values there are considerable differences between the institutions, and in the case of certain insurers a capital injection might be necessary.

Compared to the results of 2011 survey, the weighted Solvency II capital adequacy ratio of all 22 insurers that participated in both surveys has increased materially, namely by 44 percentage points, which is primarily attributable to the revaluation of the government bond portfolios, i.e. the change of the forint yield environment that took place during the two years. The difference – bearing in mind that the shift was considerably smaller on the Solvency I basis – highlights the fact that under the Solvency II regime the development of the capital position is likely to be much more volatile than at present.

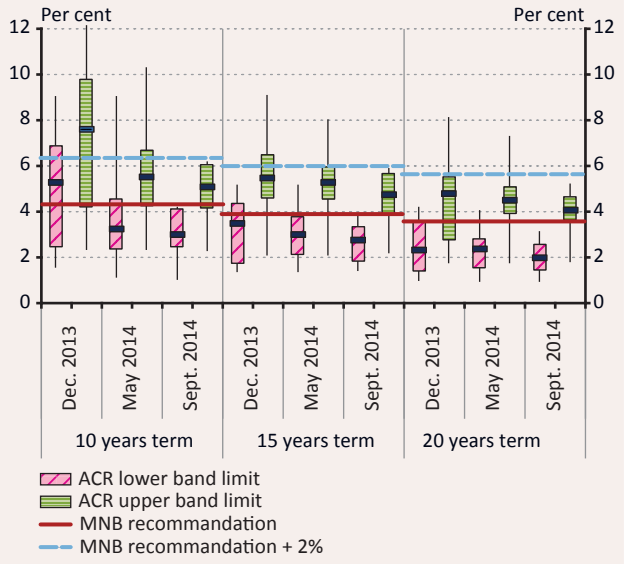
In the case of long-term insurance products, volatility is an even more emphasised issue: the longer duration of investments generates higher yield sensitivity, i.e. the market volatility has a considerable impact on certain balance-sheet items, including also the solvency capital. The long-term guarantee instruments are supposed to address this problem: the match and volatility adjustment compensates the impact of the price fluctuation on the assets side upon the valuation of the reserves, thereby mitigating the volatility of the solvency capital. The application of these two instruments did not have a considerable quantitative effect in the Hungarian market. None of the insurance companies took into account the match adjustment, which – together with the responses given in the questionnaire forming part of the impact analysis – means it is probable that the insurance companies will not apply this instrument. The volatility adjustment improved the sector-level solvency to a slight extent, namely by 9 percentage points.

Chart 78
Share of pension insurances in new sales; breakdown of recurring and single premium policies



Source: MNB.

Chart 79
ACR before and after the introduction of the tax credit on different terms



Source: MNB.

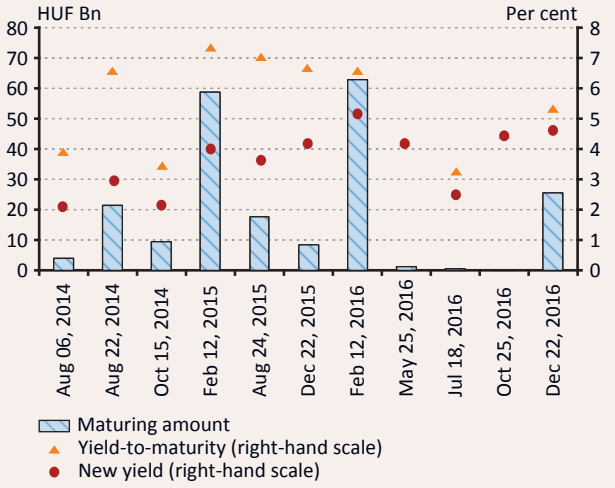
The dynamics of pension insurance sales are expected to strengthen further. The act on the tax credit applicable to pension insurances was promulgated on 29 November 2013. Due to the length of the time required for the elaboration of pension insurance products, sales picked up only gradually. On 26 May 2014, the MNB issued a recommendation, the purpose of which is to facilitate the penetration of the pension insurances supported by tax incentives and to provide customer advantages. The growth dynamics of new pension insurances are likely to strengthen further, particularly by the end of the year, due to the tax disposition and the longer time spent on the preparation for the recommendation. At present, 56 of the 61 existing pension insurance products are unit-linked, while 5 of them are traditional products; the vast majority of them (98 per cent) are recurring premium policies (Chart 78).

Due to the pension insurance recommendation, the ACR band shrank further: this brings down the profitability of the UL sector, but strengthens the stability of the life insurance market through increased confidence in pension insurance products. In the pension insurance recommendation the MNB set maximum limits concerning the Annual Cost Rate (ACR)[14] of UL pension insurance products: in justified cases,[15] this maximum limit may be deviated from by 2 per cent. As a result, the ACRs continued to diminish and expensive products were driven out from the market (Chart 79). In spite of the MNB's expectation, the decline in the ACR was not caused mainly by a drop in the commission level: this fact worsened further the profitability of the UL life insurance sector. Through the increase of confidence the recommendation promotes the diffusion of pension insurance products, the recovery and stability of life insurance market.

[14] See: MABISZ ACR Charter

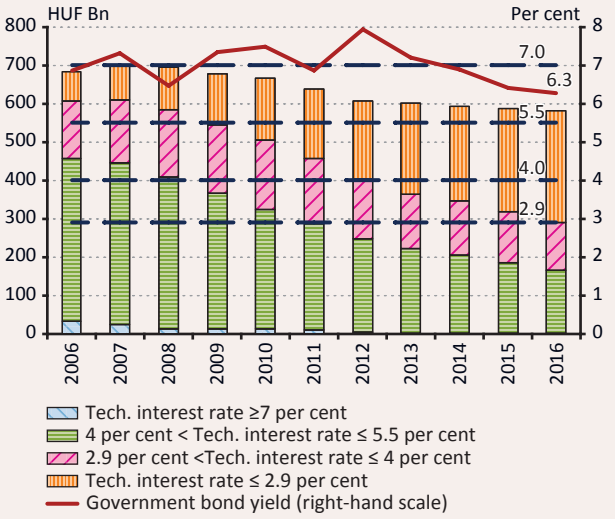
[15] In the case of a complex unit-linked asset fund characterized by an increased yield potential, in the case of yield or capital guarantee or in the case of higher risk profile.

Chart 80
Maturity structure and roll-over yield differential of the insurance sector's government securities portfolio



Note: Based on the government bond holding of 23 actors (representing 88.3 per cent of the assets in question) participating in the 2014 impact analysis (see Box 8). The 2.5 per cent – stated as roll-over yield for the government securities maturing on 18 July 2016 – is a result of an approximate assumption, as the Hungarian state issued the bond in euro.
Source: MNB.

Chart 81
Loss generating effect of low government bond yields on high technical interest rate portfolios



Note: The dotted lines indicate the highest, still relevant level of interest rates belonging to the corresponding portfolio. There is no insurance product with a technical interest rate between 5.5 and 7 per cent.
Source: MNB.

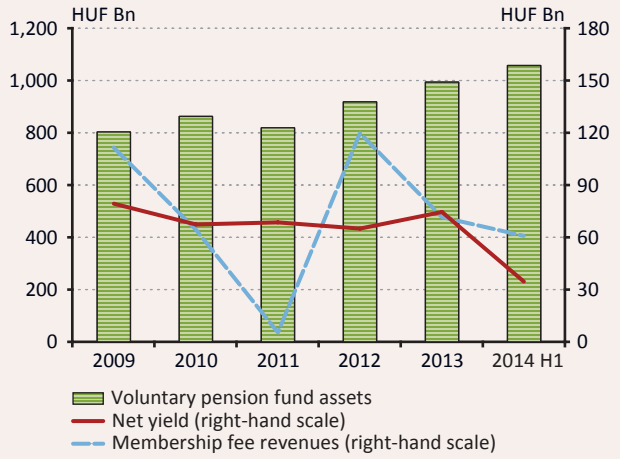
The low government bond yield environment has a negative effect on profitability. The insurance sector is an outstanding financing partner of the Hungarian government debt, particularly in the area of longer-term securities. During the next two years (2014-2016), the insurance companies must prolong a considerable bond portfolio, which – assuming an unchanged yield environment – will take place at a significantly lower yield compared to that at the time of issue. According to our estimates by the end of 2016 the cumulated impact of the differences will decrease the accounting investment income of the sector's non-unit linked investment portfolio by HUF 6.2 billion annually on aggregate, which represents a yield loss of 0.5 per cent on the non-unit linked asset portfolio (Chart 80).

In the near future, the yield losses arising from the roll-over of the maturing government securities do not jeopardise the guaranteed interests. The yield decrease attributable to the roll-over of maturing government bonds generates a direct loss only in the case of portfolios with a technical interest rate higher than 7 per cent, due to the fact that the insurer is unable to achieve the yield promised through the technical interest. However, the impact of this is negligible, since the portfolios containing this "promise" will practically come to zero by 2016. The yield loss attributable to the declining excess return[16] in the case of other traditional life insurance policies is borne by the clients for the larger part, while in the case of unit-linked policies the whole of it is borne by them. In non-life insurance business, the insurers bear all of the effects of declining yields. This may also impact the future premiums, since the yield (depending on the product) may account for a material part of the income. On the whole, the sustained low-yield environment – identified in the EU as a key risk – generates only moderate losses in Hungary. By the changeover to Solvency II the entire future loss arising from the sustained low-yield environment will appear in the capital of the insurance companies, thus this environmental effect will no longer represent a prudential risk from 2016 (Chart 81).

[16] The share corresponding to the excess return allocable to the contractors, at least 80 per cent at global level.

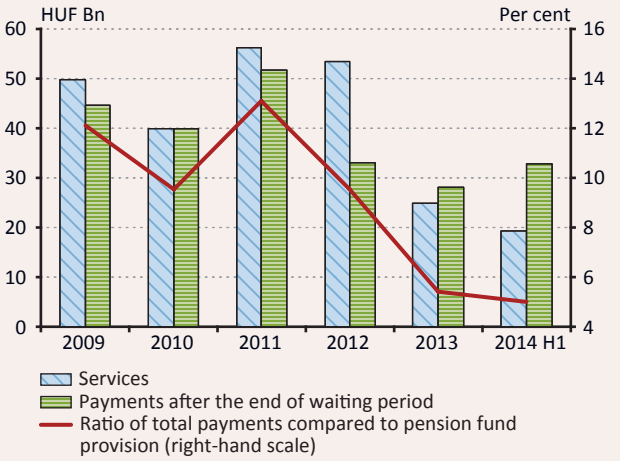
7.2 Assets of voluntary pension funds reach a historical peak

Chart 82
Developments in voluntary pension fund assets



Source: MNB.

Chart 83
Voluntary pension fund disbursements based on service and waiting period

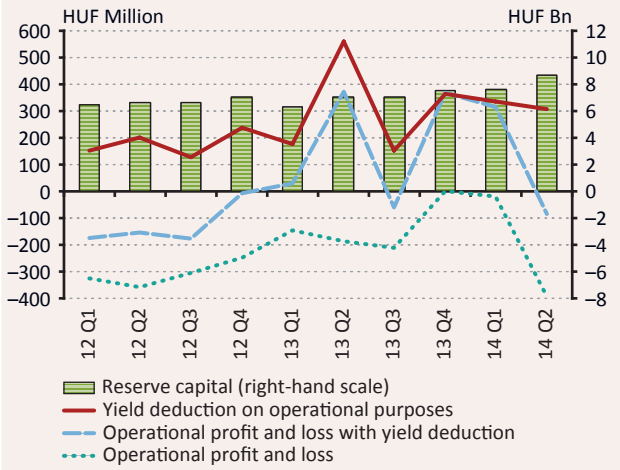


Note: annualised 2014 H1 figure.
Source: MNB.

Along with slightly falling membership, the assets of voluntary pension funds are at a historical peak. Mostly as a result of the declining Hungarian government bond yields, pension funds once again achieved a yield performance that is well above inflation. As a result of this, the assets of voluntary pension funds rose to a historical peak of HUF 1,056 billion by the end of 2014 H1: assets under management exceed the value from 2013 H1 by 13 per cent. Member contributions, which increased by 10.4 per cent year-on-year, also contributed significantly to the increase in assets. There was a minimal, 0.4 per cent, decline in membership compared to the end of 2013, despite the fact that the number of new members increased in H1 (Chart 82).

There was an increase in disbursements made after the expiry of the waiting period, but still within the accumulation period. The magnitude of the amounts drawn after the expiry of the waiting period (10 years) for purposes other than pension service still represents a risk for voluntary pension funds. Although in 2014 H1 the disbursed amounts increased both year-on-year and compared to 2013 H2, still only a small ratio of the members eligible for the disbursement make use of the withdrawal opportunity, and the ratio of capital withdrawal is decreasing. At the same time, as the level of disbursements is relatively low and yield withdrawals prevail over capital withdrawals, these still do not represent a substantial risk (Chart 83).

Chart 84
Profit/loss, yield deduction and reserve capital of voluntary pension funds

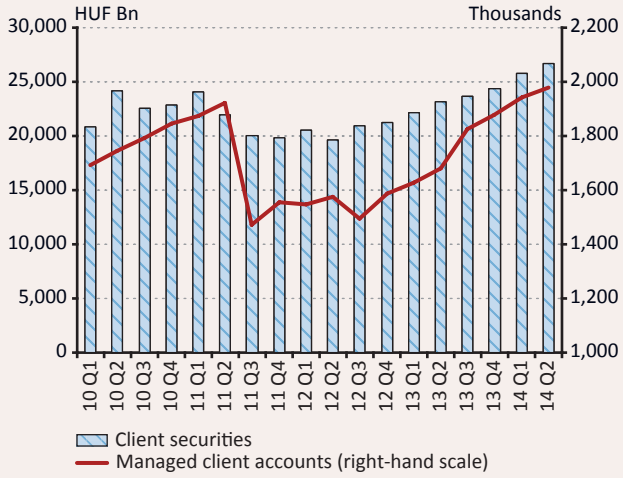


Source: MNB.

Despite the losses, the voluntary pension fund sector's reserves increased. The profitability of voluntary pension funds deteriorated in 2014 H1: operating expenses increased by 16 per cent year-on-year, which was not covered by the 14 per cent increase in revenues. Making use of the statutory option, voluntary pension funds were able to offset the operating losses by charging the positive investment income earned on the capital of those members, who were not paying contribution fee, and as result of this the voluntary pension funds' operational reserves increased in 2014 H1 (Chart 84).

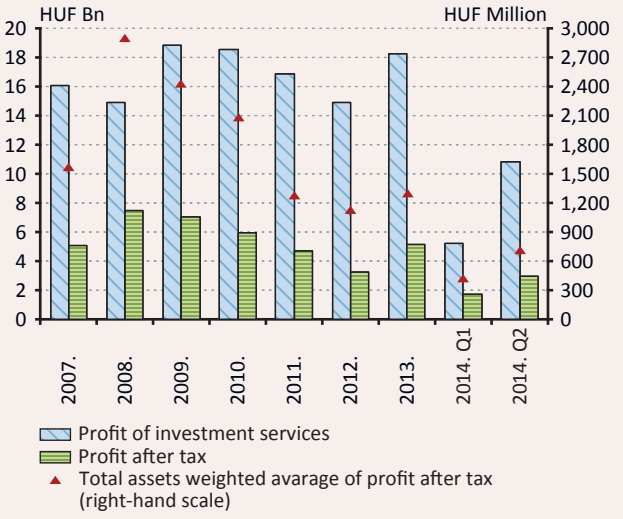
7.3 Continuing, but lower capital inflows at mutual funds, increasing assets at investment firms

Chart 85
Client securities and managed client accounts



Source: MNB.

Chart 86
Net profit of investment firms

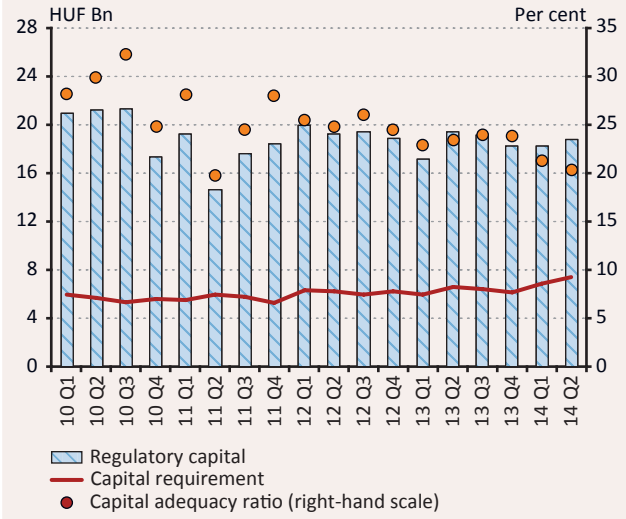


Source: MNB.

Turnover declined, but portfolios are still growing at investment firms. The trend of rising turnover at investment firms, characterising the last two quarters of the previous year and 2014 Q1 did not continue: 2014 Q2 turnover decreased by 10 per cent quarter-on-quarter, while the capital market turnover of credit institutions fell short of that only by 4 per cent. The increase in investment firm managed client portfolios reduced to 2 per cent following the previous quarter's 7.2 per cent growth; however, the value of client portfolios was higher by almost 18.7 per cent compared to the end of 2013 H1 (Chart 85).

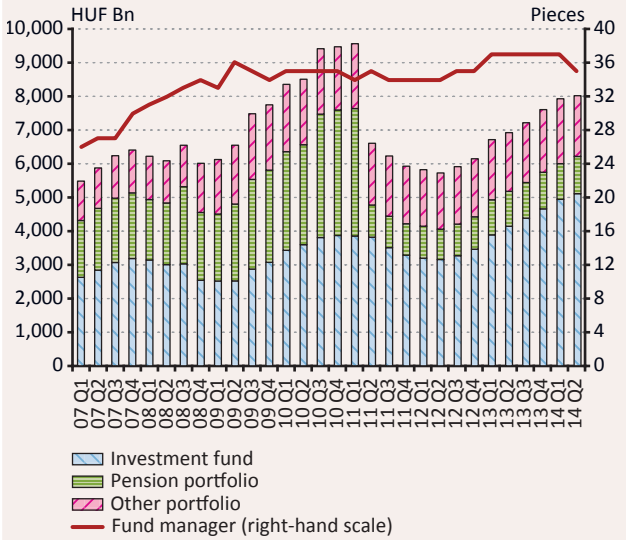
The profitability of investment firms was steady in 2014 H1. The profitability of investment firms improved in 2013 after the sustained low profitability level that characterised the previous years; the sector's return on equity (ROE) increased to 23.3 per cent from 15.1 per cent measured in 2012. The improvement of profitability halted in 2014 H1; the ROE value, calculated with the pre-tax profit, has not changed materially year-on-year in 2014 H1, despite the increased turnover (Chart 86).

Chart 87
Capital and capital adequacy ratio of investment firms



Source: MNB.

Chart 88
Number of investment fund managers and assets under management



Source: MNB.

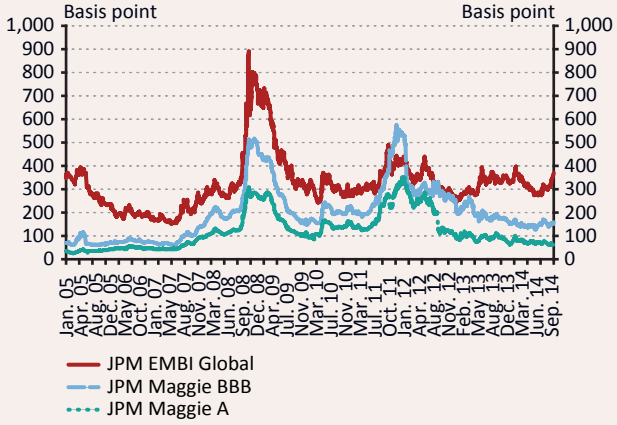
The capitalisation level of the sector is continued to be high. The available solvency capital at the end of June 2014 was HUF 18.7 billion in aggregate, which accounted for 253 per cent of the capital requirement (HUF 7.4 billion), which ratio was practically identical with that from one year ago. The capital adequacy ratio of the investment firms is still extremely high (Chart 87).

The declining interest environment resulted in an increase in mutual funds' assets, but the rate of capital inflows slowed down in 2014 H1. In the last almost two years, we saw the positive capital market impact of the declining interest environment, but the relative yield advantage of mutual funds decreased, the impact of which could be also felt in the capital inflows' growth rate. The amount of mutual funds' assets reached HUF 5,100 billion by the end of June 2014. After an increase of 6.3 per cent in Q1, the managed assets rose by 3.4 per cent in Q2 and exceeded the value measured a year ago by 23.3 per cent. In nominal terms, the largest amount of capital flowed into short-term bond funds and absolute yield funds. The average yield of absolute yield funds also followed a declining trend, and their relative advantage also decreased within the average yield of mutual funds. (Chart 88).

Appendix: Macroprudential indicators

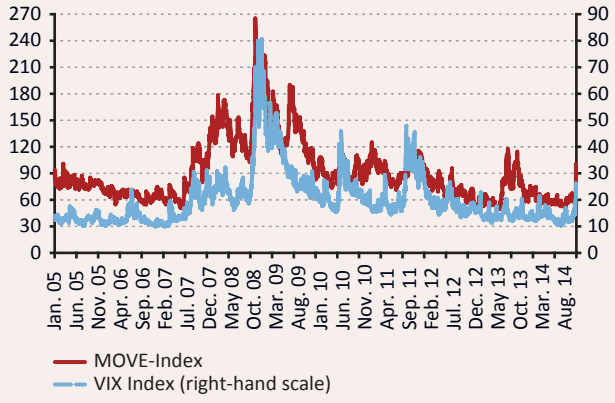
1 RISK APPETITE

Chart 1
Primary risk indicators



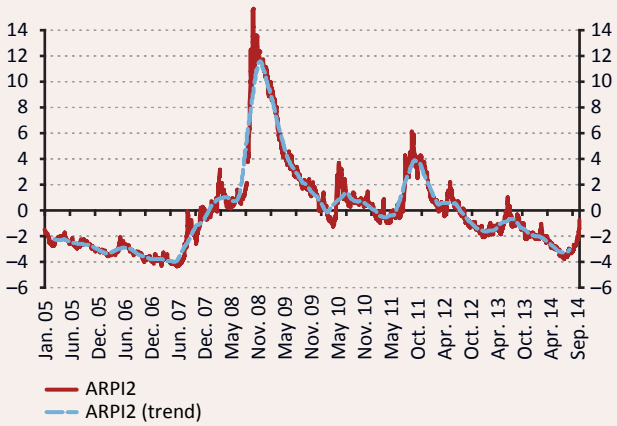
Source: Datastream, JP Morgan.

Chart 2
Implied volatility of the primary markets



Source: Datastream, Bloomberg.

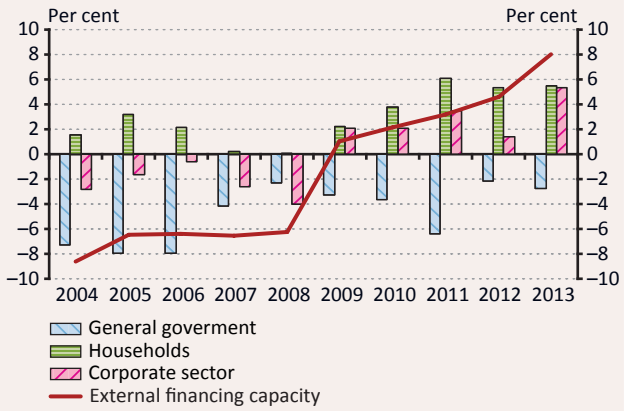
Chart 3
Dresdner Kleinwort indicator



Source: DrKW.

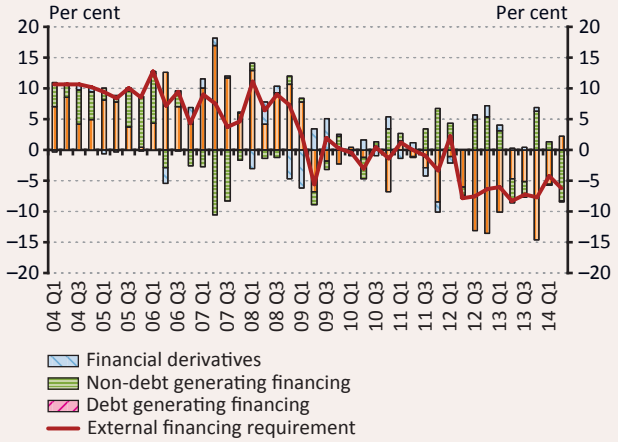
2 EXTERNAL BALANCE AND VULNERABILITY

Chart 4
Net financing capacity of the main sectors and external balance as percentage of GDP



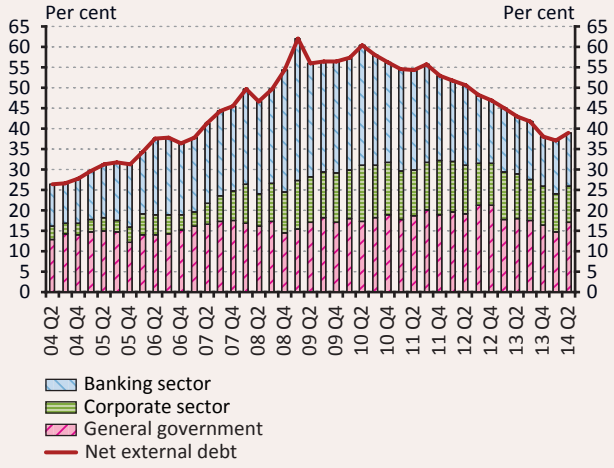
Source: MNB.

Chart 5
External financing requirement and its financing as percentage of GDP



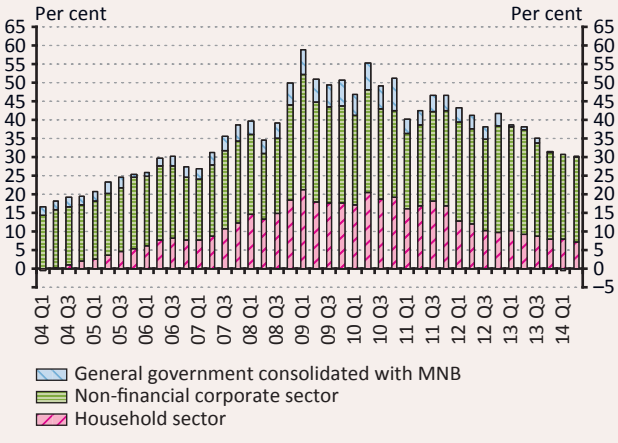
Source: MNB.

Chart 6
Net external debt as percentage of GDP



Source: MNB.

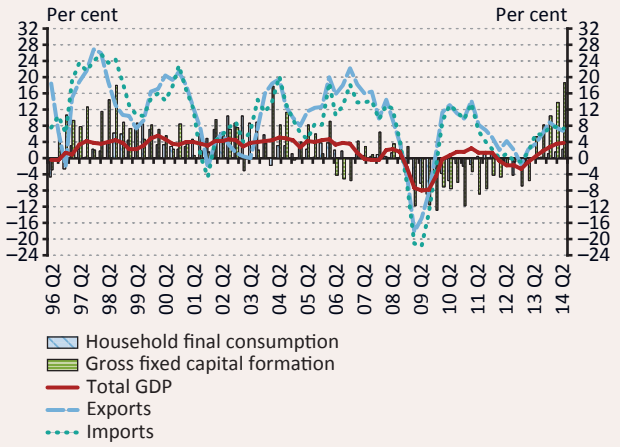
Chart 7
Open FX position of the main sectors in the balance sheet as percentage of GDP



Source: MNB.

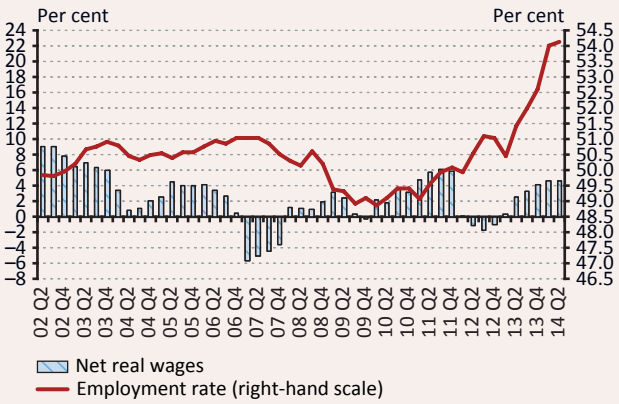
3 MACROECONOMIC PERFORMANCE

Chart 8
GDP growth and its main components
(annual growth rate)



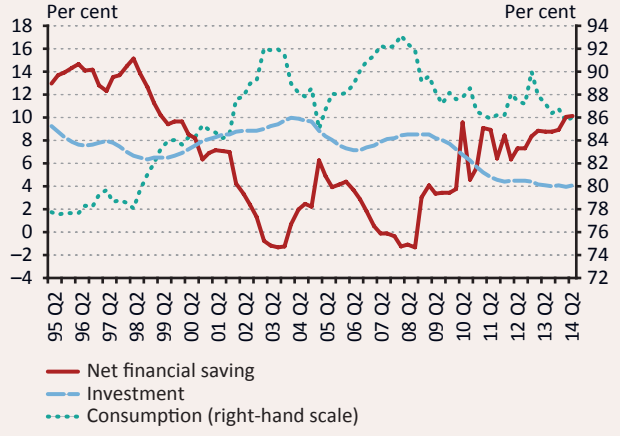
Source: HCSO.

Chart 9
Employment rate and net real wage developments
(annual growth rate)



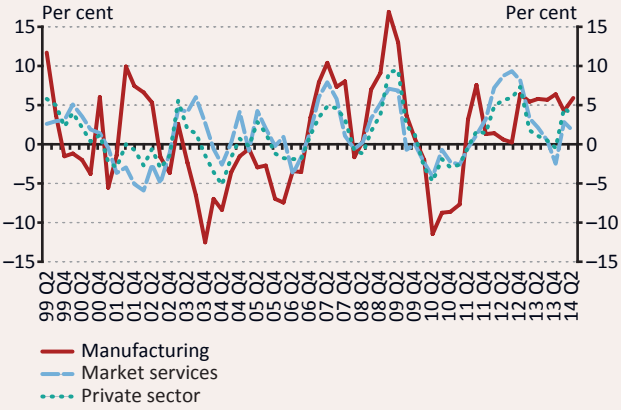
Source: HCSO.

Chart 10
Use of household income as a ratio of disposable income



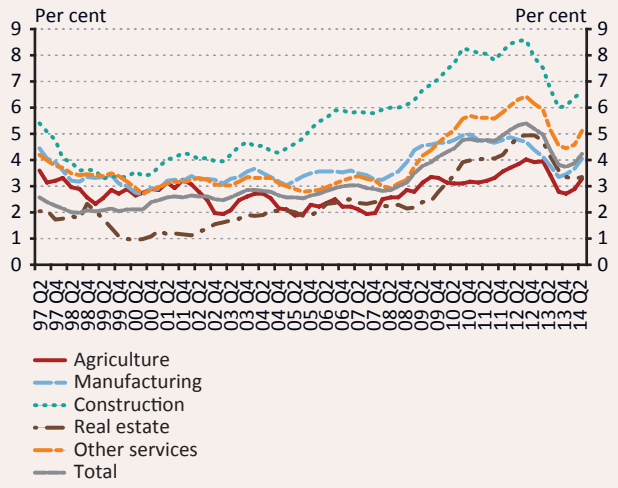
Source: HCSO, MNB.

Chart 11
Corporate real unit labour cost in the private sector
(annual growth rate)



Source: HCSO, MNB.

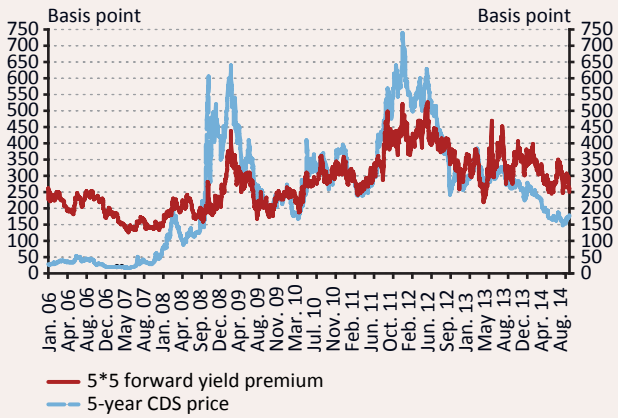
Chart 12
Sectoral bankruptcy rates



Source: Opten, HCSO, MNB.

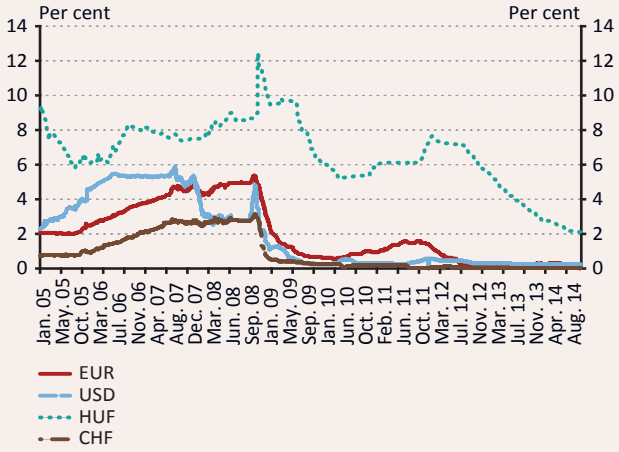
4 MONETARY AND FINANCIAL CONDITIONS

Chart 13
Long-term default risk and forward premium of Hungary



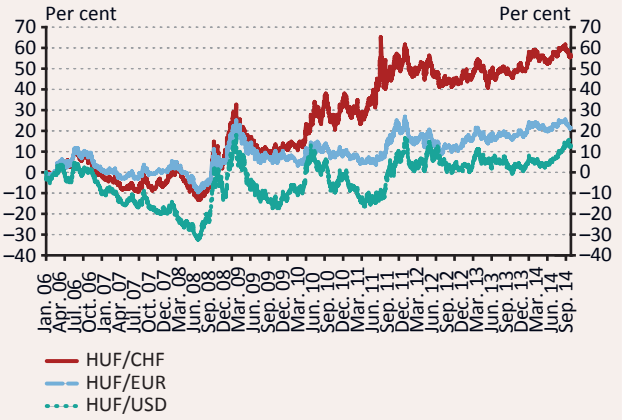
Source: Datastream, Reuters, Bloomberg.

Chart 14
Three-month EUR, USD, CHF and HUF money market interest rates
(LIBOR and BUBOR fixing)



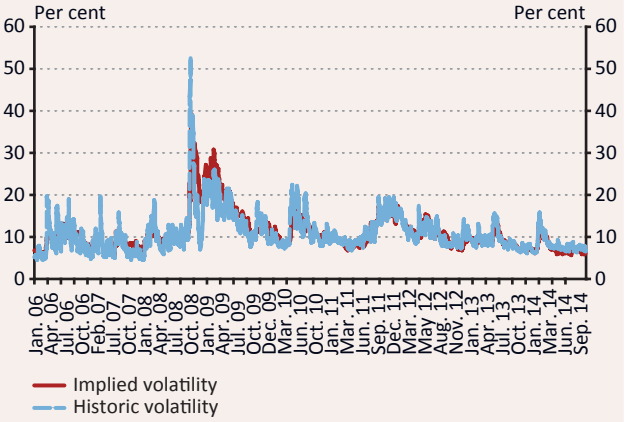
Source: Reuters.

Chart 15
HUF/EUR, HUF/USD and HUF/CHF exchange rates compared to January 2, 2006



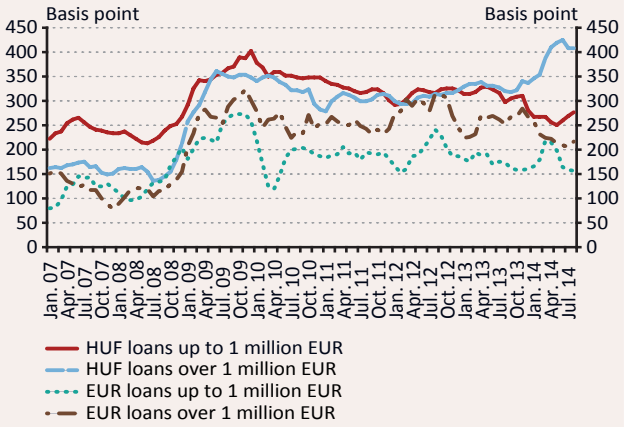
Source: Reuters.

Chart 16
Volatility of the HUF/EUR exchange rate



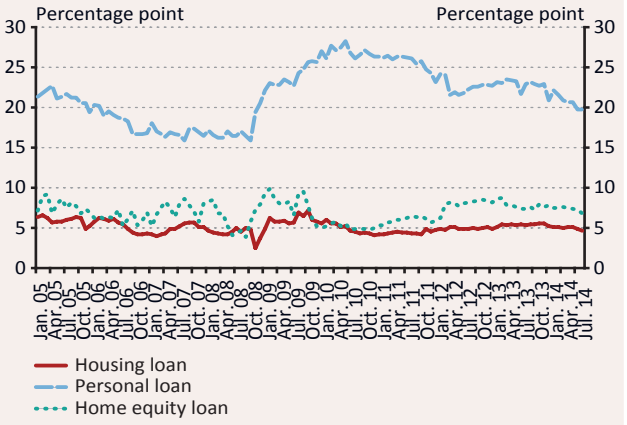
Source: Reuters, MNB.

Chart 17
Interest rate premium of new loans to non-financial enterprises
(over 3-month BUBOR and EURIBOR, respectively, 3-month moving average)



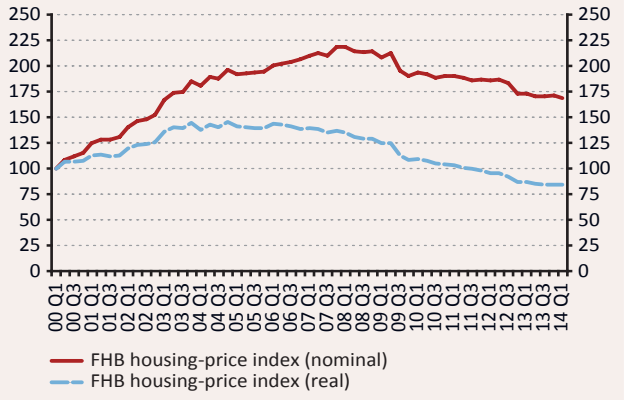
Source: ECB, MNB.

Chart 18
Interest rate premium of new HUF loans to households
(over 3-month BUBOR)



Source: MNB.

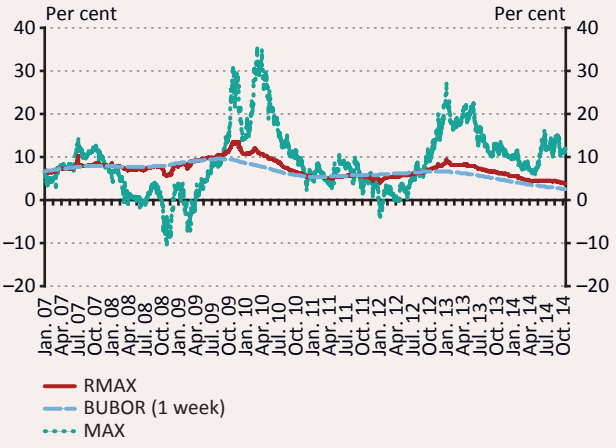
Chart 19
FHB housing-price index
(2000=100)



Source: FHB.

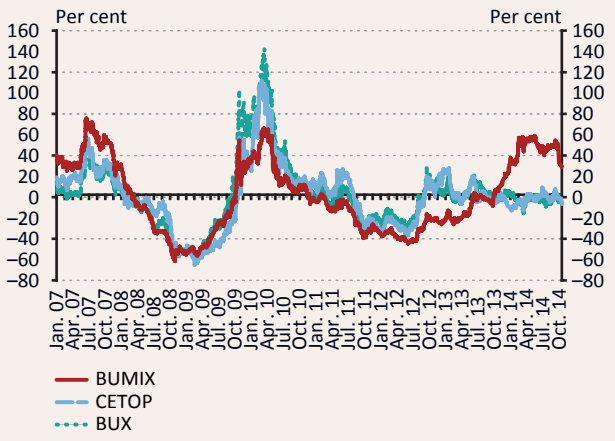
5 PRICES OF INSTRUMENTS

Chart 20
Annualised yields on government securities' indices and money markets



Source: GDMA, MNB, portfolio.hu.

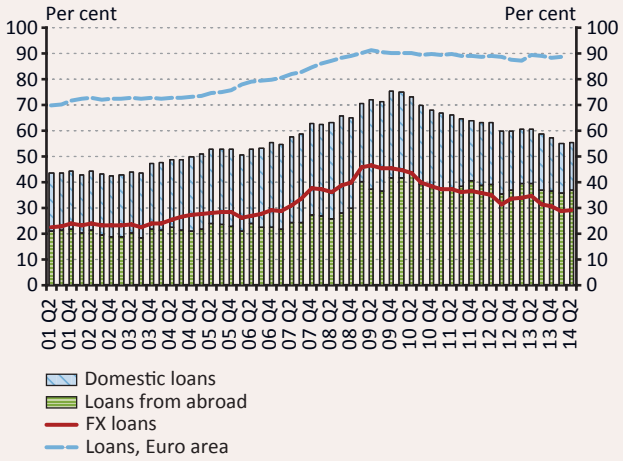
Chart 21
Annual yield of key Hungarian and Central and Eastern European stock market indices



Source: BSE, portfolio.hu.

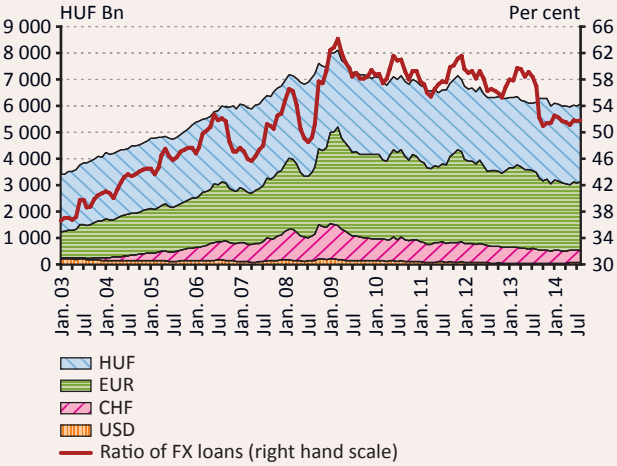
6 RISKS OF THE FINANCIAL INTERMEDIARY SYSTEM

Chart 22
Indebtedness of non-financial enterprises as a percentage of GDP



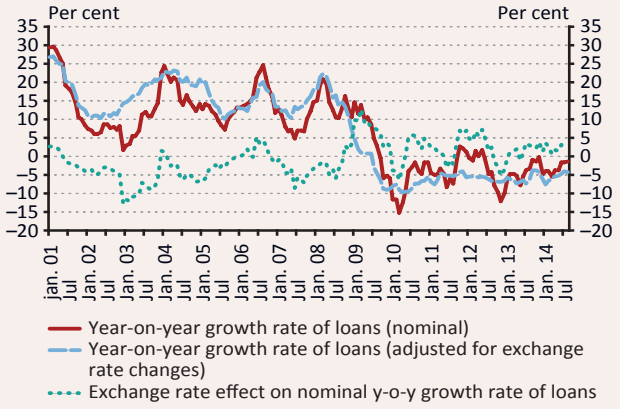
Source: Eurostat, ECB, MNB.

Chart 23
Denomination structure of domestic bank loans of non-financial enterprises



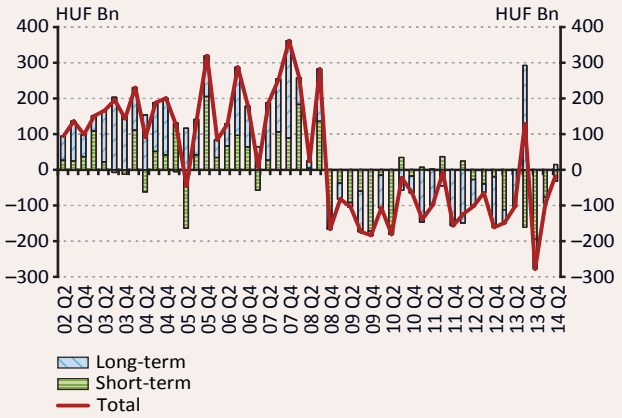
Source: MNB.

Chart 24
Annual growth rate of loans provided to non-financial corporations by domestic banks



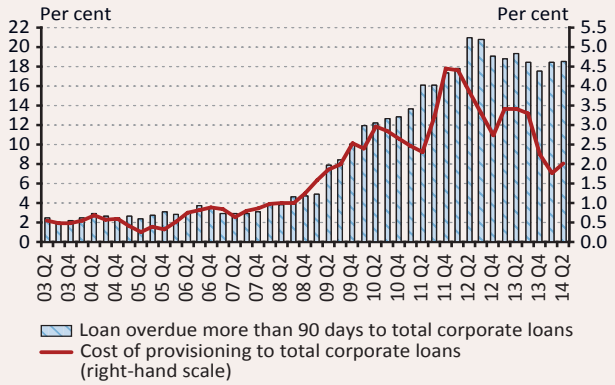
Source: MNB.

Chart 25
Net quarterly change of bank loan volumes of non-financial enterprises



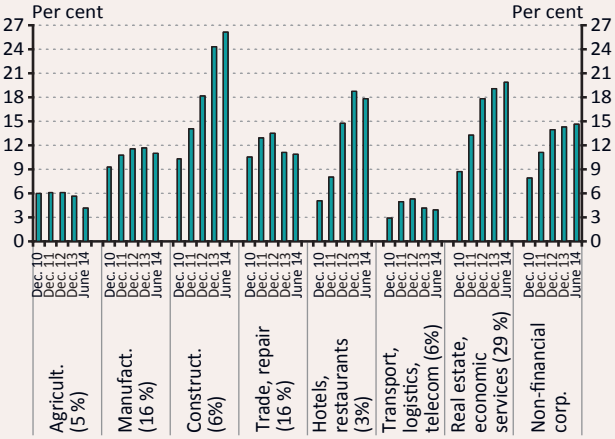
Source: MNB.

Chart 26
Quality of the corporate loan portfolio



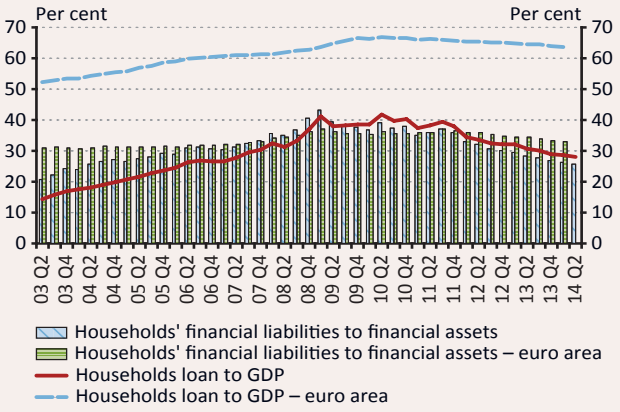
Source: MNB.

Chart 27
Provisioning on loans of non-financial corporations by industry



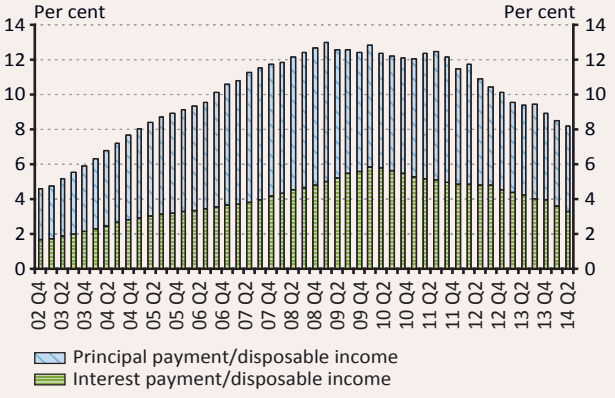
Source: MNB.

Chart 28
Indebtedness of households in international comparison



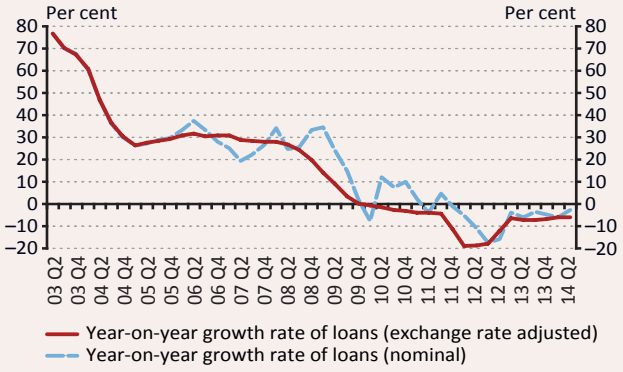
Source: MNB, ECB.

Chart 29
Debt service burden of the household sector



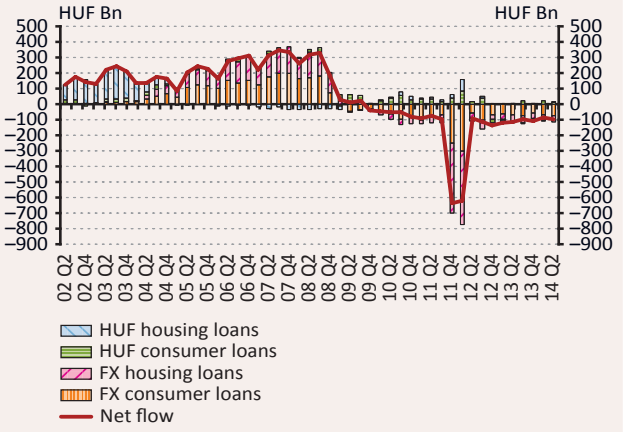
Source: MNB.

Chart 30
Annual growth rate of total household loans



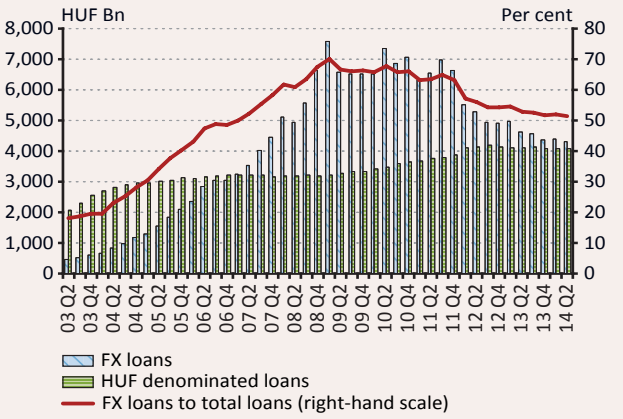
Source: MNB.

Chart 31
Net quarterly change of bank loan volumes of households by main products and currencies, adjusted for exchange rate changes



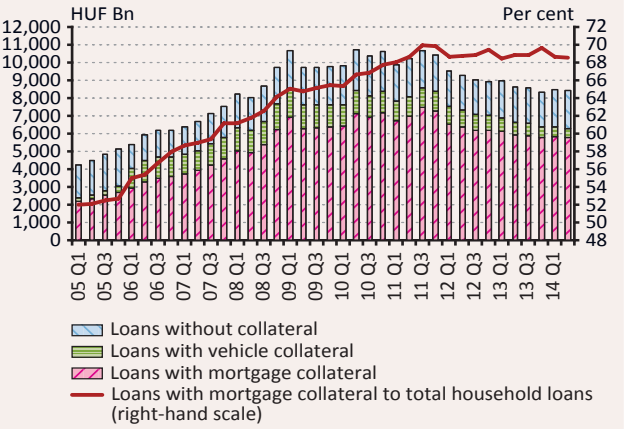
Source: MNB.

Chart 32
The denomination structure of household loans



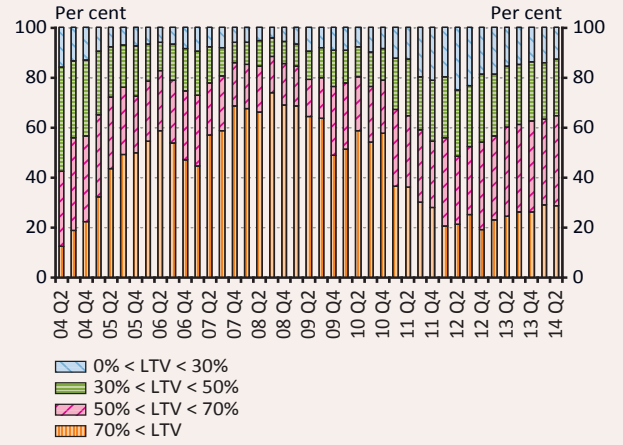
Source: MNB.

Chart 33
Household loans distribution by collateral



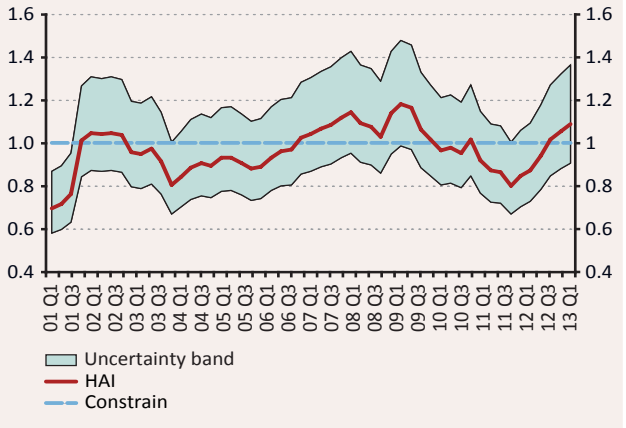
Source: MNB.

Chart 34
Distribution of new housing loans by LTV



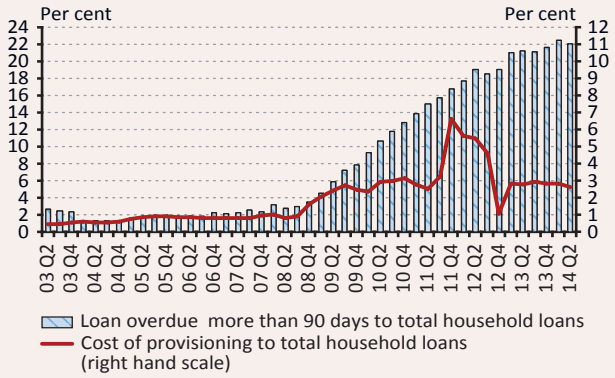
Source: MNB.

Chart 35
Housing Affordability Index



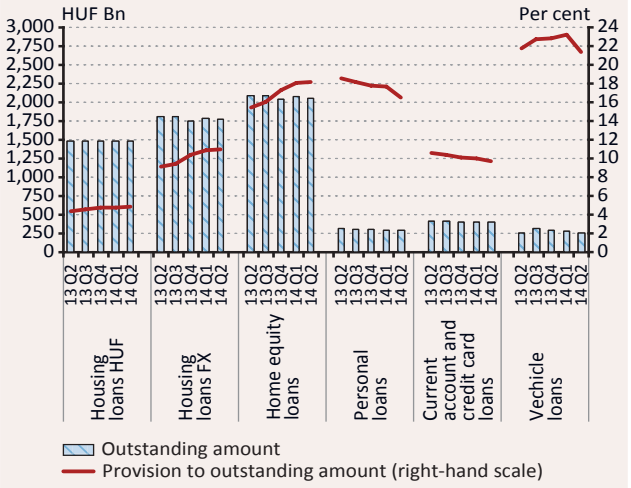
Source: MNB.

Chart 36
Quality of the household loan portfolio



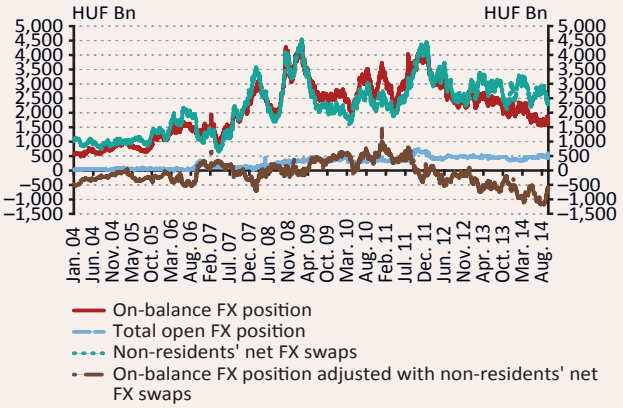
Source: MNB.

Chart 37
Provisioning on household loans



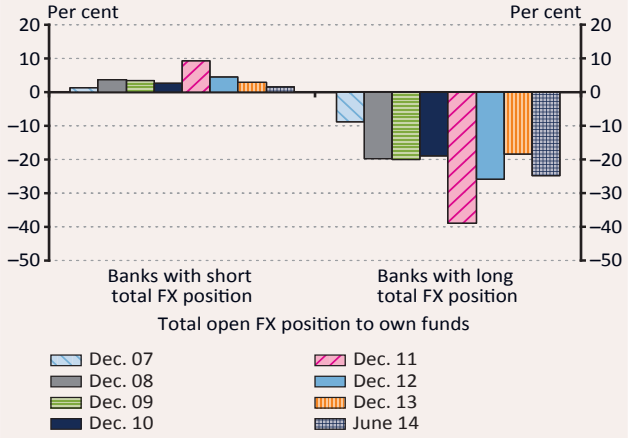
Source: MNB.

Chart 38
Open FX position of the domestic banking system



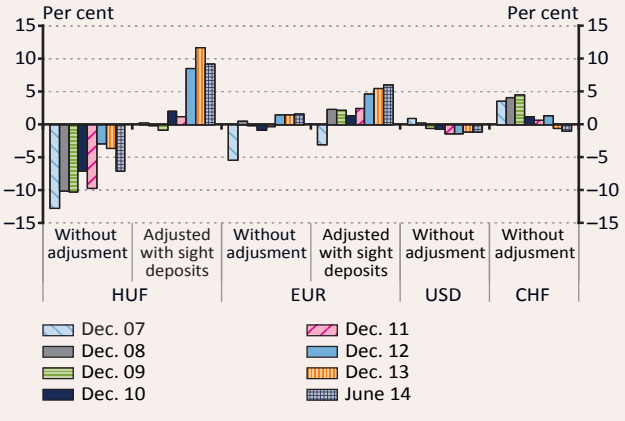
Source: MNB.

Chart 39
The exchange rate exposure of the banking sector



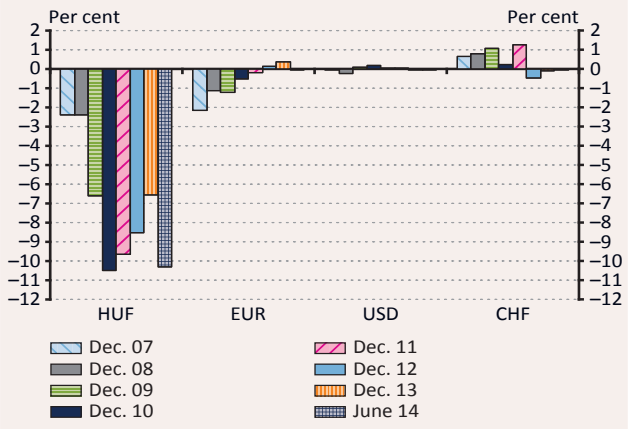
Source: MNB.

Chart 40
90-day re-pricing gap of the banking sector



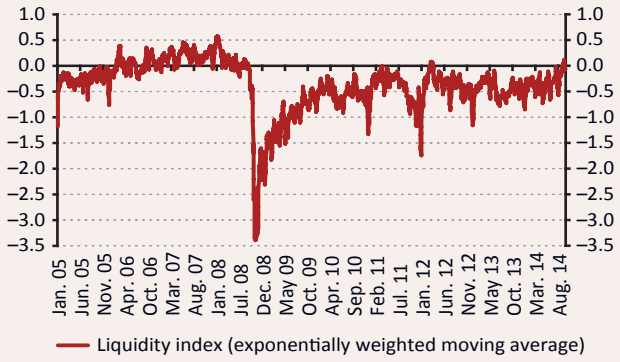
Source: MNB.

Chart 41
Estimated maximum loss based on interest rate risk stress tests relative to equity



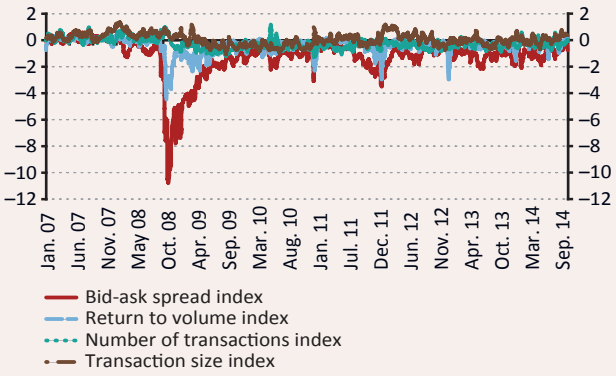
Source: MNB.

Chart 42
Liquidity index
(exponentially weighted moving average)



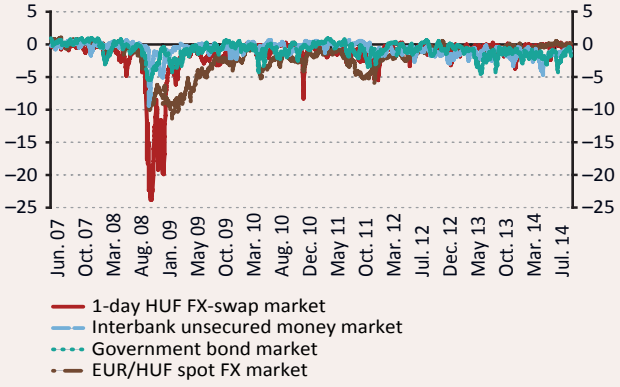
Source: MNB, KELER, Reuters, DrKW.

Chart 43
Liquidity sub-indices
(exponentially weighted moving average)



Source: MNB, KELER, Reuters, DrKW.

Chart 44
Bid-ask spread indices of the major domestic financial markets
(exponentially weighted moving average)

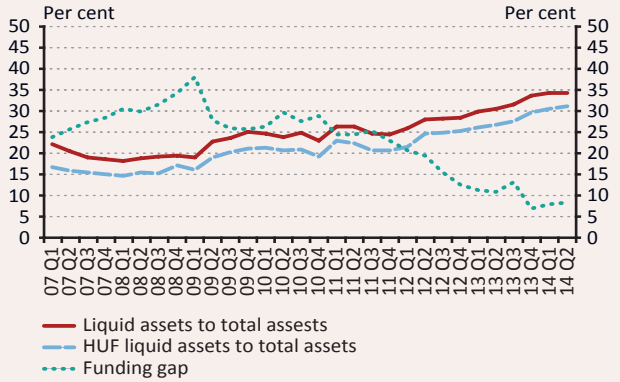


Source: MNB, KELER, Reuters, DrKW.

Chart 45
Credit to deposit ratio of the banking sector

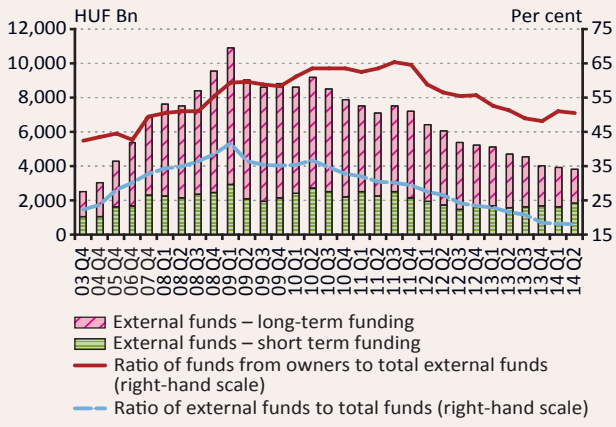
Source: MNB.

Chart 46
Liquidity ratios of the banking sector



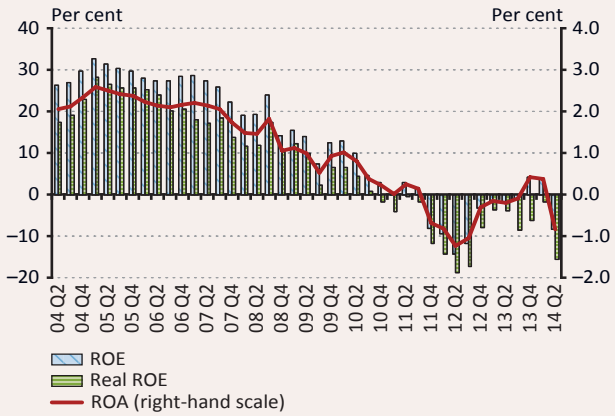
Source: MNB.

Chart 47
External funds of the banking sector



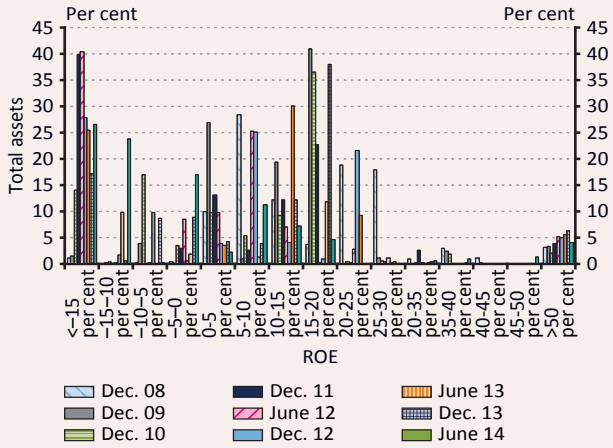
Source: MNB.

Chart 48
ROA, ROE and real ROE of the banking sector



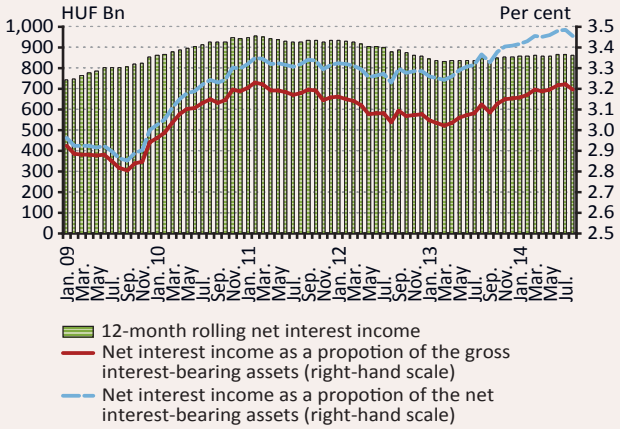
Source: MNB.

Chart 49
Dispersion of banks' total assets by ROE



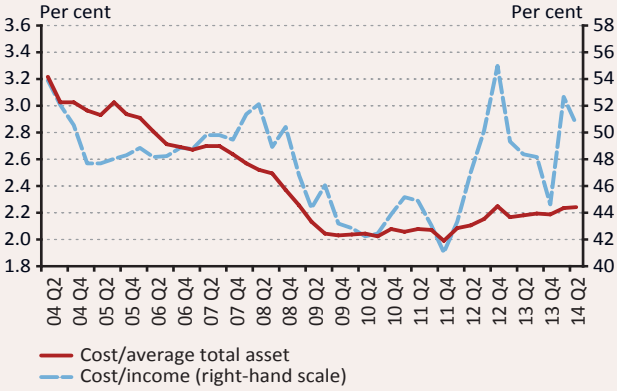
Source: MNB.

Chart 50
Net interest income as a proportion of the gross and net interest bearing assets in the banking sector



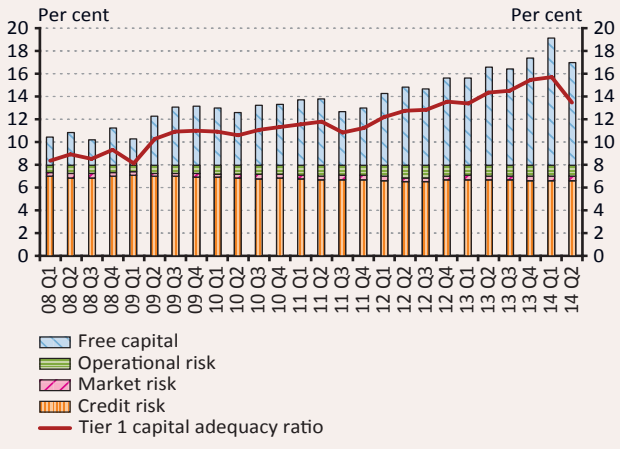
Source: MNB.

Chart 51
Operating efficiency indicators of the banking sector



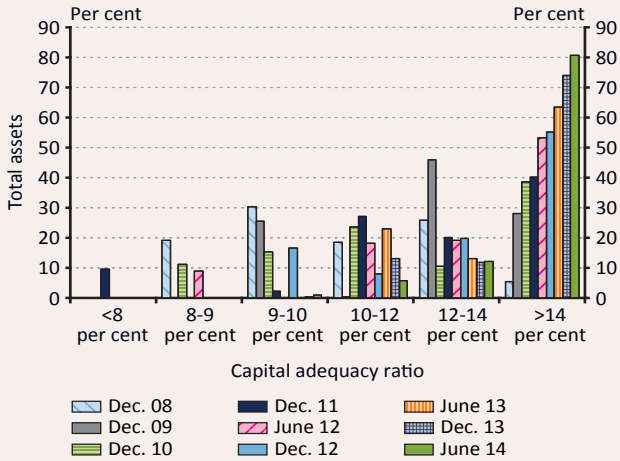
Source: MNB.

Chart 52
Banks' capital adequacy ratios



Source: MNB.

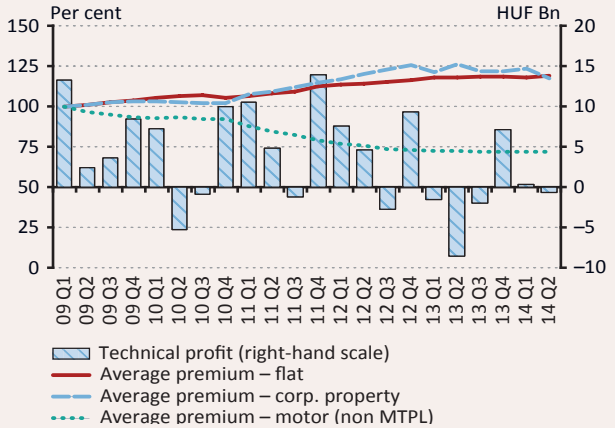
Chart 53
Dispersion of banking sector's total assets by capital adequacy ratio



Source: MNB.

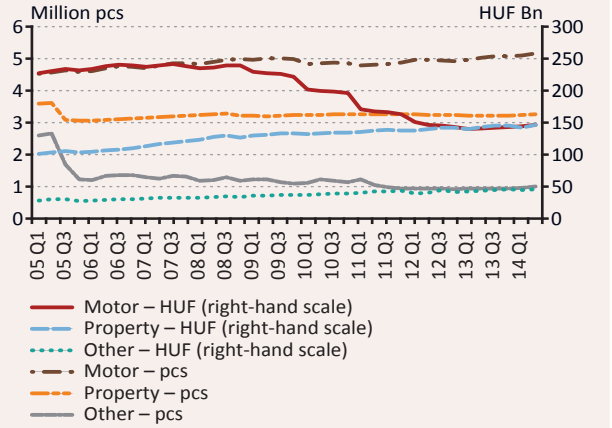
7 INSTITUTIONAL INVESTORS

Chart 54
Underline data of insurance tax



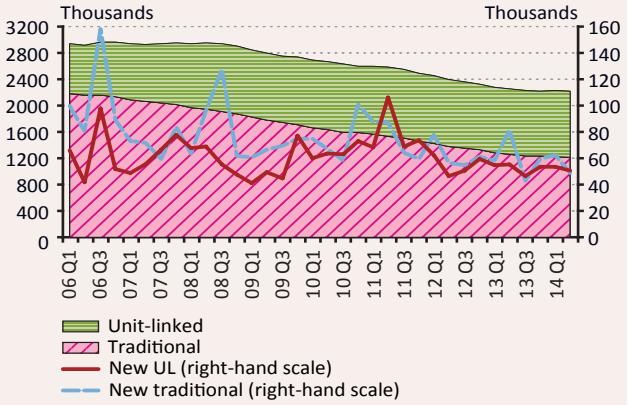
Source: MNB.

Chart 55
Development of non-life insurance



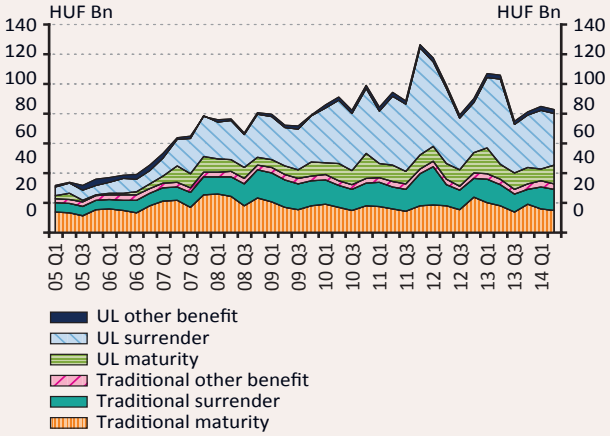
Source: MNB.

Chart 56
Development of life insurance



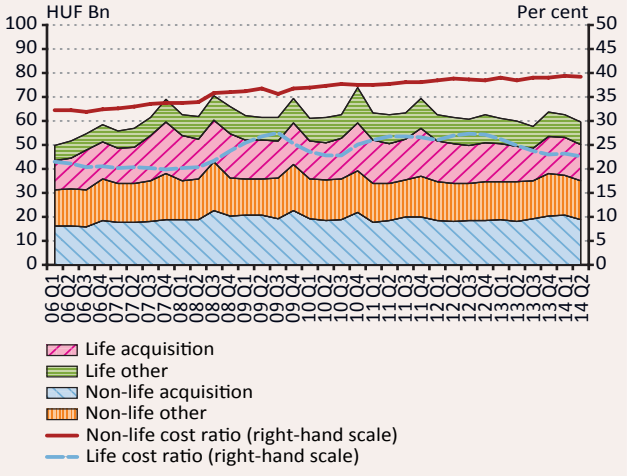
Source: MNB.

Chart 57
Life insurance services



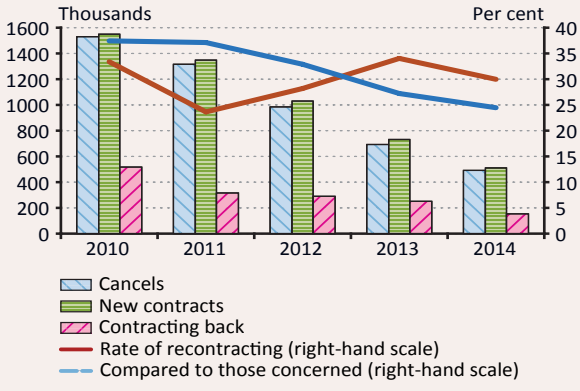
Source: MNB.

Chart 58
Costs in the insurance sector



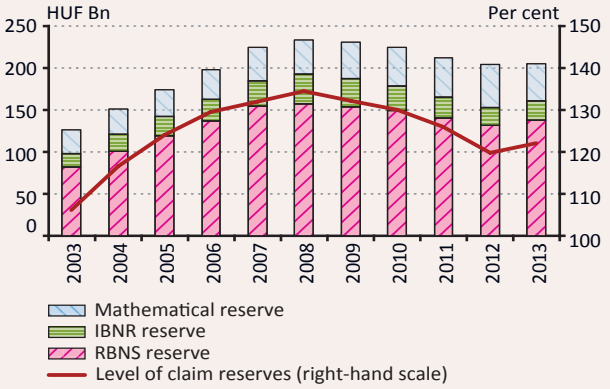
Source: MNB.

Chart 59
Development of mtpl insurance



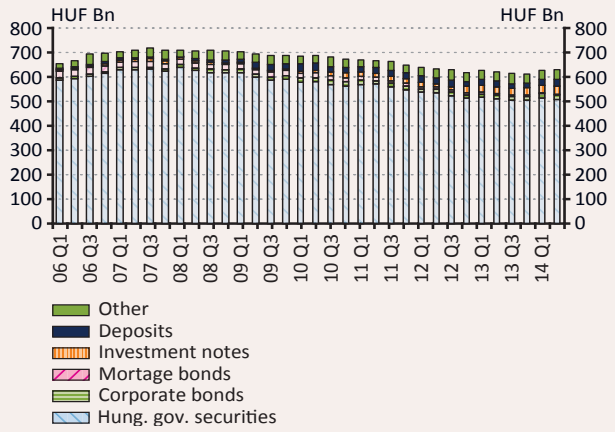
Source: MNB.

Chart 60
Development of gross mtpl reserves



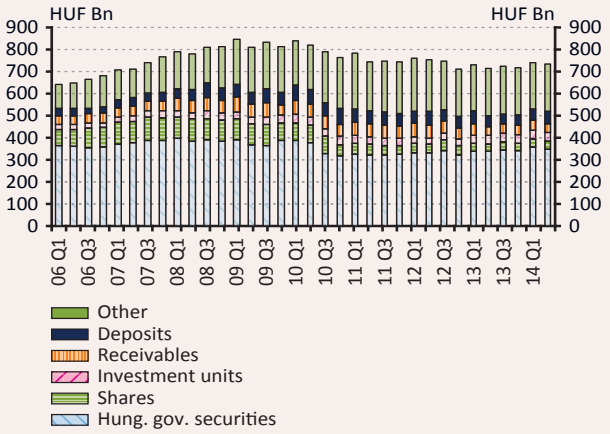
Source: MNB.

Chart 61
Assets behind life mathematical reserve



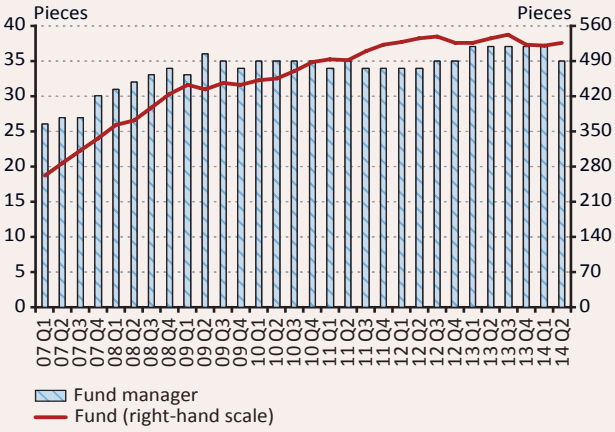
Source: MNB.

Chart 62
Composition of assets
(excluding mathematical reserves)



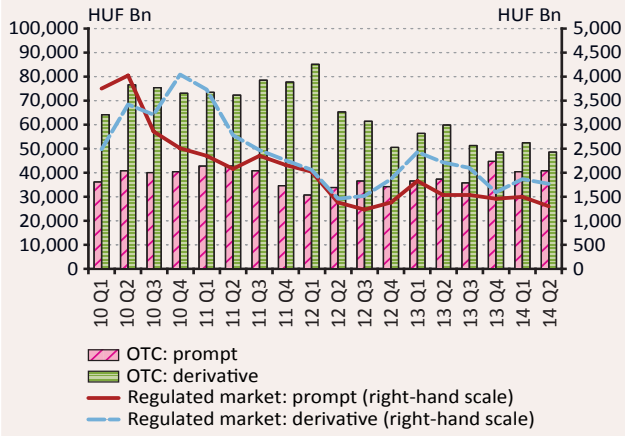
Source: MNB.

Chart 63
Number of investment fund managers and funds



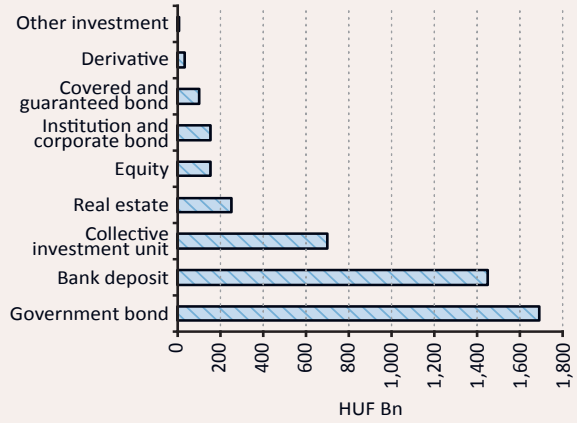
Source: MNB.

Chart 64
Capital market turnover of investment firms



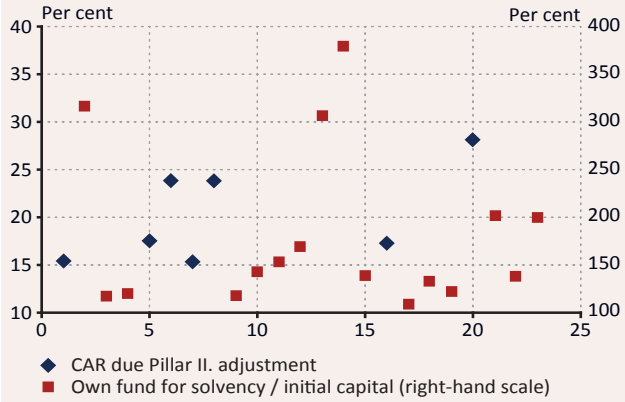
Source: MNB.

Chart 65
Asset allocation in public offered investment funds



Source: MNB.

Chart 66
Capital adequacy ratio (CAR) of investment firms



Source: MNB.

Notes to the appendix

The chart date (e.g. 2008) means the end of the year (the 31st of December) if it's not indicated otherwise.

Chart 1
The increased value of the indicator indicates declining risk appetite or increasing risk aversion.

Chart 2
VIX: implied volatility of S&P 500.

MOVE: implied volatility of US Treasuries (Merrill Lynch).

Chart 3
The increased value of the indicator indicates declining risk appetite or increasing risk aversion.

Chart 4
General government augmented SNA-deficit includes local governments, ÁPV Ltd., institutions discharging quasi-fiscal duties (MÁV, BKV), the MNB and authorities implementing capital projects initiated and controlled by the government but formally implemented under PPP schemes. The indicator includes private pension savings.

In case of the household sector, financing capacity is consistent with the SNA deficit of the general government and does not take savings in private pension funds into account. The official financing saving of households (in the financial account) is different from data on the chart.

Chart 10
Disposable income is estimated by MNB using the consumption, investment and financial savings data of households.

Chart 12
Number of bankruptcy proceedings of legal entities, summed according to the date of publication, cumulated for 4 quarters, divided by the number of legal entities operating a year before.

Chart 13
The 5-year forward forint risk premium as of 5 years from now, compared to the euro forward yield (3-day moving average) and the 5-year Hungarian credit default swap spread.

Chart 16
Historic volatility: weighted historic volatility of the exchange rate (GARCH method). Implied volatility: implied volatility of quoted 30-day ATM FX options.

Chart 24
FX loans, exchange rate as of end-June 2012, HUF loans adjusted by state loan refinancing in December 2002.

Chart 25
Exchange rate adjusted values.

Chart 27
In brackets bellow the names of sectors the weights within corporate credit portfolio are indicated for end-of-observation period.

Chart 35
If the value of the HAI is 1, it shows that under a given set of credit conditions a typical household has just enough monthly income to take out the mortgage loan necessary to purchase an average flat.

If the value of the index is above 1, it indicates that a household with average income can afford to borrow for the purchase of a home.

The uncertainty band is given from the different values of the LTV.

Chart 38
An increase in the swap stock stands for swaps with a long forint spot leg. Based on the daily FX reports of credit institutions. Calculated from swap transactions between credit institutions and non-resident investors. The MNB does not take responsibility for the accuracy of the data. Revisions due reporting errors and non-standard transactions can lead to significant subsequent modifications of the data series. The data series does not include swap transactions between branches, specialised credit institutions, cooperative credit institutions and non-resident investors. The swap stock is the sum of termin legs calculated at actual foreign exchange rates.

Chart 41
The interest rate risk stress test indicates the projected result of an extreme interest rate event; in this scenario this event is a parallel upward shift of the yield curve by 300 basis points for each foreign currency. For the calculations we applied re-pricing data and the Macaulay duration derived from them.

Chart 42
A rise in the liquidity index indicates an improvement in the liquidity of the financial markets.

Chart 43
Similarly to the liquidity index, an increase in liquidity sub-indices suggests an improvement in the given dimension of liquidity. The source of bid-ask spreads in case of HUF government bond market is calculated from the secondary market data transactions. The earlier version of the liquidity index included the CEBI bid-ask spread.

Chart 44
A rise in the indices represents narrowing bid-ask spread, thus an increase in the tightness and liquidity of the market. The liquidity index of HUF FX-swap market includes the data of USD/HUF and EUR/HUF segments, taking into account of tom-next, overnight and spot-next transactions. The earlier version of the liquidity index included only the tom-next USD/HUF transactions.

Chart 45
Client loans include loans and bonds of non-financial institutions, household loans, loans and bonds of financial and investment enterprises, government loans, municipal loans and municipal bonds. Client deposits include the deposits of non-financial institutions, household deposits, deposits of money market funds, deposits of financial and investment enterprises, government deposits and municipal deposits. The loan-to-deposit ratio is exchange-rate-adjusted with respect to the last period.

Chart 46
Funding gap is the difference between the exchange rate adjusted customer credit and deposit, divided by the exchange rate adjusted customer credit.

Chart 48
ROE: pre-tax profit / average (equity - balance sheet profit).
ROA: pre-tax profit / average total assets.
Interim data are annualised.
Pre-tax profit: previous 12 months.
Average total assets: mean of previous 12 months.
Average (equity - balance sheet profit/ loss): 12 month moving average.
Deflator: previous year same month=100 CPI (per cent).

Chart 49
Pre-tax profit.

Chart 50
Based on aggregated individual, non-consolidated data
Net interest income: 12-month rolling numbers, the difference of interest revenue and interest expenditure
Gross interest bearing assets: 12-month average numbers, total exposure
Net interest bearing assets: 12-month average numbers, exposure minus the provision

Chart 51
Cost: previous 12 months
Income: previous 12 months
Average total asset: mean of previous 12 months

Chart 52
Capital adequacy ratio (CAR) = (total own funds for solvency purposes/minimum capital requirement)*8 per cent
Tier 1 capital adequacy ratio = (tier 1 capital after deductions/ minimum capital requirement)*8 per cent

Chart 64
Sum turnover of investment firms and credit institution.

Chart 65
30. June 2014.

Chart 66
30. June 2014.

Ferenc Deák

(17 October 1803 – 28 January 1876)

Politician, lawyer, judge at a regional high court, member of parliament, minister for justice, often mentioned by his contemporaries as the ‘wise man of the homeland’ or the ‘lawyer of the nation’. Eliminating the ever-recurring public law disputes and clarifying the relationship between the ruling dynasty and the hereditary provinces, he not only reinforced the constitution and the existence of the nation but also paved the way for the development as well as the material and intellectual enrichment of Hungary.

Deák was actively involved in preparing the laws for the parliamentary period between 1839 and 1840, and he became an honorary member of the Hungarian Academy of Sciences in 1839. After the death of his elder brother in 1842, Deák the landowner liberated his serfs and voluntarily undertook to pay taxes proving that he was an advocate of economic reforms not only in words but also in deeds. He refused to fill the position of delegate to the 1843/44 parliament because he disagreed with the idea of having to be bound by the instructions received as delegate, and as a moderate political thinker he had his concerns about the radical group led by Kossuth.

He remained level-headed also with regard to the evaluation of the events of 1848, he was afraid of violence and rejected it as a political tool. All the same, he accepted the post of minister for justice in the government of Lajos Batthyány. In December 1849 he was arrested for revolutionary activities, but later on, after being tortured for information, he was released. From then on he acted as the intellectual leader of the national passive resistance movement, and believed from the very beginning that Austrian centralisation was doomed to fail due to its inherent faults. He became the leader of the Address Party in the parliament of 1861, and even though they failed to bring the monarch to accept their ideas, he increasingly managed to take over the initiative over time.

Based on his earlier proposals, in 1865 Deák published his so-called Easter Article – which radically influenced Hungarian politics of the time – and until 1867 he virtually devoted all his time to reaching a compromise with the Hapsburg dynasty. After the compromise between Austria and Hungary ratified in 1867, Hungary was able to return to the path of social and economic development.

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