Macroprudential and Monetary Policy Dilemmas in a Small Open Economy

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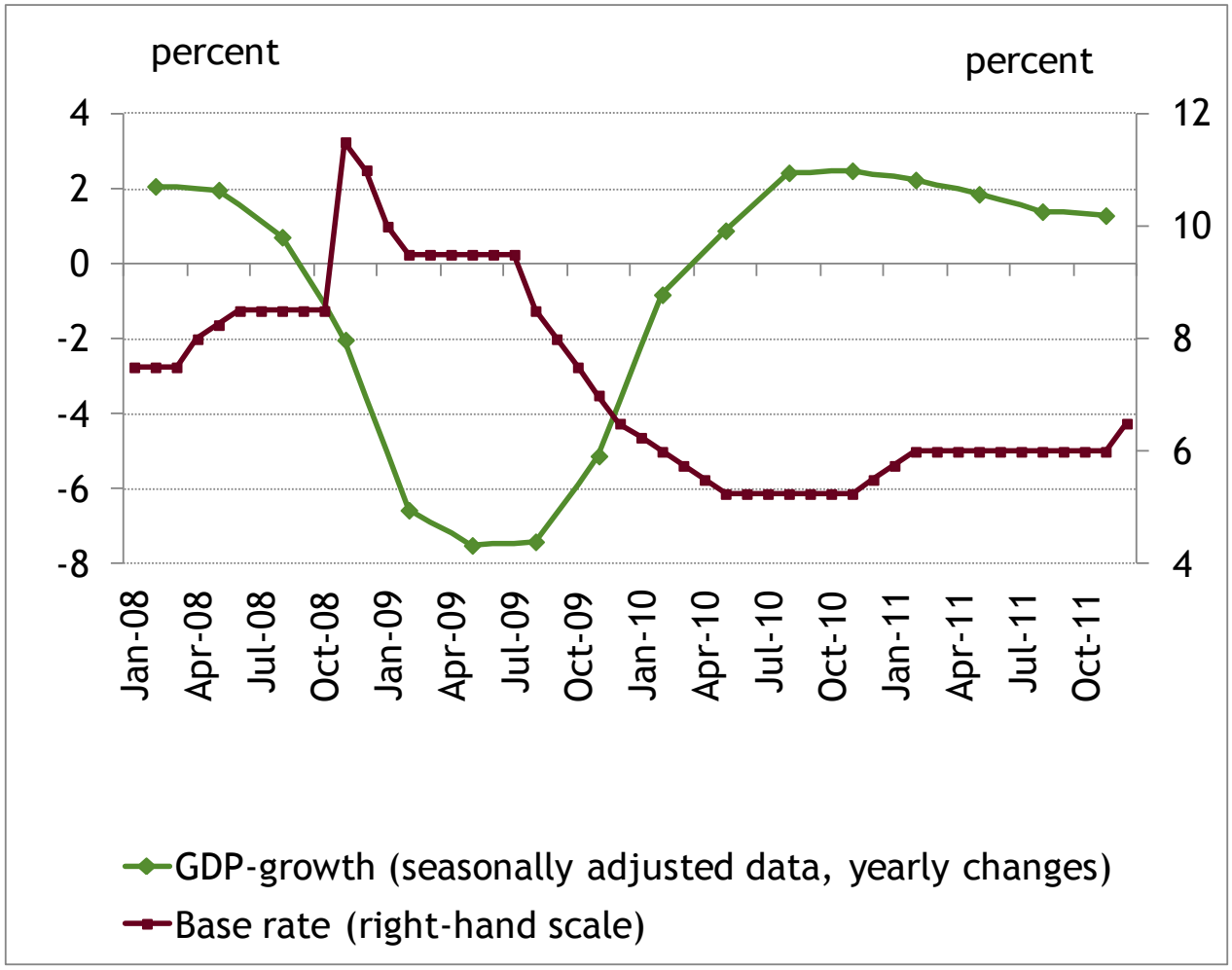
Motivation: Why Hungarian monetary policy had to be procyclical during the crisis?



Overview

- **The monetary policy framework in Hungary**
- Macroprudential policy
- FX-lending: magnitude and key drivers
- Monetary policy in the presence of FX-lending
- Implications for institution design

The monetary policy framework

- IT since 2001 (with wide ER bands until 2008, free float afterwards)
- Open economy: Exports+Imports~200% of GDP (Poland: 20-30%)
- Trade oriented towards EU: 75%, of which 55% Eurozone

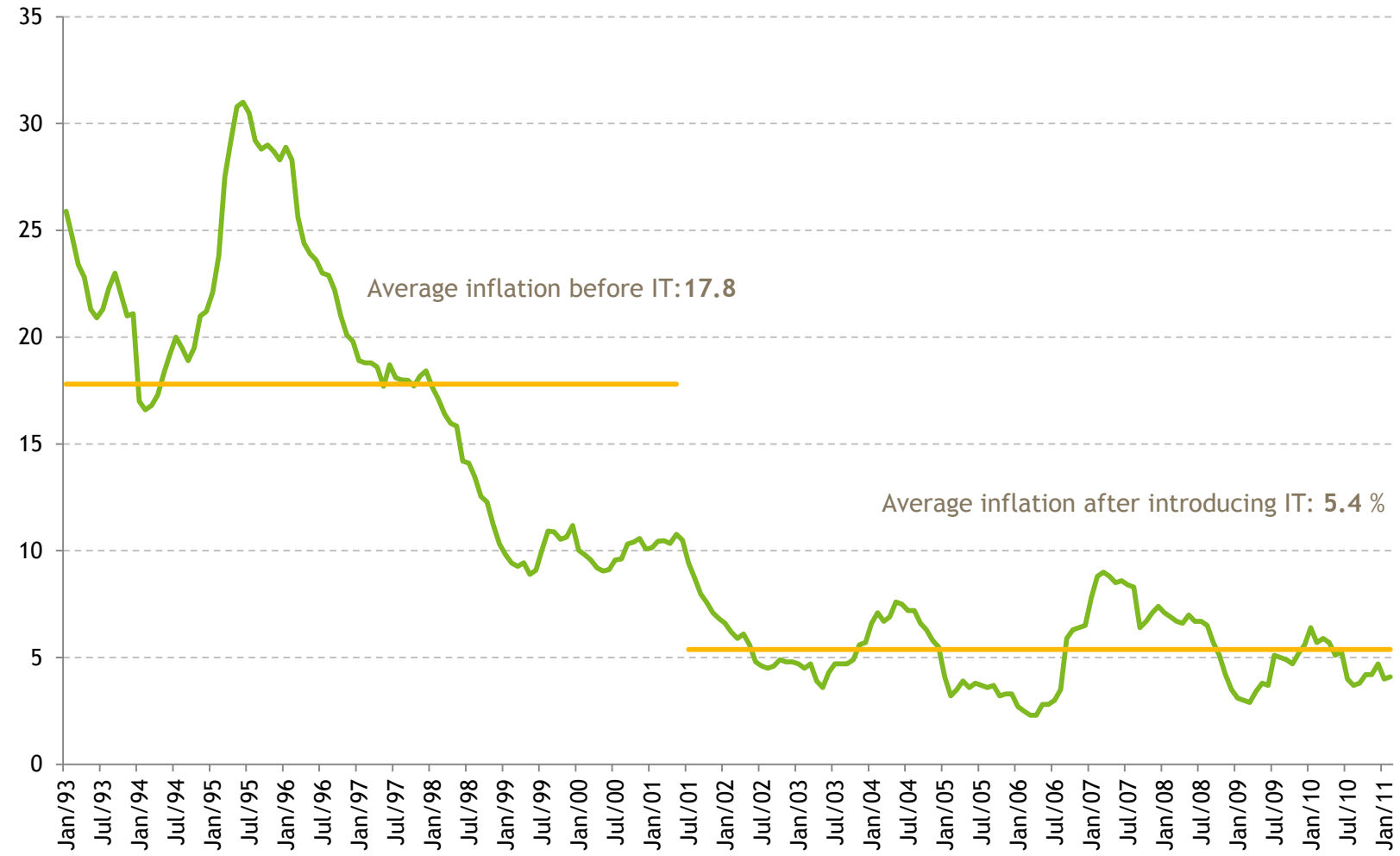
  → Exchange rate channel strong

- Financial intermediation: deepening, but still lower than in Eurozone + a large part FX-denominated

  → Interest rate channel weaker

Σ: Strong reliance on the ER channel

IT was successful in bringing down inflation…



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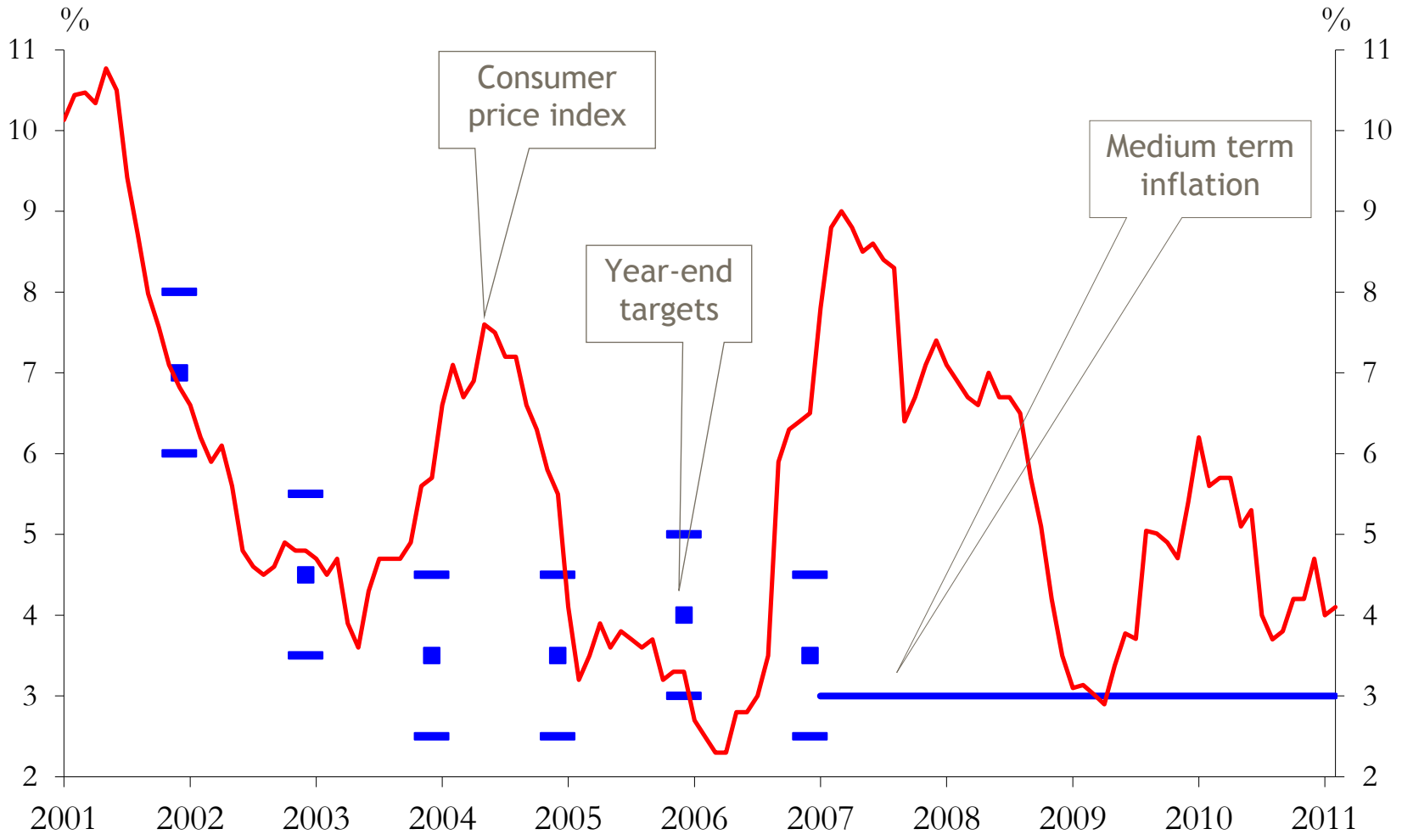
…but not in stabilizing inflation around the MNB's target(s)



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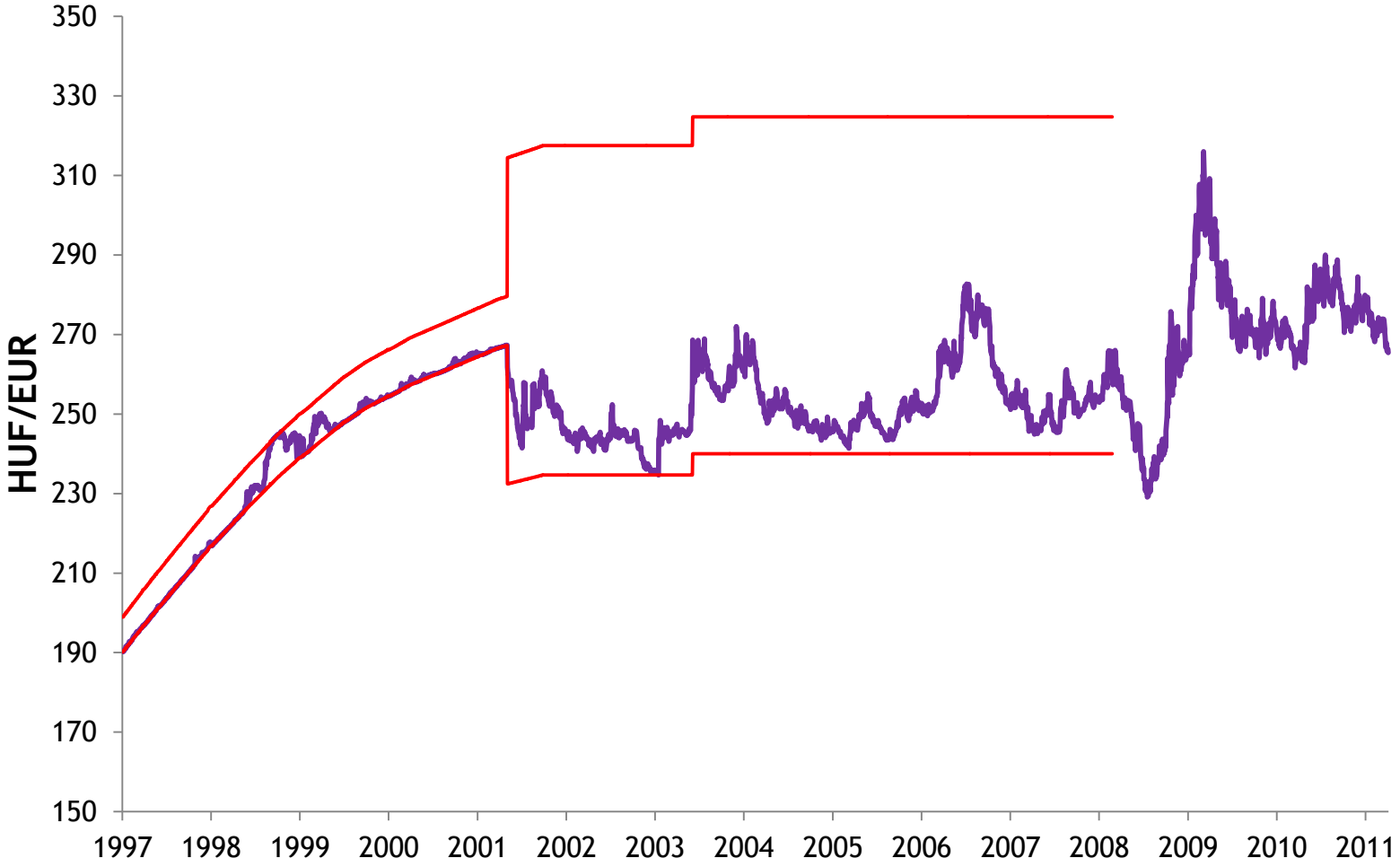
Exchange rate band inconsistent with IT



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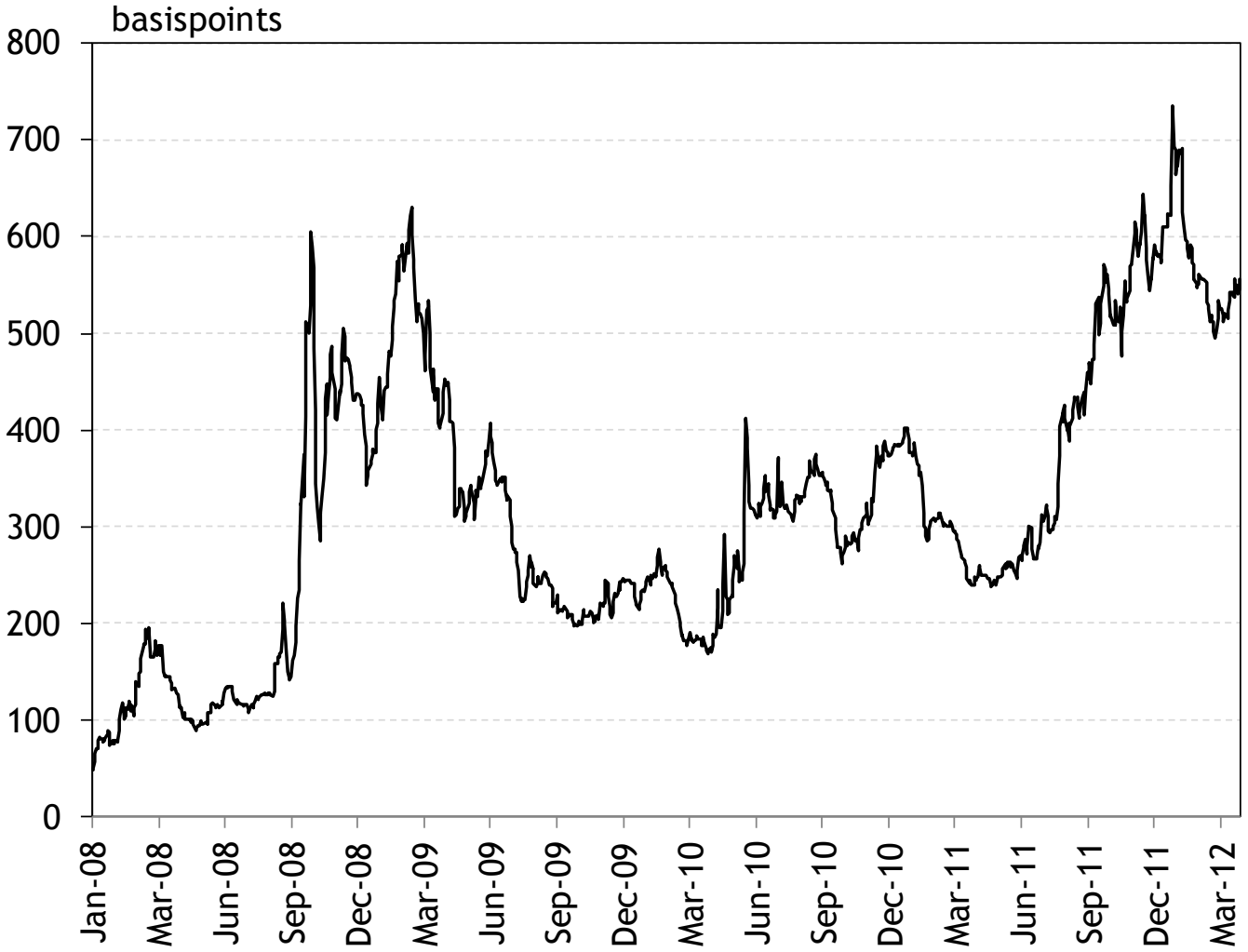
Volatile risk premium: 5-year CDS-spread



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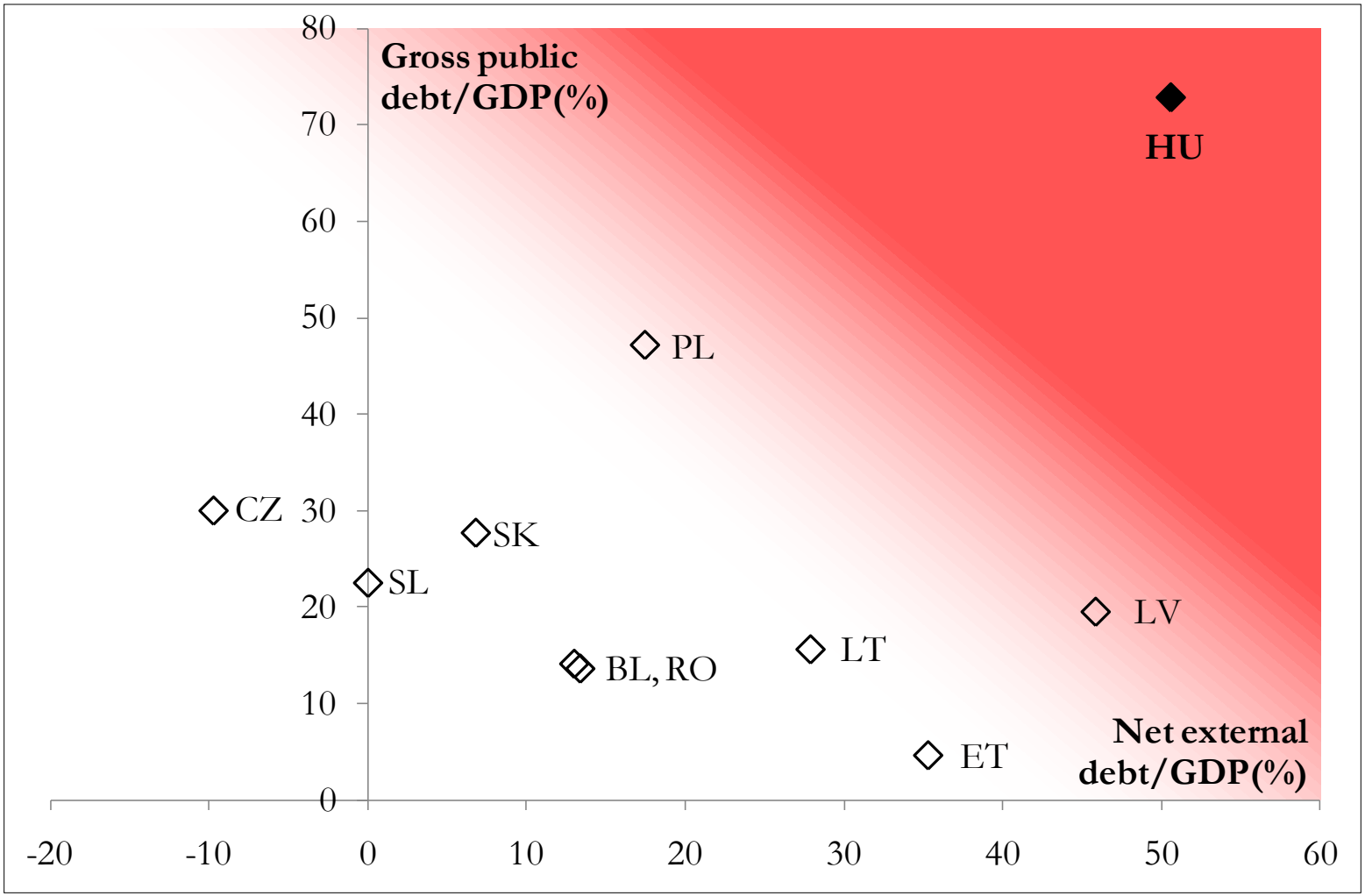
Volatile CDS spread - due to high vulnerability



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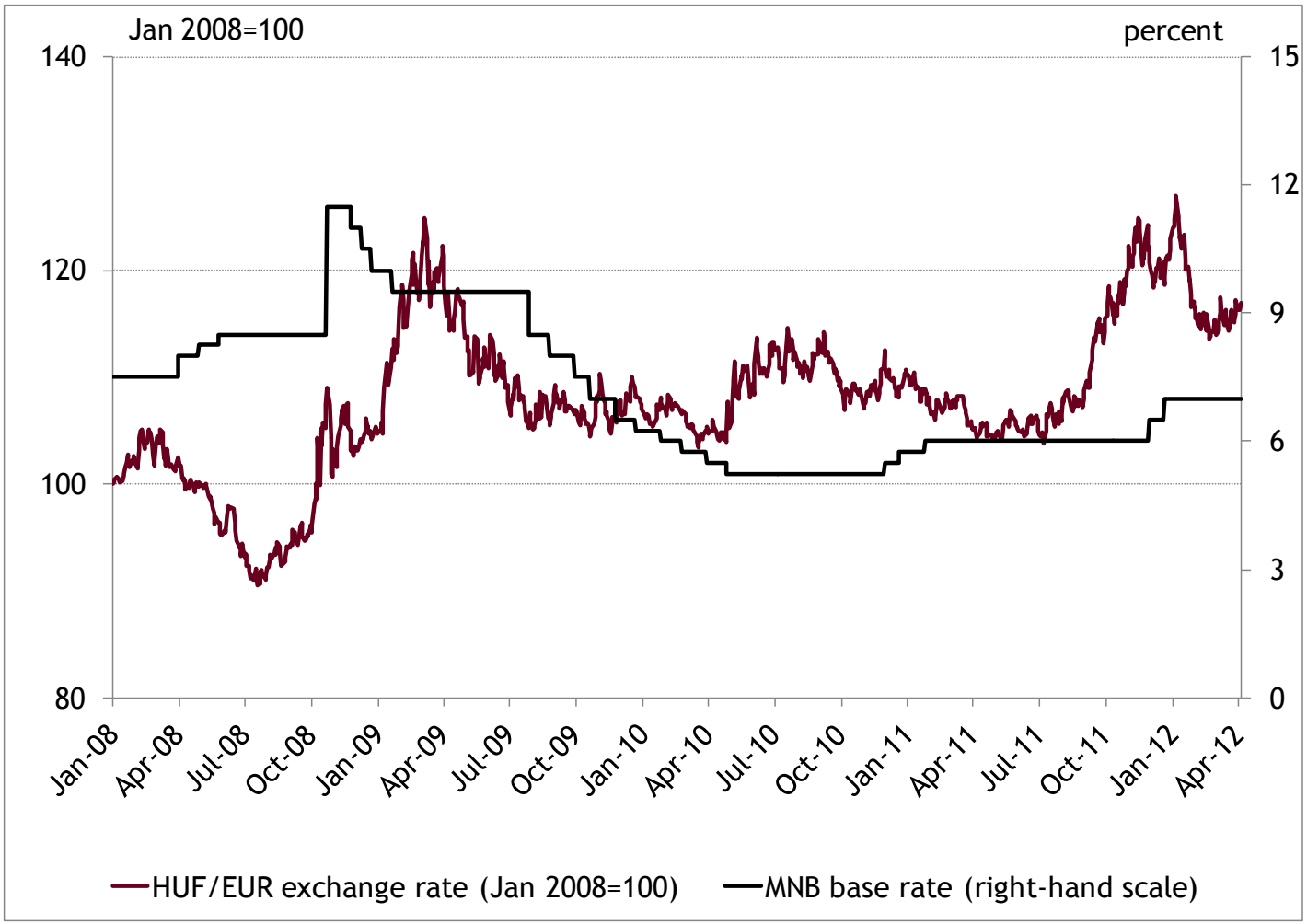
Volatile risk premium + „fear of floating”?



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- **Macroprudential policy framework**
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Types of policies aiming at financial stability

- Crisis management
  - Crisis containment: handling an acute liquidity crisis, preventing creditors/depositors run
    - LOLR (central bank)
    - Enhancing deposit insurance (fiscal authority)
  - Crisis resolution: overcoming a solvency crisis
    - Portfolio cleaning, recapitalisation, closing (fiscal authority)

- **Crisis prevention (prudential policies)**
  - Microprudential: aimed individual institutions (supervisory authority)
  - **Macroprudential:** aiming financial stability (post-crisis an increasing role for central banks) (cross border effects)

Macroprudential institutional framework in Hungary

Pre-crisis

- Tri-partite system (Financial Stability Committee):
  - Hungarian Financial Stability Authority (HFSA): microprudential supervision
  - Central bank: macroprudential monitoring – but no policy tools
  - Ministry of Finance: regulatory power
- **No clear mandate for macroprudential regulation and supervision**
- No proper alignment of responsibilities and tools
- Example: MNB sent regular warnings (both to the FSC and publicly) about the risks of FX lending, but this was not followed by policy action by MinFin or HFSA

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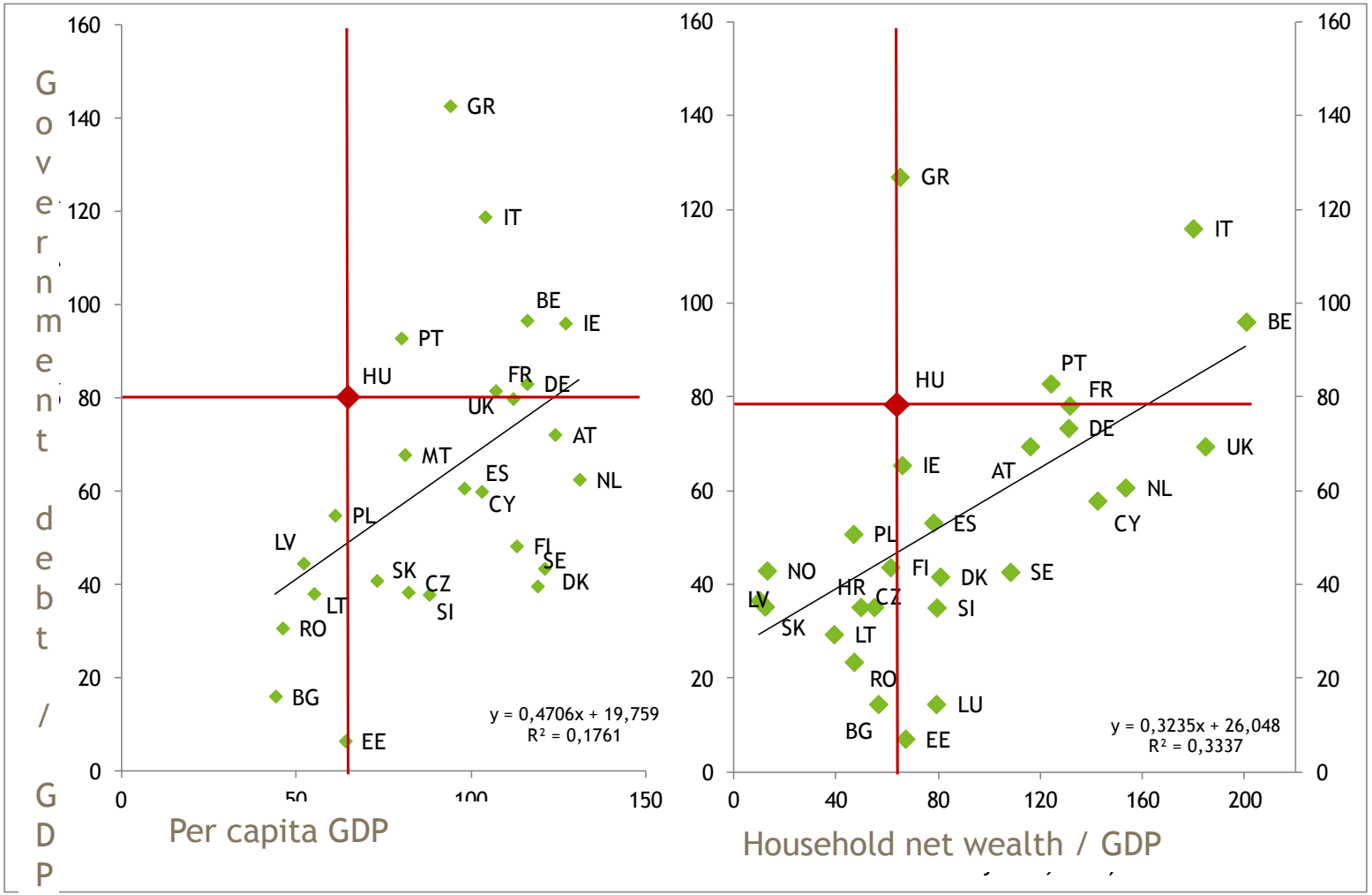
Household savings proved to be low - with compared with the high government debt



Source: Eurostat

FX lending – reasons and consequences

HOUSEHOLDS

- Classical dollarization
- Short planning horizon - optimism
- Gambling motive

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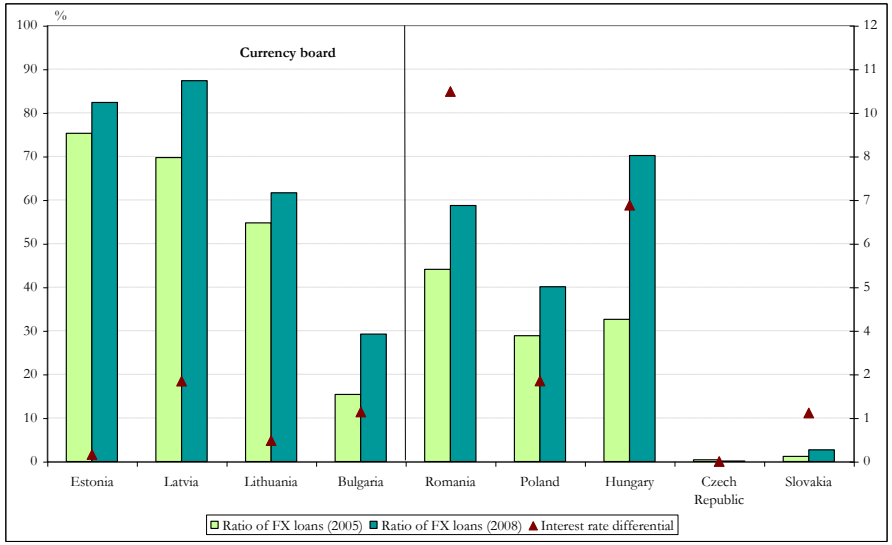
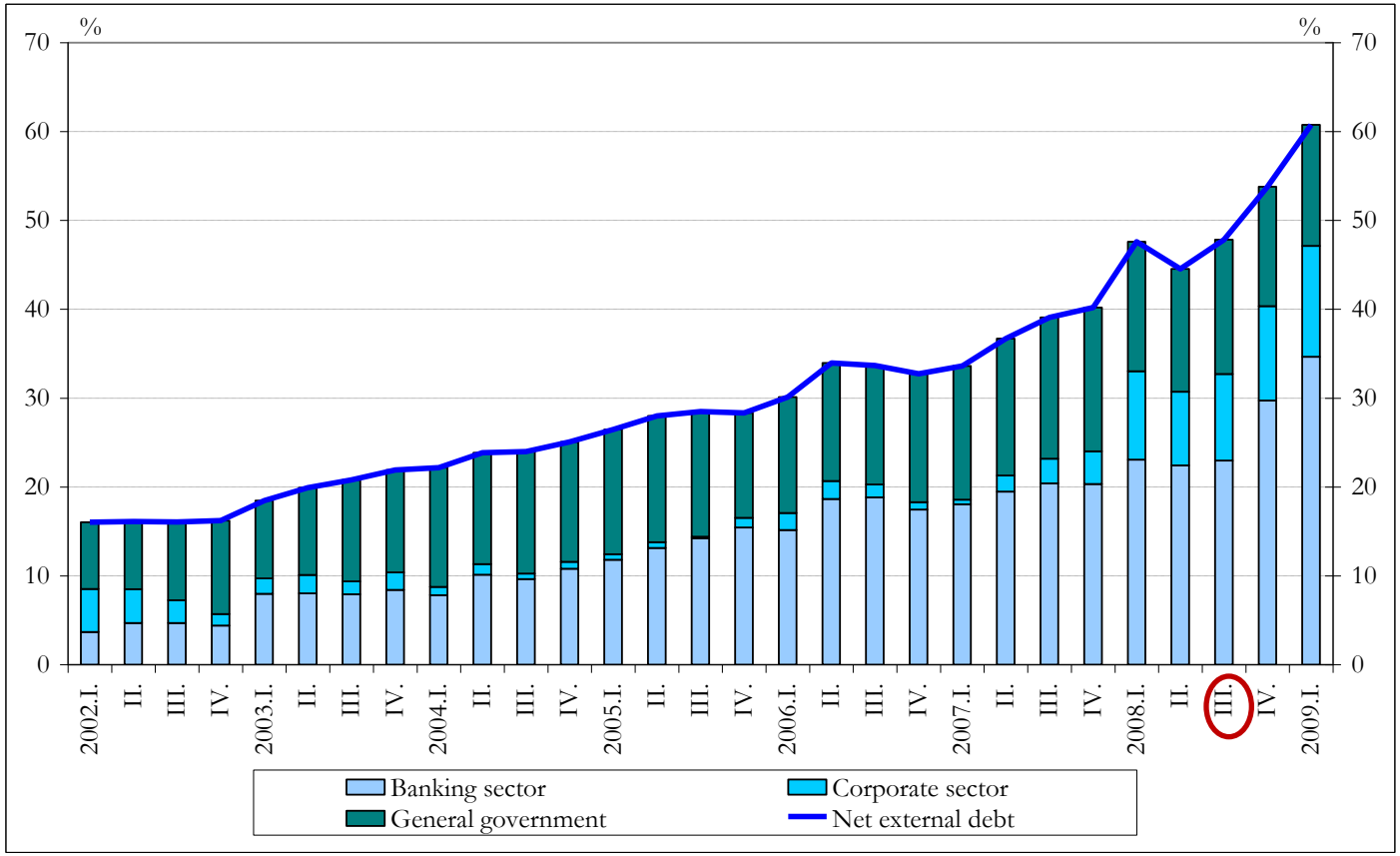
- Liquidity awash
- Cheap funding and cheap swaps – lack of long term local funds
- Risk based competition („Ninja-loans”

All in all: lack of effective macroprudential regulation

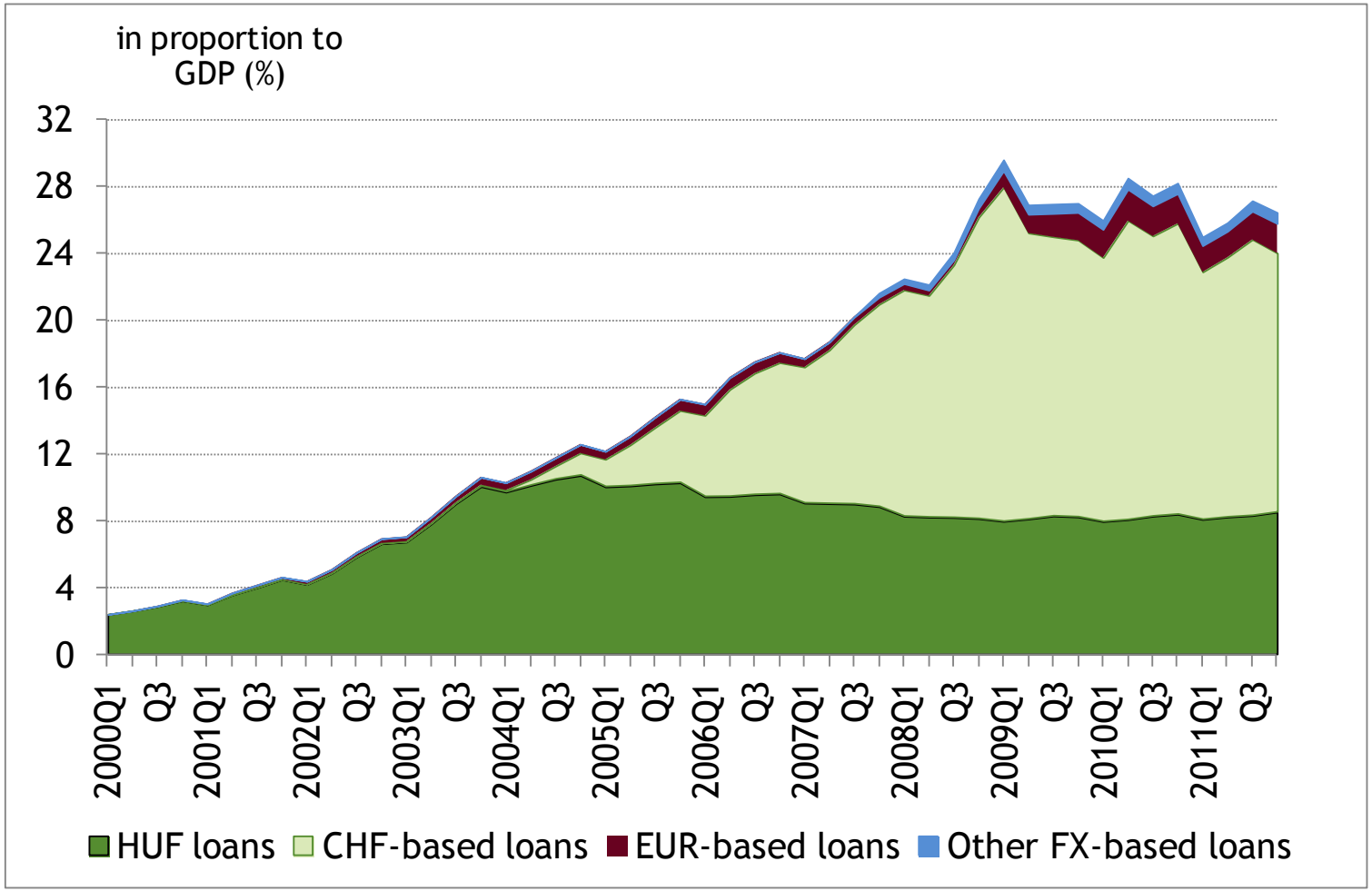


Net external debt – a kind of private credit boom



(the 12-percent debt service to the GDP rate was not too high, relatively (1995: 33%))

Stylised facts on (unhedged) FX lending



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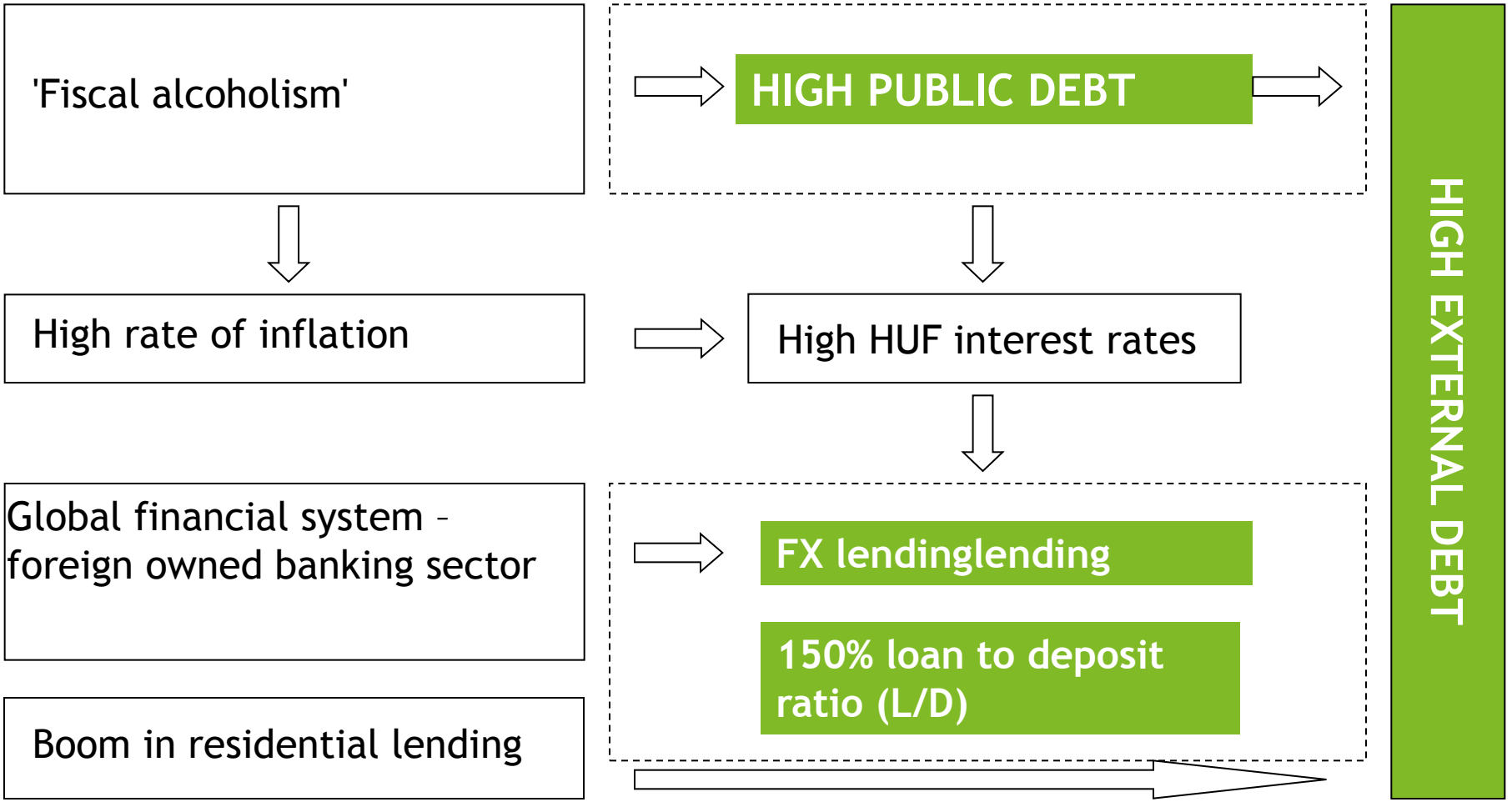
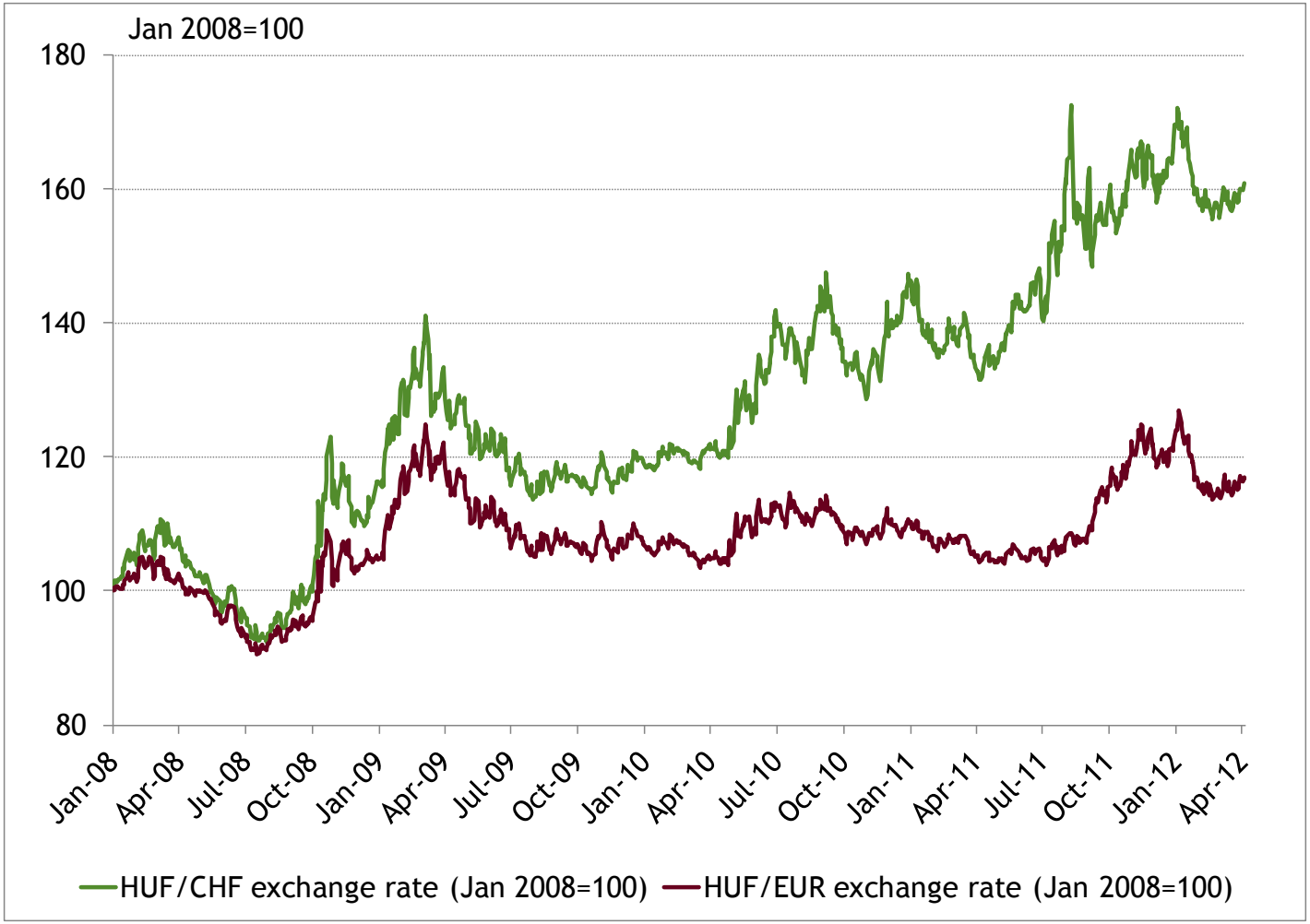
FX lending - and the background



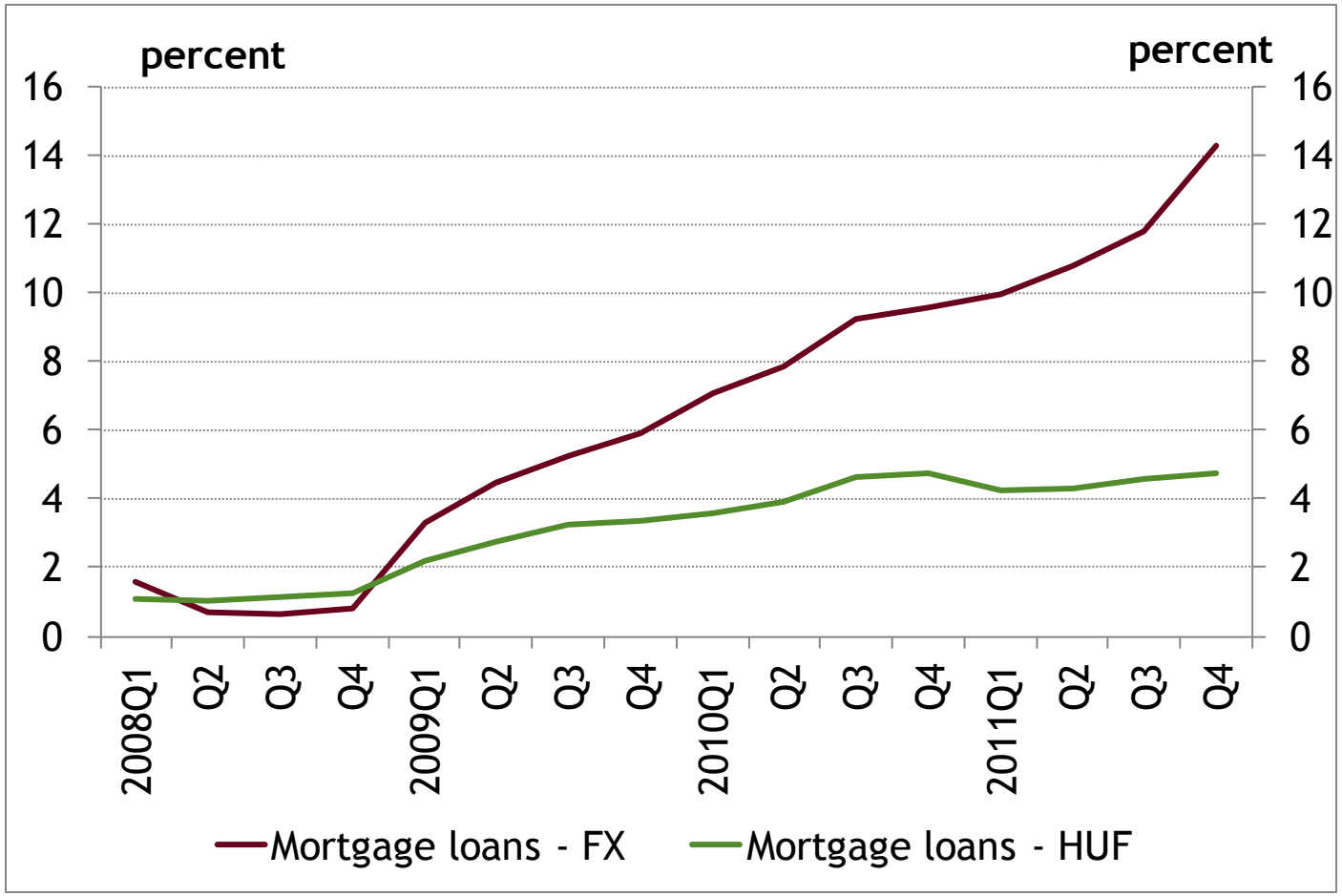
Why widespread FX lending is a *systemic* risk? Part 1: Solvency

- Banks do not have an open FX position (microprudentially may look OK), but…
- …households' exchange rate risk can easily transform into credit risk of banks…
- … higher credit risk of the financial system gets reflected in sovereign spreads (contingent claim on the state)
- → increases funding cost for banks due to (1) their sovereign exposure or (2) internal pricing of funds in cross-border banks (Note that this happens regardless of their individual portfolio quality! ← systemic contagion)
- → reinforces solvency risk (vicious circle)

The downside of borrowing in a ‘safe haven’ currency



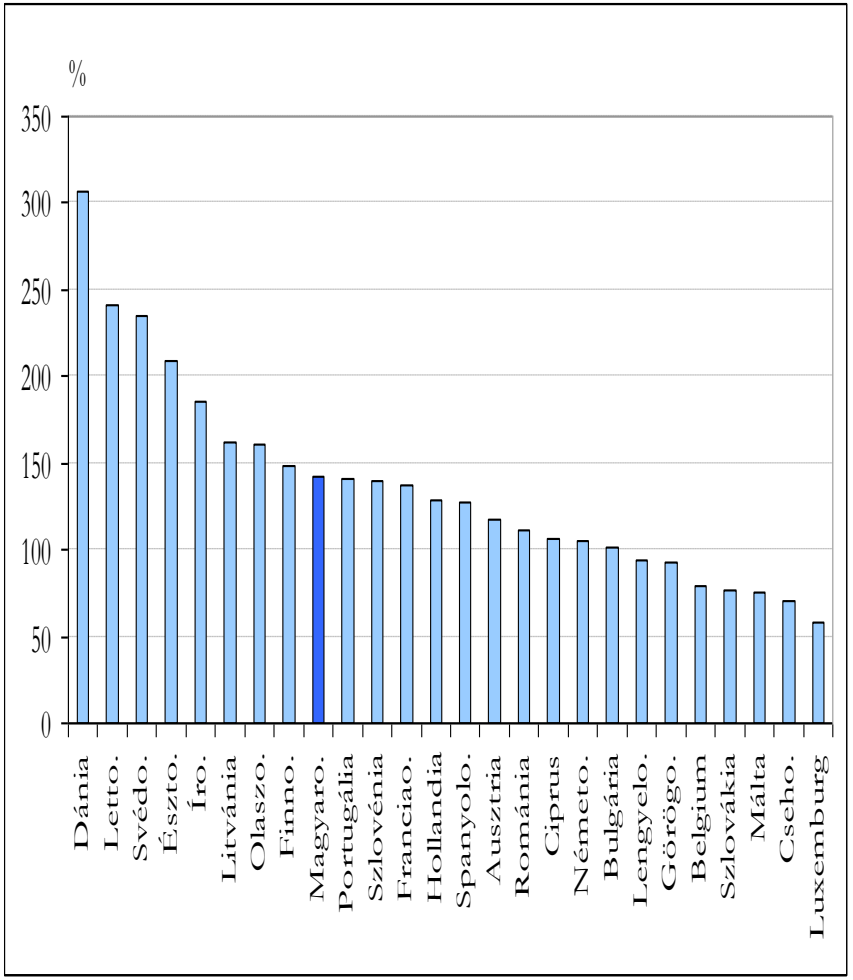
Non-performing loan ratios (NPLs) on mortgages

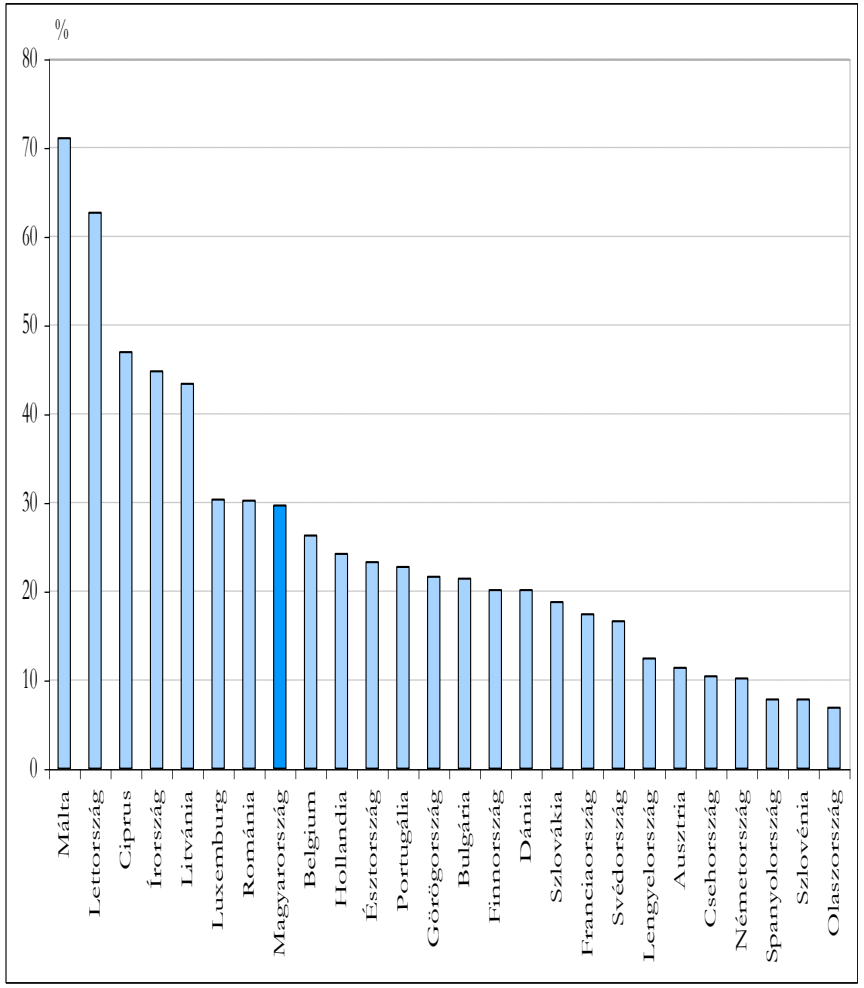


Why widespread FX lending is a *systemic* risk? Part 2: Liquidity

- Long-term mortgage credits were financed mainly by
  - short-term foreign funding (L/D problem, maturity mismatch) or
  - domestic deposits + FX swaps
- A freeze of the FX swap market can cause serious liquidity problems
- Just like a sudden depreciation, as FX swap contracts involve daily margin call requirements
- The central bank's LoLR capacity in FX is limited (by reserve size)
- International cooperation of central banks (swap lines) may help
- However, this help is by no means automatic or immediate

High loan/deposit ratio = high external funding ratio





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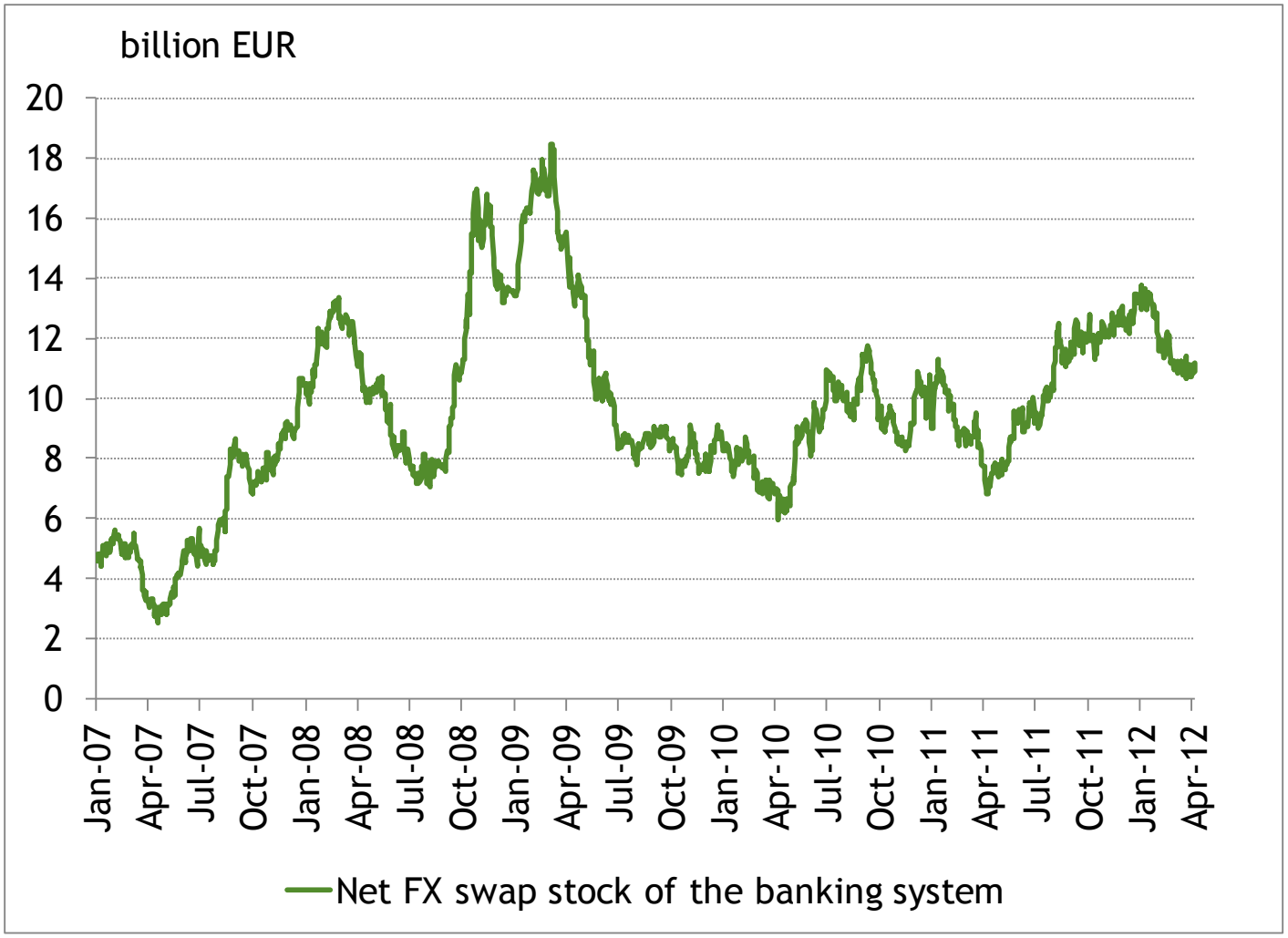
The other source of funding FX lending: domestic deposits + swaps



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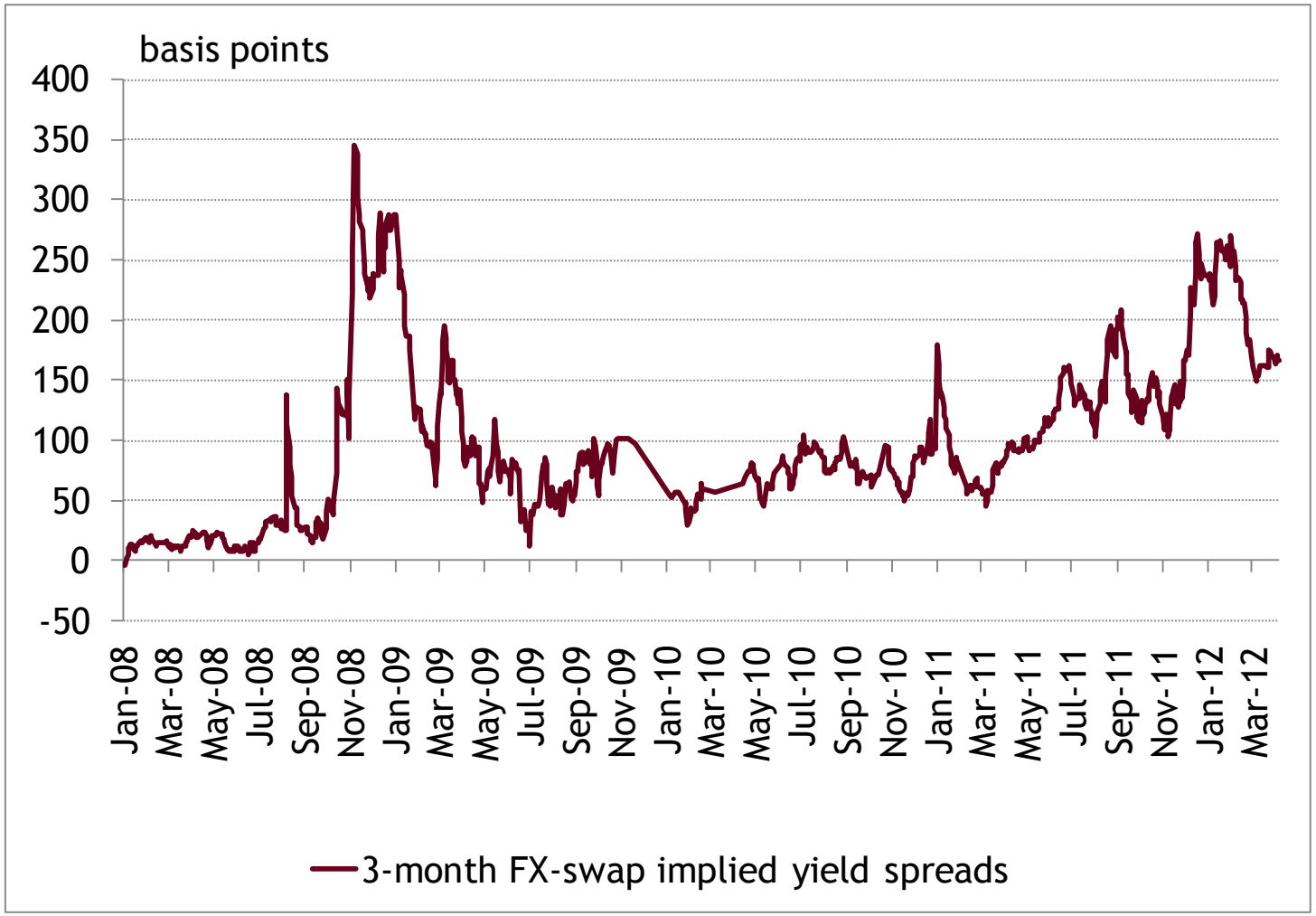
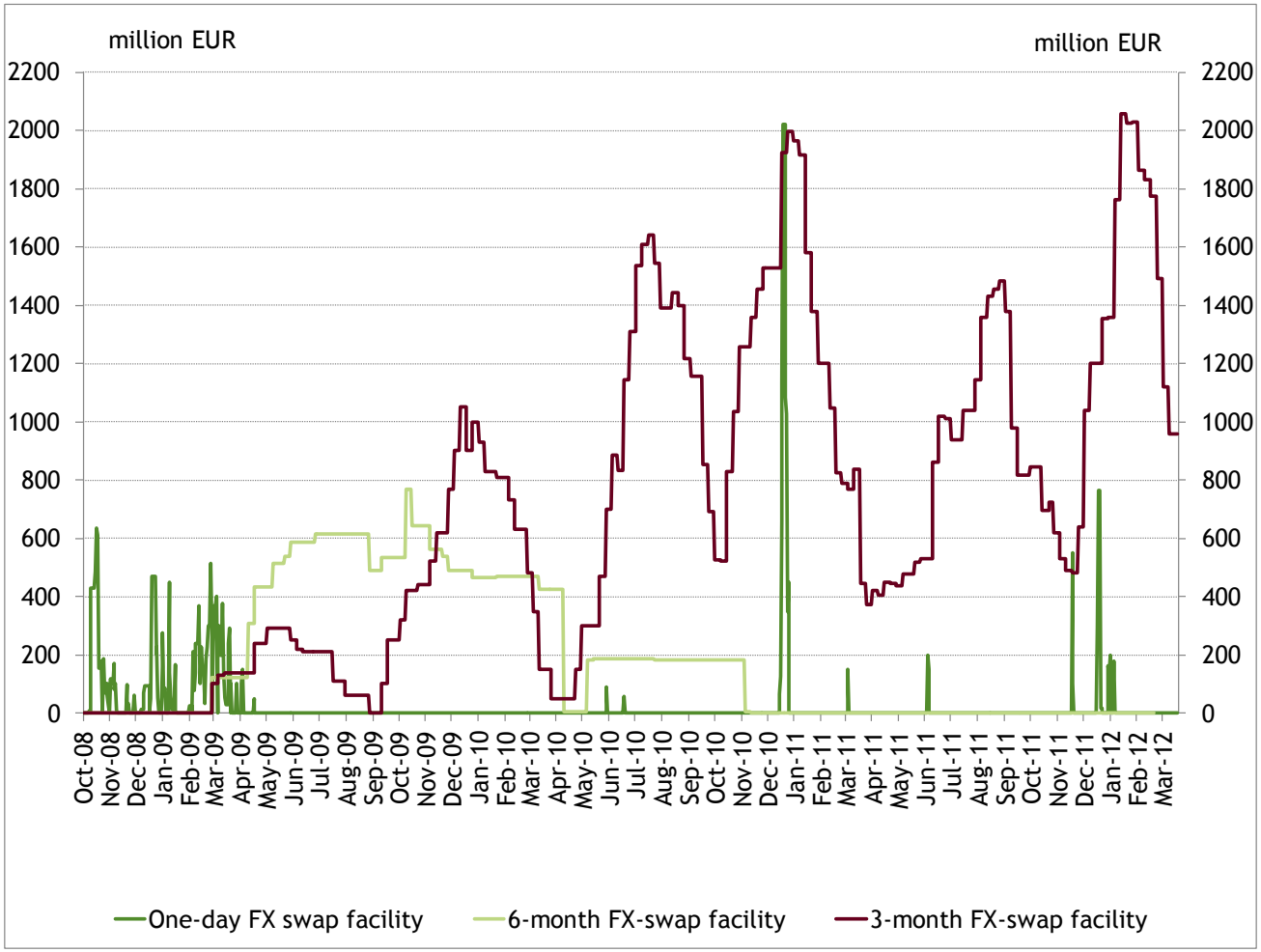
Recurrent turbulences in FX swap markets...



…and the use of MNB FX liquidity providing instruments



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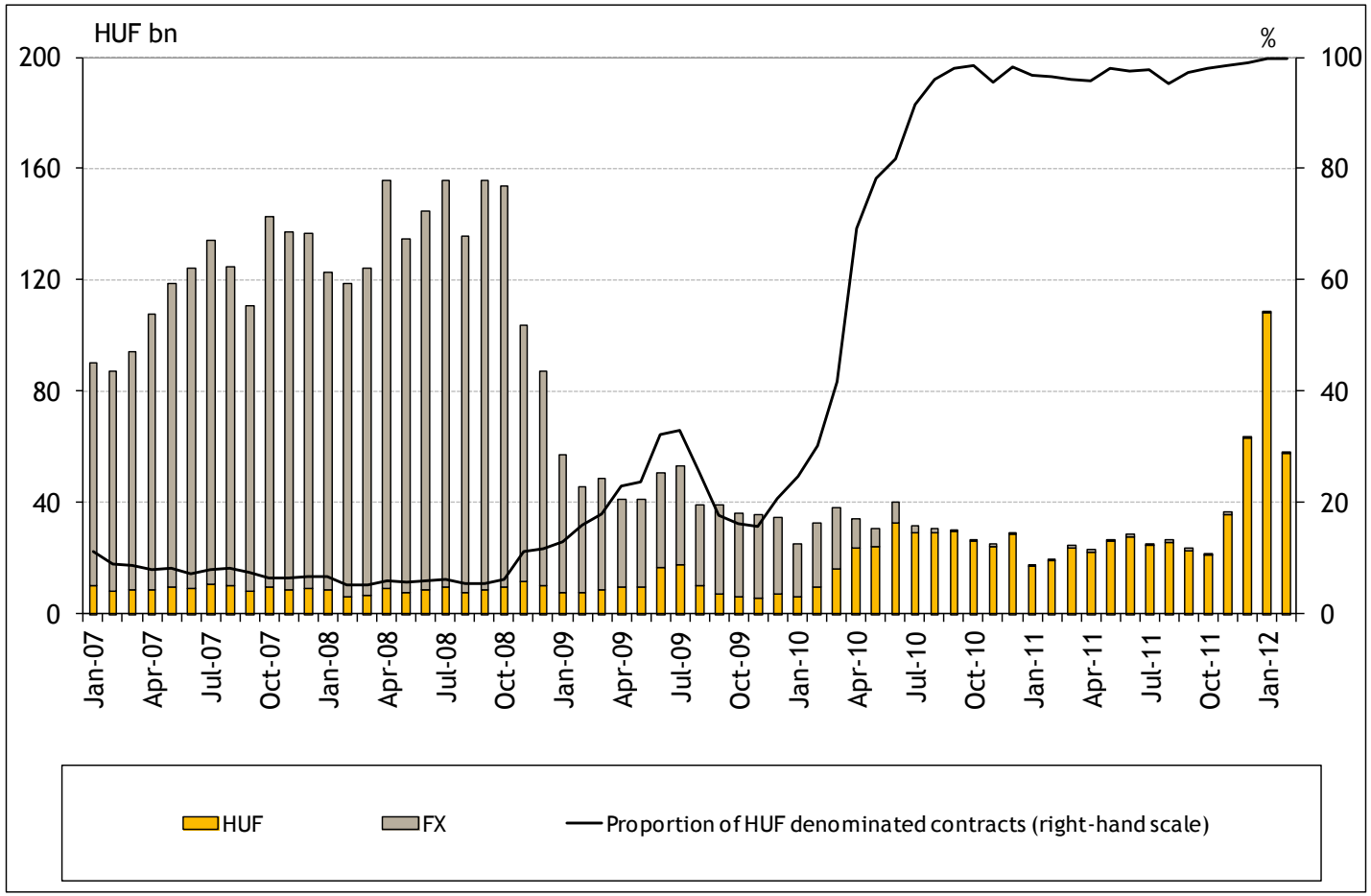
FX lemding: lessons from the crisis „learnt”

- **EBCI, ESRB etc. (too late – nothing to do with the accumulated stock):**
  - Country specific approach is requested
  - Home and host country policies should be coordinated
  - Long term local currency capital markets should be developed
  - Level playing field should be taken into consideration
  - Bans on fx lending may become counterproductive
  - Adequate liquidity buffers should be provided

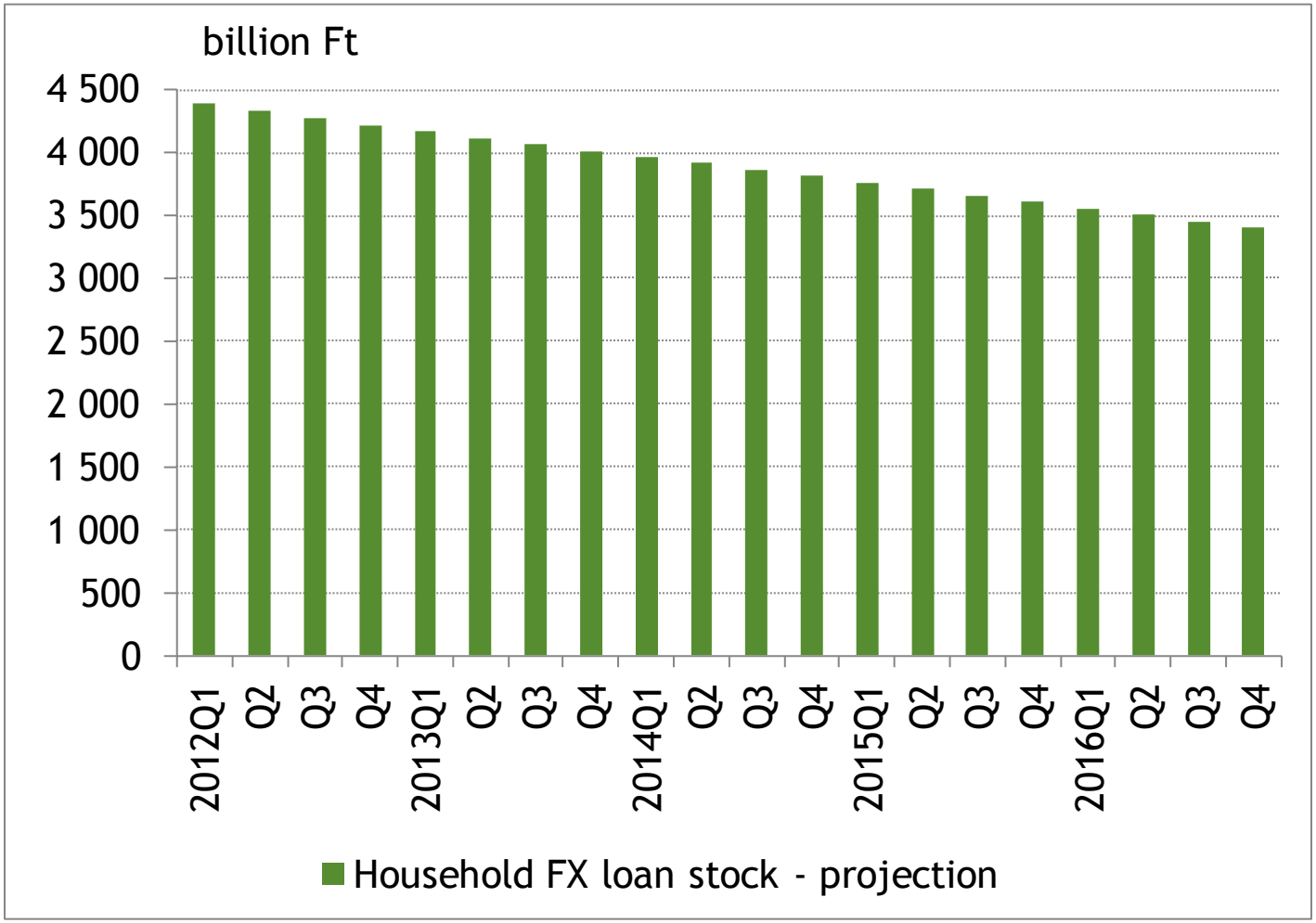
- **Hungary**
  - MNB initiated „responsible lending” regulation (LTV caps, lower for FX) in 2009, became effective at the beginning of 2010
  - New government imposed an outright ban on FX mortgages in August 2010
  - These measures were absolutely necessary to increase systemic resilience but the timing of their application (at the beginning of recovery) was procyclical
  - Stock problem is not yet solved (recent government measures proved to be counterproductive)

FX loans virtually disappeared from new lending, …

New mortgage lending of Hungarian banks



… but the stock is here to stay for a while



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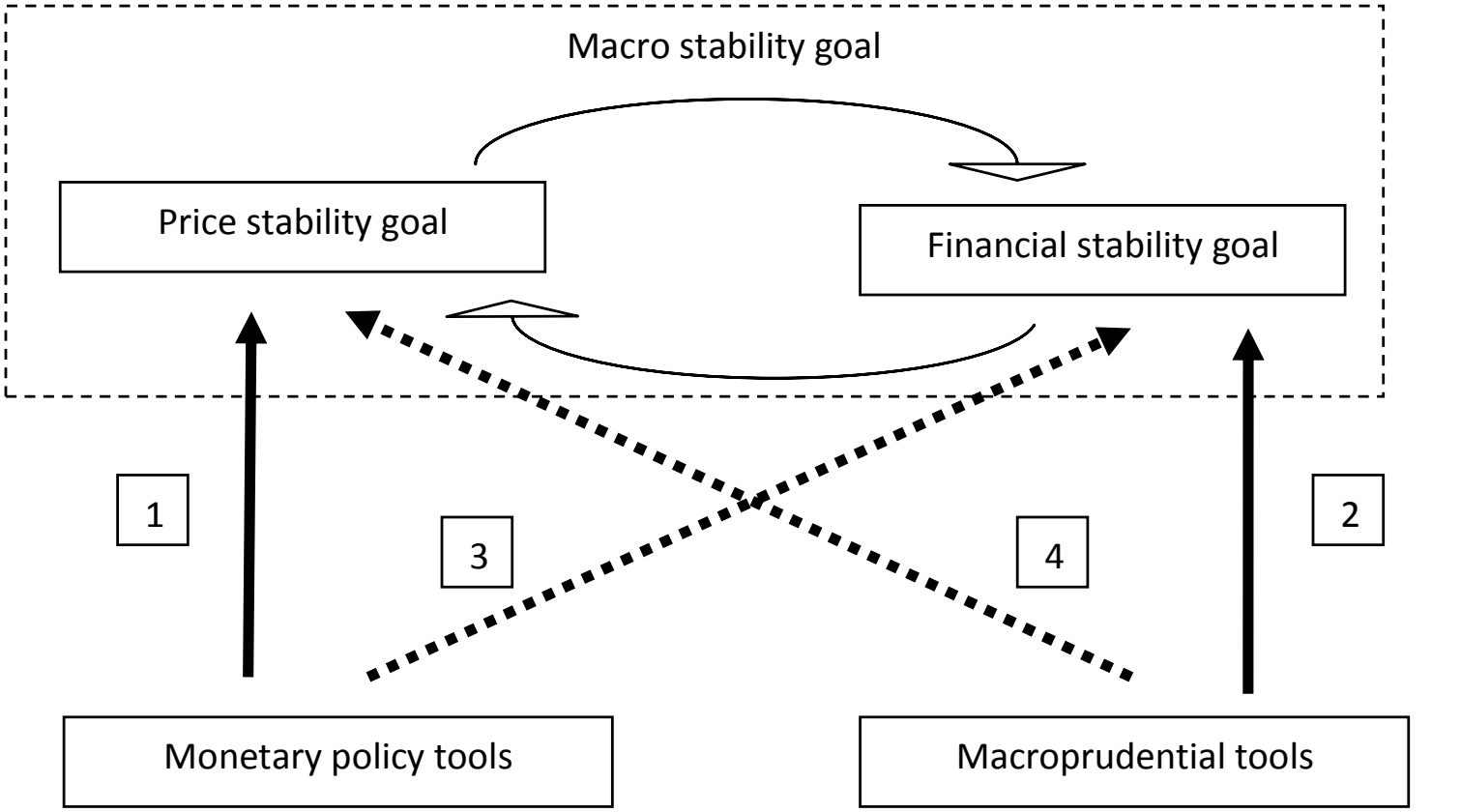
Main lesson 1: the constraints on monetary policy

- Widespread unhedged FX lending constitues a systemic risk…
- …thus imposing a serious financial stability constraint on a monetary policy that normally operates through the ER channel, as…
- …a depreciation increases both solvency and liquidity risk in the banking sector
- In a dowturn, the room for monetary easing may become very limited

Integrating macroprudential policy in the central bank operational framework



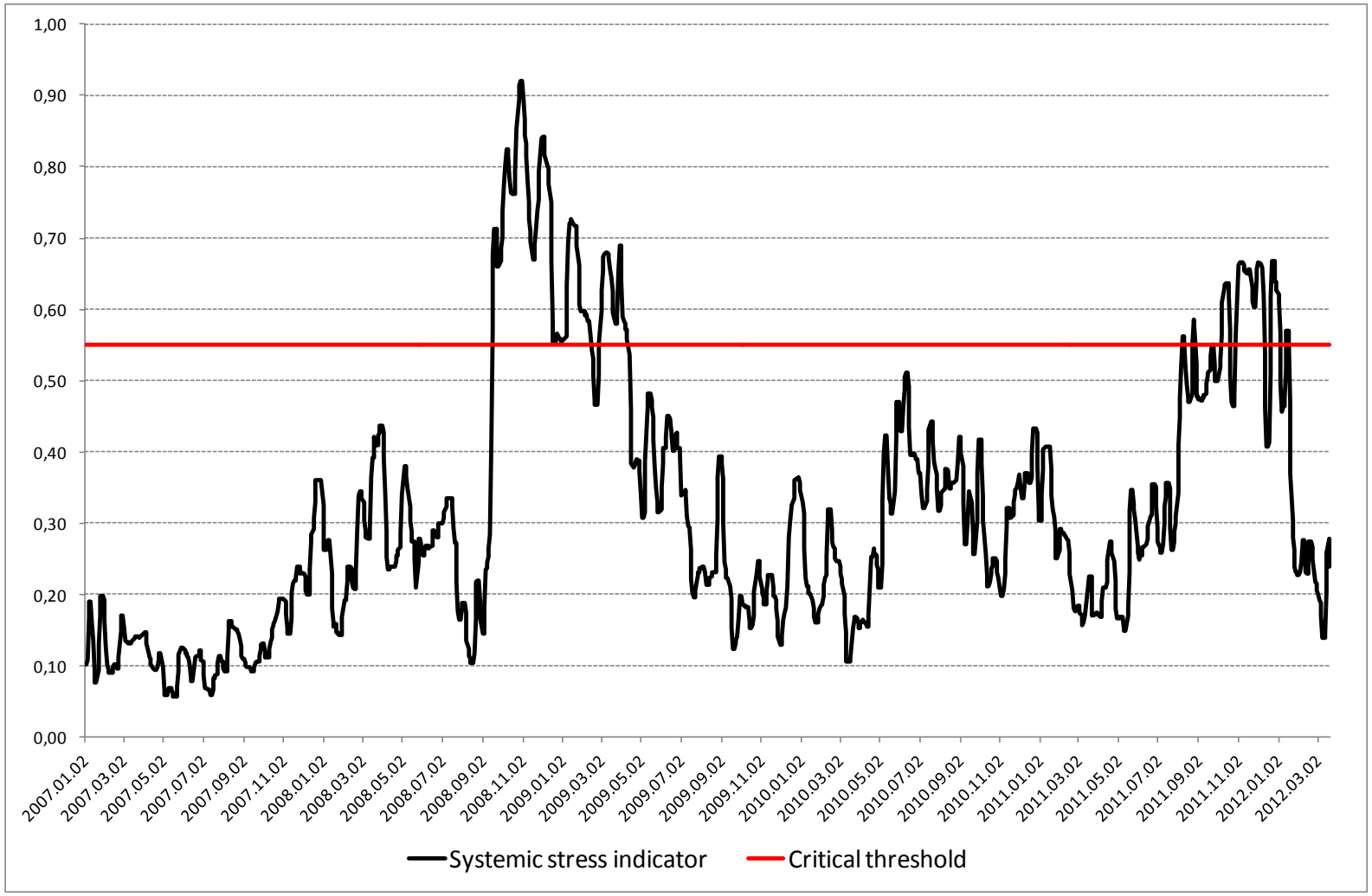
Financial stability/monetary policy interaction in the MNB's practice

- Interaction between monetary and macroprudential policy – mechanisms are complex, currently far from well-understood
- Because of the FX debt constraint, interaction is very important and explicit in the Hungarian case
- In day-to-day policymaking, need for a 'modus operandi': this involves some shortcuts
- Monetary policy decision-making formally takes into account financial stability „constraints"
- Perceived financial stability risk appears in the monetary policy reaction function of the MPM - model

$$R_t = \rho R_{t-1} + (1-\rho)\left(R_t^* + \alpha_1(\pi_{t+4} - \pi^*) + \alpha_2(g_t) + \delta\left(prem_t^g\right)\right) + \varepsilon_t$$

  - Interest rate reaction to risk premium shocks depends on whether the economy is perceived to be in 'normal mode' (low δ) or 'crisis mode' (high δ)
- A systemic stress indicator (among other info) is used to decide which regime we are in

Systemic financial stress indicator



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Interaction of monetary and macroprudential policymaking in the MNB

- Beside contemporaneous indicator, need for more strategic assessment (how far currently we are from the stability constraint?)
- One analytical tool for this is the credit risk stress test (normally includes a substantial ER shock), sometimes in reverse stress test form („death zone estimations")
- Regular financial stability chapter in the material for monthly rate-setting meetings + analysis of effects of macroprudential measures, if necessary
- Macroprudential policy takes into account monetary policy in some respects: e.g. in stress testing: the design of stress scenario, typical mon. pol. reaction to GDP or risk premium shock

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Main lesson 2: institution design

- Failure of the tri-partite system in Hungary to stop the dynamic increase of unhedged FX lending
- Microprudential regulation in itself is insufficient
- Macroprudential responsibility should be explicitly stated
- It should be clearly allocated among the stakeholders (central bank, FSA, MinFin)
- In any institutional setting, the central bank has to play a key role in macroprudential policymaking
- Macroprudential tools have to be allocated where the responsibility lies
- Cross-border macroprudential coordination is important (multilateral: ESRB, bilateral: home-host)

Recent developments in the institutional framework

Recent change of Central Bank Act:

- delegates explicit macroprudential responsibility and regulatory tools to the MNB in the areas of:
  - Countercyclical buffer
  - SIFI capital regulation
  - Curbing excessive lending
  - Containing systemic liquidity risk

Lessons from the crisis: macroprudential policy is required

- Achieving price stability is necessary but not enough to achieve economic stability: financial stability should be considered by central banks
- Financial sector is not frictionless: procyclical behavior with nonlinearities (credit crunch, sudden stop, overheating, fx lending…)
- Better understanding of „contagion”
- Inflation target is rather short run – macroprudential target is for medium/long term
- Macroprudential and monetary policy may have conflicts by construction
- A good institutional framework is of great value