TÜRKİYE CUMHURİYET MERKEZ BANKASI

Monetary Policy and Macro-financial Stability: An Emerging Economy Perspective

Governor’s Club Meeting

April 3rd, 2017 Antalya

Outline

I. Some lessons learned after the GFC
II. EM perspective
III. Reflections from the Turkish experience

Some lessons learned since the GFC

Lesson #1

- It may be less costly to prevent a crisis than to clean up afterwards.
- Implications:
  - More scrutiny of the financial system, strengthened regulation
  - Greater willingness to respond when risks appear to be rising

Lesson #2

- Price stability does not guarantee financial stability.
- Implication: Explicit acknowledgement of the trade-off between price stability and financial stability in the policy design.
    - Greater need for policy coordination and multiple tools.

Lesson #3

- Micro supervision and regulation is not sufficient to safeguard financial stability; a broader view is needed to reflect systemic risk perspective
- Implications: Establishing macroprudential (MaP) frameworks
  - Awarenes on systemic risks and macro financial stability
  - Tools, objectives, institutional design, strategy

A More General Lesson

- The economy is more complicated than we had thought.
  - Models are useful to organize our ideas but we should not let them to constrain the way we think about real life
    - For example, the three equation NK model was way too simplified
- Implications: We need to have a better understanding of:
  - Macro-financial linkages
  - Longer term balance-sheet effects, role of stock variables
  - The interaction between macro stability and financial stability.
    - Mapping business cycle fluctuations to the probability of a crisis?

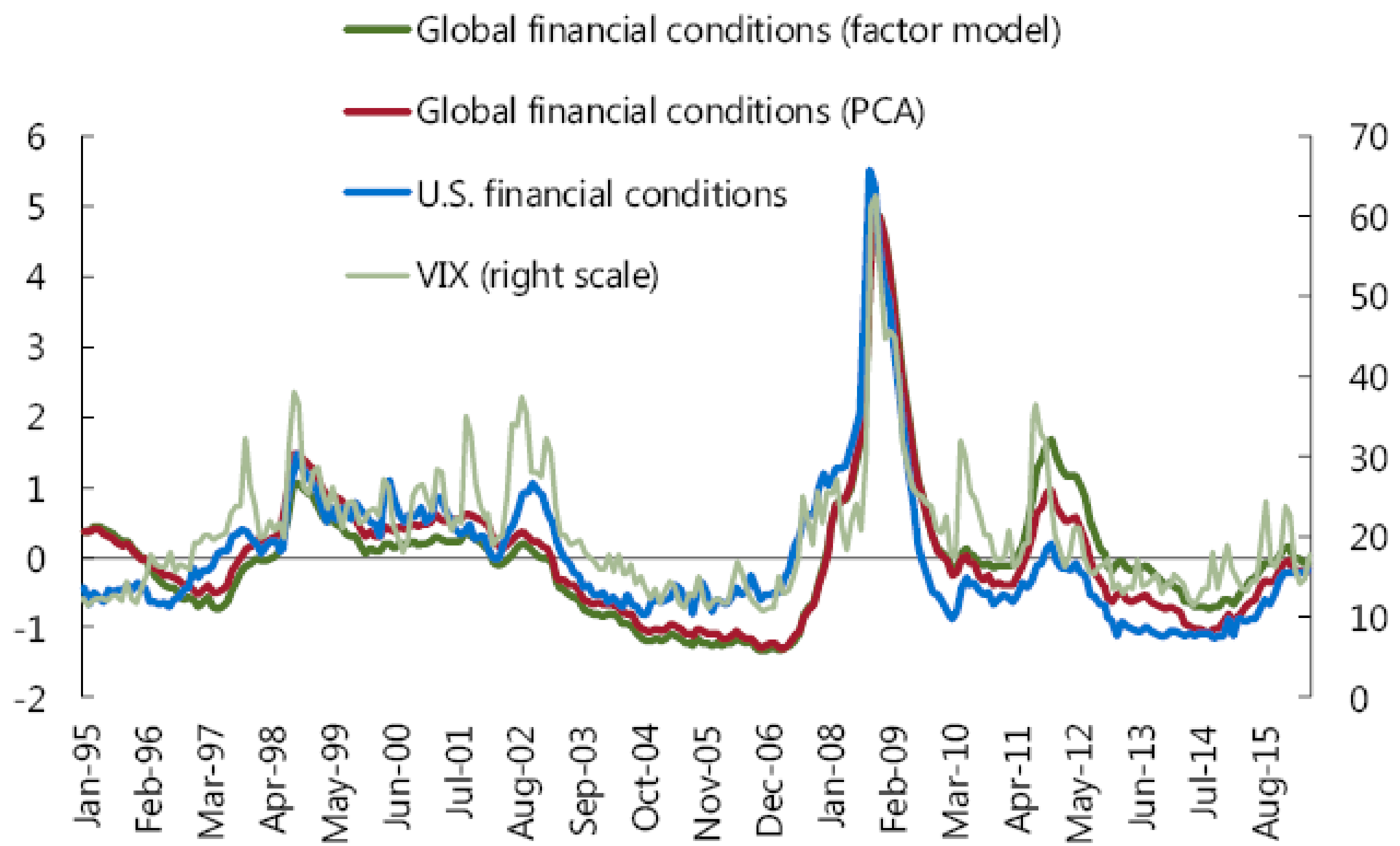
Pending Questions

- How to target financial stability in practice?
- What should be the role of the Central Bank?
- Which instruments to use and in what combination?

Small-Open-Emerging Economy Perspective

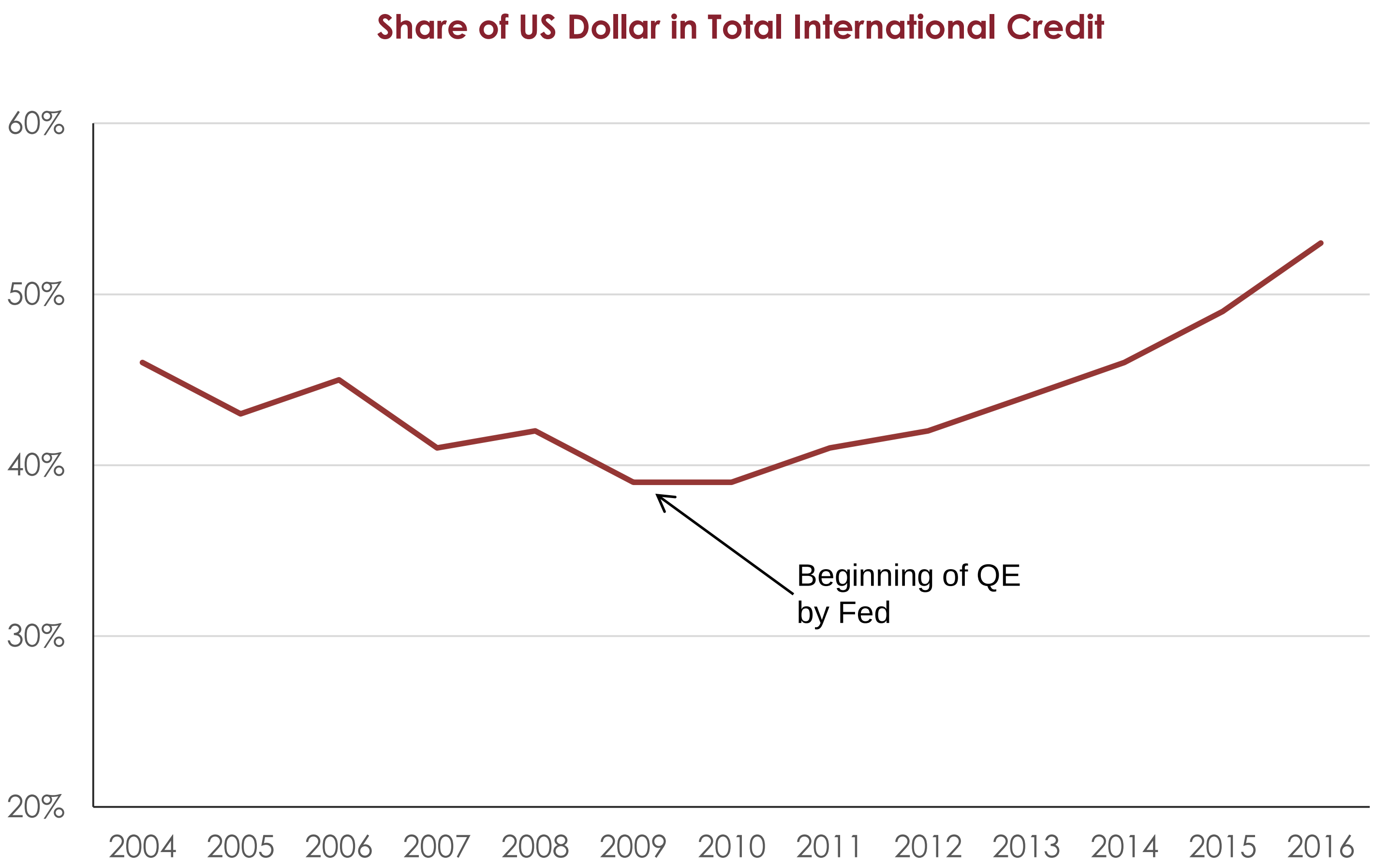
Global and US financial conditions are highly correlated.

US and Global Financial Conditions



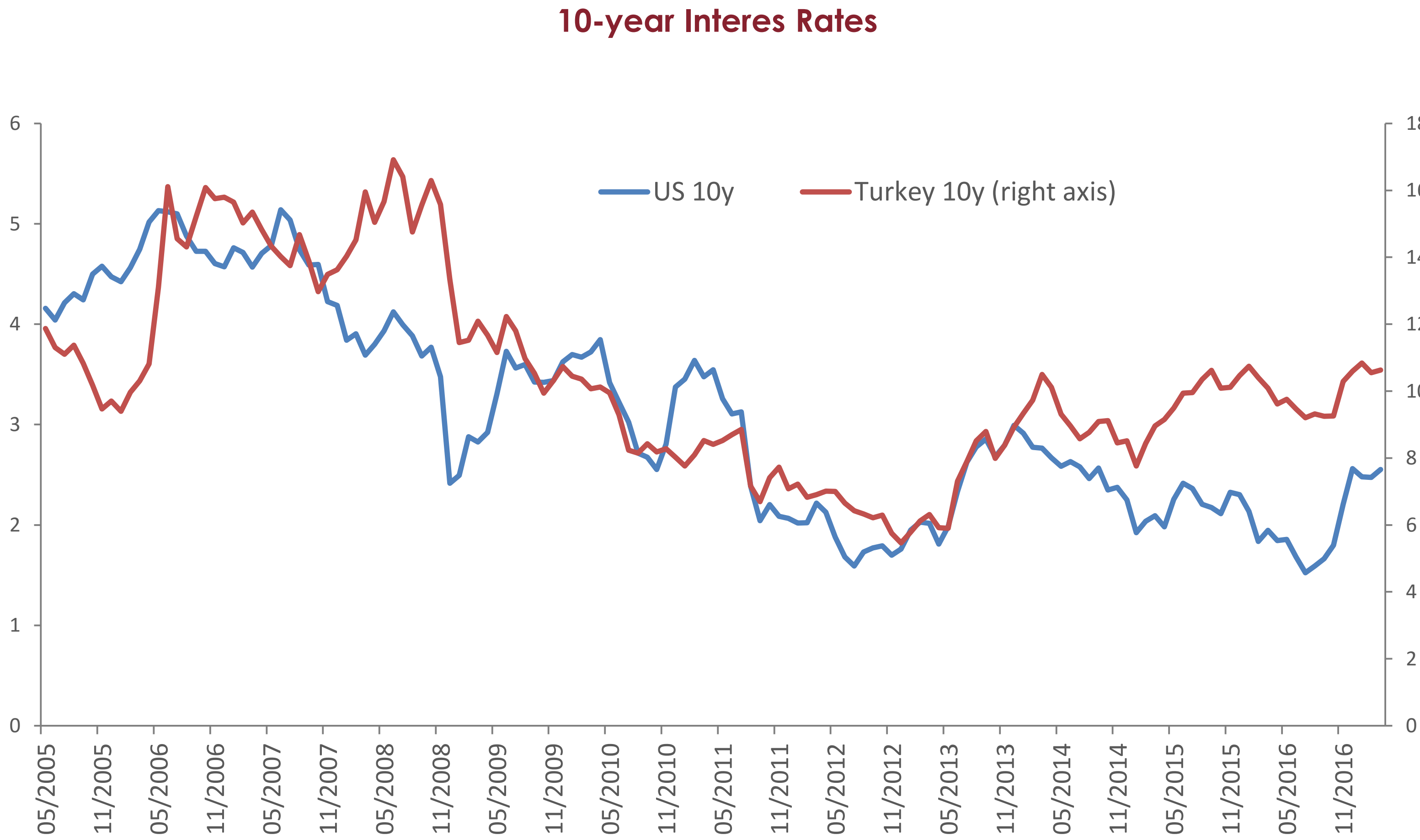
Source: IMF, GFSR

The US dollar increasingly dominates international credit.



Source: BIS

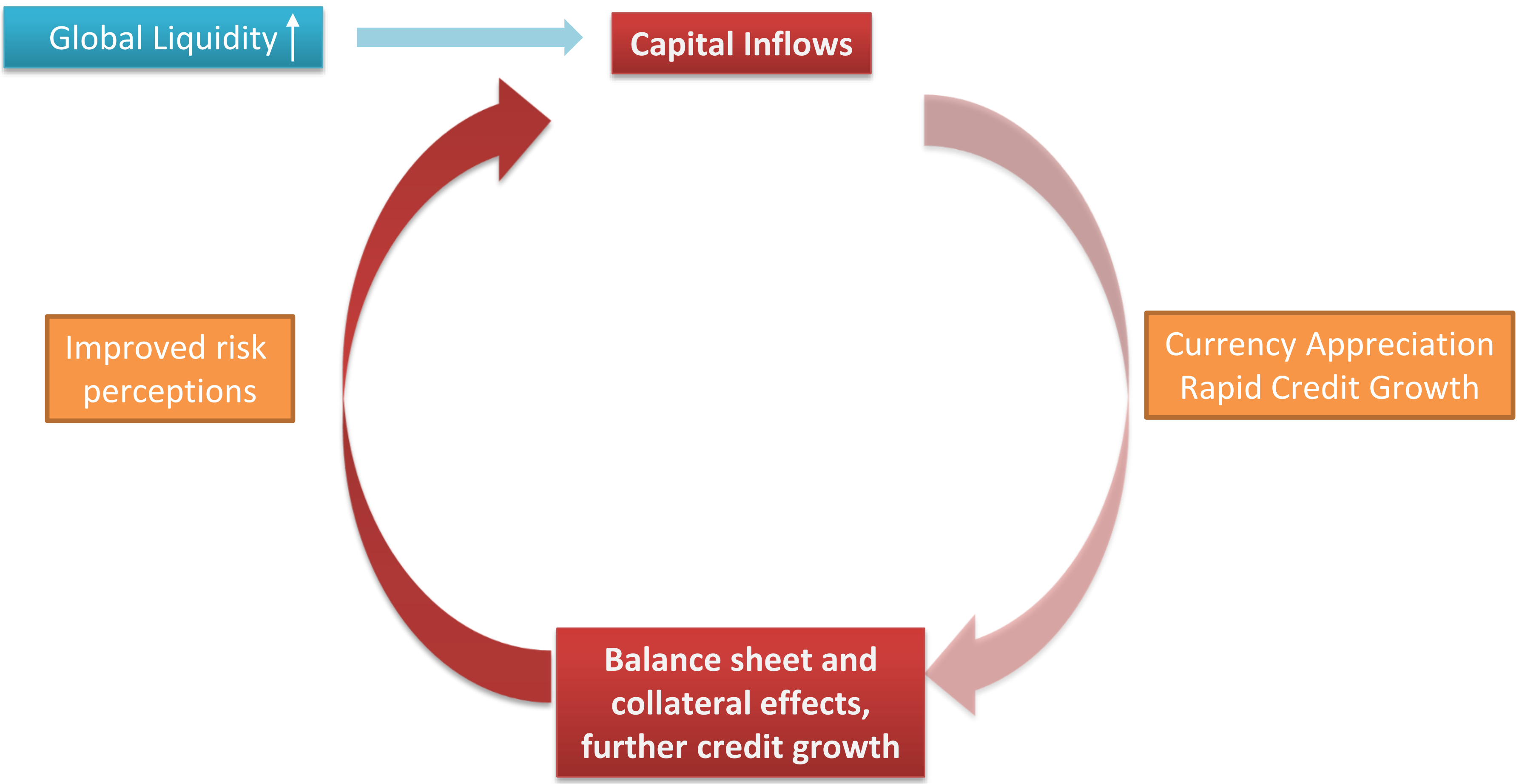
Long term interest rates are highly correlated with US rates.



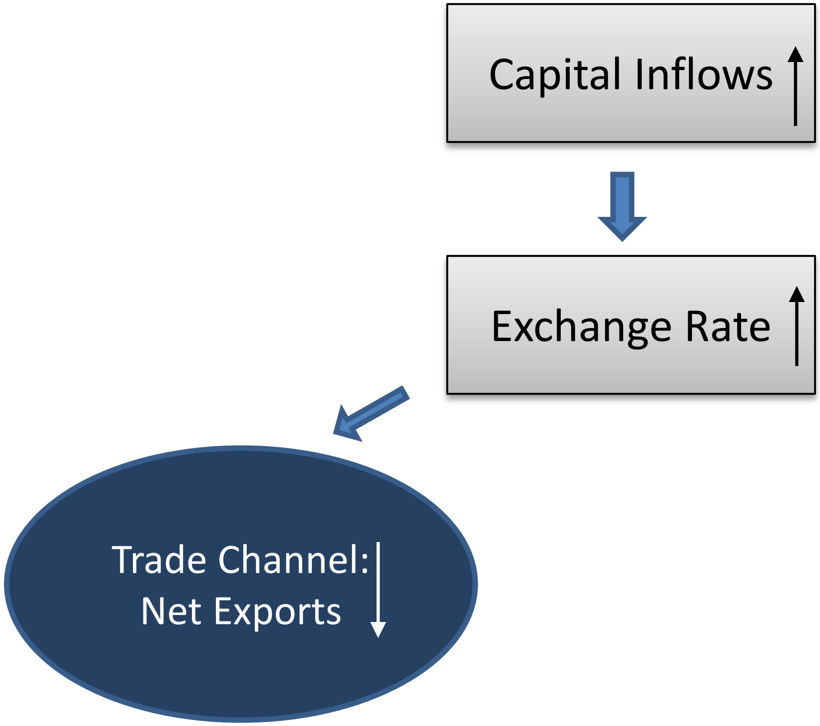
Source: TURKSTAT, CBRT

Last Observation: December 2016

Global liquidity, capital flows, and the amplification mechanisms



The role of the exchange rate as a shock absorber may be hampered by the finance channel.



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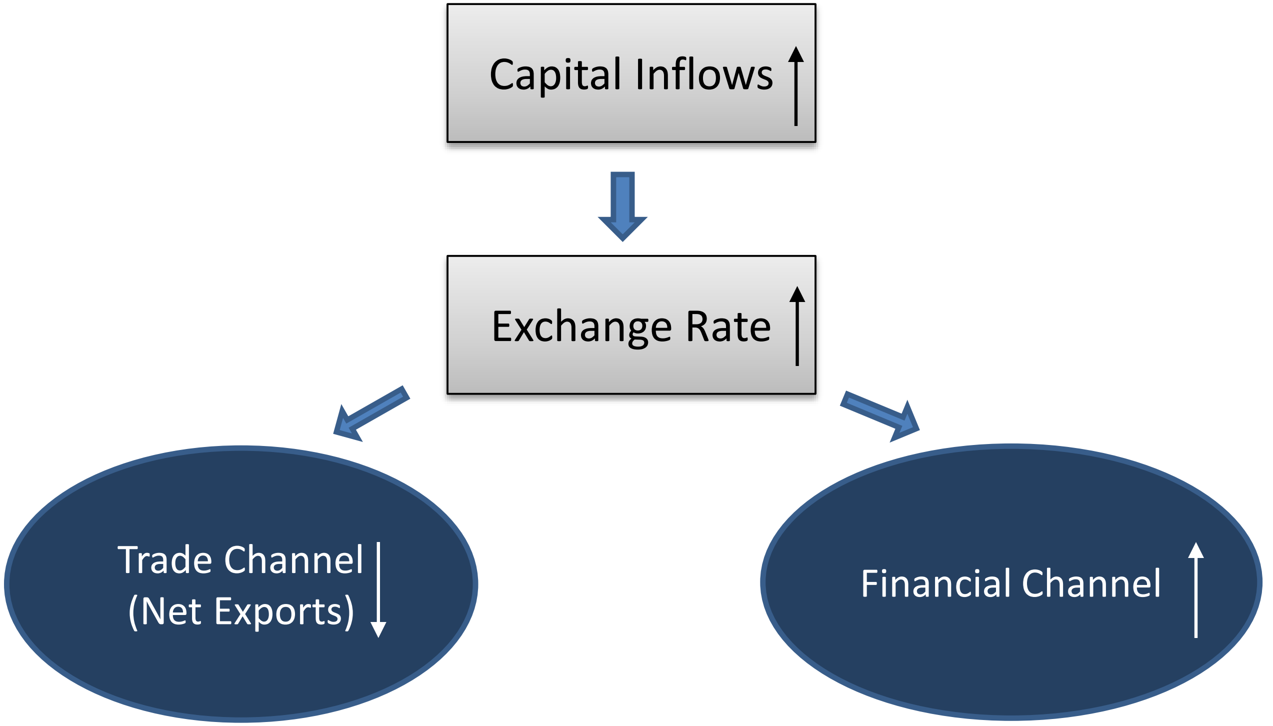

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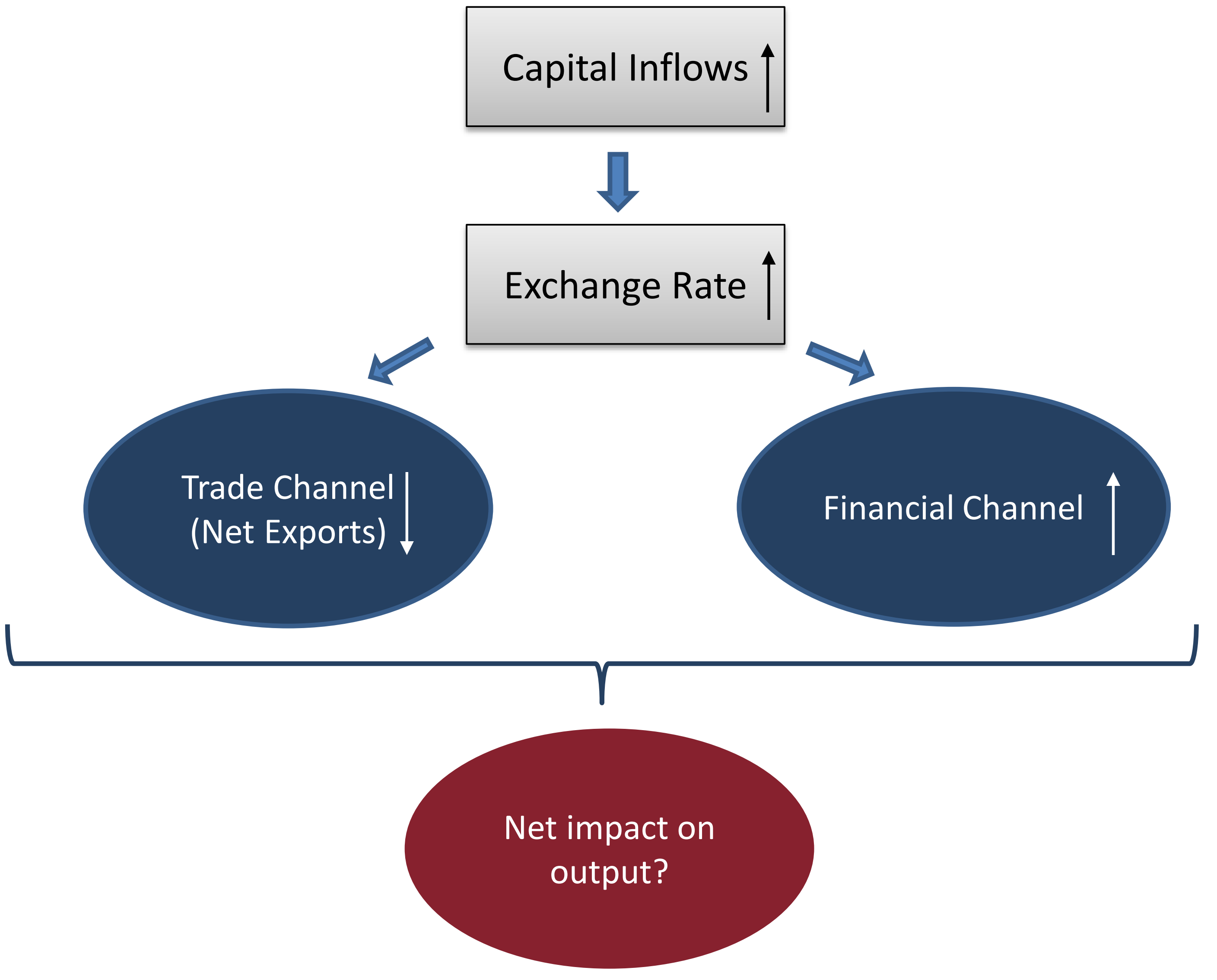
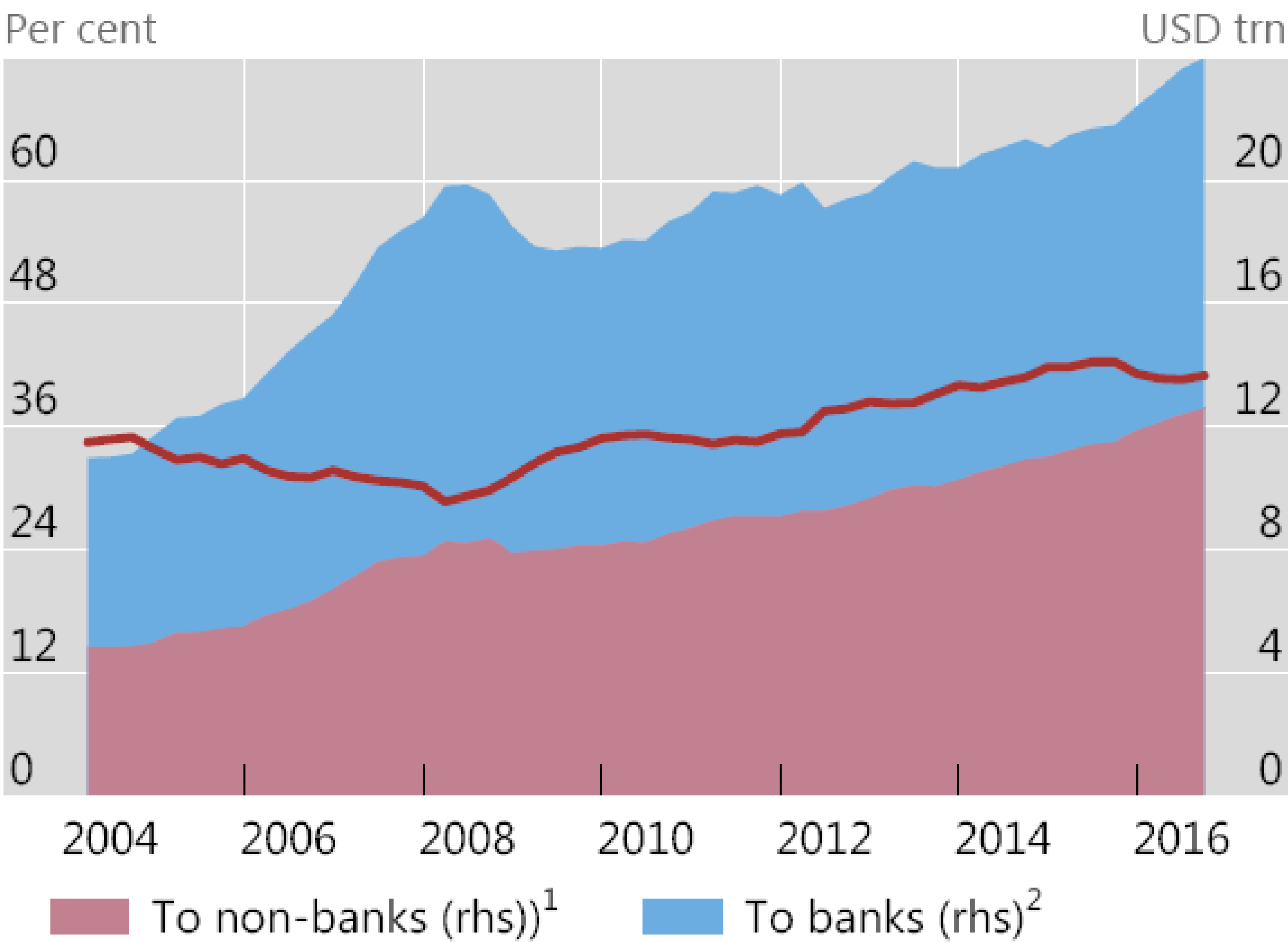


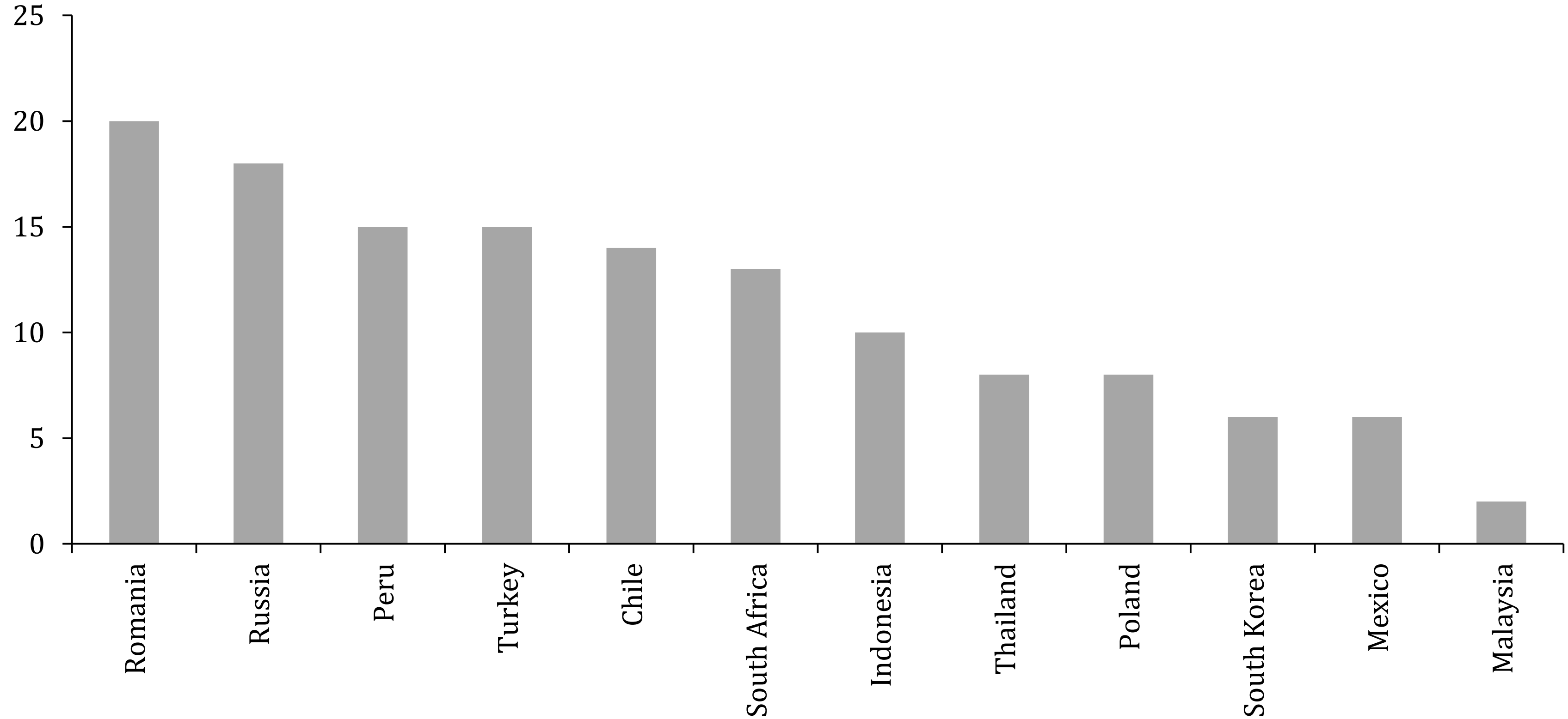
Rising share of USD after the GFC is due to non-bank credit.

USD Credit to Banks and Non-banks

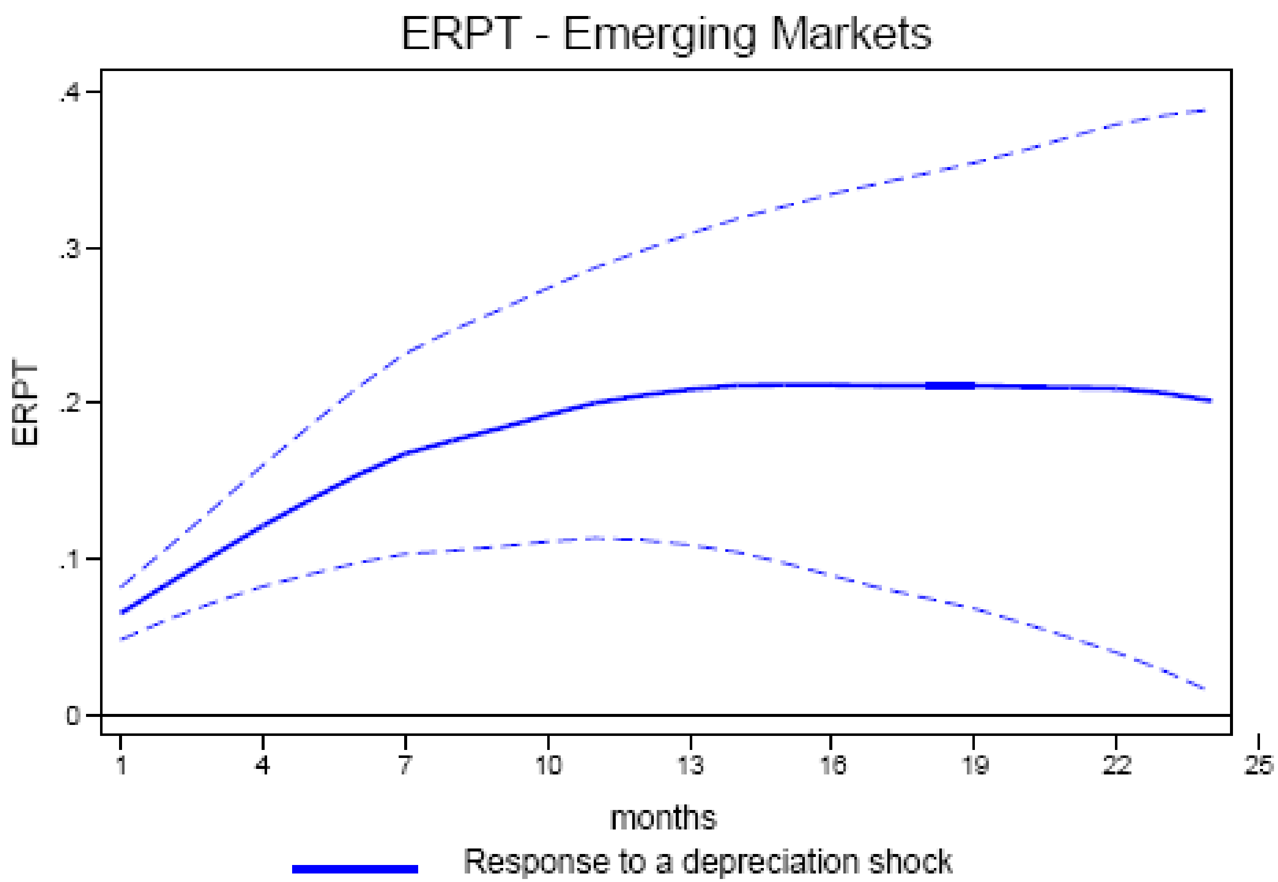


Source: BIS

Pass-through From Exchange Rate to Inflation in Emerging Countries
(At the end of 12-month period, Percent)

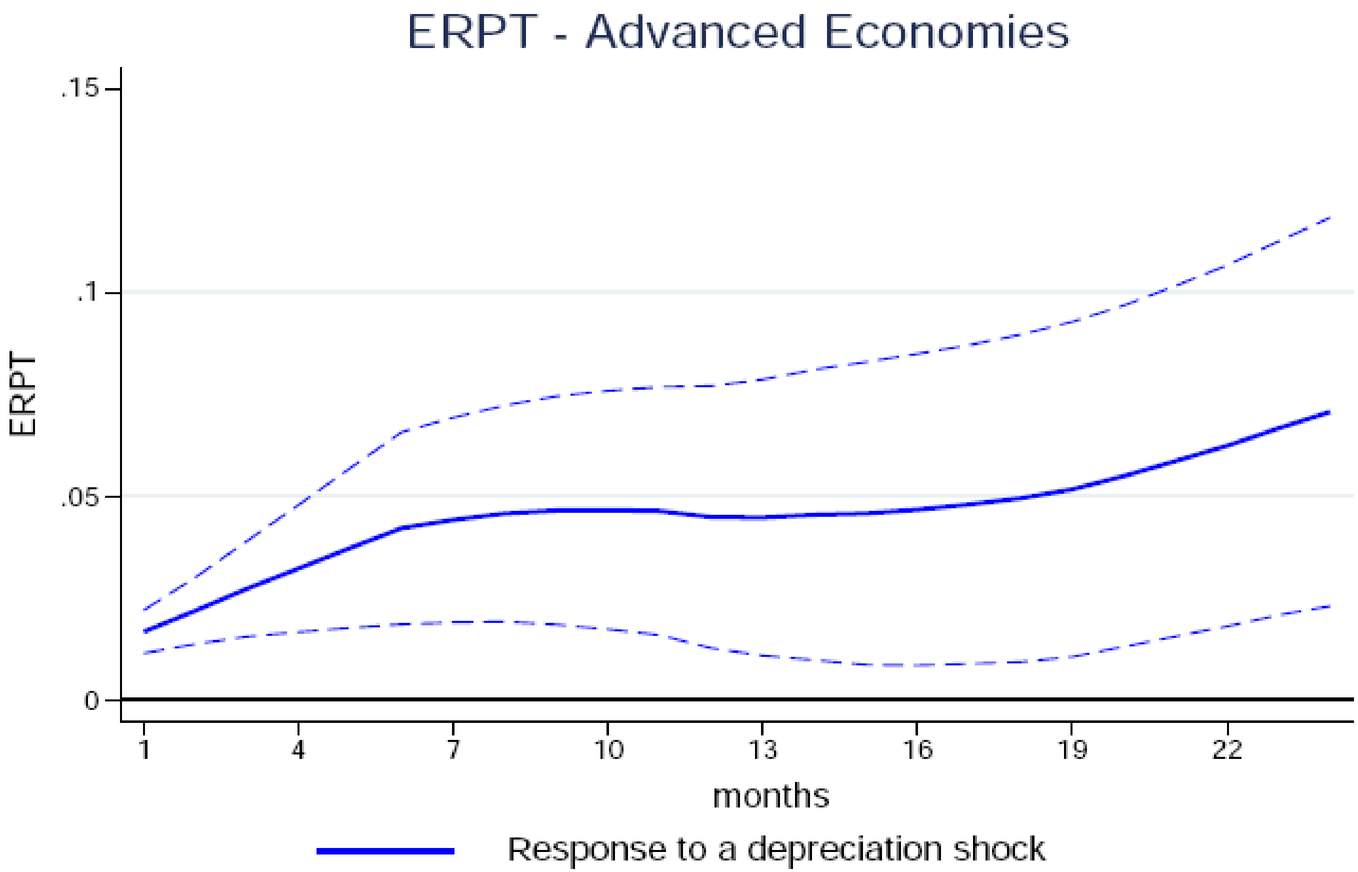


High exhange rate pass-through is another factor exacerbating the policy trade-offs in emerging economies.



Source: Caselli and Roitman (2016)

Exchange Rate Pass-through (ERPT) in Advanced Economies



Source: Caselli and Roitman (2016)

Overall, emerging economies face more significant trade-offs

- Global financial integration and the dominance of USD as funding currency have reduced the effectiveness of monetary policy.
    - Domestic financial conditions are sensitive to the global cycles
    - Long term interest rates are driven by global factors
- Capital flows amplify the procylicality of bank lending.
    - Boom-bust cycles
- Contrary to the textbook case, exchange rates may not assume the role of a shock absorber.
    - Financial channel may dominate the trade channel (BIS 2016)
        - Risk taking channel
        - Balance sheet effects

Policy Implications

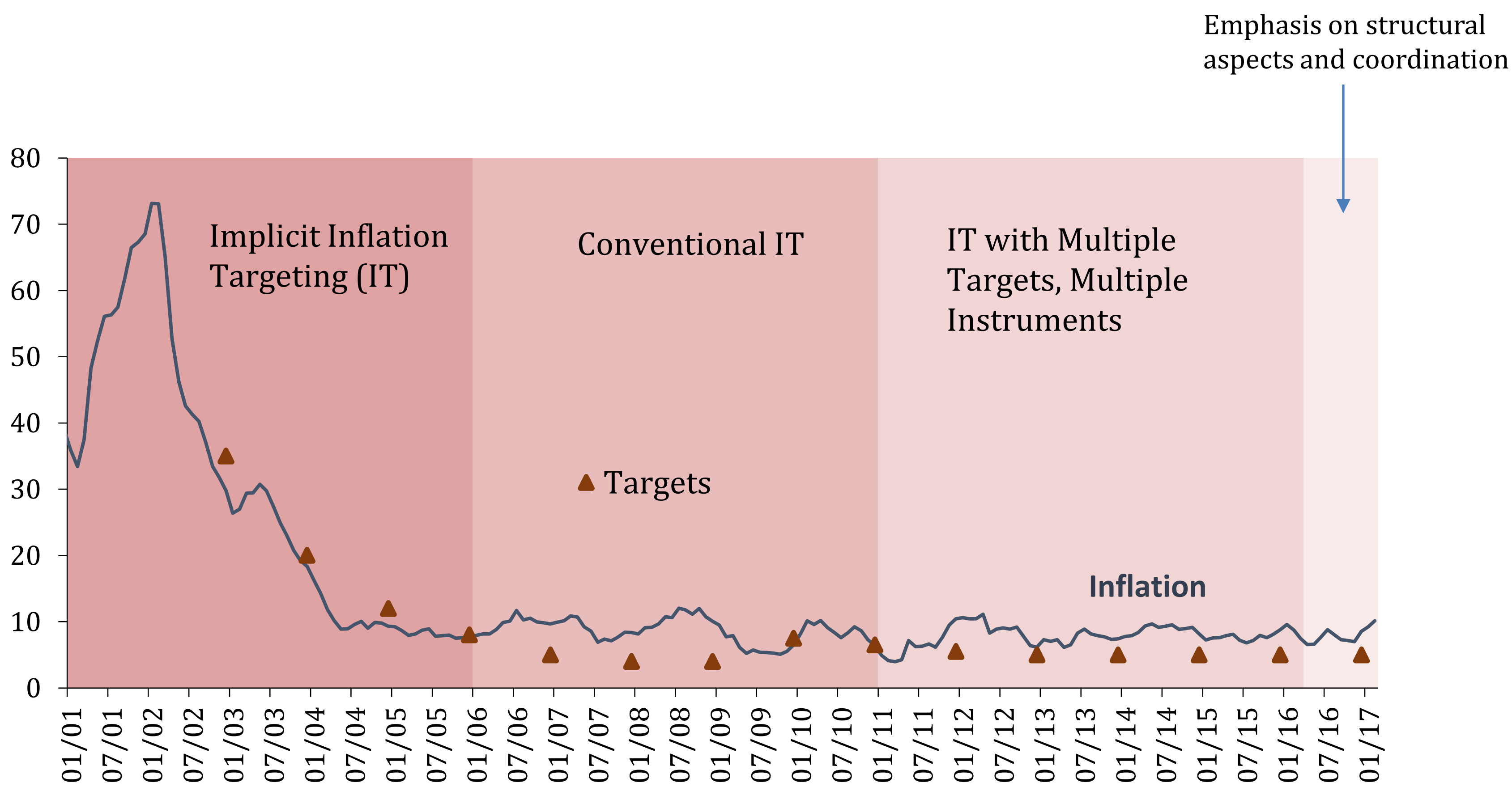
- Alternative solutions for central banks:
  - Enrich the set of tools to react to macrofinancial risks
  - Conduct close coordination with macroprudential and fiscal policy
  - Push for structural reforms to ease the trade-offs

A Case Study on Turkey

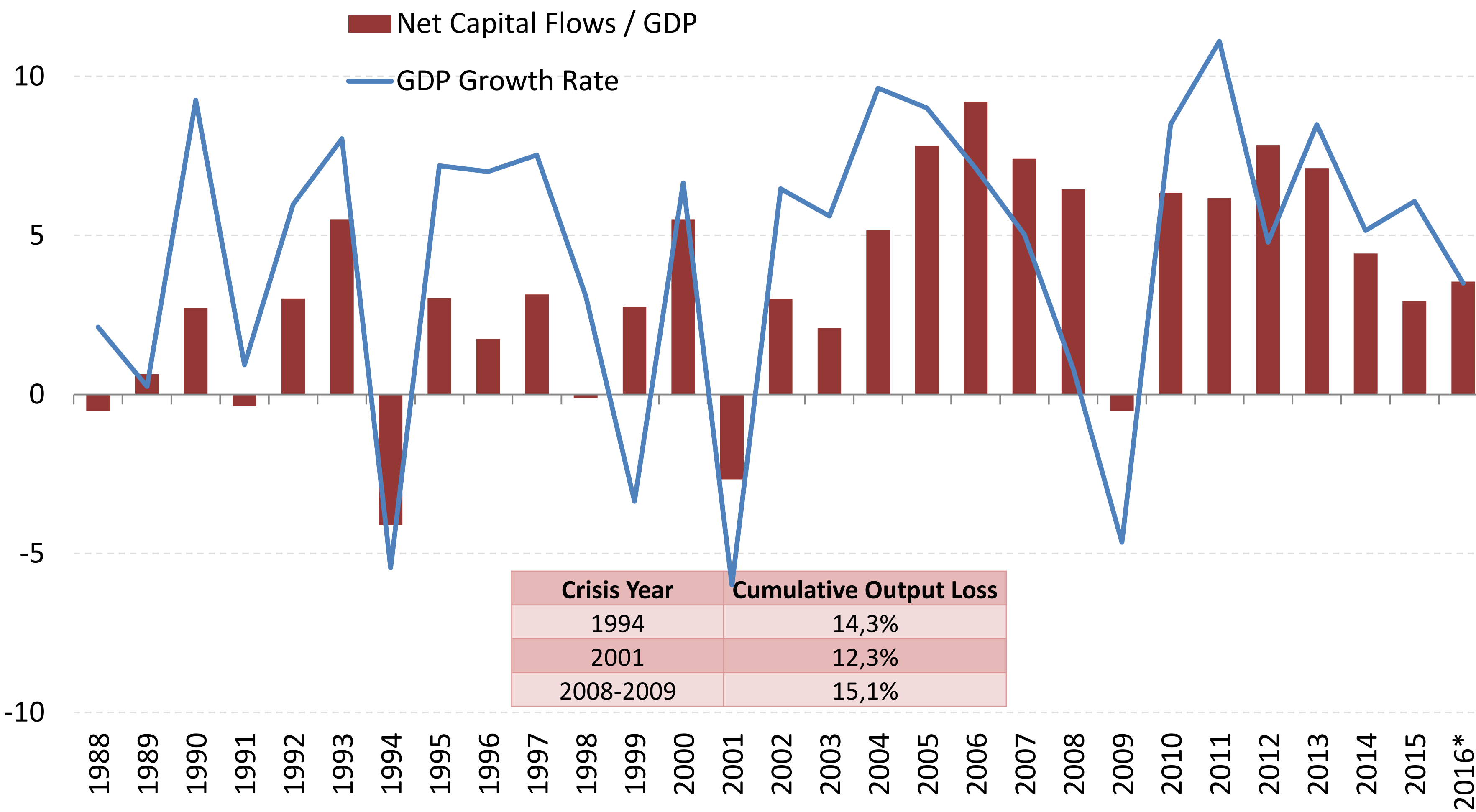
The evolution of Monetary Policy in the past two decades

- 2001 - 2005: Implicit Inflation Targeting (IT)
- 2006 - 2010: Full-fledged IT
- 2011 - 2016 April : Financial Stability and IT
- 2016 April - to date: Strenghtened focus on the price stability with a structural emphasis and coordination

Inflation in Turkey: 2001-2016



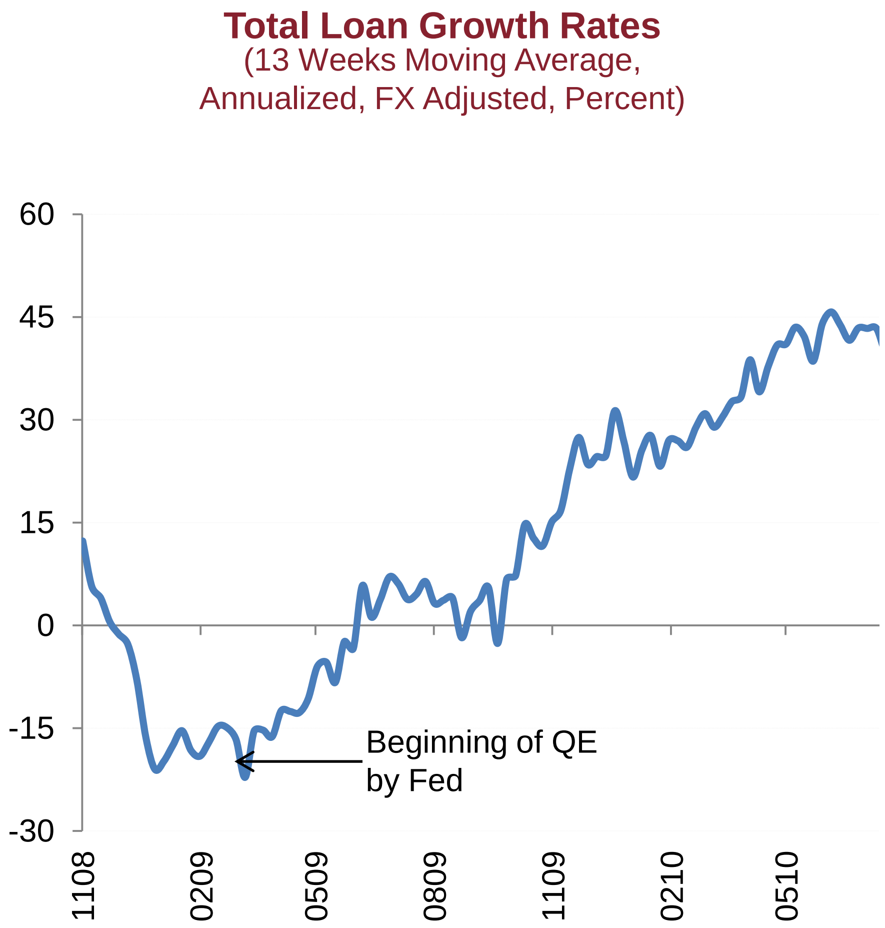
Historically, sharp capital flow reversals (sudden stops) in Turkey are associated with large output losses.

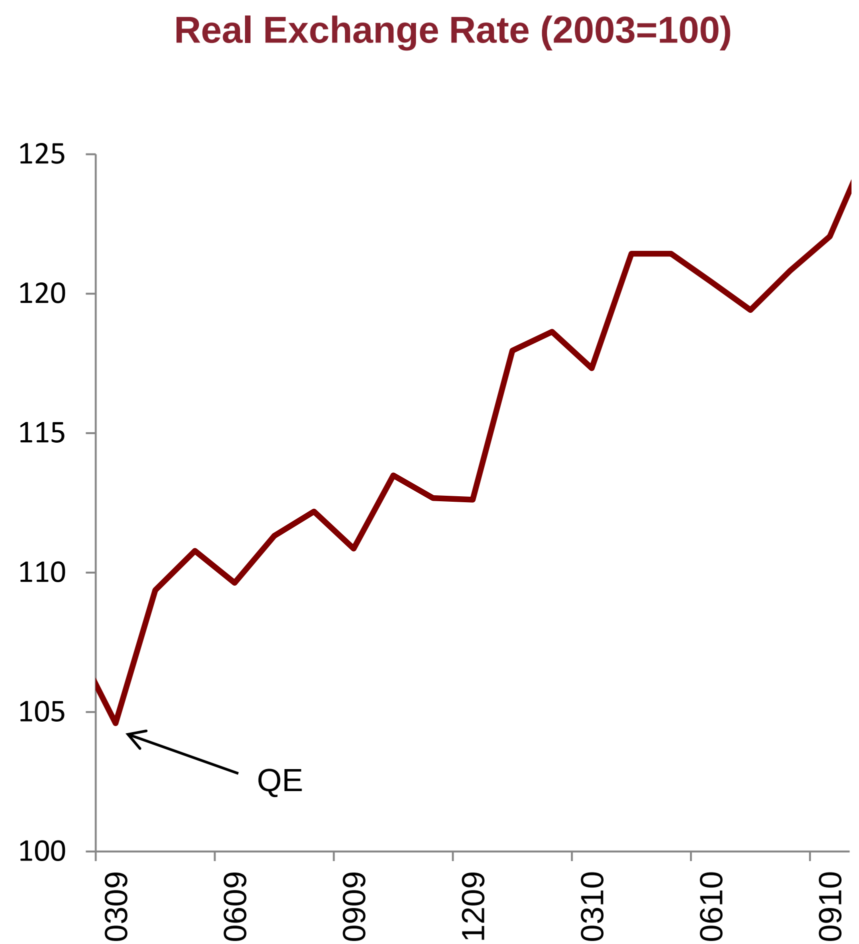


Crisis Year	Cumulative Output Loss
1994	14,3%
2001	12,3%
2008-2009	15,1%

. * As of Q3, annualized. Source: CBRT.

Macro-financial risks in Turkey have increased after the QE, with rapid credit growth and marked currency appreciation.

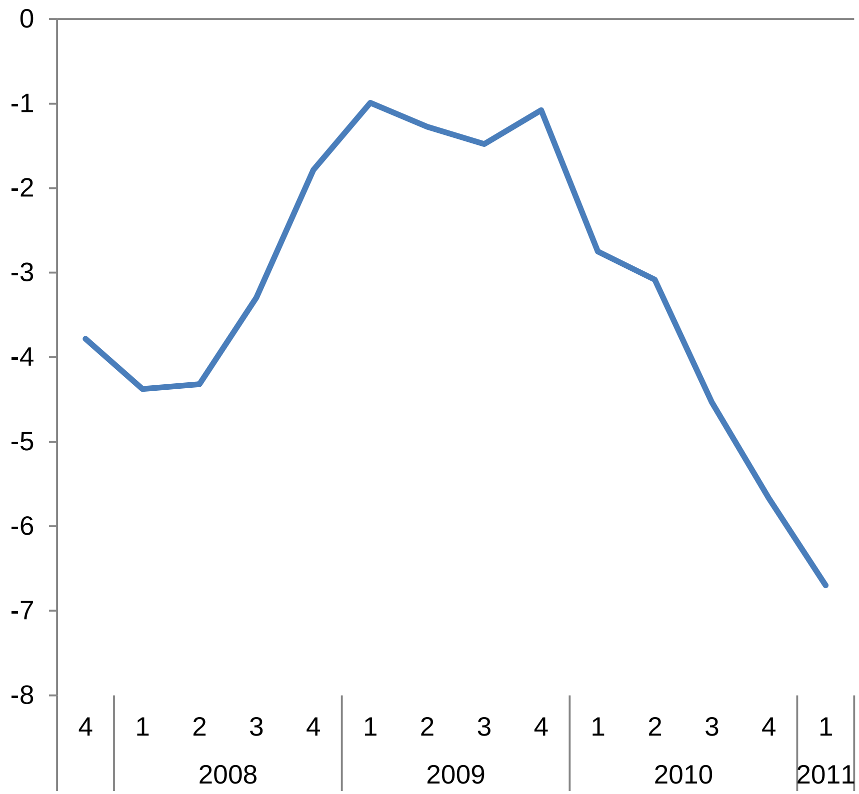




Source: CBRT

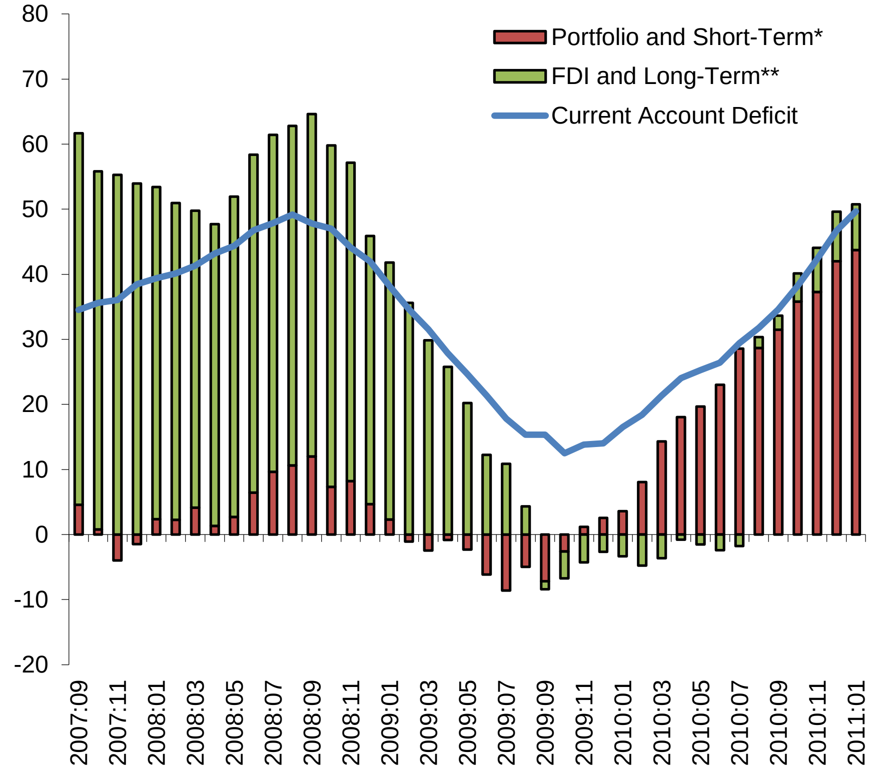
In 2010, sharp widening in the current account deficit, financed with short-term inflows called for an immediate policy action.

Current Account Balance
(Seasonally Adjusted, Quarterly Average, Billion USD)



Source: TURKSTAT, CBRT.

Main Sources of External Financing*
(12-months Cumulative, Billion USD)



*Short-term capital movements are sum of banking and real sectors' short term net credit and deposits in banks. Long-term capital movements are sum of banking and real sectors' long term net credit and bonds issued by banks and the Treasury.
Source: CBRT.

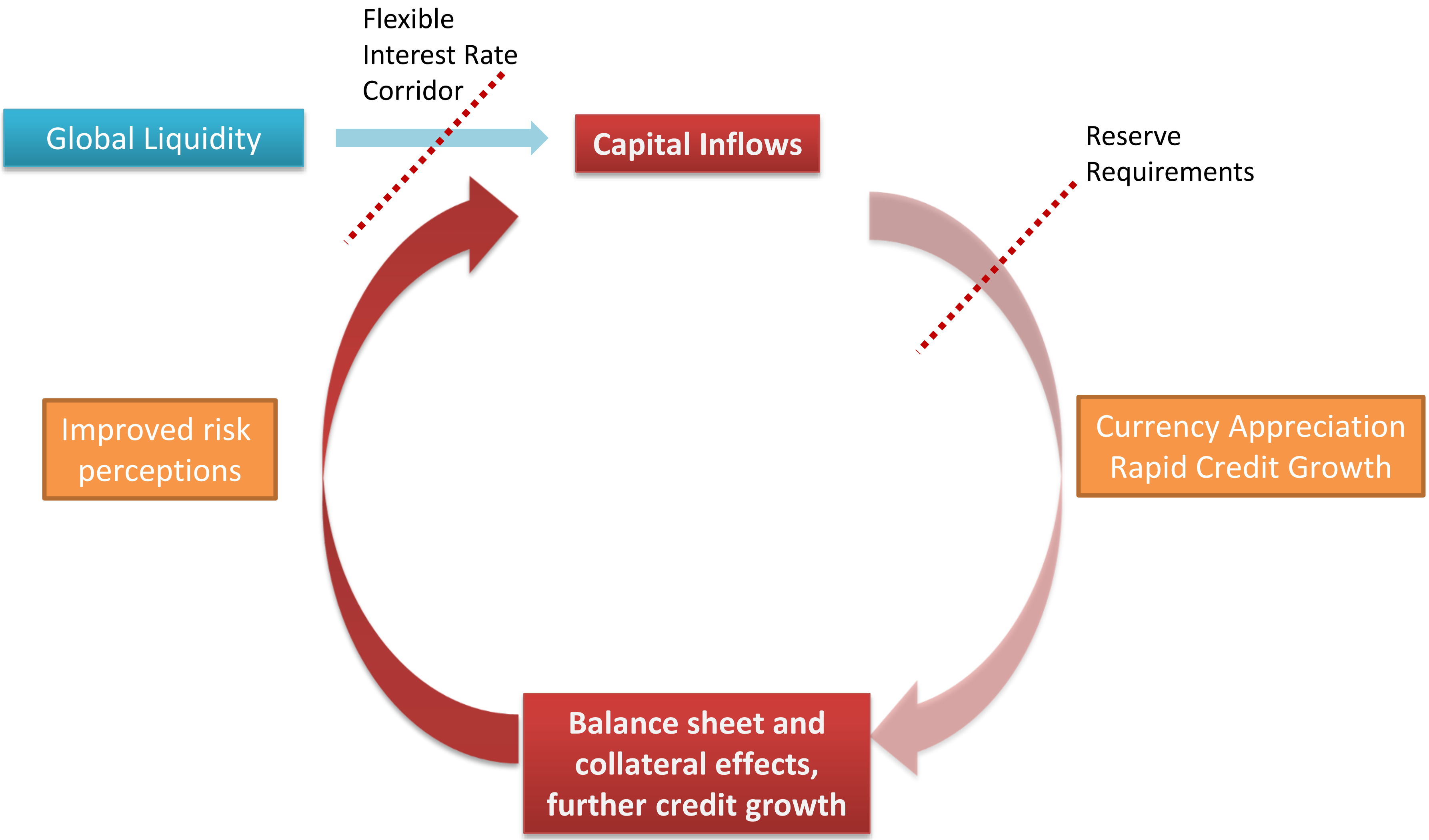
Monetary Policy Framework: Inflation Targeting (IT)

	Conventional Policy
Objectives	Price Stability
Policy Tool(s)	Policy Rate

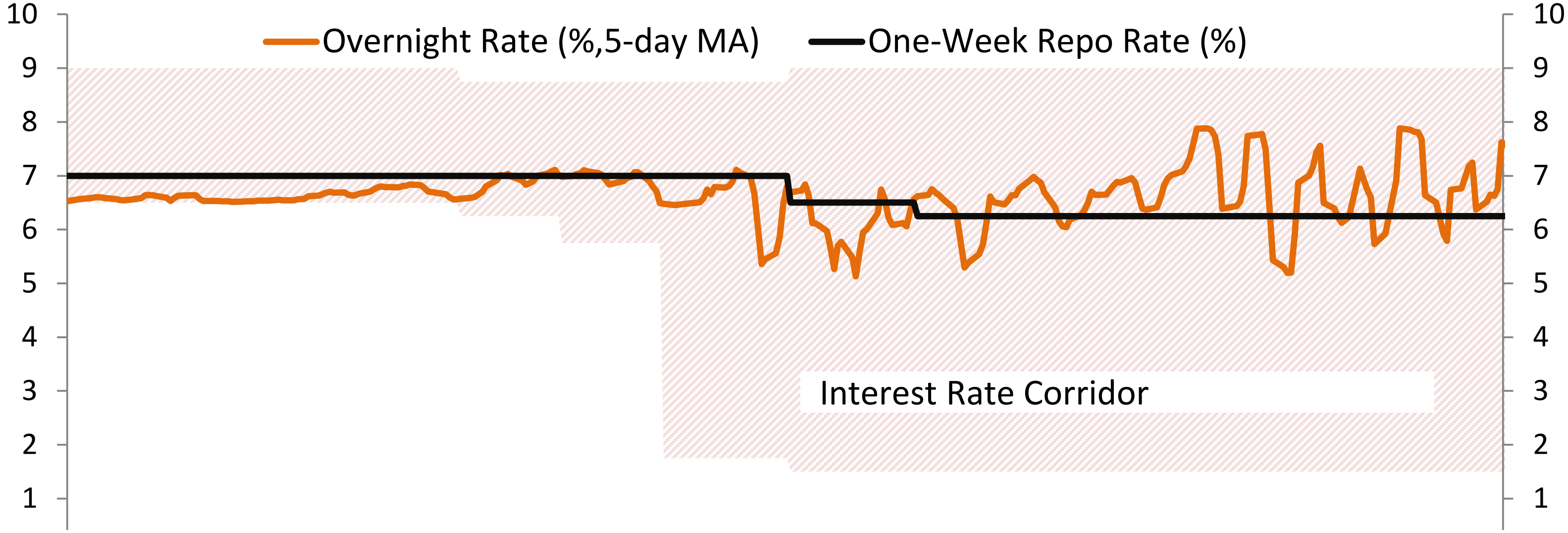
Monetary Policy Framework: Financial stability augmented IT

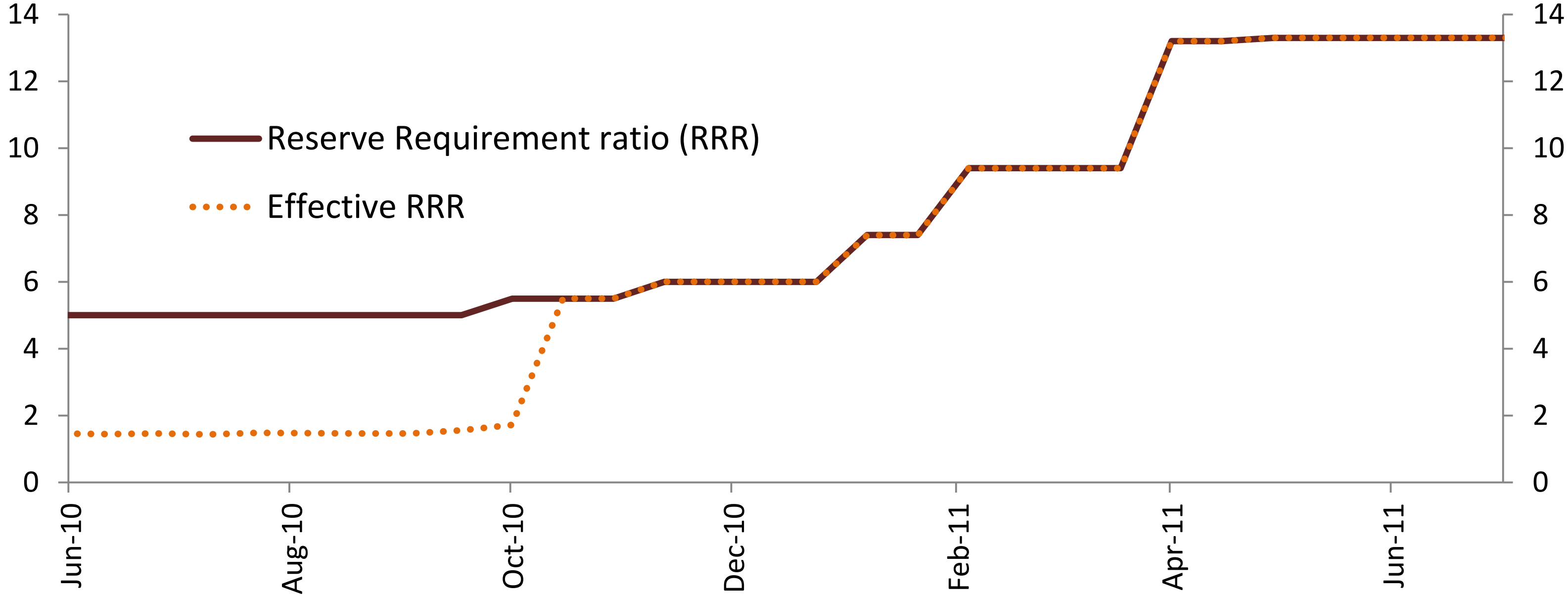
	Conventional IT	IT+Financial Stability
Objectives	Price Stability	Price Stability Financial Stability
Policy Tool(s)	Policy Rate	Policy Rate Interest Rate Corridor Reserve Req. Policy

The policy toolkit has been expanded to weaken the amplification mechanisms triggered by global liquidity cycles.



Using monetary policy tools as macroprudential instruments

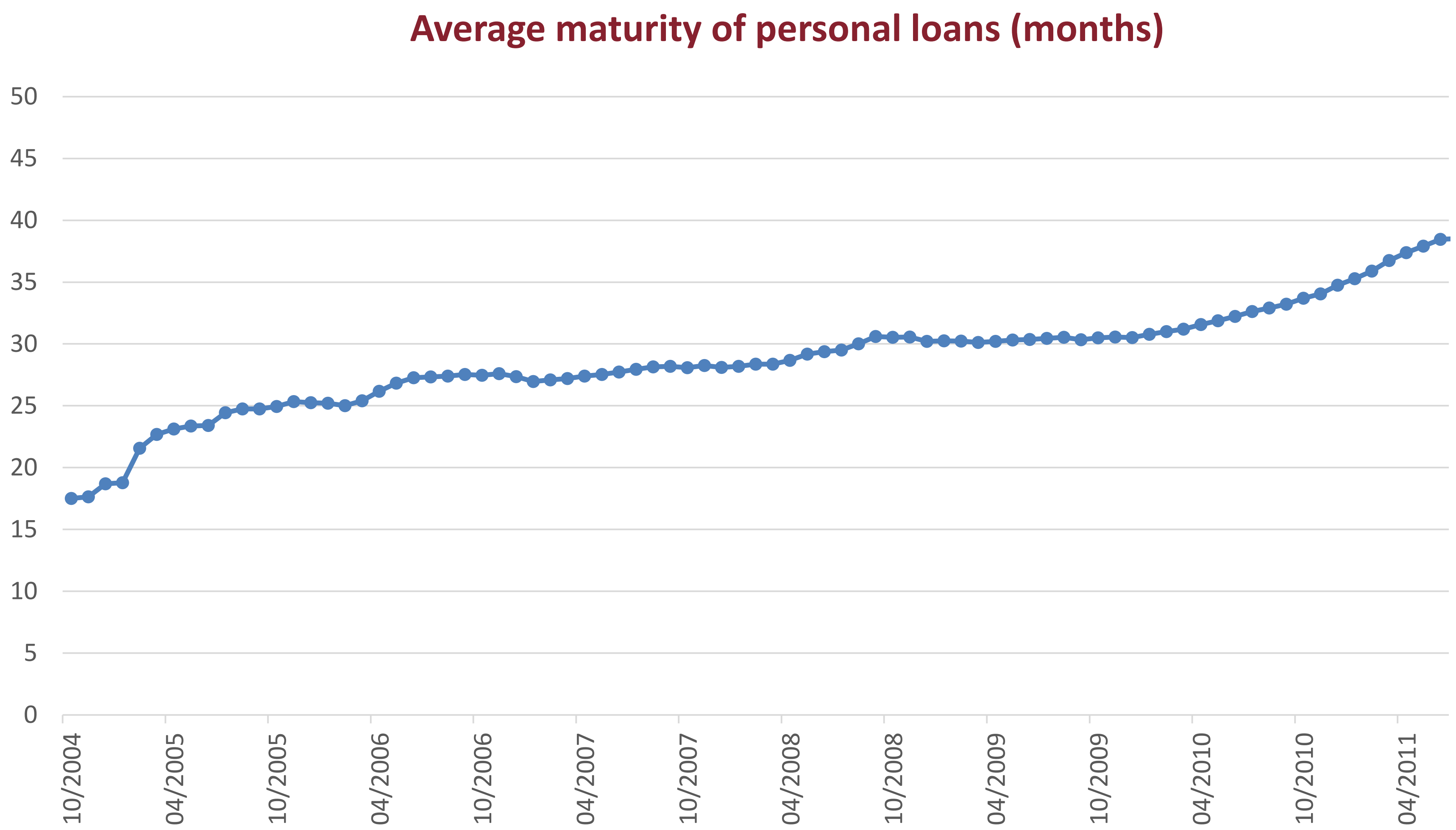




Challenges

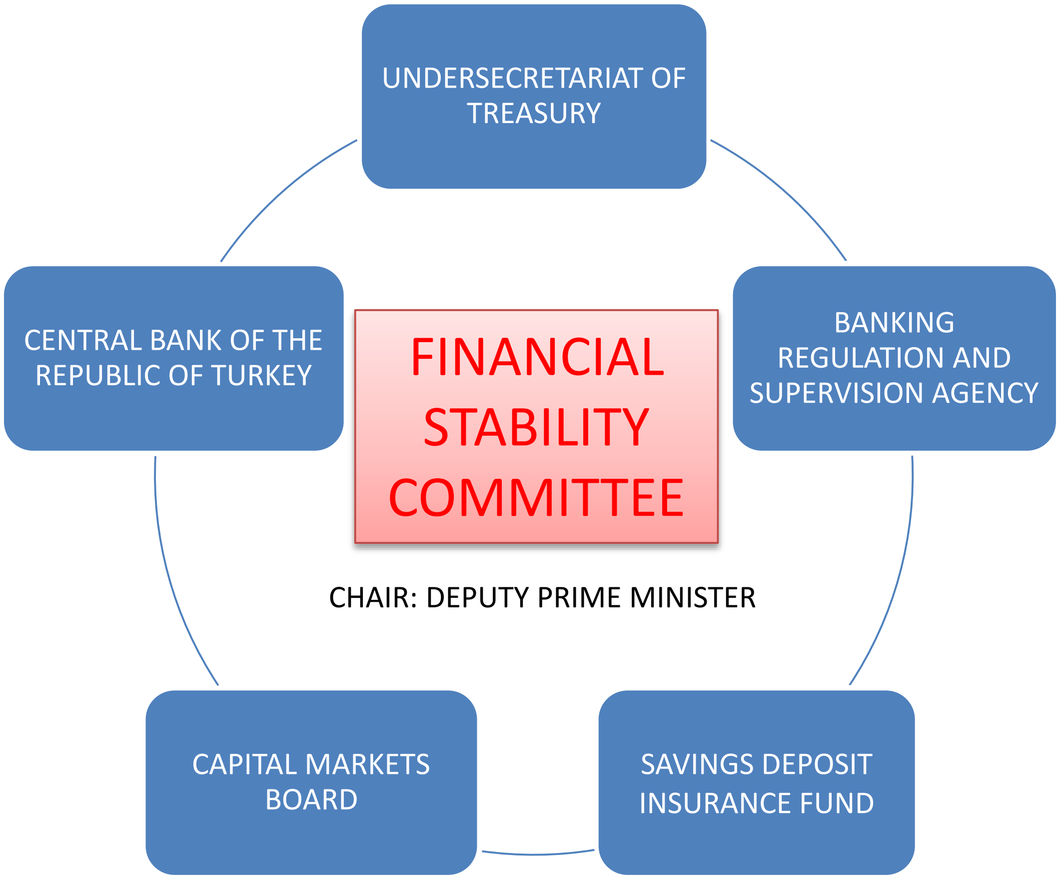
- Complex transmission mechanism of new tools
- Inherently vague nature of financial stability: difficulty of linking each tool to objectives (unlike IT)
- May pose difficulties in managing expectations especially under low credibility of inflation targets.

Extending maturities were also instrumental in credit boom through higher affordability, limiting the impact of monetary policy.



Financial Stability Committee (FSC) was a significant step for the establishment of a formal institutional framework for MaP.

Organization Structure



- Founded in June 2011.
- Enhances information sharing, coordination, and cooperation.
- Main duties are to assess the systemic risks, identify necessary measures, and make relevant policy recommendations.
- No decision power or tools; the power rests with the authorities represented in the Committee.
- Each institution has its own mandate and responsibility.

Broad Objectives of Macroprudential Policy

- Dampen the financial amplification channels
  - Interaction between capital flows, credit, and exchange rate
- Lower the probability of a sudden stop
  - Contain credit growth and household overborrowing
  - Improve the quality of financing

Why focus on household debt?

- Credit booms are the most robust and significant predictors of financial crises.
  - Borio and Lowe (2002), Reinhart and Rogoff (2009), Jorda et al (2011), Gourinchas and Obstfeld (2012), Schularick and Taylor (2012)
- Periods of strong credit growth are typically followed by periods of sluggish economic activity
  - Jorda et al 2013
- Especially, a rise in the household debt to GDP ratio predicts lower output growth over the medium-run.
  - Mian, Sufi and Verner (2015), IMF (2016)

The macroprudential measures to smooth credit cycle and to contain household debt were implemented in two major steps.

First Round (2011)

- Higher risk weights and provisions for consumer loans.
- Limits to credit card payments
- LTV cap for housing loans

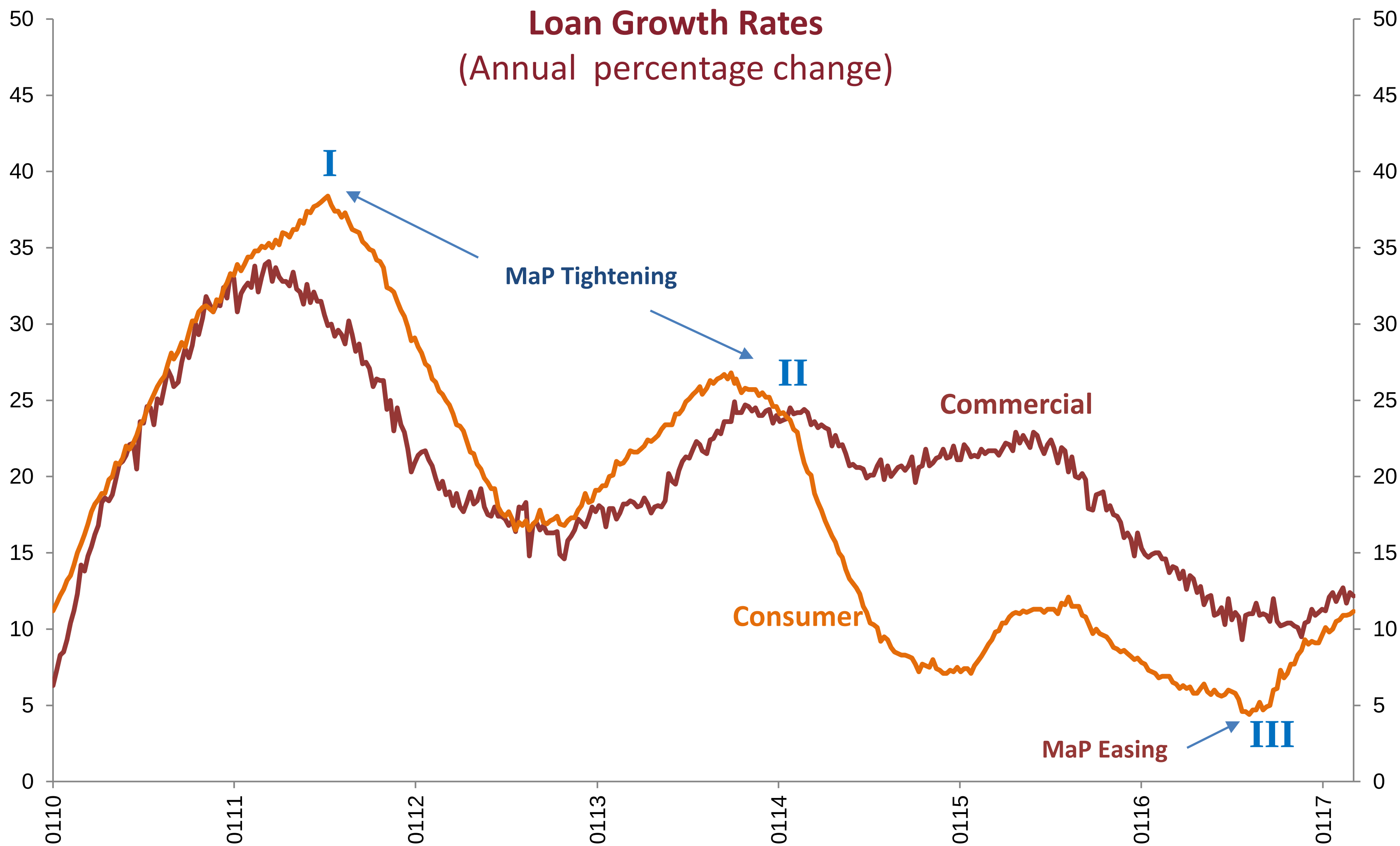
Second Round (2013-2014)

- Caps, limits, and higher risk weights on credit cards
- Maturity restrictions (36 months) for uncollateralized consumer loans
- LTV cap for vehicle loans

Recently (end-2016)

- REVERSAL OF MaP

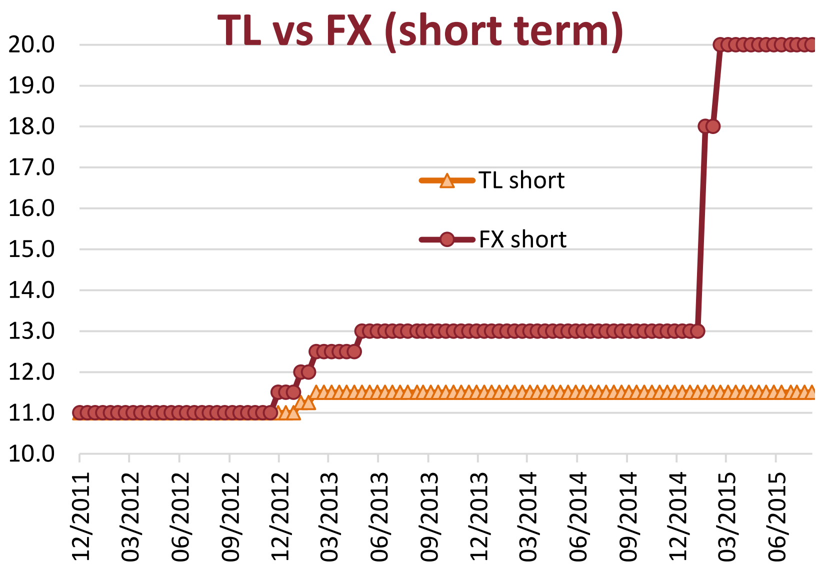
Macroprudential policies have succeeded in smoothing credit cycles.

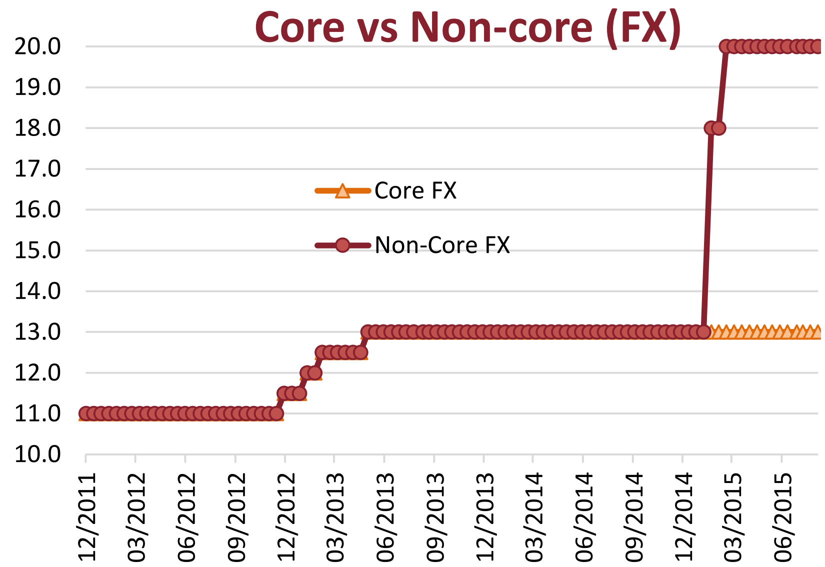


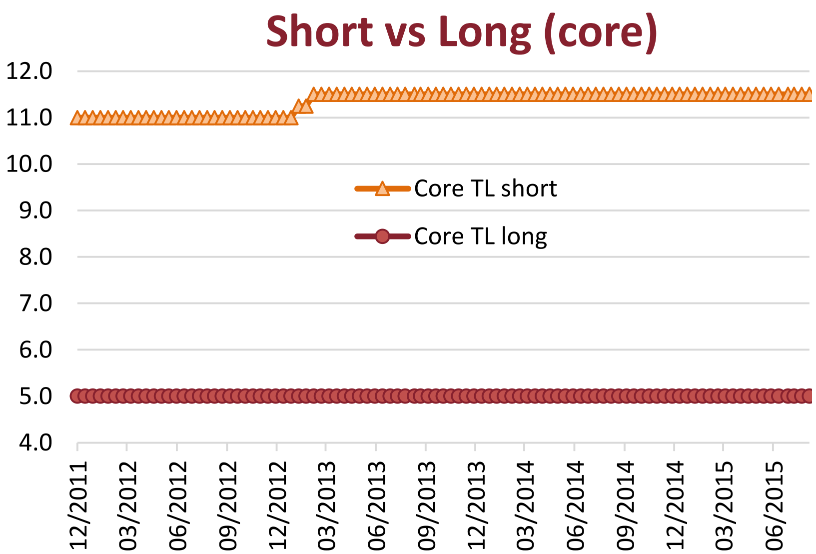
Source: CBRT.

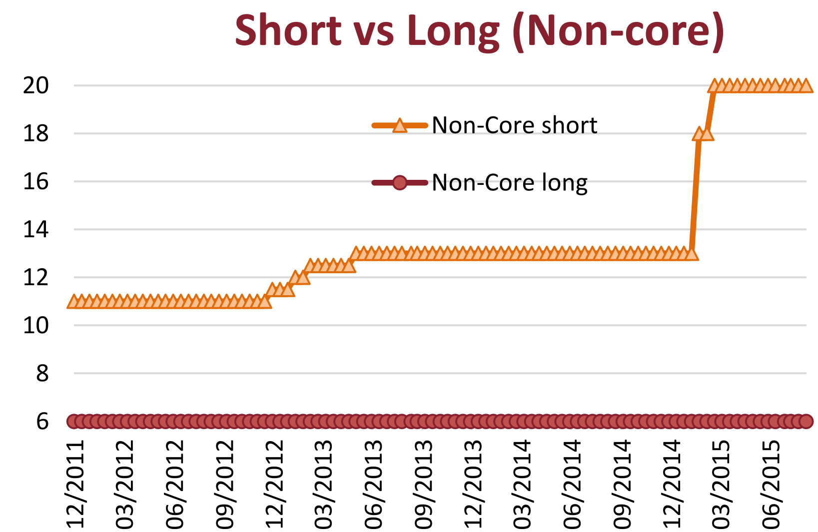
Last Observation: February 2016. Inclusive of loans extended by all types of banks (deposit banks, Participation banks, and development/investment banks). FX adjusted.

Reserve Requirements were used in several dimensions to improve the quality of external finance and bank liabilities.

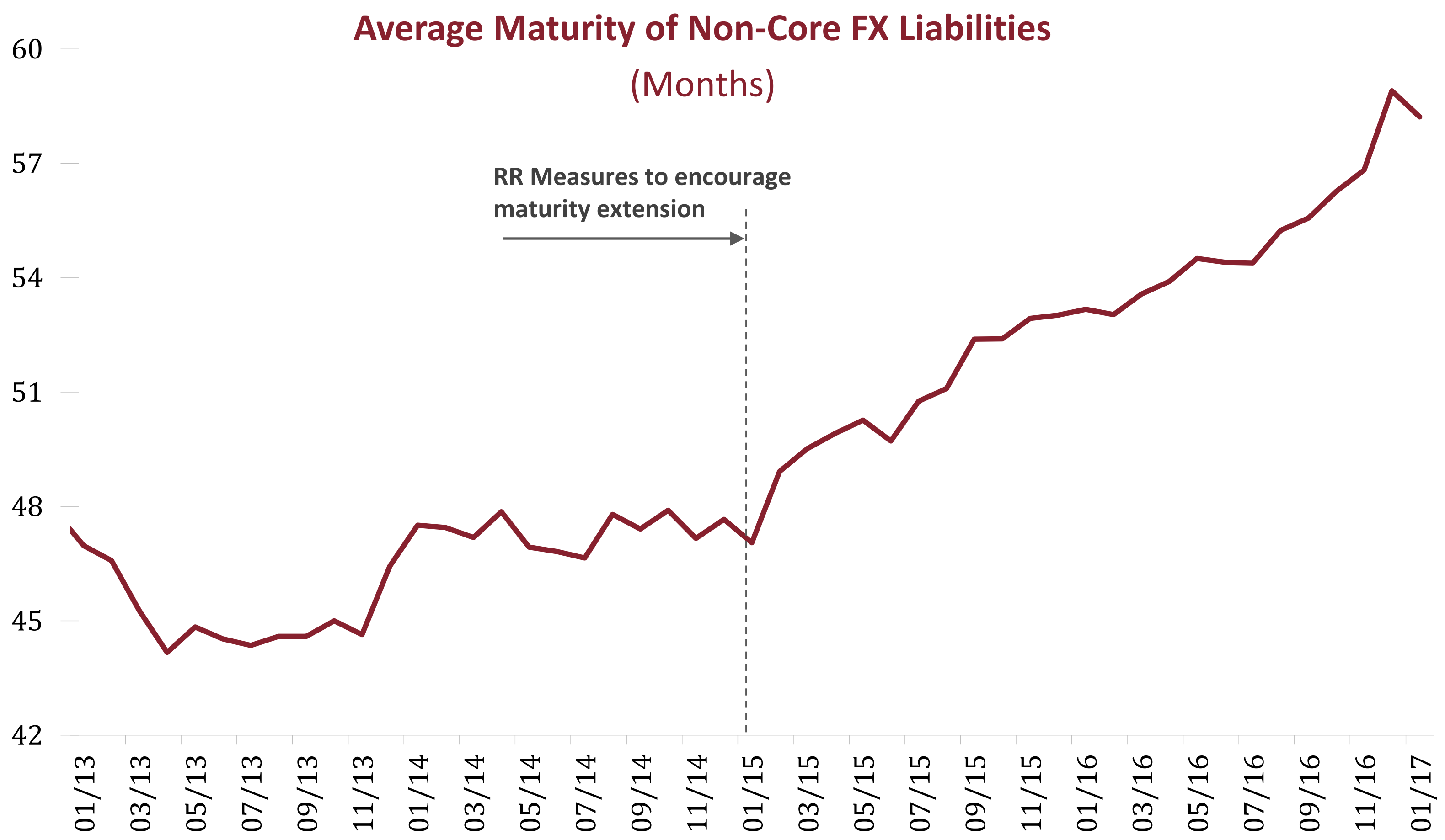








Maturity of banks’ external liabilities has increased considerably.



Source: CBRT. CMB. PDP

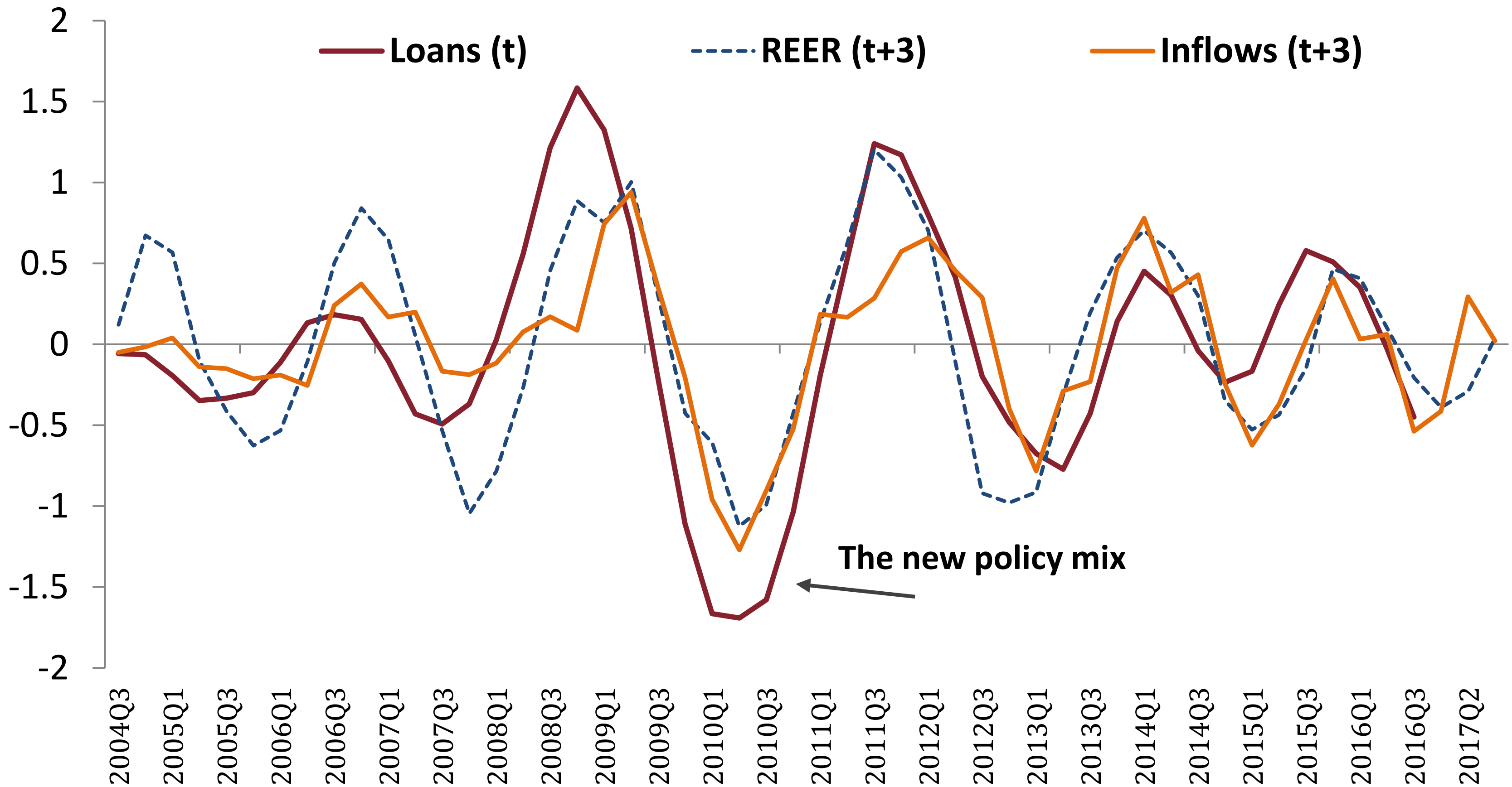
Latest Observation : 01.2017

The Macro Outcome

The interaction between capital flows, exchange rate and bank loans have been dampened since the implementation of MaPs.

Capital flows, exchange rate, and credit cycles

(HP filtered, standardized)

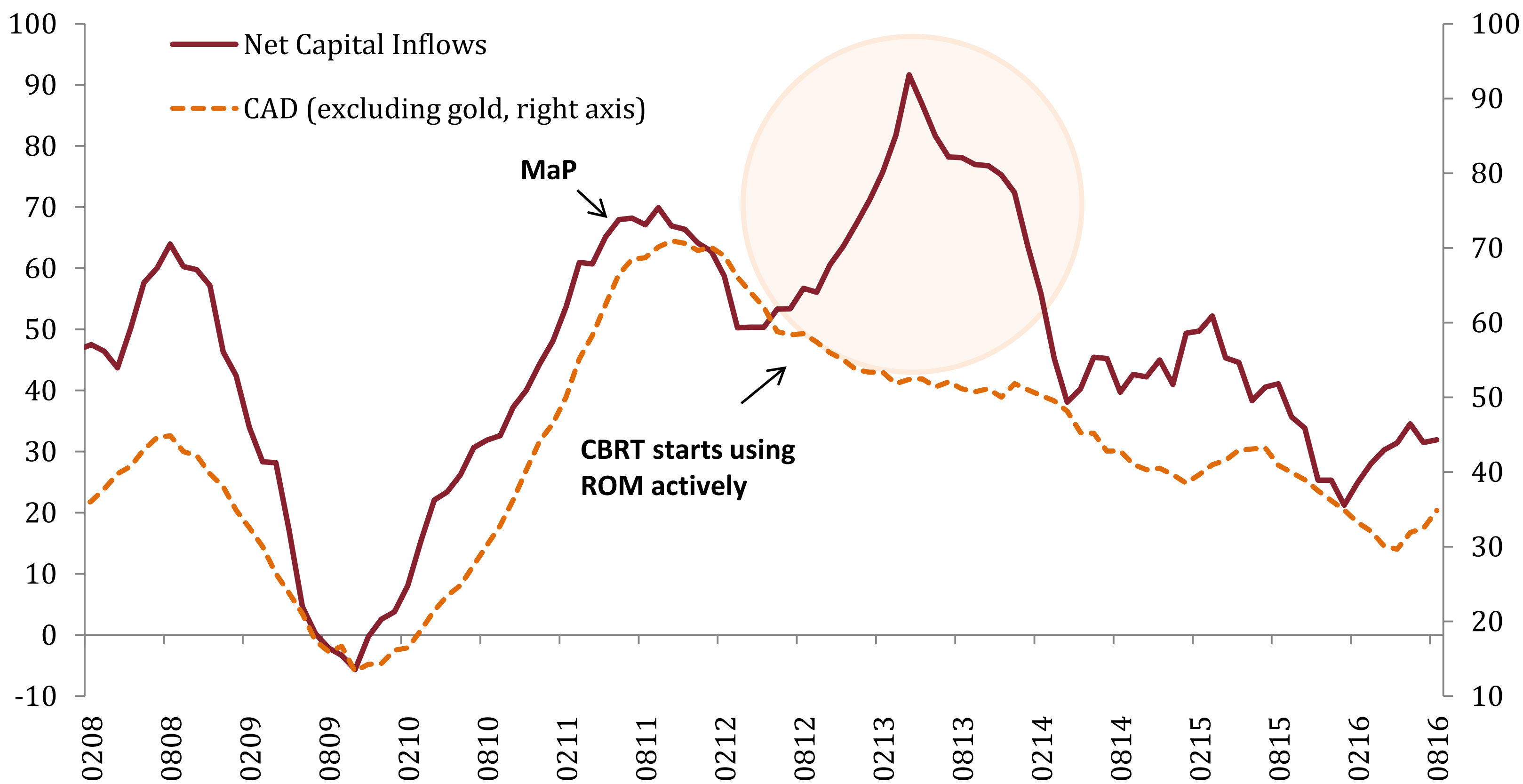


Source: Kara, Özlü and Ünalmış (2015)

Current account balance has shown a persistent and sizeable improvement in recent years, despite the volatility in capital flows.

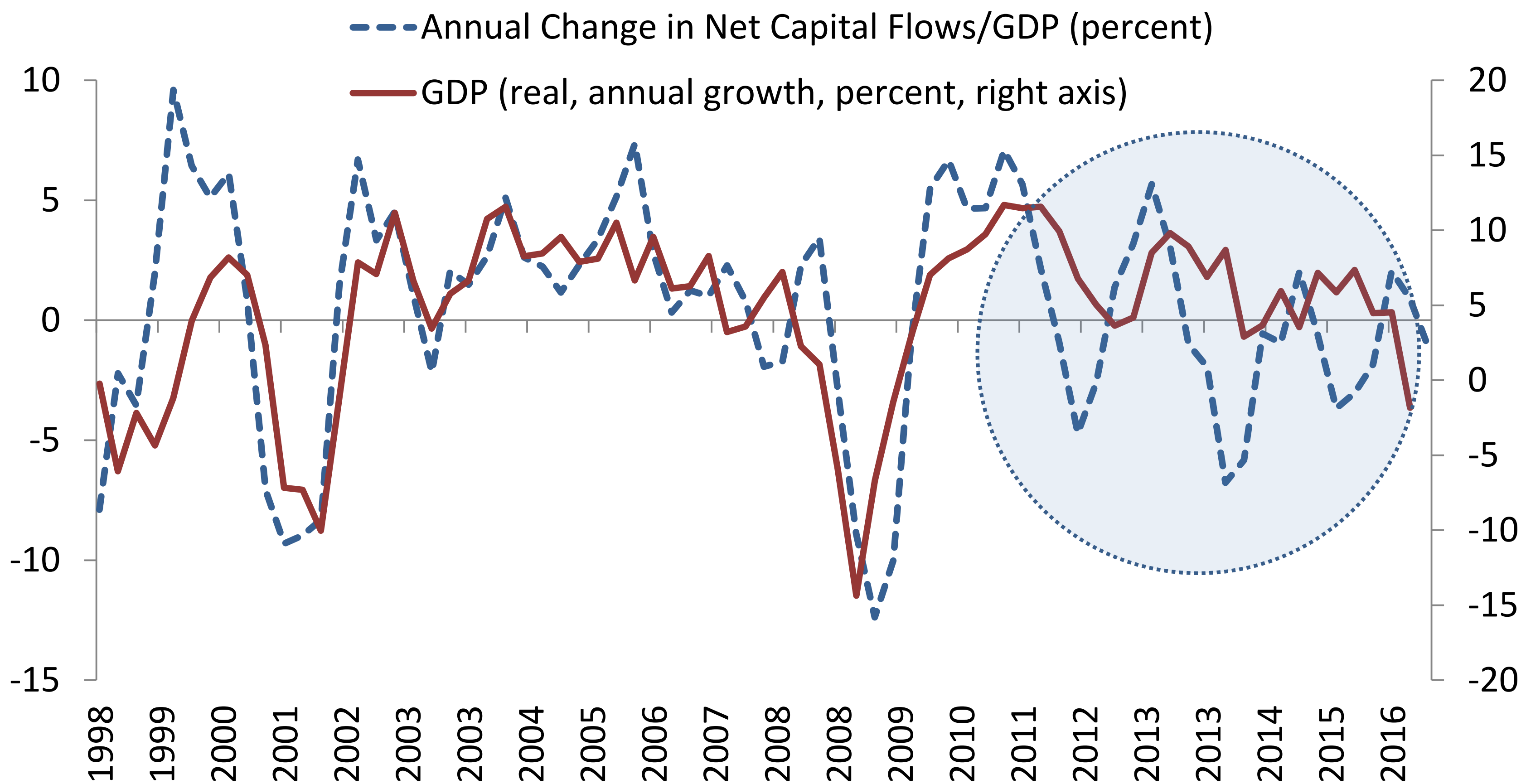
Current Account Deficit and Net Capital Inflows

(12 Month Cumulative, Billion USD)



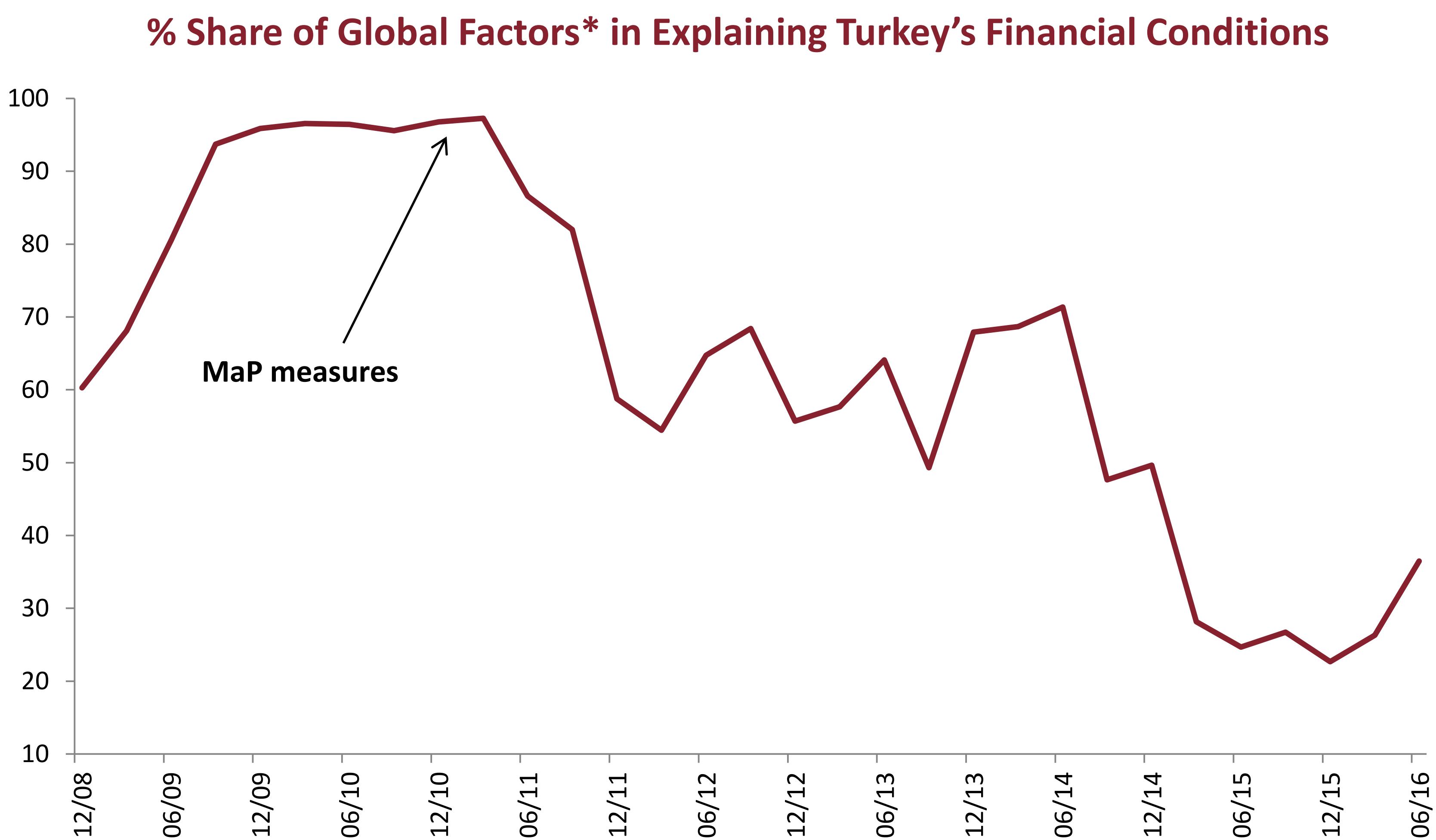
Source: CBRT.

The relationship between capital flows and the growth has weakened considerably after the introduction of new measures.



Source: CBRT.

The contribution of global factors to Turkey's monetary and financial conditions have declined after the implementation of MaP policies.



*Global Factors are VIX index, global growth, US treasury 10-year yield and 10-2 year spread.

Source: Kara, Özlü and Ünalmış (2015)

Concluding Remarks

- Developing economies face more significant policy trade-offs than their advanced counterparts.
- Although monetary policy can temporarily ease the trade-offs by using multiple instruments, this strategy may bring new challenges
  - Difficulties in communication and anchoring expectations
- Coordination between monetary and macroprudential policy may yield more favorable outcomes.
  - Responding to macro financial risks
- Yet, neither monetary policy nor macroprudential policy can substitute for deeper structural reforms.

Final Remarks

- Addressing the real source of the problem is essential.
- Structural problems should be tackled with structural policies.
- Central banks may contribute through:
  - Identifying the structural components regarding policy trade-offs
  - Raise public awareness
  - Facilitate the coordination of relevant parties to resolve them.

without loosing their main focus on price stability.

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