Report on financial stability

Márton Nagy

MNB Club

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MAGYAR NEMZETI BANK

Key risks

- Deteriorating lending capacity stemming particularly from liquidity side raises the risk of a credit crunch, mainly in the corporate sector
    - Strong outflow of external funds in regional comparison continues or accelerates; the outflow may become the cause of subdued lending, instead of consequence
    - Heavy reliance of the banking sector on the FX swap market results in a significant vulnerability
    - Further deterioration in corporate portfolio quality may significantly worsen banks’ liquidity

The risk of drastic credit contraction = credit crunch

Two considerably different cases need to be distinguished

Current situation

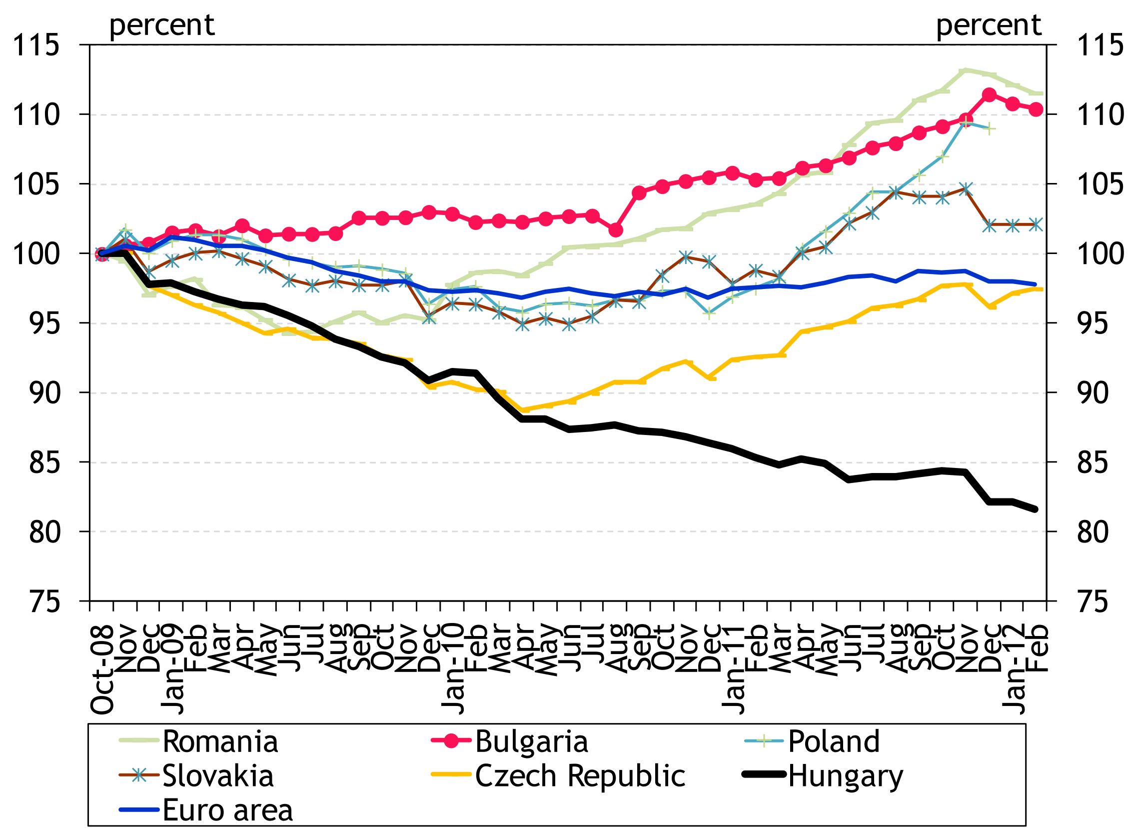
- Credit contraction: production capacities decline due to amortisation, investments aimed at replacing amortisation or new invesments fall behind resulting in small decrease in potential GDP

- Credit crunch: decaying capital stock due to the bankruptcies of viable companies, as a consequence, marked contraction in potential GDP

Risk

Severe contraction compared to regional peer countries

Corporate lending in international comparison (October 2008=100; exchange rate adjusted)

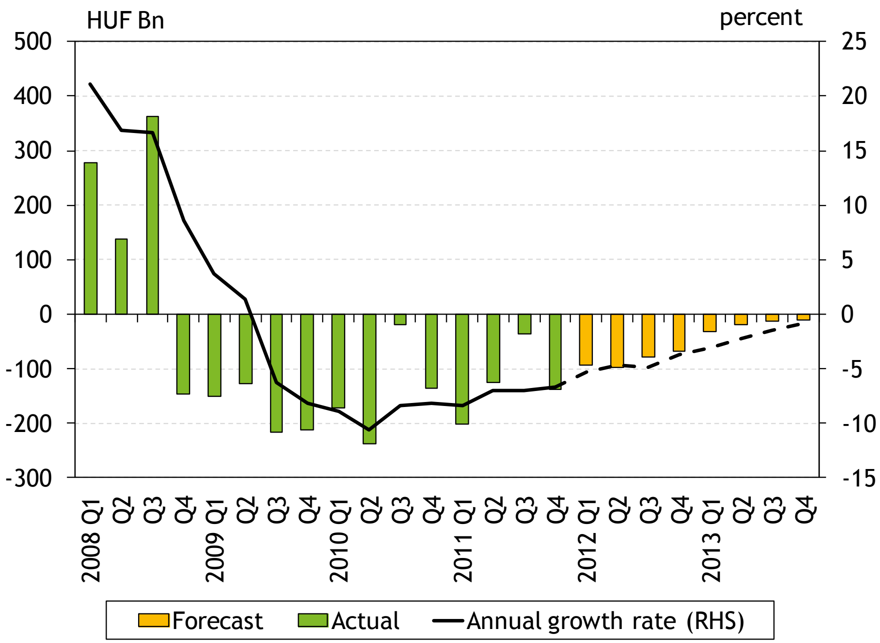


Source: Central banks of the countries, MNB.

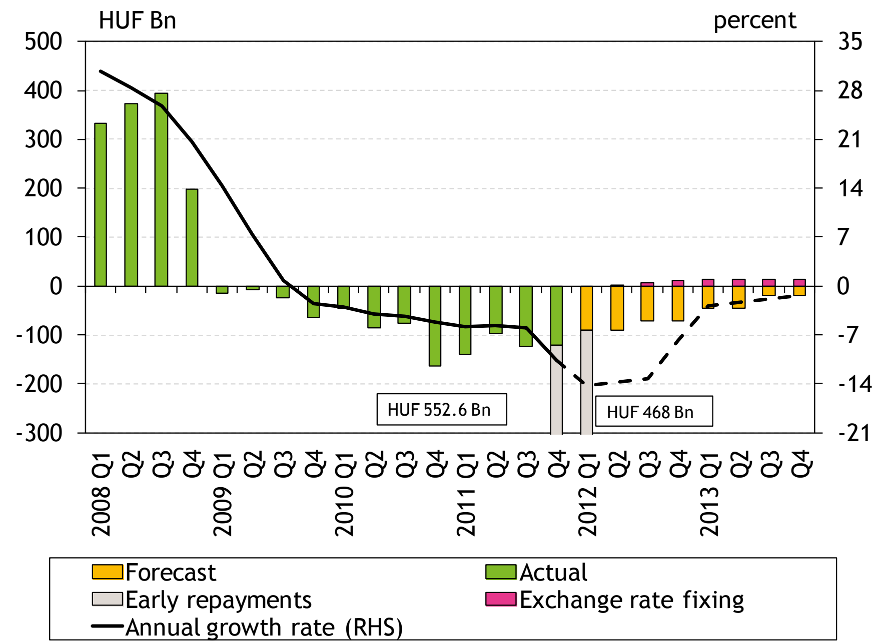
Turnaround in lending is not expected until end-2013

Lending forecast

Corporate



Household

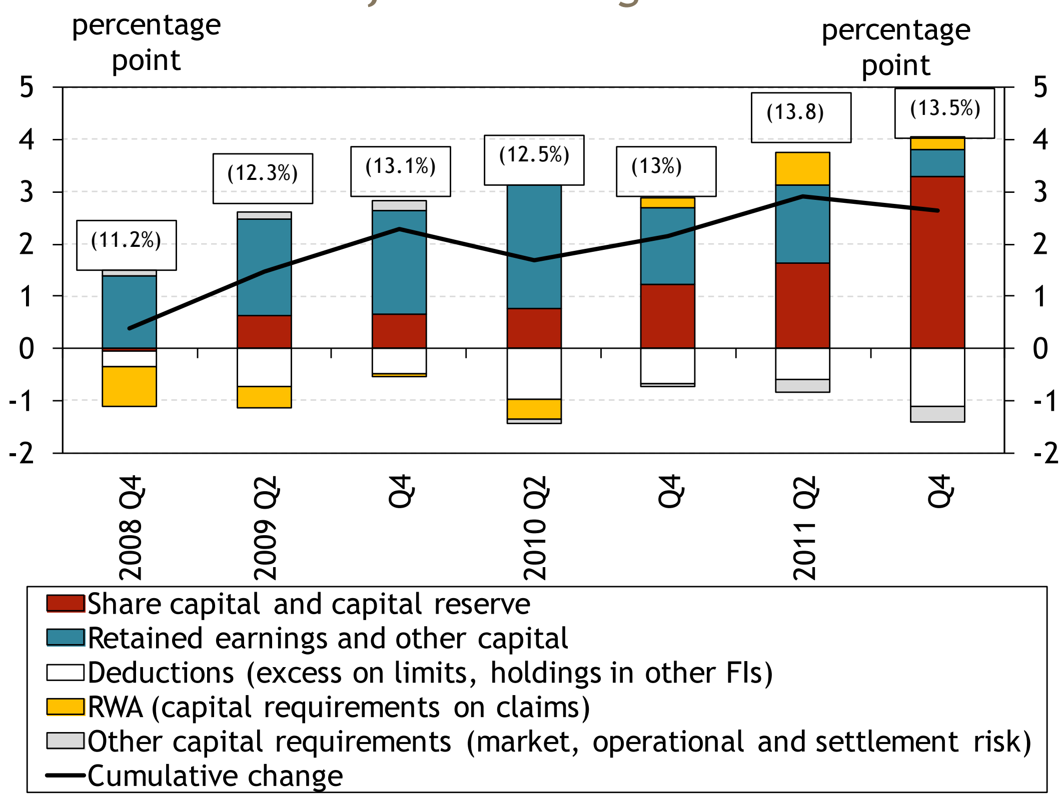


Source: MNB.

Capital position is strong, it is not an underlying risk for credit contraction

Losses from early repayment scheme and deterioration in portfolio quality were offset by capital injections of parent banks

Factors affecting the cumulative changes in the capital adequacy ratio of the banking sector



Note: capital injections of parent banks to their subsidiaries amounted to HUF 350 bn (~EUR 1.2 bn) in end-2011 and early 2012.
Source: MNB.

In the stress test, the escalation of euro are sovereign debt crisis is quantified

Macroeconomic scenarios in the stress test

	Baseline scenario		Stress scenario	
	2012	2013	2012	2013
GDP*	0.1	1.5	-1.1	-0.7
Sovereign CDS spread (bp)	546	475	743	811
Yearly average of HUF/EUR exchange rate	297		331	
Yearly average of HUF/CHF exchange rate	247		276	
Employment* - public sector	-2.0	-0.2	-2.0	-0.2
Employment* - private sector	-0.1	0.5	-1.0	-2.0
House prices*	0.0	0.0	-10.0	-10.0

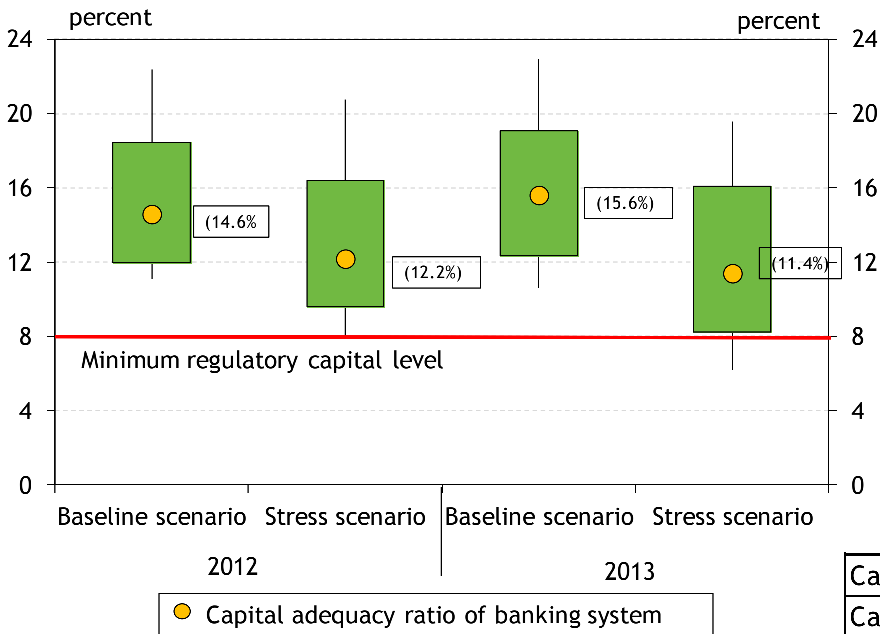
Assumptions on foreign currency denominated mortgage loan schemes (both in baseline and stress scenarios)	
Ratio of borrowers opting for the new exchange rate cap	90%
Ratio of non-performing FX mortgage loans eligible for conversion into HUF	20%
Rate of converted loans regaining performing status	50%

* yoy percentage change

Source: MNB.

Stress test shows strong resilience of banks…

Distribution of CAR based on number of banks at the end of 2012



Vertical stick refers to the interval of 10-90 percent, while rectangle refers to the interval of 25-75 percent

Results of stress test based on 8 percent regulatory capital requirement

	Baseline scenario		Stress scenario	
	2012	2013	2012	2013
Capital need of banks (HUF Bn)	0	-12	-27	-83
Capital buffer of banks above 8 percent CAR (HUF Bn)	1,117	1,294	803	691
Total capital buffer (HUF Bn)	**1,117**	**1,282**	**776**	**608**

Source: MNB.

…due to the capital injections, balance-sheet adjustment and exchange rate cap scheme

Scenarios and results of previous MNB credit risk stress tests

	April 2009	October 2009	April 2010	November 2010	April 2011	November 2011	April 2012
HUF/CHF exchange rate baseline/stress scenario	192/221	180/209	188/220	203/234	212/257	237/275	237/275
CDS spread baseline/stress scenario (basis point)	540/740	220/420	190/390	320/520	260/500	450/740	450/740
Average of GDP growth rate in stress scenario (per cent)	-10.5	-6.3	-1.6	0.1	0.9	-0.4	-0.4
Capital need in stress scenario (HUF Bn)	**300**	**170**	**50**	**50**	**83**	**196**	**83**
End of stress test horizon	End of 2009	End of 2010	End of 2011	End of 2011	End of 2012	End of 2012	End of 2013

Source: MNB.

Deteriorating lending capacity stemming particularly from liquidity side raises the risk of a credit crunch, mainly in the corporate sector

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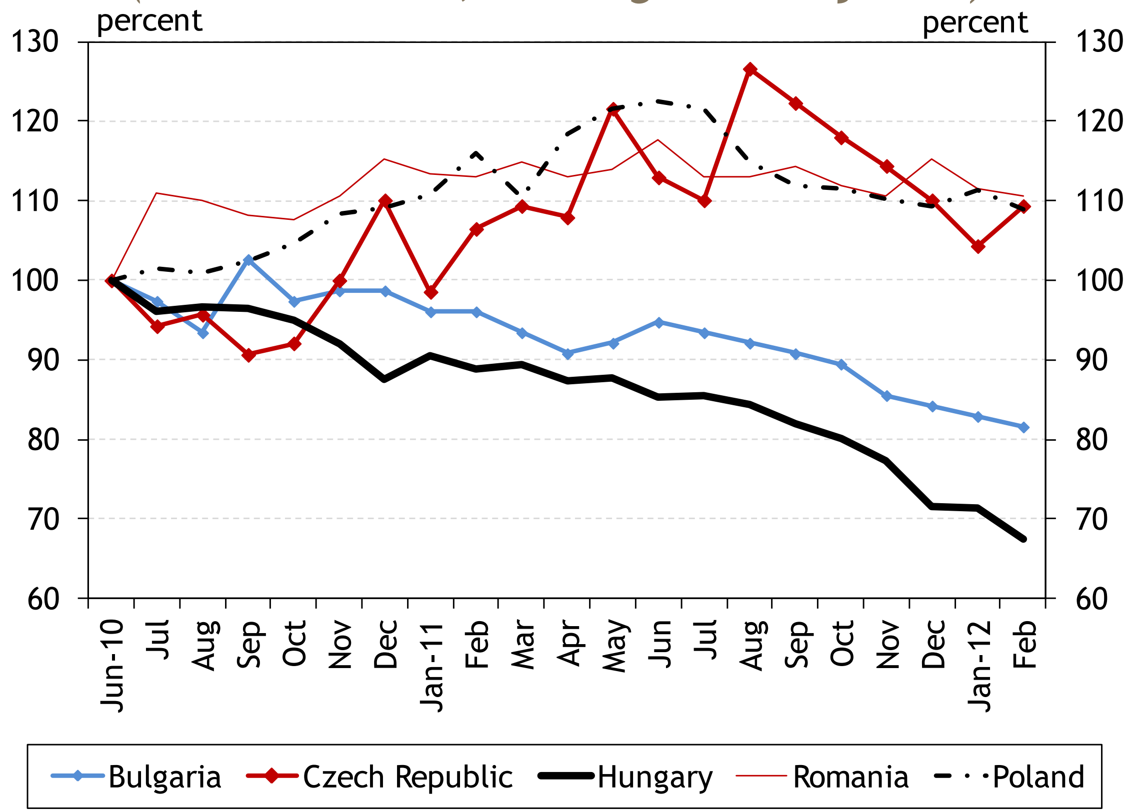
Strong outflow of external funds in regional comparison…

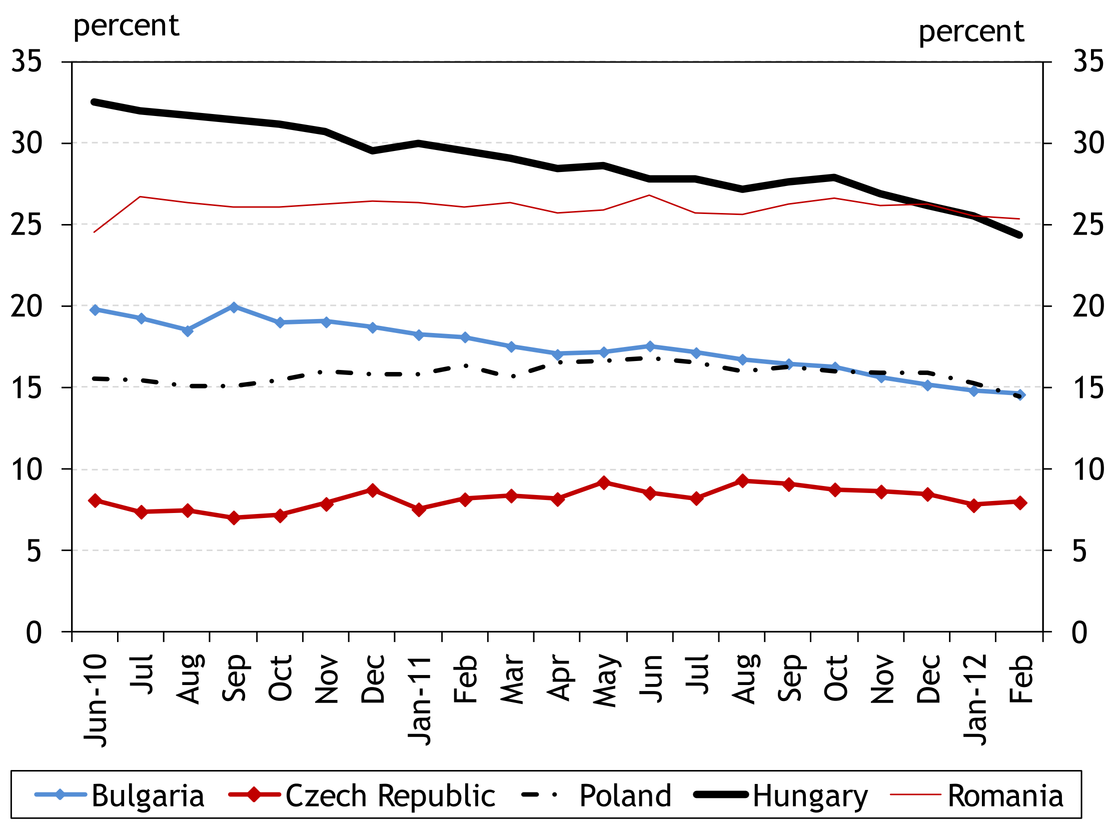
Changes in external funds in international comparison (June 2010 =100, exchange rate adjusted)



Note: The outflow of external funds has amounted to HUF 3500 bn (~EUR 12 bn) since June 2010.
Source: ECB, MNB.

…although still heavy reliance on external funding

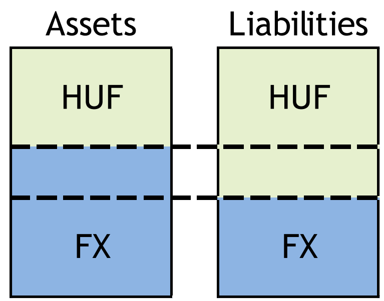
External funds relative to the total assets in international comparison



Source: ECB, MNB.

A build-up of FX swap exposure points to an excessive outflow of external funds

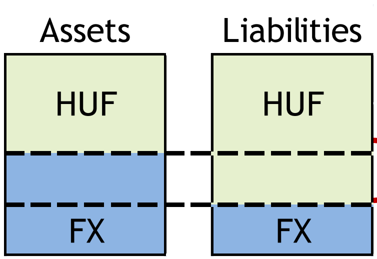
Starting point



FX swap (to hedge on-balance sheet FX position)

Deleveraging

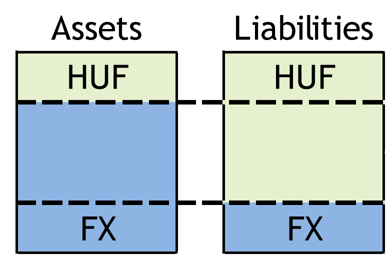
Sound outflow of external funds



FX swap exposure is unchanged

Repayment of external funds by maturing foreign currency denominated assets

Excessive outflow of external funds

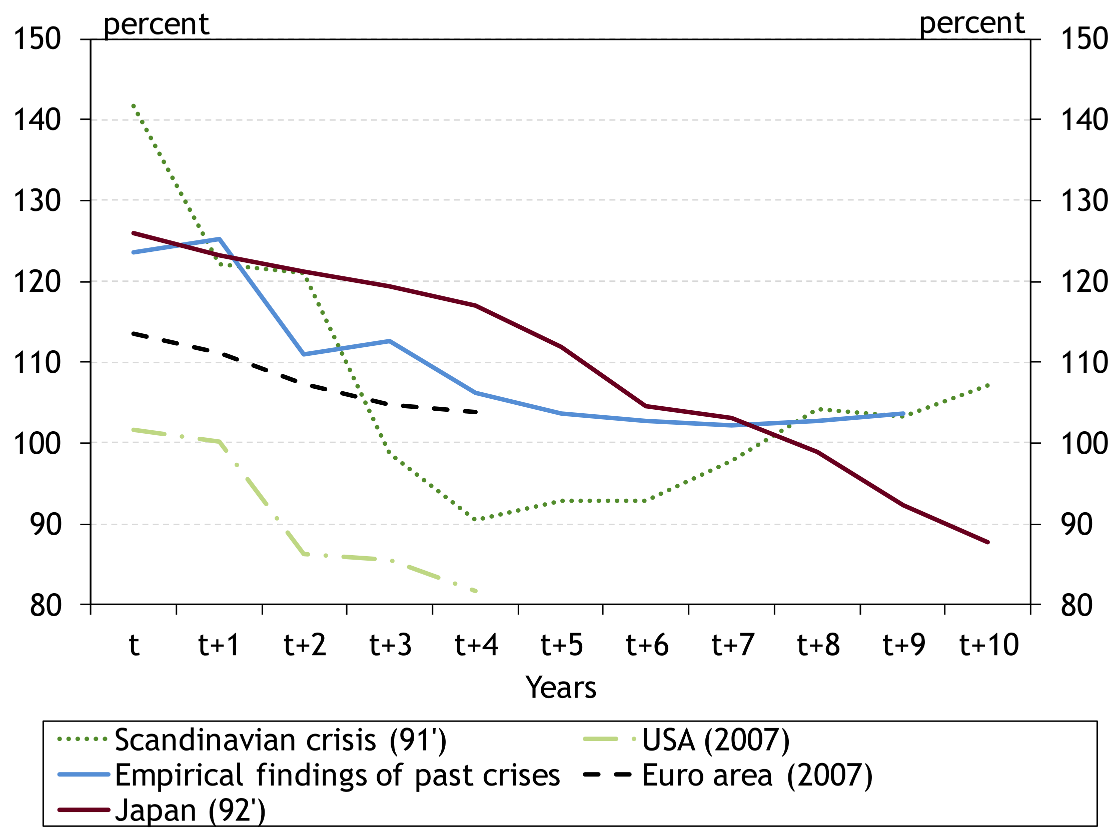


FX swap exposure grows

Repayment of external funds by HUF liquidity

1. reason: Pace of the deleveraging in the European banking sector poses a risk…

Loan-to-deposit ratios on the basis of crisis experiences



Source: Felcser et al (2010), Fed, BoJ, ECB.

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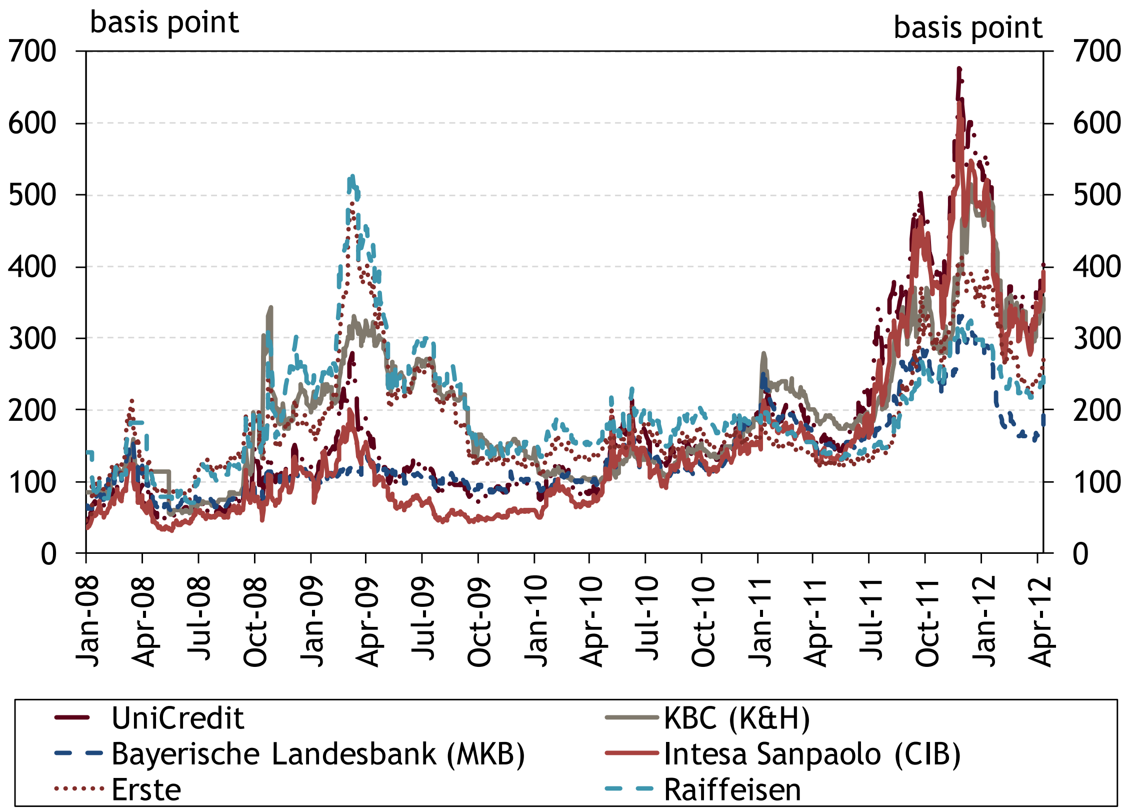
…coupled with deteriorating funding environment

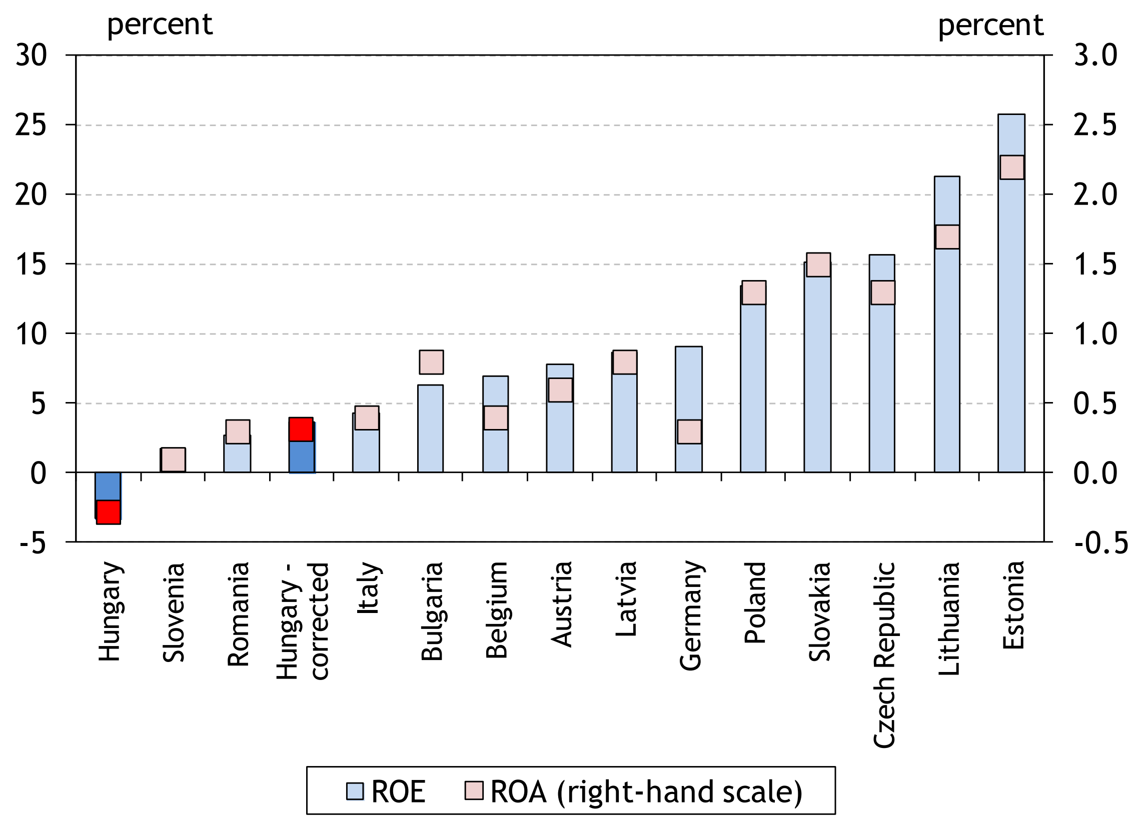
5-year CDS spreads of parent banks



Source: Bloomberg.

2. reason: Weak profitability of domestic banks may prove to be a significant disadvantage in the competition for external funds…

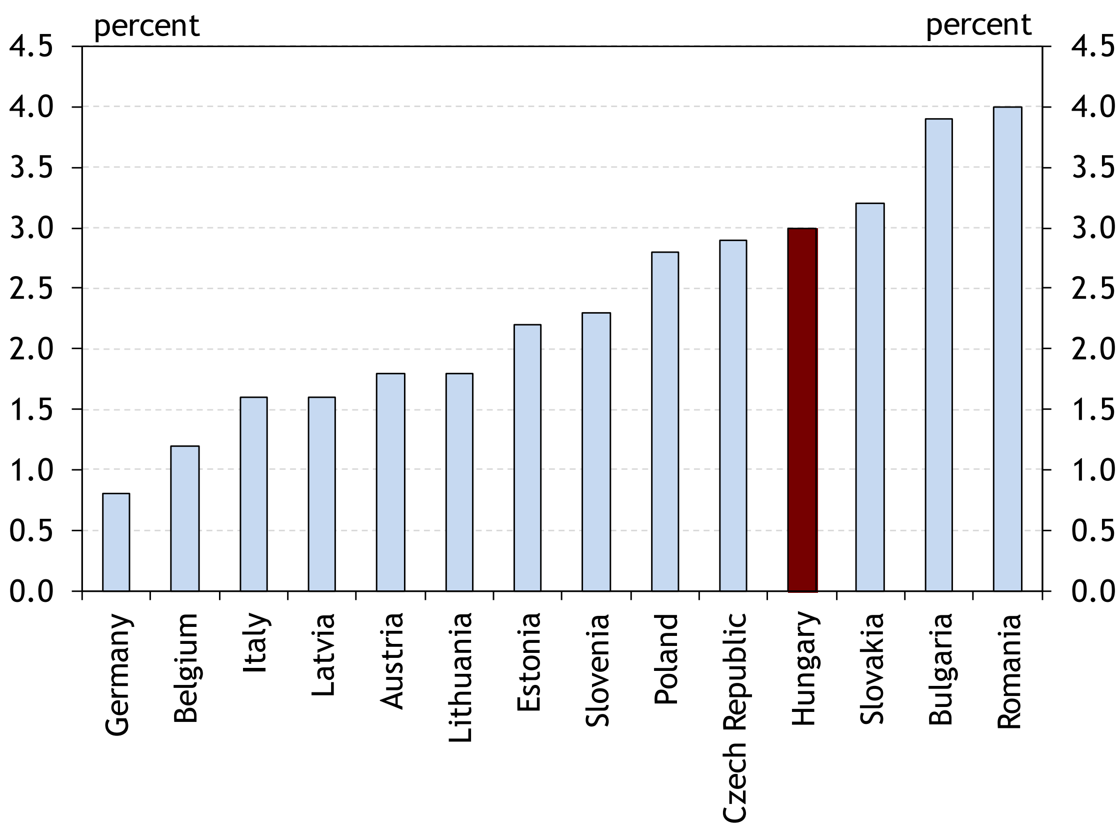
After-tax profitability indicators of the banking sector



Note: Adjusted figure excludes the impact of early repayment scheme and the bank levy.
Source: MNB, ECB CDB database.

…however profitability can be restored easily due to high interest margins

Net interest margin (net interest income / balance-sheet total)



Source: MNB, ECB CDB database.

Proposals for slacking the outflow of external funds

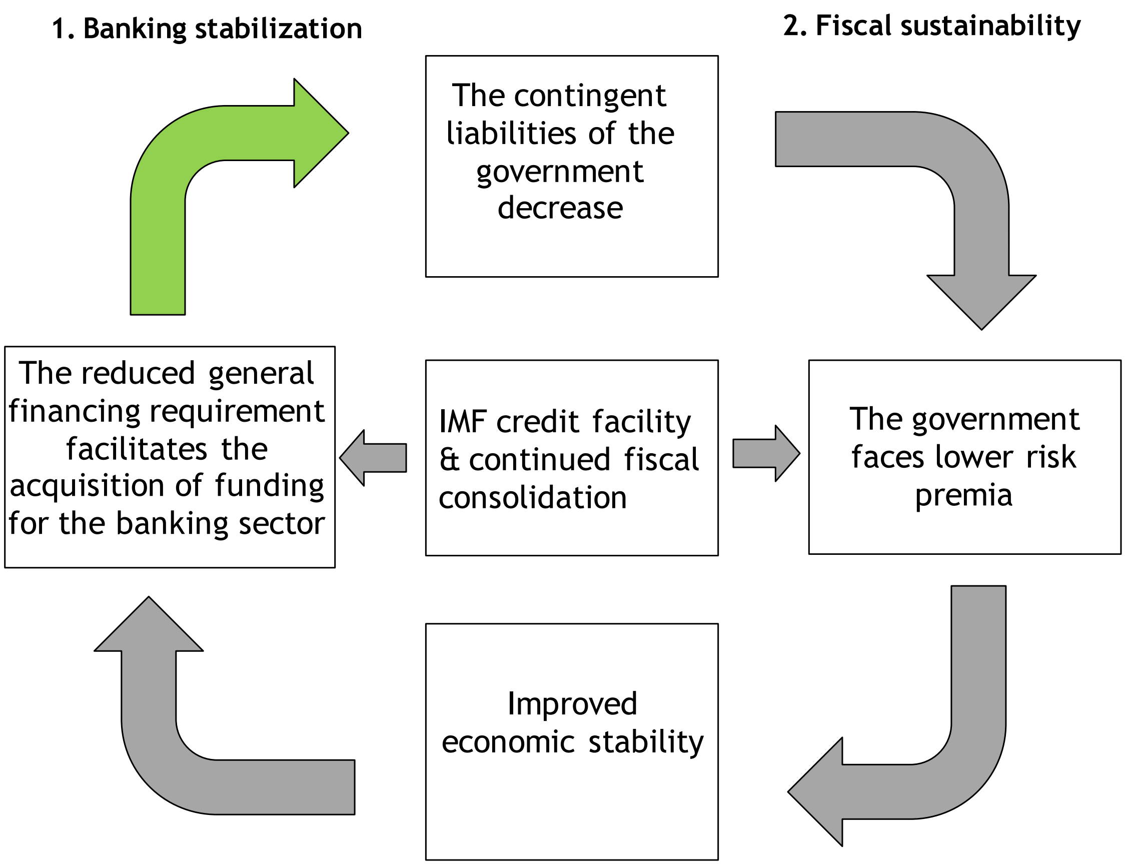
- Maintaining prudent domestic fiscal policy, further credible reduction of government debt

- Conclusion of the EU/IMF negotiations as soon as possible and strengthening parent bank commitment in funding domestic subsidiaries

- Restoration of the banking sector's ability to accumulate capital and generate income, improvement of competitiveness

An orderly deleveraging can be underpinned by the EU/IMF agreement

Benefits of the EU/IMF agreement



Deteriorating lending capacity stemming particularly from liquidity side raises the risk of a credit crunch, mainly in the corporate sector

- Strong outflow of external funds in regional comparison continues or accelerates; the outflow may become the cause of subdued lending, instead of consequence
- **Heavy reliance of the banking sector on the FX swap market results in a significant vulnerability**
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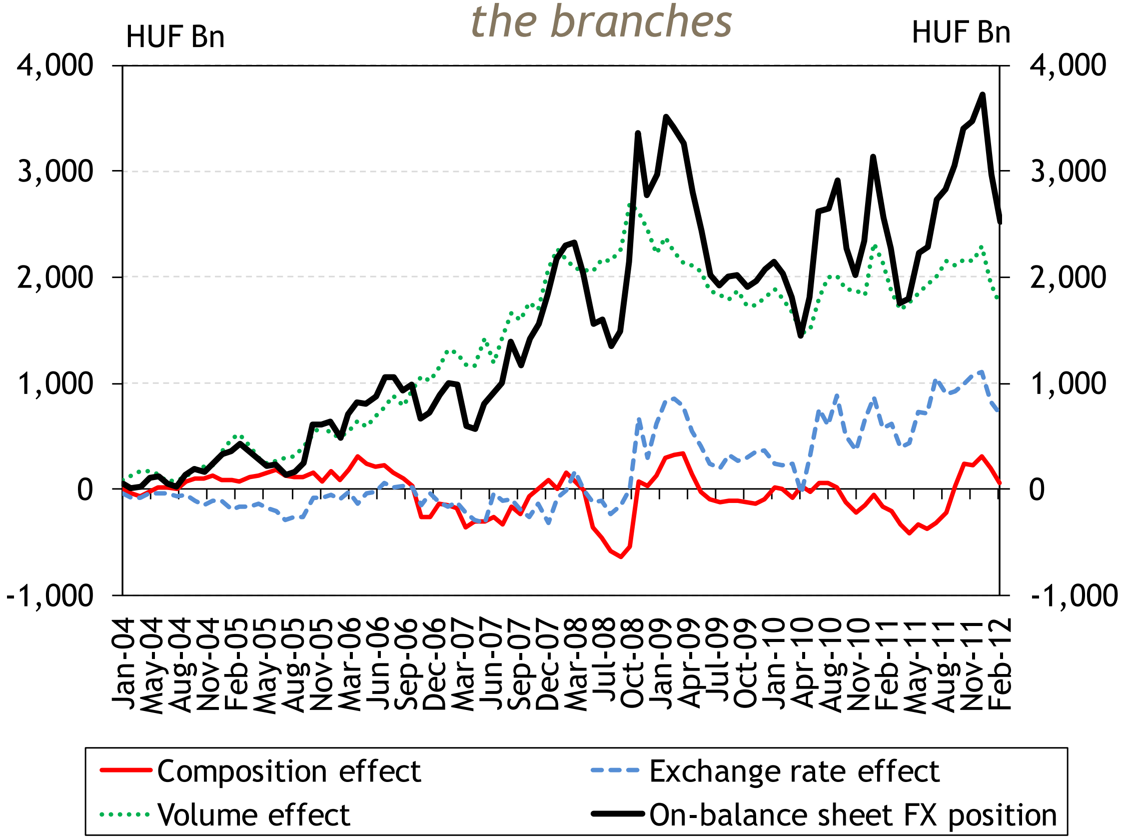
Changes in the on-balance sheet FX position and the FX swap stock hedging it were influenced by volume, composition and exchange rate effect

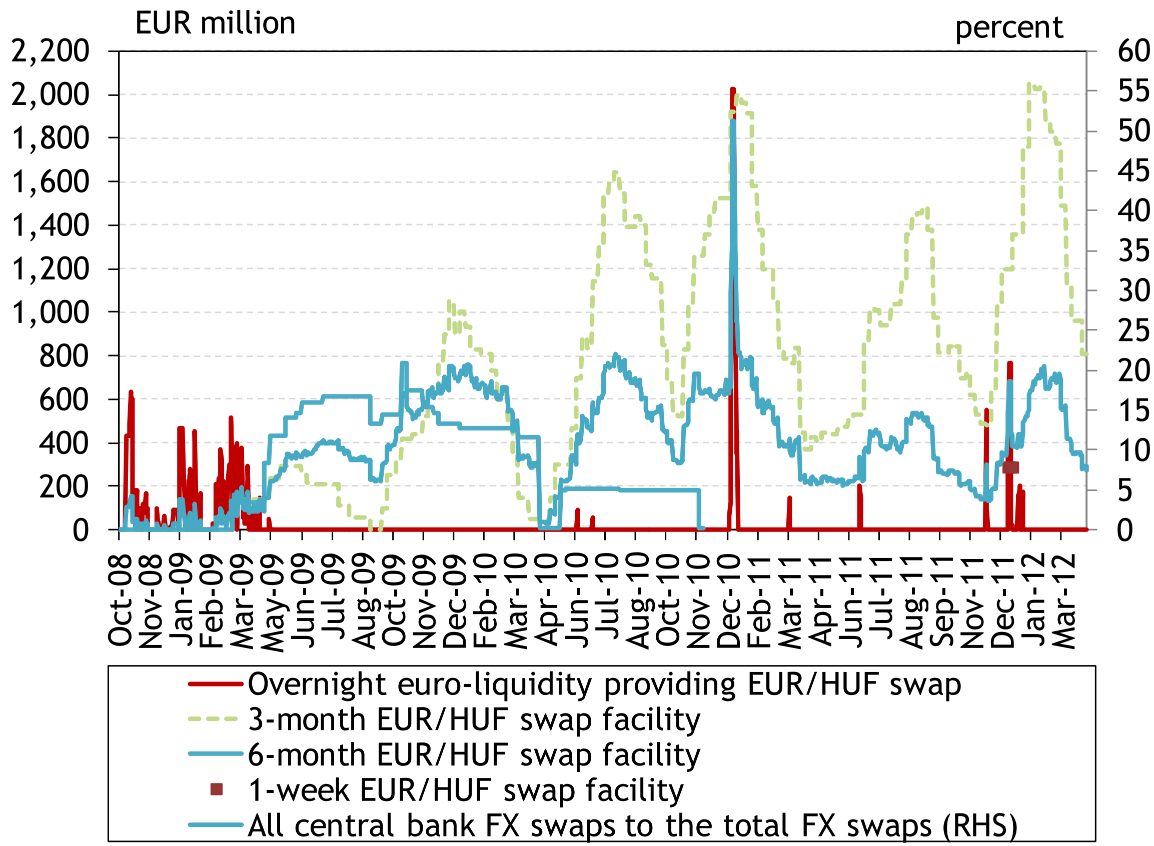
Decomposition of the on-balance sheet FX position of the banking sector and the branches



Note: on-balance sheet FX position is approximately equivalent to outstanding amount of FX swaps.
Source: MNB.

The role of MNB is significant in providing foreign exchange liquidity through swaps

Outstanding amount of the central bank EUR/HUF swap instruments



Source: MNB.

Heavy reliance on swap markets poses a serious risk to financial stability

- Margin call: the margin requirements make banks more sensitive to exchange rate volatility

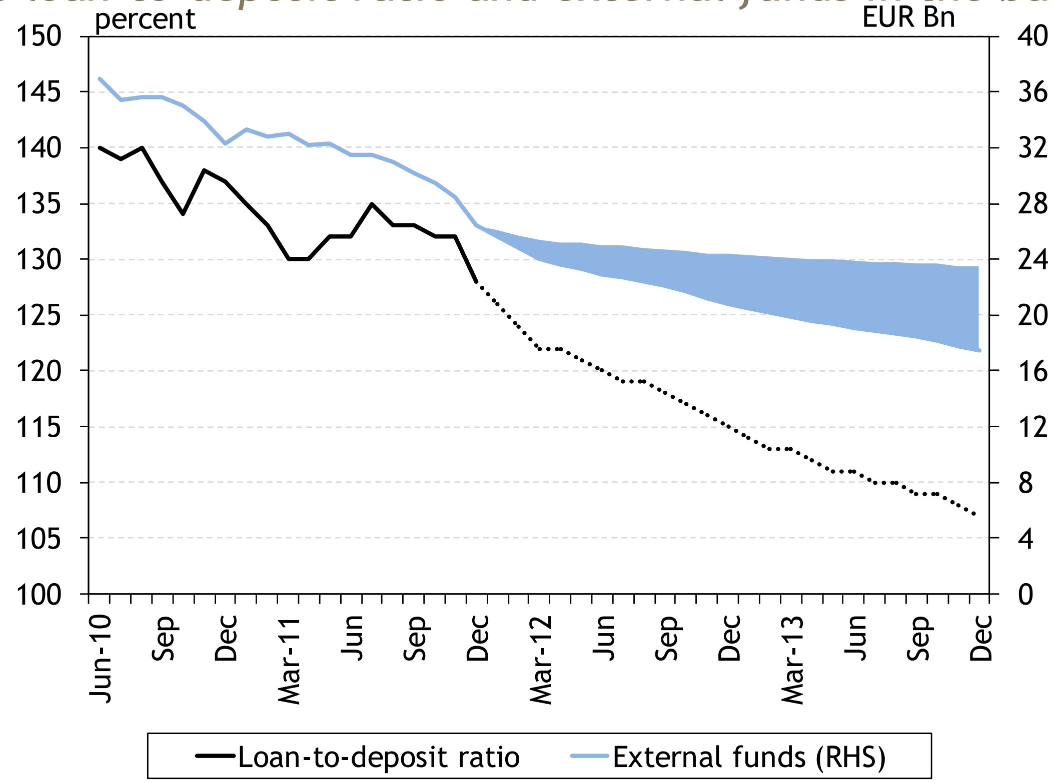
- Shorter maturities: FX swap deals has a shorter maturity than that of external funds, resulting in higher roll-over risk

- Decrease in foreign currency reserves: In case of FX swap market turmoil, or frozen markets, the MNB would intervene, given the utmost importance of them in the transmission mechanism

Introduction of a new regulation should be considered to prevent the evolvement of further swap market risks

Outflow of external funds, developments in loan-to-deposit ratio and FX swap exposure, that are consistent with the lending forecast

Banking sector's loan-to-deposit ratio and external funds in the baseline scenario



Note: at external funds, upper boundary shows when external funds are paid back through maturing FX assets and increasing FX deposits (FX swap exposure is unchanged), while lower boundary shows when repayment from higher HUF liquidity, stemming from inflow of HUF deposits or maturing HUF assets is included (FX swap exposure increases).
Source: MNB.

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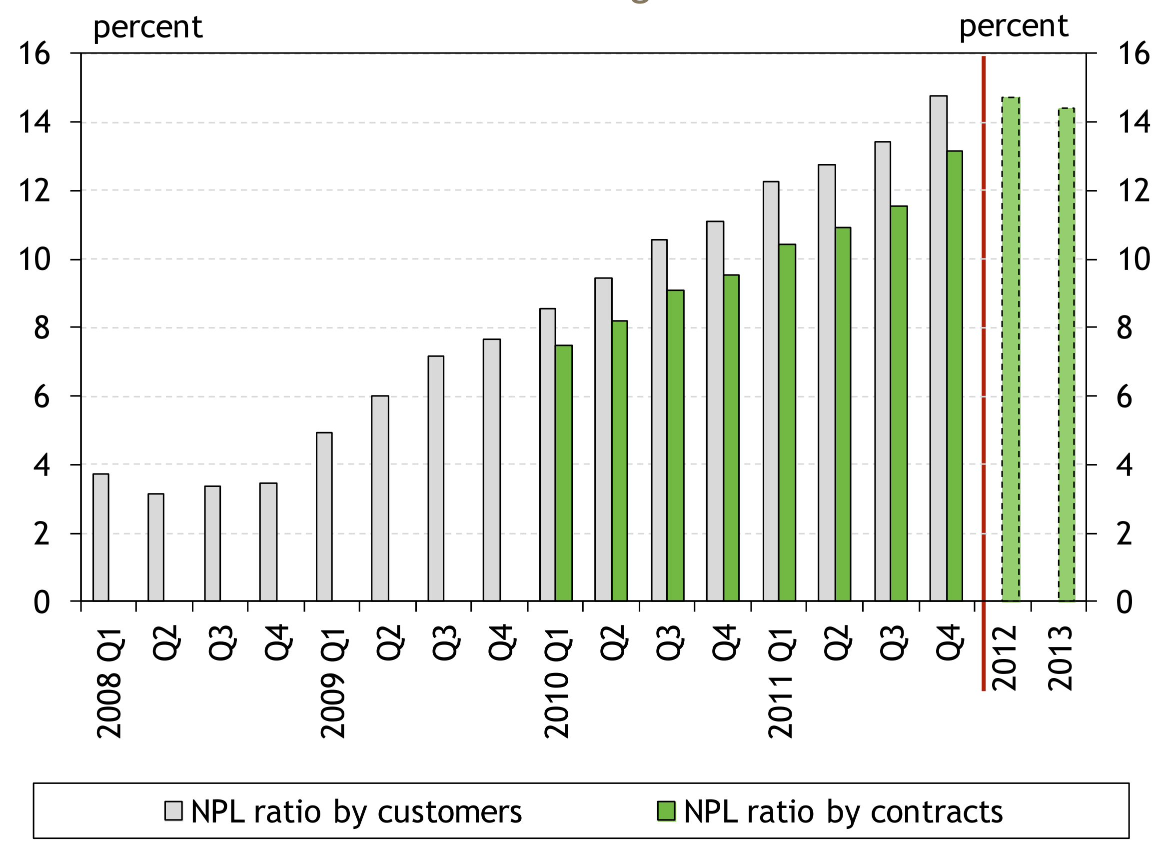
The exchange rate cap scheme may help prevent the build-up of new defaults in the household segment…

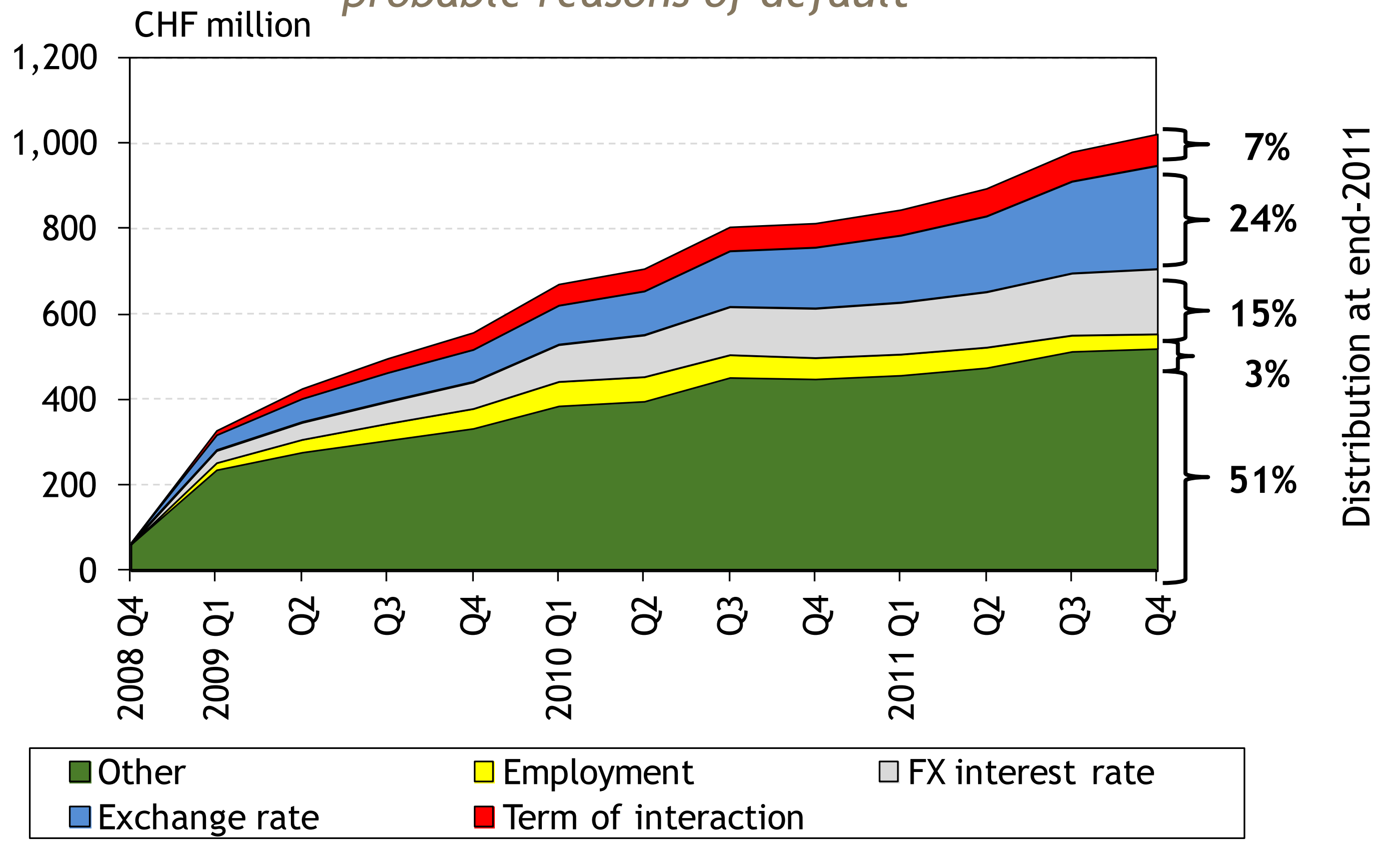
Non-performing household loans to total household loans in the banking sector



Source: MNB.

…via eliminating exchange rate risks

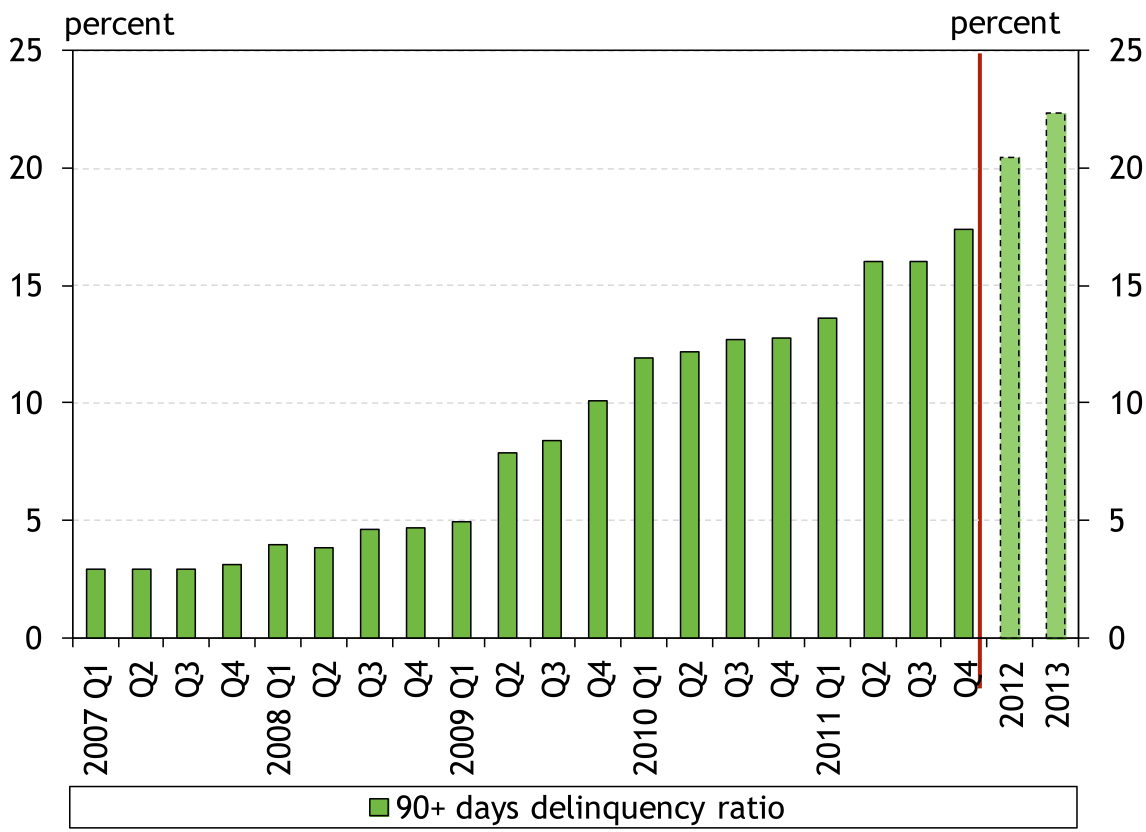
The partial breakdown of nonperforming FX housing loans according to the probable reasons of default



Source: MNB.

Further deterioration in corporate loan portfolio…

Non-performing corporate loans to total corporate loans in the banking sector



Source: MNB.

…weakens lending capacity through worsening liquidity

- Capital position does not worsen lending capacity
  - High loan loss coverage ratio
  - Stress tests show strong resilience of banks

- However liquidity position weaken lending capacity
  - NPL portfolio diverts a vast amount of funds from new lending;
  - It does not create income, and thus impairs the ability to accumulate capital and attract external funds

Proposals for the effective management of non-performing loans

- Faster insolvency procedures
- Facilitating the transfer of collaterals
- Dismantling barriers to efficient corporate restructuring (e.g. tax policies)
- Improving the efficiency of out-of-court agreements

Key risks and potential risk mitigating measures

The risk of credit crunch

Risk	Potential risk mitigating measures
Strong outflow of external funds in regional comparison continues or accelerates	•Maintaining prudent domestic fiscal policy •Earliest possible conclusion of the EU/IMF negotiations and strengthening parent bank commitment in funding domestic subsidiaries. •Restoration of the banking sector's ability to accumulate capital and generate income, improvement of competitiveness
Heavy reliance of the banking sector on the FX swap market results in a significant vulnerability	•Regulatory intervention may be needed
Further deterioration in corporate portfolio quality may markedly worsen banks' liquidity	•Faster insolvency procedures •Facilitating the transfer of collaterals, •Dismantling barriers to efficient corporate restructuring (e.g. tax policies) •Improving the efficiency of out-of-court agreements