

The interplay between macroprudential and other policies: experience from the UK

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13 November 2014

IMF/Riksbank Conference, Stockholm, Sweden

Outline

- Rationale for macroprudential policy and tools
- Macroprudential framework in the UK
- Examples of interaction with other arms of policy

Rationale and tools of macroprudential policy

Pre-crisis consensus

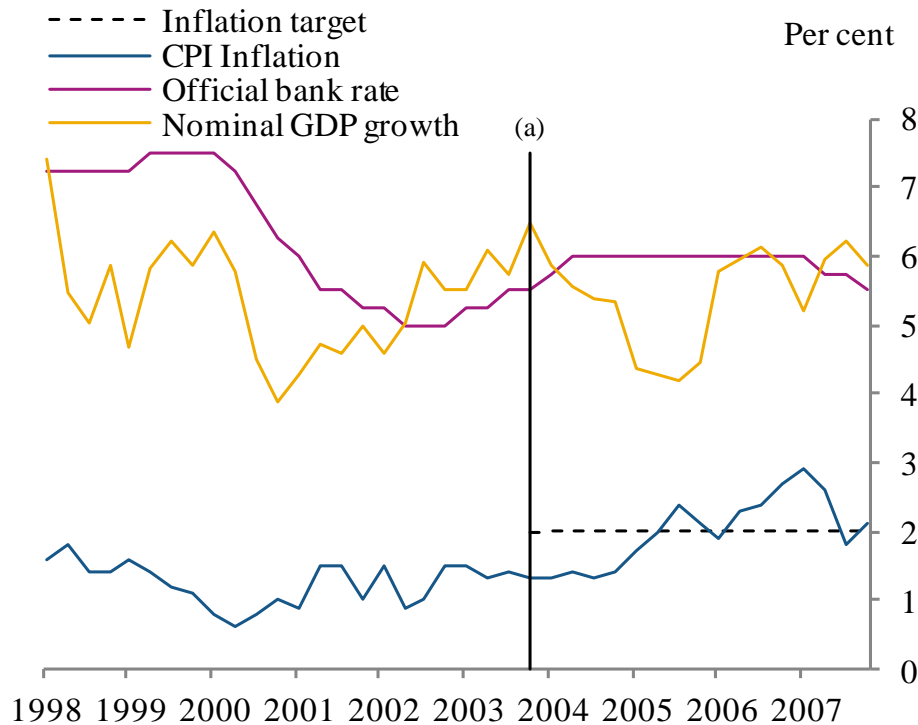
“The notion that a well timed incremental tightening could have been calibrated to prevent the late 1990s bubble is almost surely an illusion.” [Monetary policy cannot lean against financial imbalances].

“Instead, we noted...the need to focus on policies to mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion.” [Instead, it can clean.]

Greenspan, A (2002), “Opening Remarks”, in *Rethinking Stabilization Policy*, Federal Reserve Bank of Kansas City

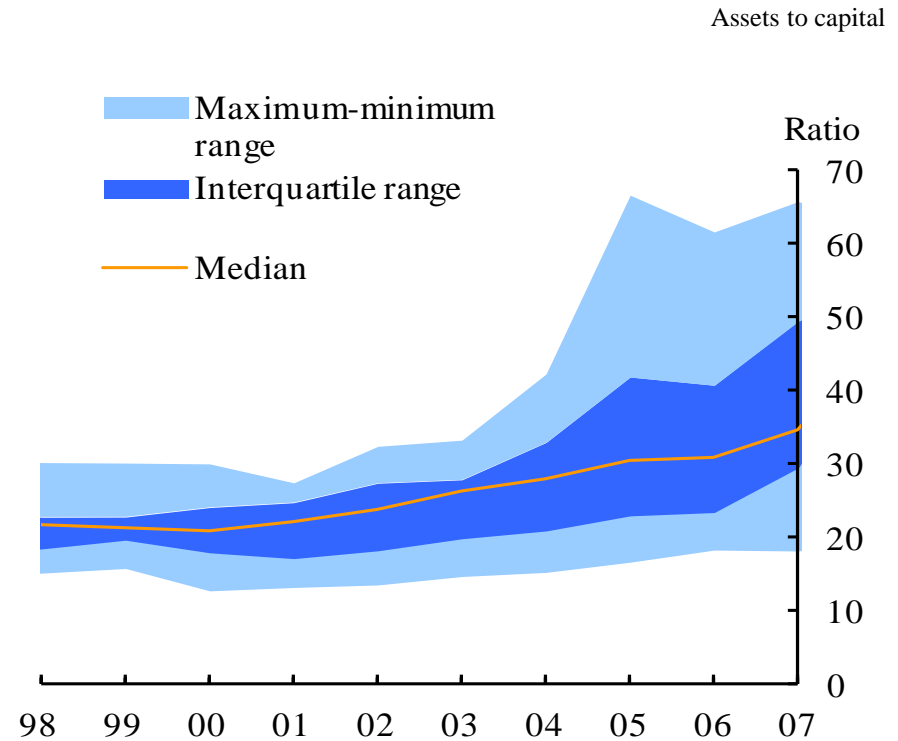
UK monetary policy and financial stability pre-crisis

Real economy stability...



(a) Date MPC shifted to a 2% CPI inflation target

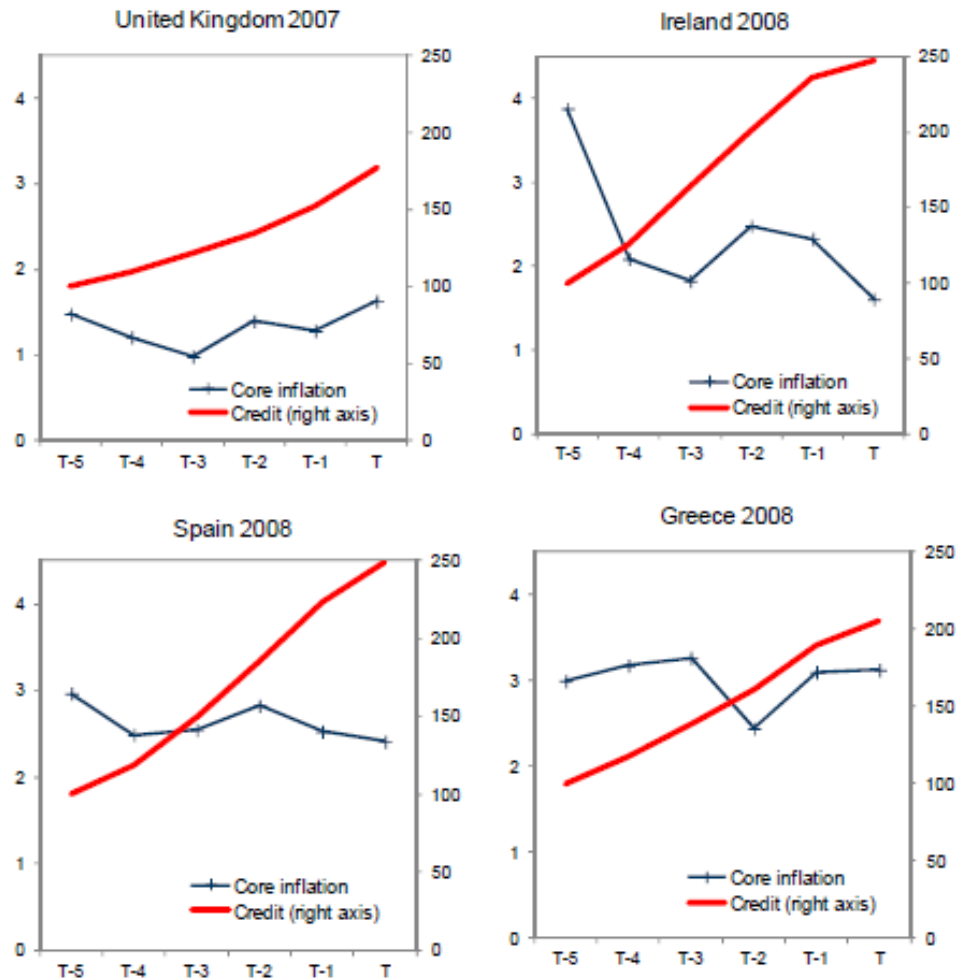
...Financial economy instability



Sources: Published accounts and Bank calculations.

Credit growth and monetary policy elsewhere

Selected countries that experienced a boom in the run-up to the crisis



Sources: IMF *International Financial Statistics*, *World Economic Outlook*; staff calculations.
Notes: Credit is indexed with a base value of 100 five years prior to the crisis.

Emerging consensus

- Price stability a necessary but not sufficient condition for financial stability
- Use macroprudential policy tools first to build resilience when financial imbalances appear in order to put less pressure on monetary policy to lean and clean
- But macroprudential policy is untested and regulatory perimeter does not extend to all firms: hence do not rule out a leaning role for monetary policy, but not as first line of defence

Eg, Bean, C (2012), “Central banking in boom and slump”, JSG Wilson Lecture in Economics, University of Hull; Ingves, S (2014), “Monetary policy and financial stability in a globalised world”, speech delivered to the Swedish Economic Association, Stockholm School of Economics, Stockholm; Spencer, G (2014), “Coordination of Monetary Policy and Macro-prudential Policy”, speech to Credit Suisse Asian Investment Conference in Hong Kong.

Risk-taking channel of monetary policy

“The idea that regulation can allow the growth benefits of easy credit to come without the costs is a chimera. It is precisely the increases in asset values and increased ability to borrow that stimulate the economy that are the proper concern of prudential regulation.”

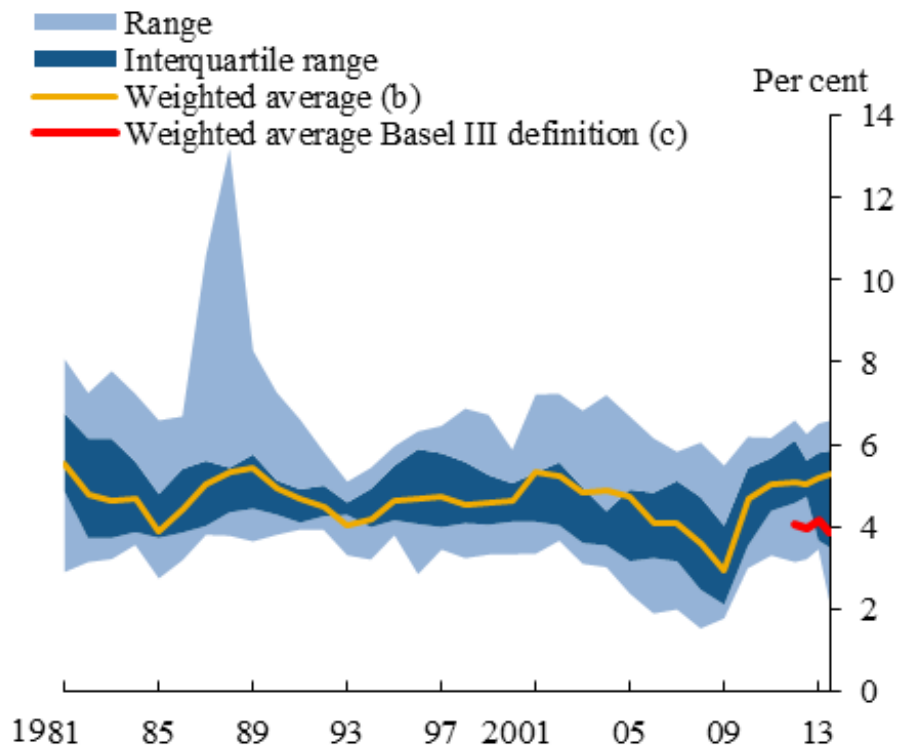
Summers, L (2014), “Washington must not settle for secular stagnation”, *Financial Times*, 5 January.

Macroprudential tools to deal with cyclical risk

- Countercyclical macroprudential tools - “time-series” dimension of systemic risk
- Countercyclical capital and leverage ratio requirements; countercyclical sectoral risk weights; countercyclical LTV and LTI ratios; countercyclical liquidity tools; countercyclical margins and haircuts

Macroprudential policy and structural risk

Leverage ratio^(a)



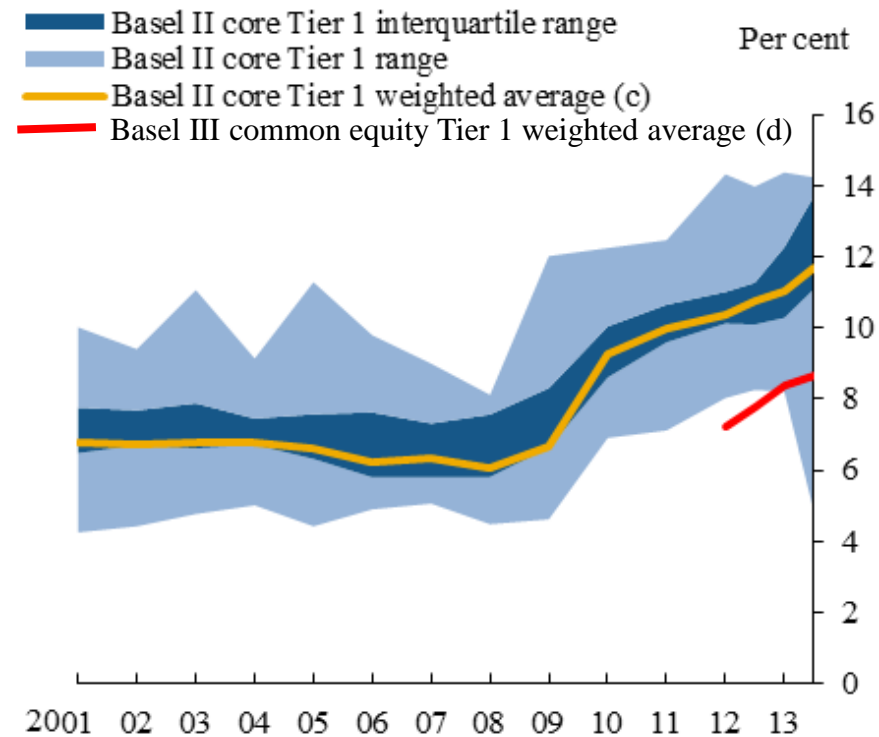
Sources: PRA regulatory returns, published accounts and Bank calculations.

(a) The mean and ranges shown are based on the simple leverage ratio defined as the ratio of shareholders' claims to total assets based on banks' published accounts (note a discontinuity due to introduction of IFRS accounting standards in 2005, which tends to reduce leverage ratios thereafter). Data exclude Northern Rock/Virgin Money from 2008.

(b) Weighted by total assets.

(c) This corresponds to the estimates submitted to the PRA by banks on a best endeavours basis based on the original Basel III 2010 definition (BCBS (2010d)) (aggregate peer group Tier 1 capital over aggregate leverage ratio exposure). During 2013, the BCBS has been reviewing the exposure measure used for the Basel III definition, with a view to publishing a final definition early in 2014. This may differ from the definition used in this Policy Statement. Tier 1 capital includes some 'grandfathered' instruments which will no longer be eligible after the full transition in 2019. The Basel III sample includes Barclays, HSBC, Lloyds Banking Group, RBS, Nationwide, Santander UK and Co-operative Banking Group

Capital ratio^{(a)(b)}



Sources: PRA regulatory returns, published accounts and Bank calculations.

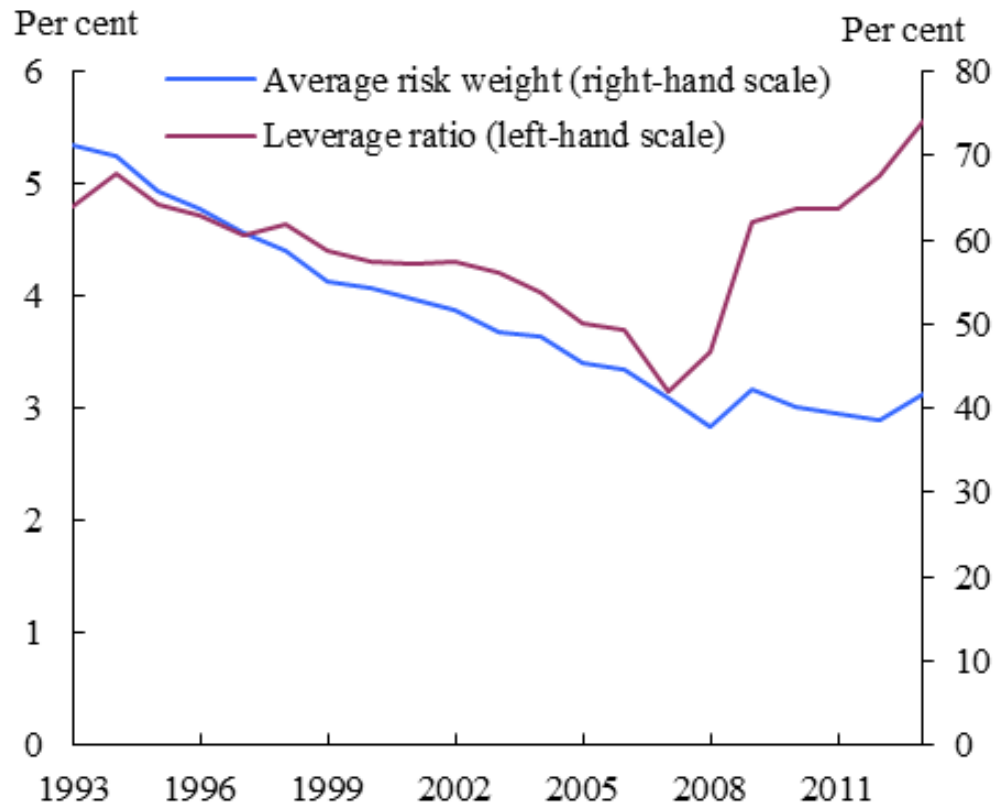
(a) Major UK banks' core Tier 1 capital as a percentage of their risk-weighted assets. The series uses the major UK banks peer group as of 2014 and their constituent predecessors. Data exclude Northern Rock/Virgin Money from 2008.

(b) From 2008, the chart shows core Tier 1 ratios as published by banks, excluding hybrid capital instruments and making deductions from capital based on PRA definitions. Prior to 2008 that measure was not typically disclosed; the chart shows Bank calculations approximating it as previously published in the *Financial Stability Report*.

(c) The mean is weighted by risk-weighted assets.

(d) The 'Basel III common equity Tier 1 capital ratio' is calculated as aggregate peer group common equity Tier 1 levels over aggregate risk-weighted assets, corresponding to the Basel III estimates submitted to the PRA by banks on a best endeavours basis. The Basel III sample includes Barclays, HSBC, Lloyds Banking Group, RBS, Nationwide, Santander UK and Co-operative Banking Group.

Average risk weights and leverage ratios since 1996^{(a)(b)}



Source: The Banker and Bank calculations.

(a) The series represent the weighted averages across the sample of 17 global banks. Leverage ratio measured as Tier 1 capital/Assets.

(b) Sample includes Bank of America, Barclays, BNP Paribas, Bank of New York Mellon, Citigroup, Commerzbank, Deutsche Bank, HSBC, ING, JP Morgan, Lloyds Banking Group, Royal Bank of Scotland, Santander, State Street, UBS, UniCredit and Wells Fargo.

Other structural fault lines

- Low quality capital resources
- No recognition that systemically important banks need greater loss absorbing capacity to tackle TBTF
- No system-wide approach to stress testing

Macroprudential tools to deal with structural risk

- Structural macroprudential tools - “cross-sectional” dimension of systemic risk
- Leverage ratio requirements guard the system from structural risk-weight under-estimation
- Supplementary risk-weighted and leverage ratio buffers for systemically important banks mitigate the risk of TBTF
- Concurrent stress testing of systemically important banks to inform both macro- and microprudential policy

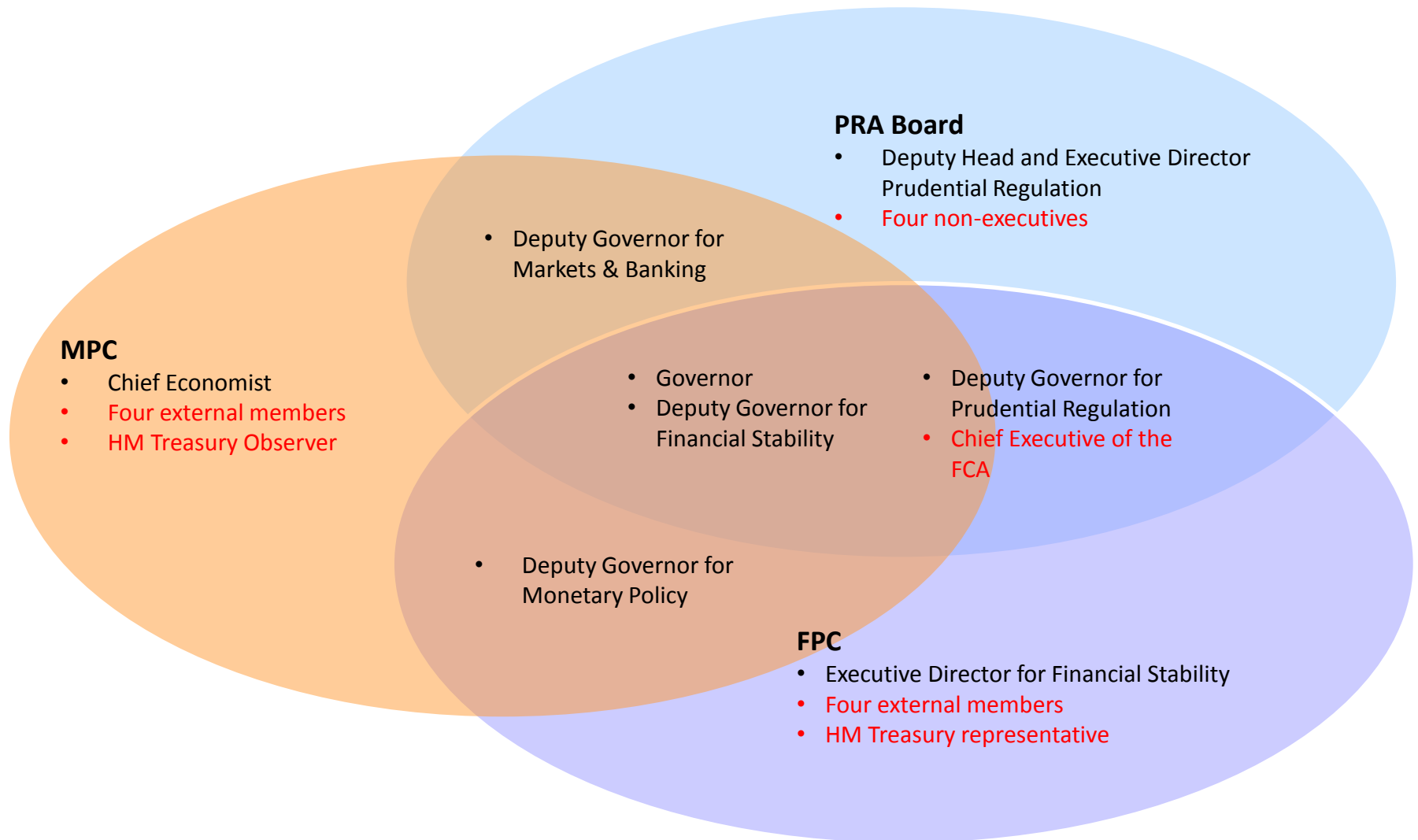
The UK's macroprudential framework

The Financial Policy Committee

Part of wider change to the regulatory architecture in the UK first announced in 2010:

- Creation of a prudential regulator inside the Bank – the PRA
- Creation of a financial conduct regulator, not part of the Bank – the FCA
- Creation of Special Resolution Regime for banks, inside the Bank
- Creation of a macroprudential Committee inside the Bank – the FPC

UK monetary and financial stability framework



Objectives: FPC and MPC

FPC

1. Identify, monitor and take action to **remove or reduce systemic risks** with a view to enhancing and protecting the resilience of the UK financial system.
2. Subject to that, **support the economic policy of the Government** (growth and employment)

MPC

1. Stable prices (2% inflation target) and confidence in the currency

Objectives: PRA and FPC

1. Promote the safety and soundness of banks, building societies, credit unions, insurers and major investment firms and, specifically for insurers, to contribute to securing an appropriate degree of policyholder protection.
2. Subject to that, facilitate effective competition.

In achieving (1), the PRA focusses primarily **on the harm that financial firms cause to the stability of the UK financial system.**

FPC Tools

- Direction powers
 - focussed on countercyclical tools that speak to the ‘time series’ dimension of systemic risk
 - forthcoming legislation to set supplementary buffers for systemic firm(s) that speak to the ‘cross-sectional’ dimension of systemic risk
- Recommendation powers
 - used extensively since FPC formed
 - regulatory perimeter
- Evolving toolkit

Examples of coordination

Example 1: FS knockout and forward guidance

- On 7 August 2013, MPC announced a policy of explicit forward guidance
- This would cease to apply if one of three ‘knock-outs’ were breached, one of which – the FS knock out – lies in the hands of FPC
- Breached if “the FPC judges that the stance of monetary policy poses a significant threat to financial stability that cannot be contained by the substantial range of mitigating policy actions available to the FPC, the FCA and the PRA in a way consistent with their objectives”

Example 2: Risks from housing

- In June 2014, the FPC was concerned by the financial stability consequences of a prospective increase in highly indebted households
- Recommended to PRA and FCA to limit the flow of new mortgage lending to high loan-to-income borrowers to 15% of the number of total new mortgages per quarter and made a further recommendation on affordability tests
- Calibration intended not to affect aggregate mortgage activity under the MPC's expected path for inflation and output but to lean against loosening of mortgage underwriting standards => build resilience, whilst allowing monetary policy to support activity
- Involved significant coordination between the MPC and FPC, including joint meetings

Example 3: Concurrent stress tests

- FPC and PRA have been coordinating in the development of the UK variant of major UK banks' stress tests (to be announced on 16 December)
- FPC will use the stress tests to inform the setting of its countercyclical instruments alongside indicators and FPC judgement
- PRA will use the stress tests and supervisory judgement to inform the setting of its microprudential "Pillar 2" buffer to capture firm-specific risk
- Coordination to ensure no double-counting but also no offsetting of each other's policy
- Involved significant coordination between PRA and FPC including joint meetings between the PRA Board and FPC

Summary

- UK macroprudential framework consistent with emerging consensus on role of macroprudential policy
- Built-in coordination with monetary policy and microprudential policy
- Knowledge and framework still evolving

Policy Challenges & Policy Tools

Riksbank & IMF conference

Stockholm

Prof. Nathan Sussman

Director of Research, MPC member, Bank of Israel

November 13, 2014



Monetary Policy Dilemmas of Small Open ITs since the GFC

- ❖ Slow growth, and monetary easing at major CBs, exposes a small open economy to exchange rate appreciation and lower global demand.
- ❖ Global monetary easing may directly and/or indirectly, via monetary policy reaction, affect asset prices and raise domestic financial stability concerns.
- ❖ Balancing growth, inflation and financial stability calls for use of multiple policy tools, including macroprudential.
- ❖ In Israel: Recent start of natural gas production and risk of Dutch Disease call for policy reaction.



BOI's Policy Objectives

- ❑ Maintain price stability, as the central goal.
- ❑ Support economic policy, primarily growth, employment and reducing social gaps.
- ❑ Support the stability and orderly activity of the financial system.

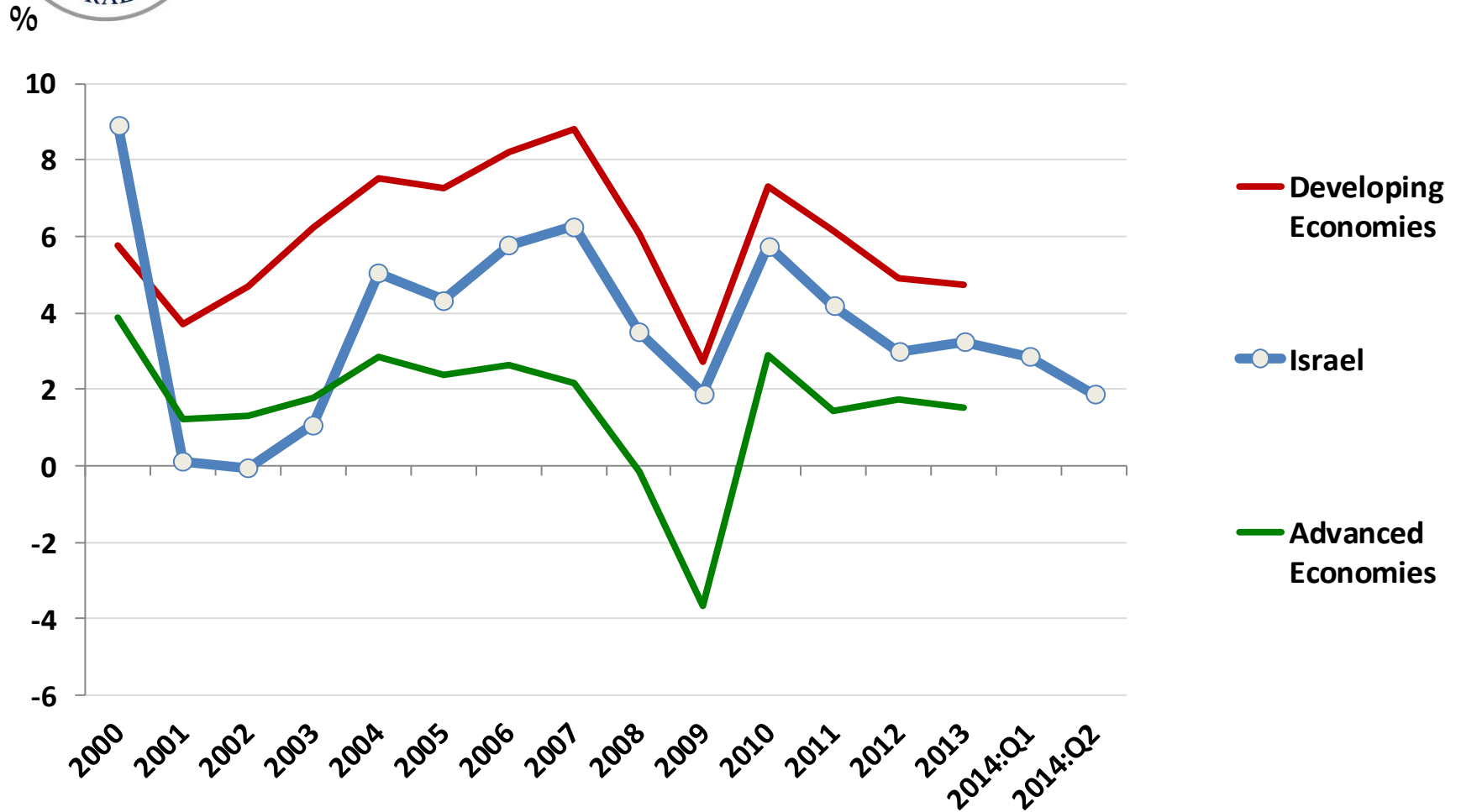


Basic Economic Developments



GDP Growth Rates

(2000-2014: Q2)



- Quarterly data show the seasonally adjusted rate of change from the previous quarter at an annualized rate.

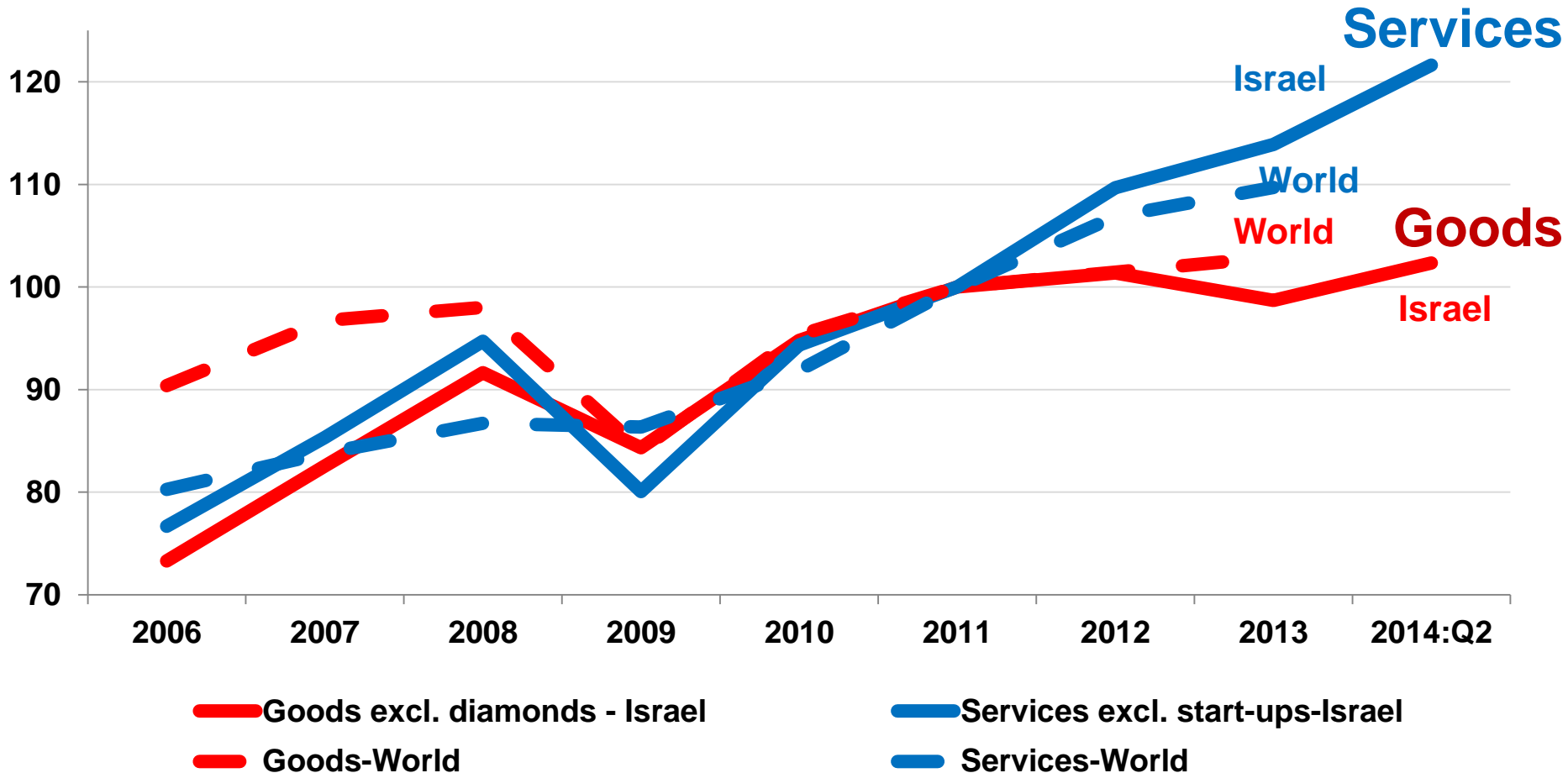


Goods and Services Exports

Israel (excl. diamonds and start-ups) and the World

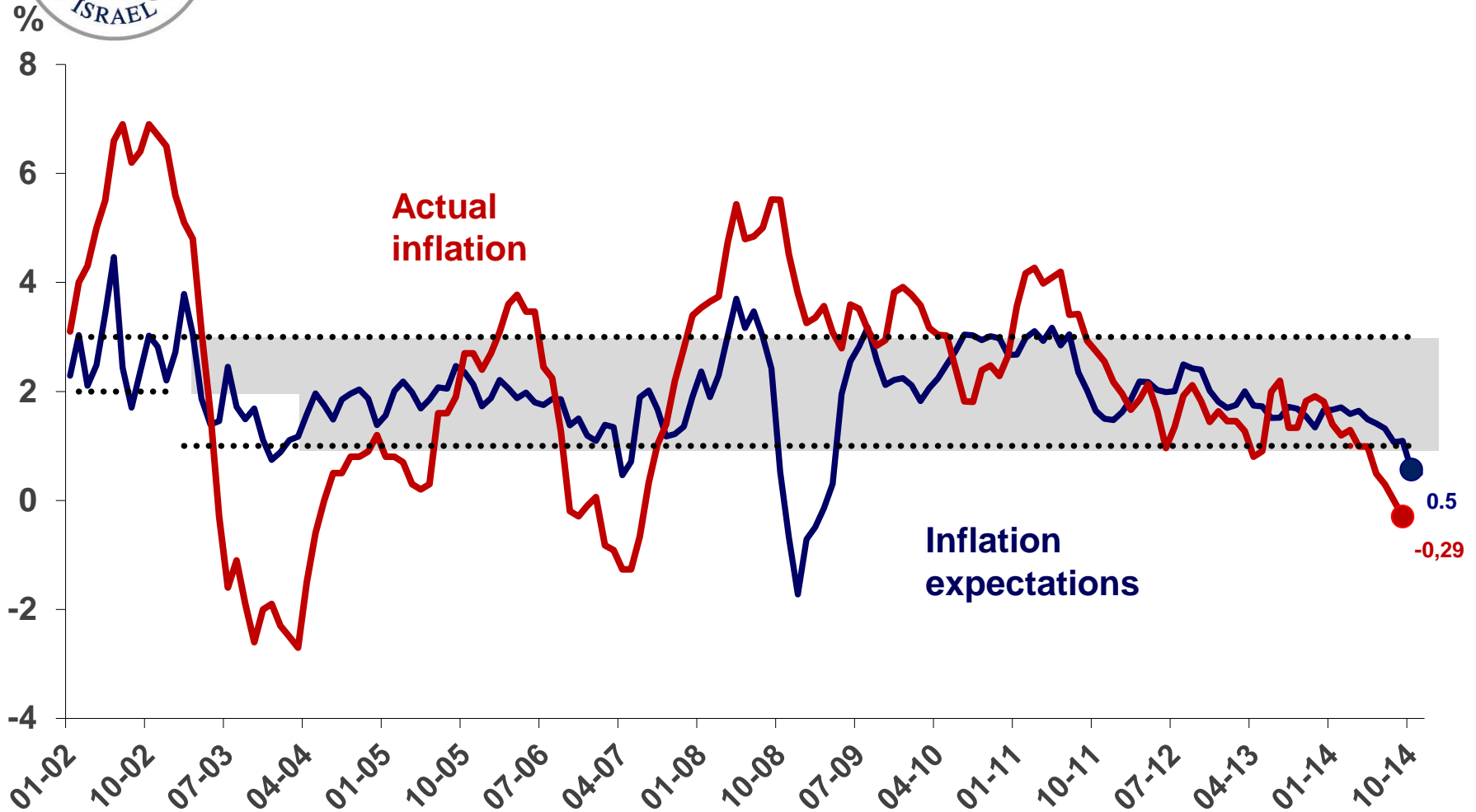
(2011=100, 2006-2013)

Index





Actual Inflation and Inflation Expectations (2002-2014)



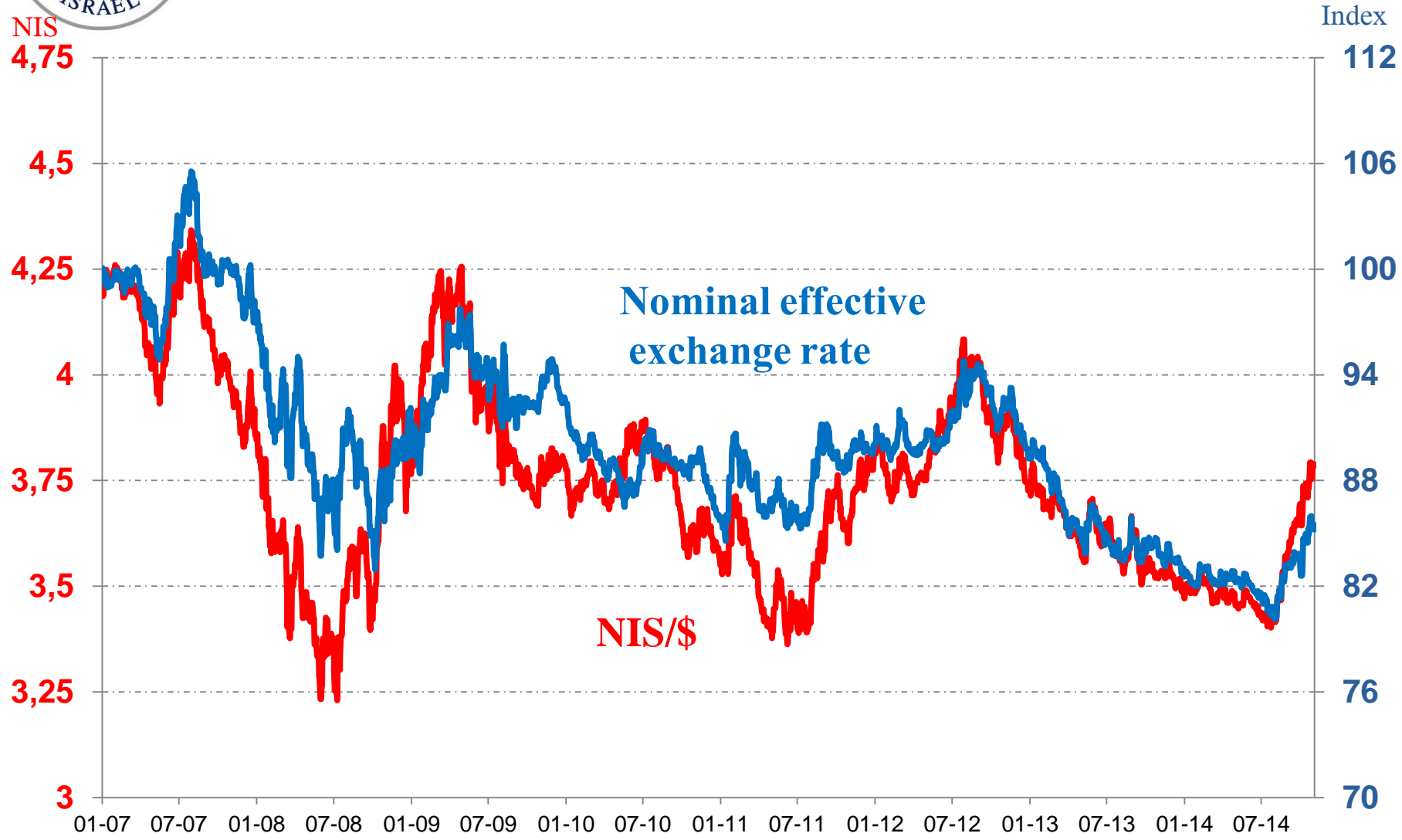
Inflation over past 12 months.

Inflation expectations for 12 months derived from the Capital Market.

NIS/\$ and Nominal Effective Exchange Rates



(2007-2014)

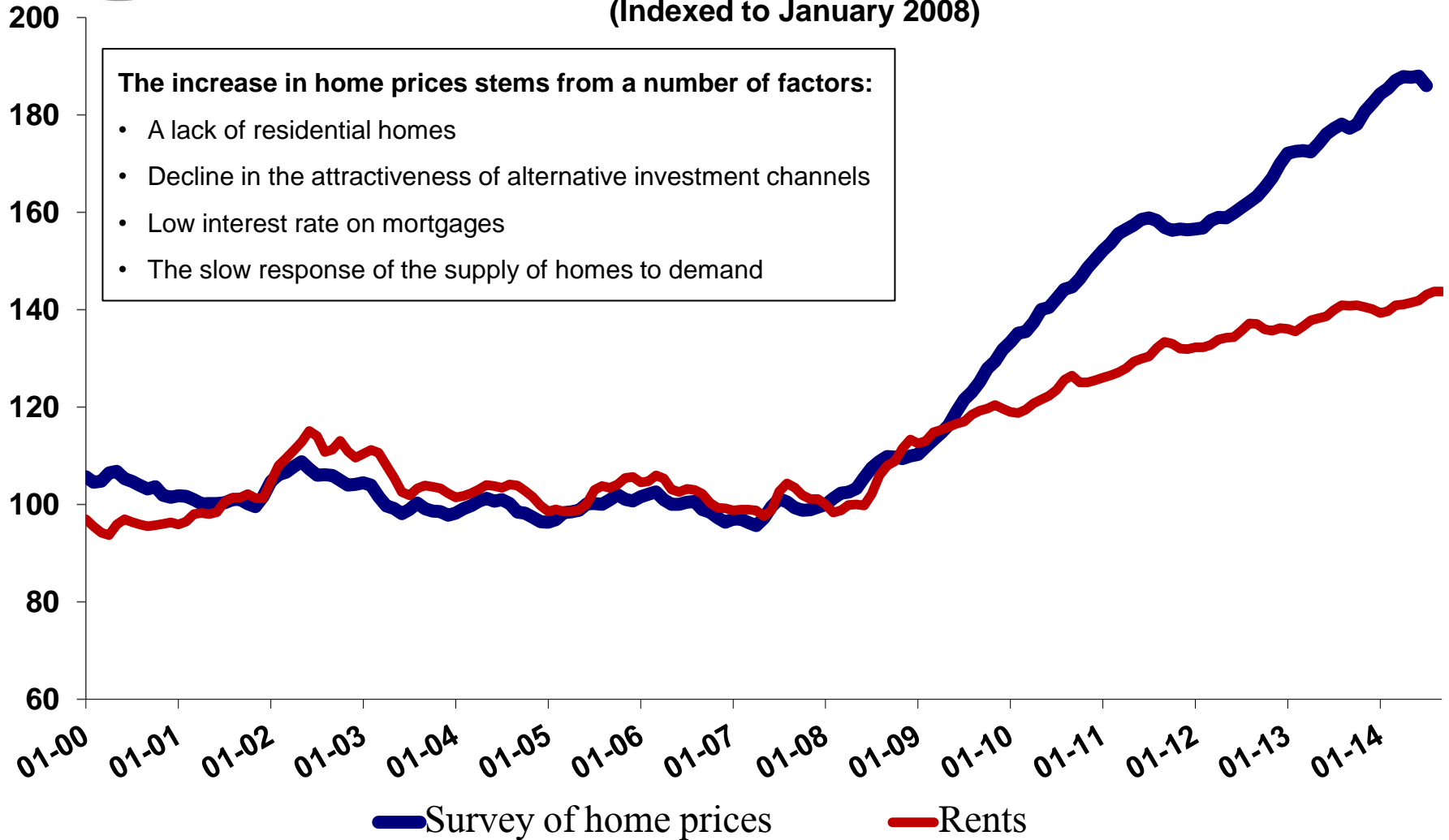


Source: Bank of Israel.



Home Prices Have Increased by 90% (Nominal) since the end of 2007

Survey of Home Prices vs. Rents Index (Indexed to January 2008)

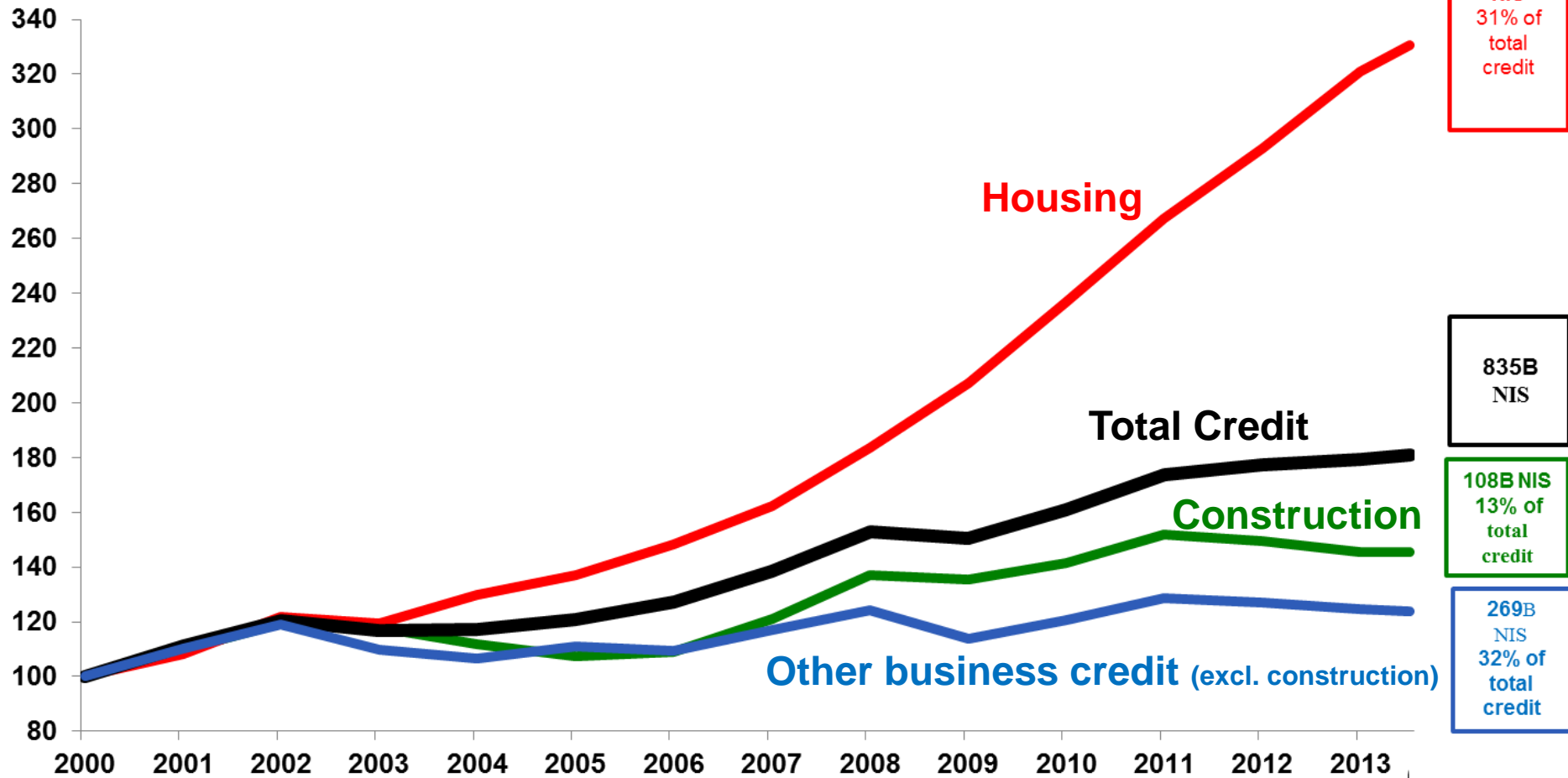


Source: Based on Central Bureau of Statistics data.



Balance Sheet Credit

(five major banking groups, 2000 = 100)





Bank of Israel Policy

2007-2014



Policy Considerations & Dilemmas

Global Environment:

- ❖ Global economy slowdown → exports & growth ↓
- ❖ Global low i → NIS appreciation ↓ → Israel's exports & inflation ↓

BOI's Policy Response:

- ✓ Reducing i →
 1. Inflation ↑
 2. NIS depreciation ↑
 3. Asset prices ↑
- ✓ MAP in asset markets → Reducing housing market risk
- ✓ FX intervention → To economize on i changes (considering sterilization costs)



Macprudential Measures

Measures adopted by the Banking Supervision Department focused on three main tools:

- 1. Limits** (LTV, PTI, Variable rate proportion, etc.);
- 2. Capital**
- 3. Allowance for credit losses**

Main purpose:

- ❖ Limiting the risk inherent in the mortgage portfolio.
- ❖ Increase shock absorbing capacity.

Secondary expected effect:

- ❖ Moderating negative developments in housing market.



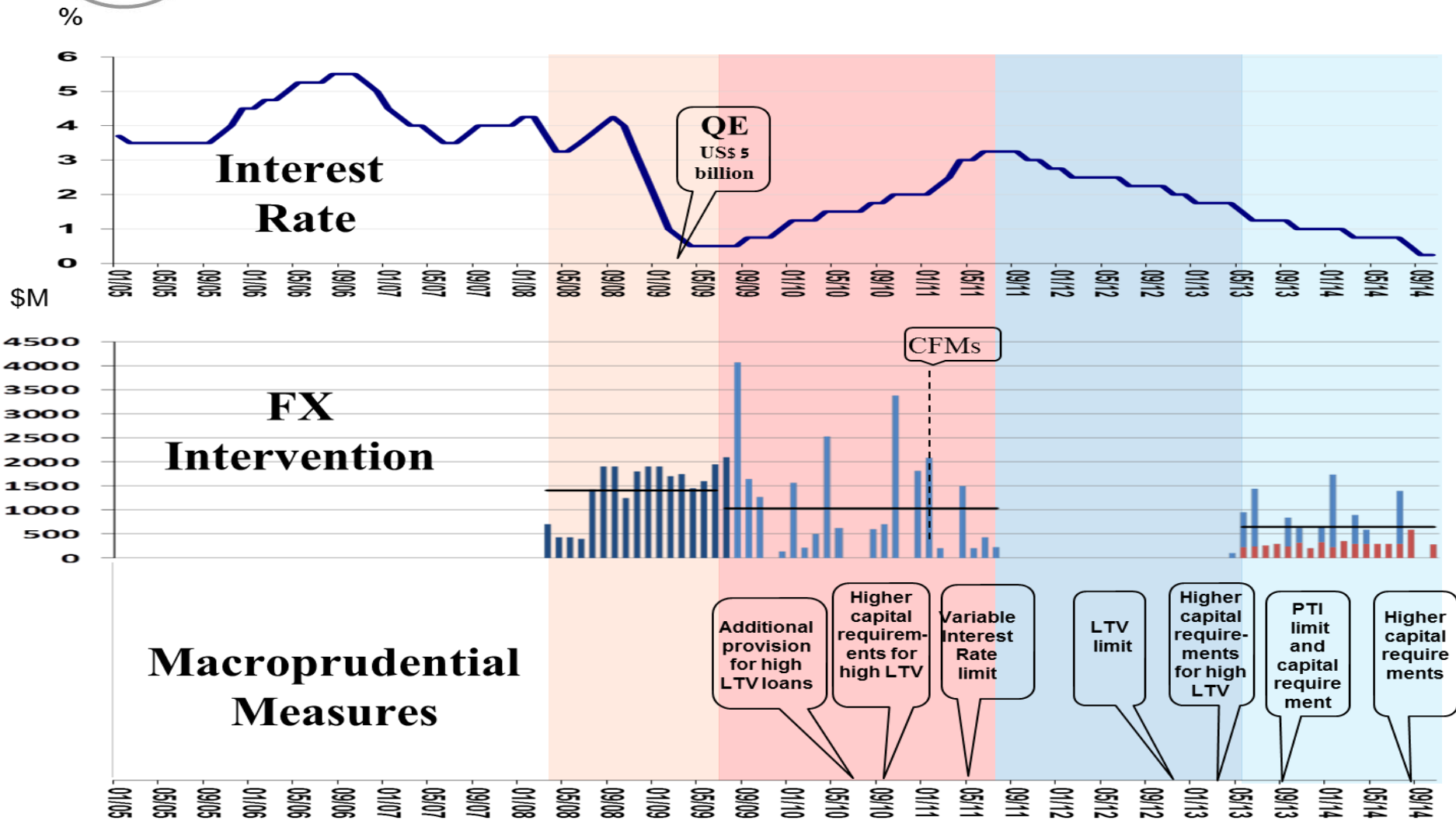
Macprudential Measures: Main Steps in Mortgage Market

- **Limiting variable-interest-rate component:**
 - to 1/3 of the total loan, (for variable IR which changes within 5 years) (May 2011);
 - to 2/3 (for all variable IR) (August 2013).
- **Limiting LTV ratio :** up to 75% for first-home buyers, up to 50% for investors, up to 70% for those upgrading their homes (November 2012).
- **Limiting PTI ratio:** up to 50% (August 2013).
- **Limiting maximum term - 30 years** (August 2013).
- **Higher capital requirements:**
 - for housing loans with LTV exceeding 45% (March 2013);
 - for housing loans with $40\% < PTI < 50$ (August 2013).
- **Supplemental reserve** for housing loans.
- **Capital buffer:** requiring banks to increase their Common Equity by 1% of housing credit (September 2014)



Bank of Israel Policy Tools

(2005-2014)

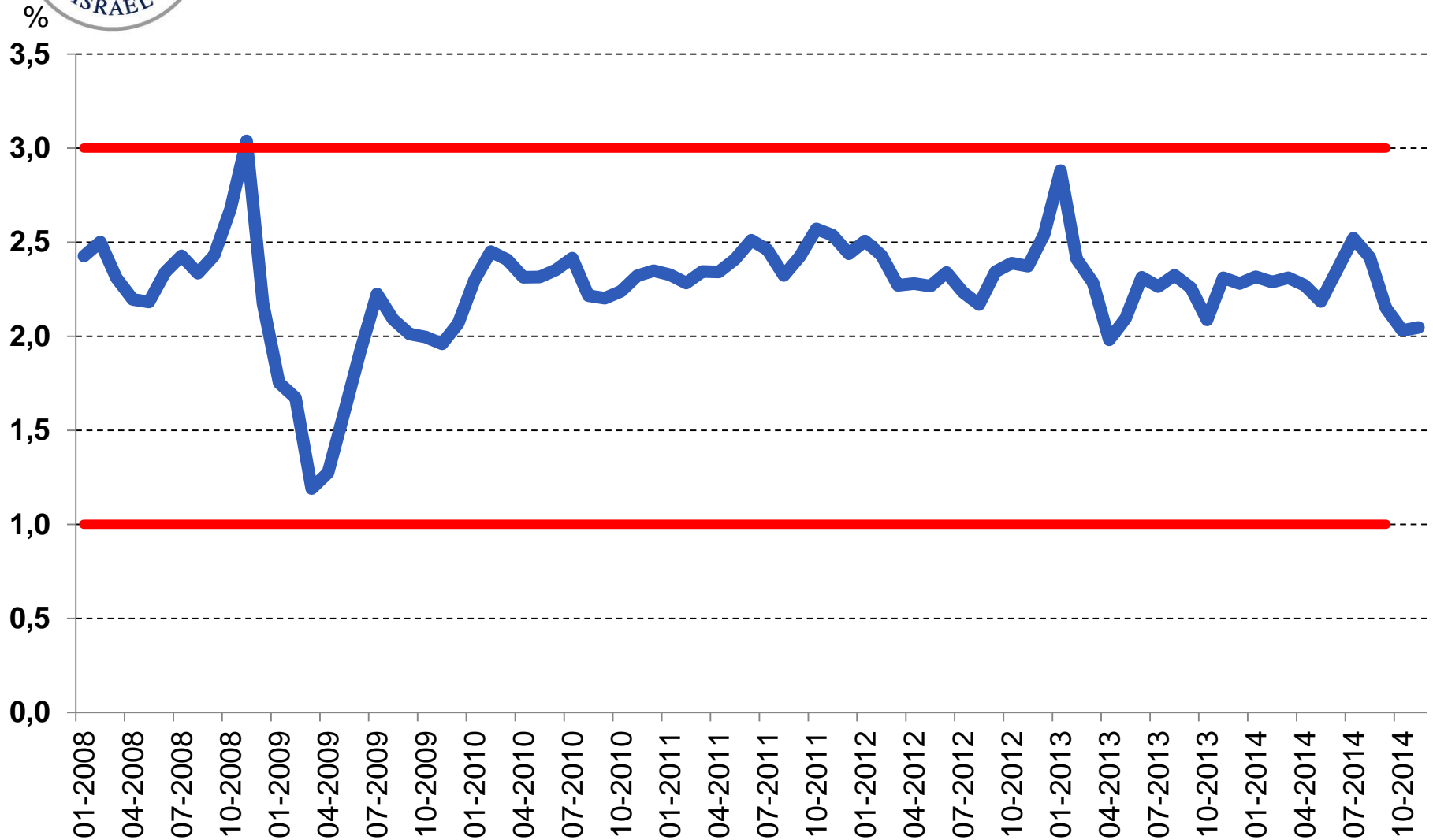




Monetary Policy Remained Credible

10 Year breakeven inflation expectations*

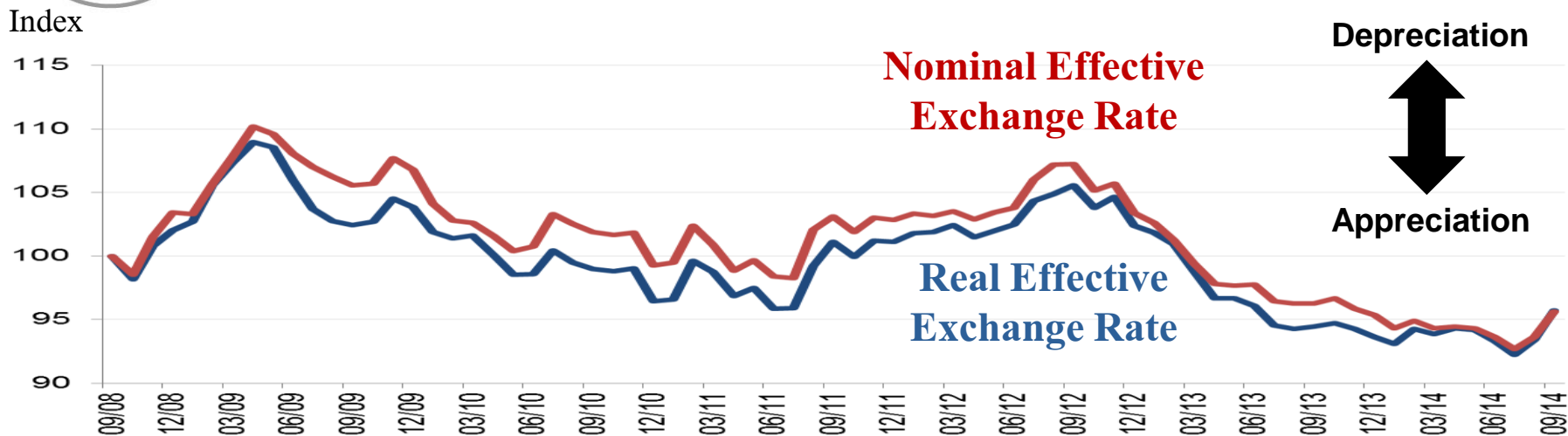
(2008-2014)



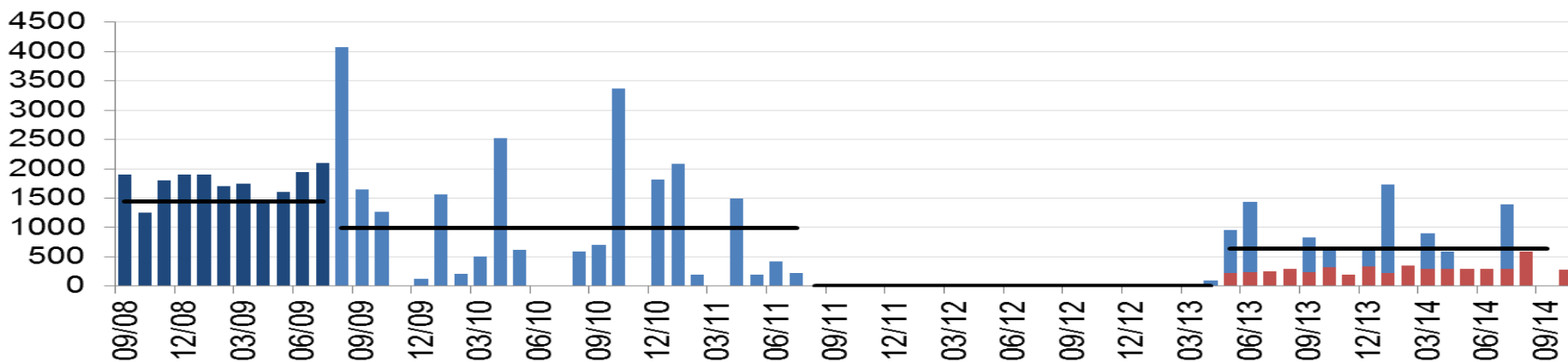


Foreign Exchange Intervention

Real and Nominal Effective Exchange Rate (Monthly, 2008-2014)



M\$
FX Intervention (09/2008 – 09/2014, \$ Millions)

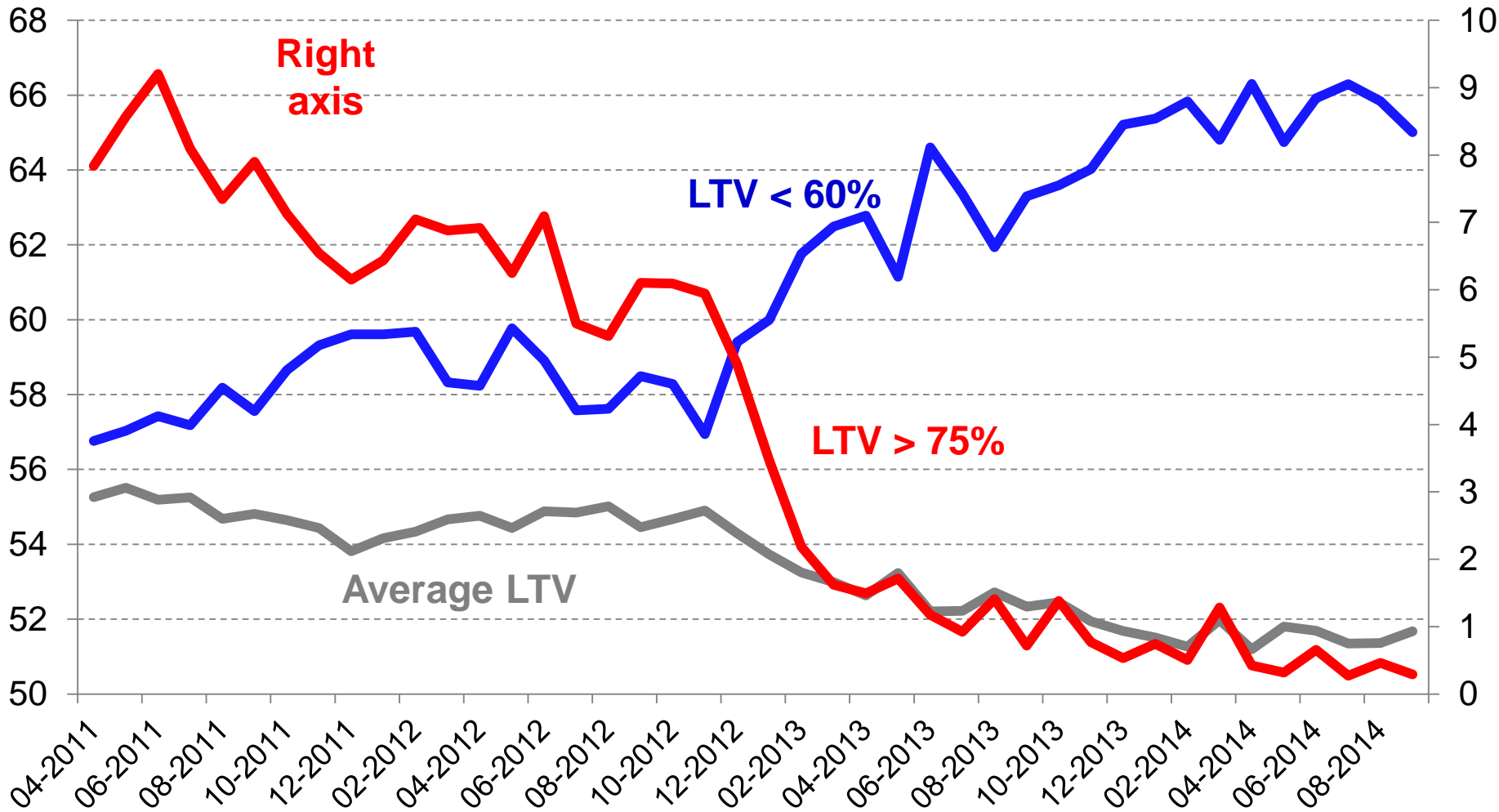


* 09/2008=100

Source: Bank of Israel.



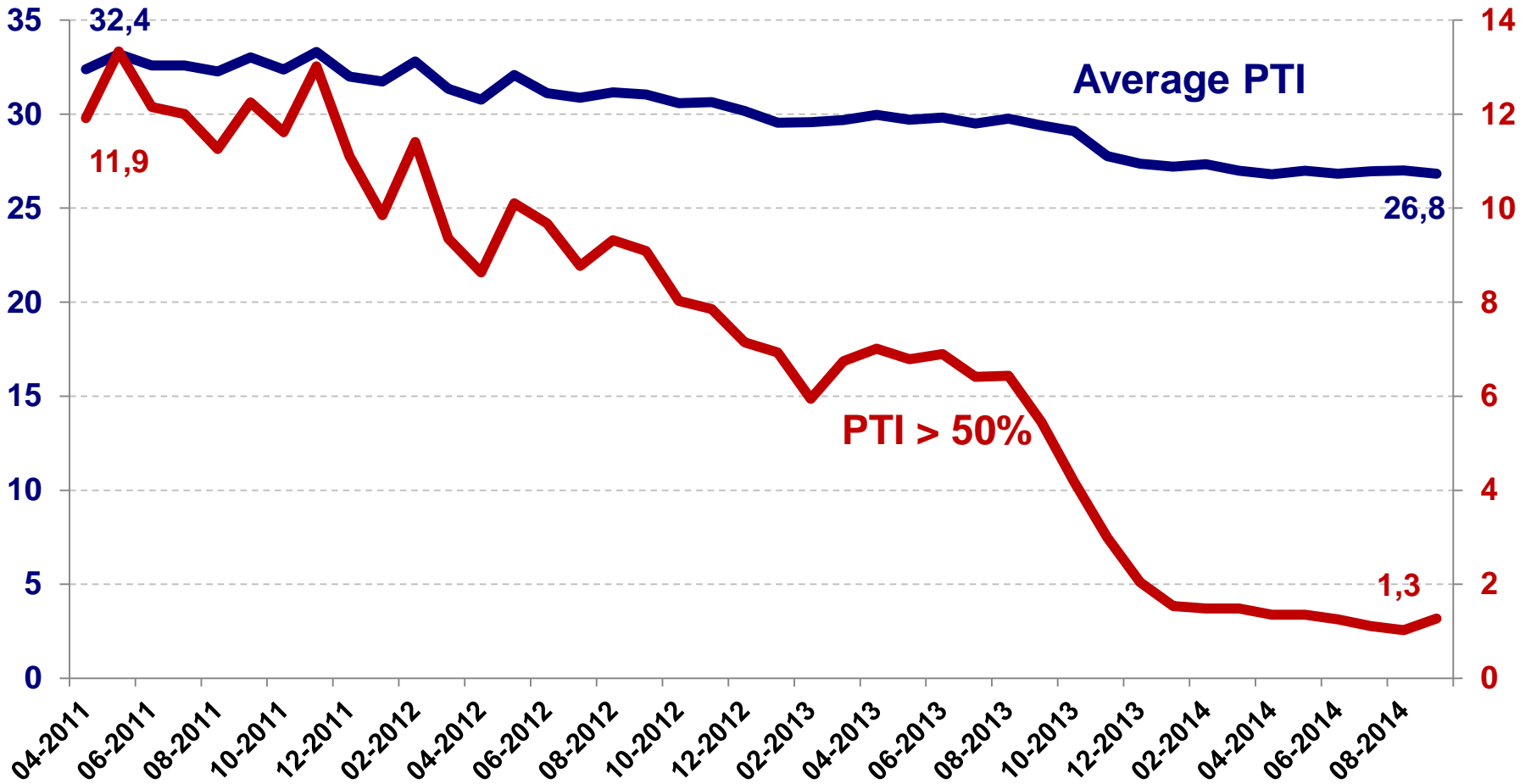
Macprudential Measures Reduced Borrower risk : Share of High LTV Mortgages is Declining



Source: Bank of Israel, Banking Supervision Department.

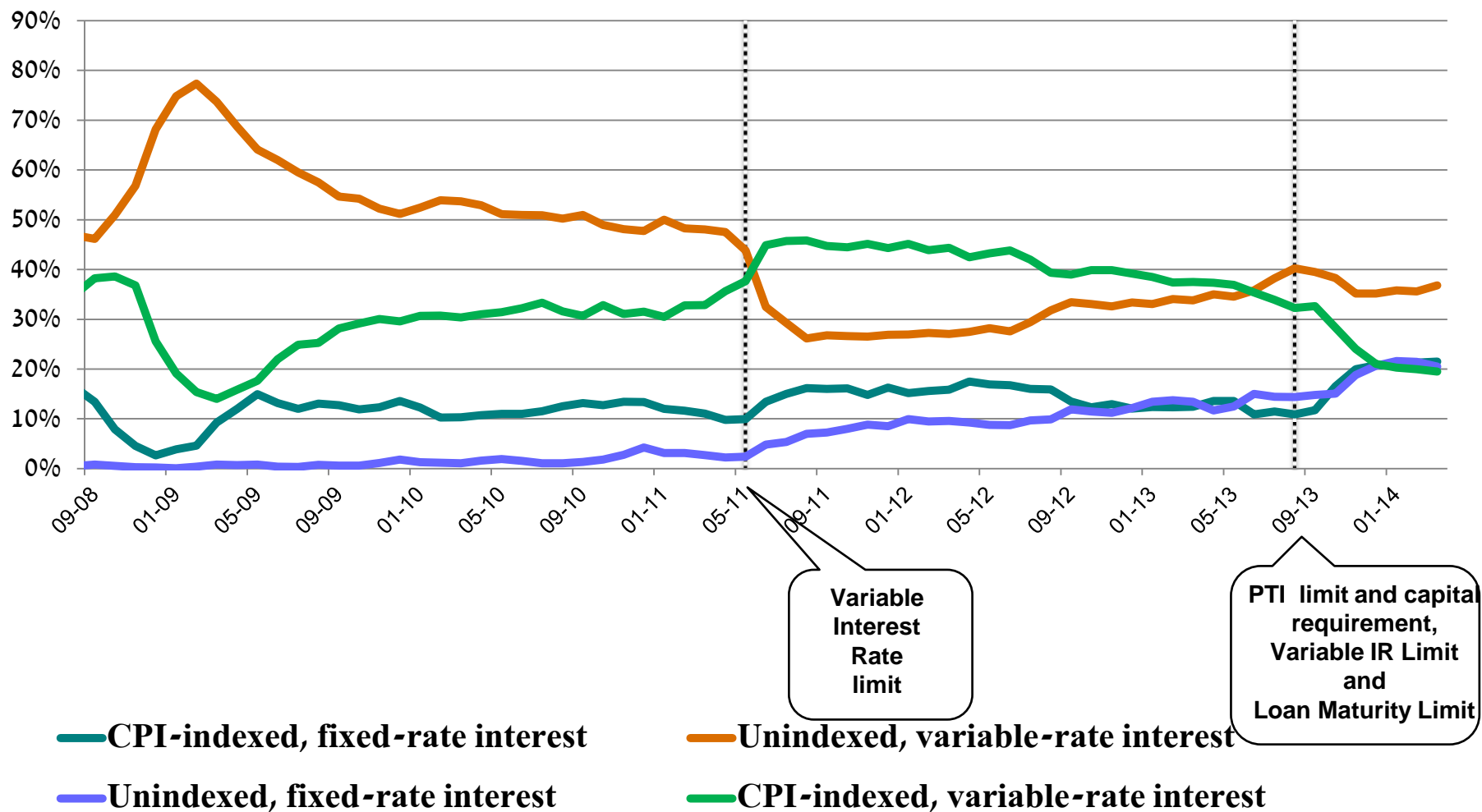


Macprudential Measures Reduced Borrower Risk: Payment to Income





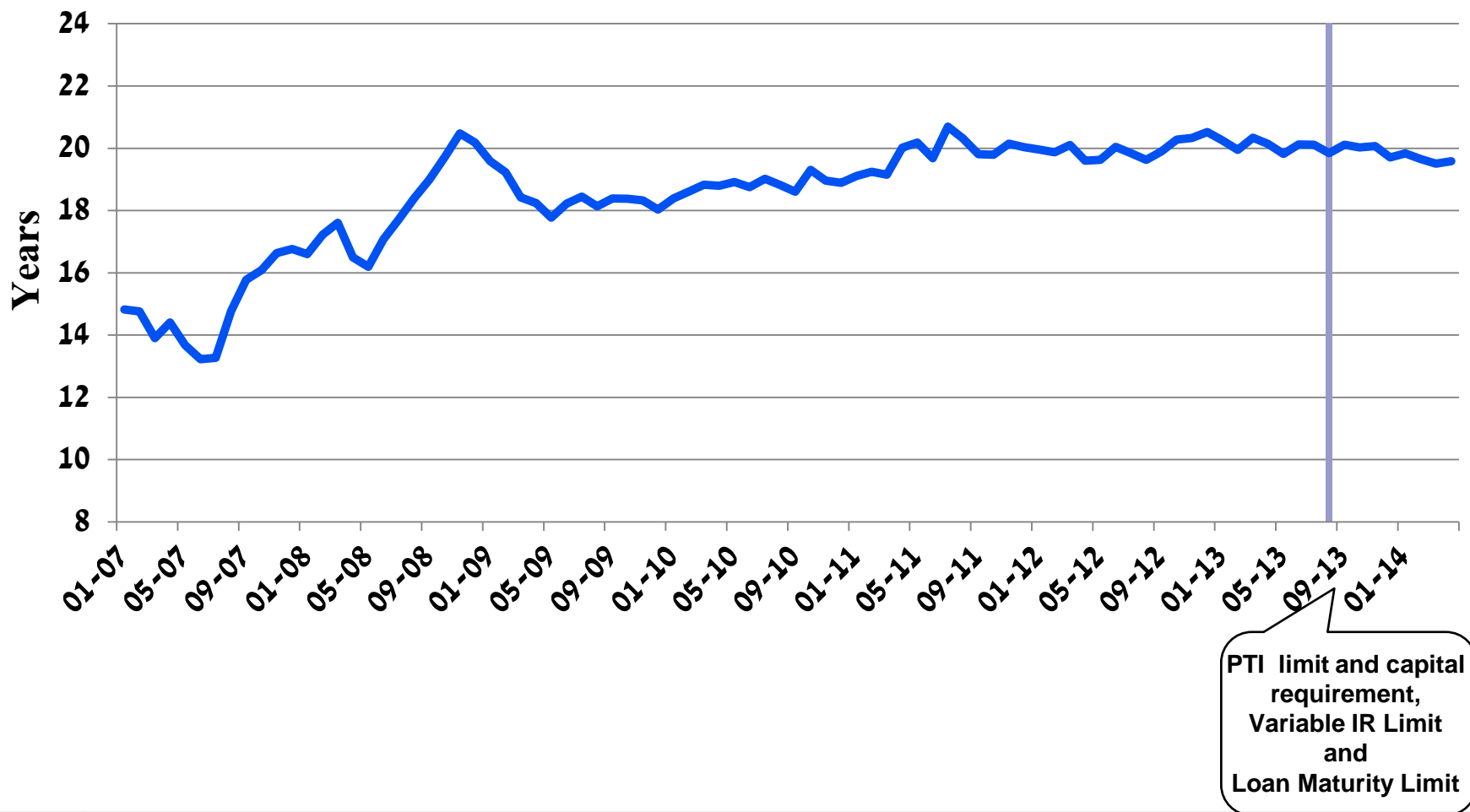
Macro-prudential measures reduced borrower risk : Reduction of transmission from monetary rate to mortgage rates. Distribution of mortgages, by indexation basis and interest rate type (2005-2014, monthly)





Households responded to rising home prices and prudential measures by increasing mortgages' maturities

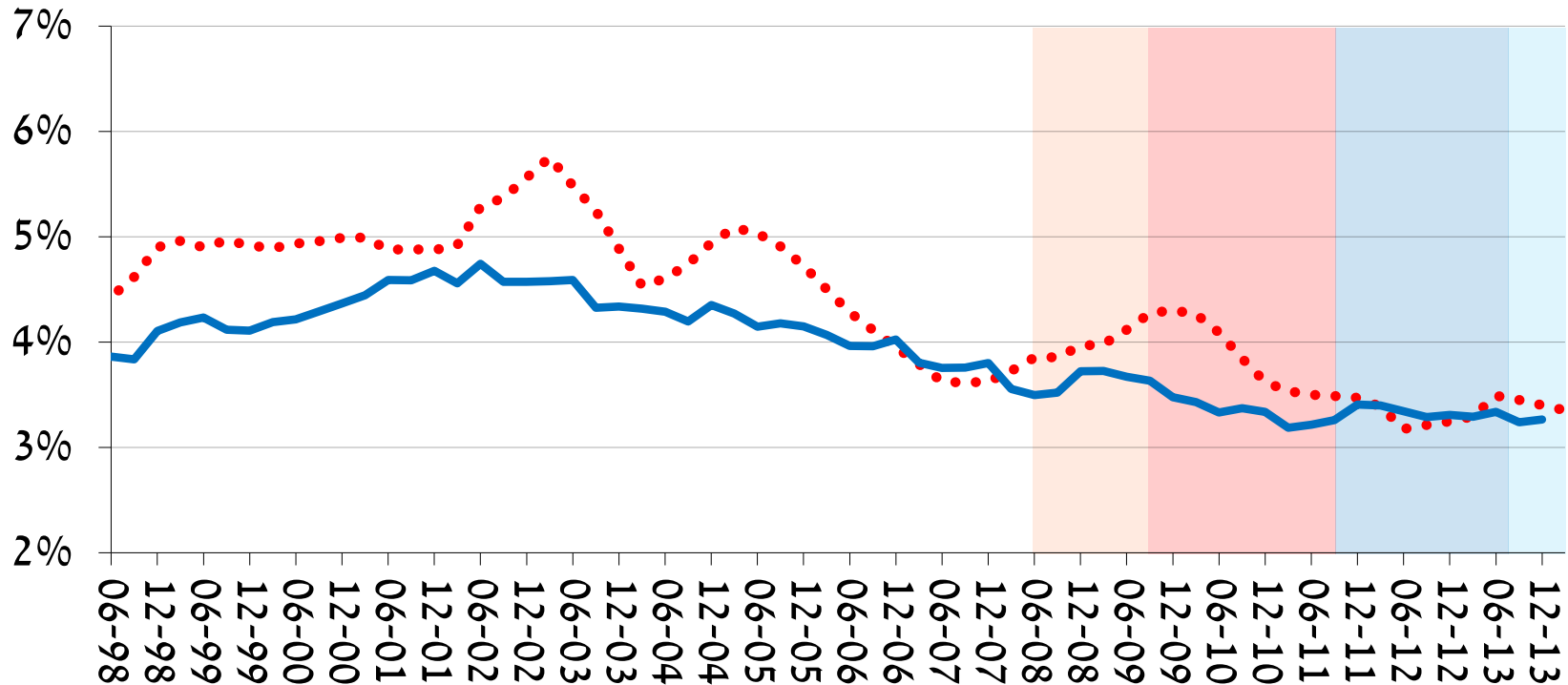
Average years to maturity of new mortgages (2007-2014, percentage points)



Monitoring rising home prices

Yields on houses correlated with long term bond yields Yield on an investment home compared to the yield on government bonds*

1998-2014



- Real forward yield 10-15 years (moving 4 quarters average)
- Yield on a 3.5-4 room apartment (weighted regional average)

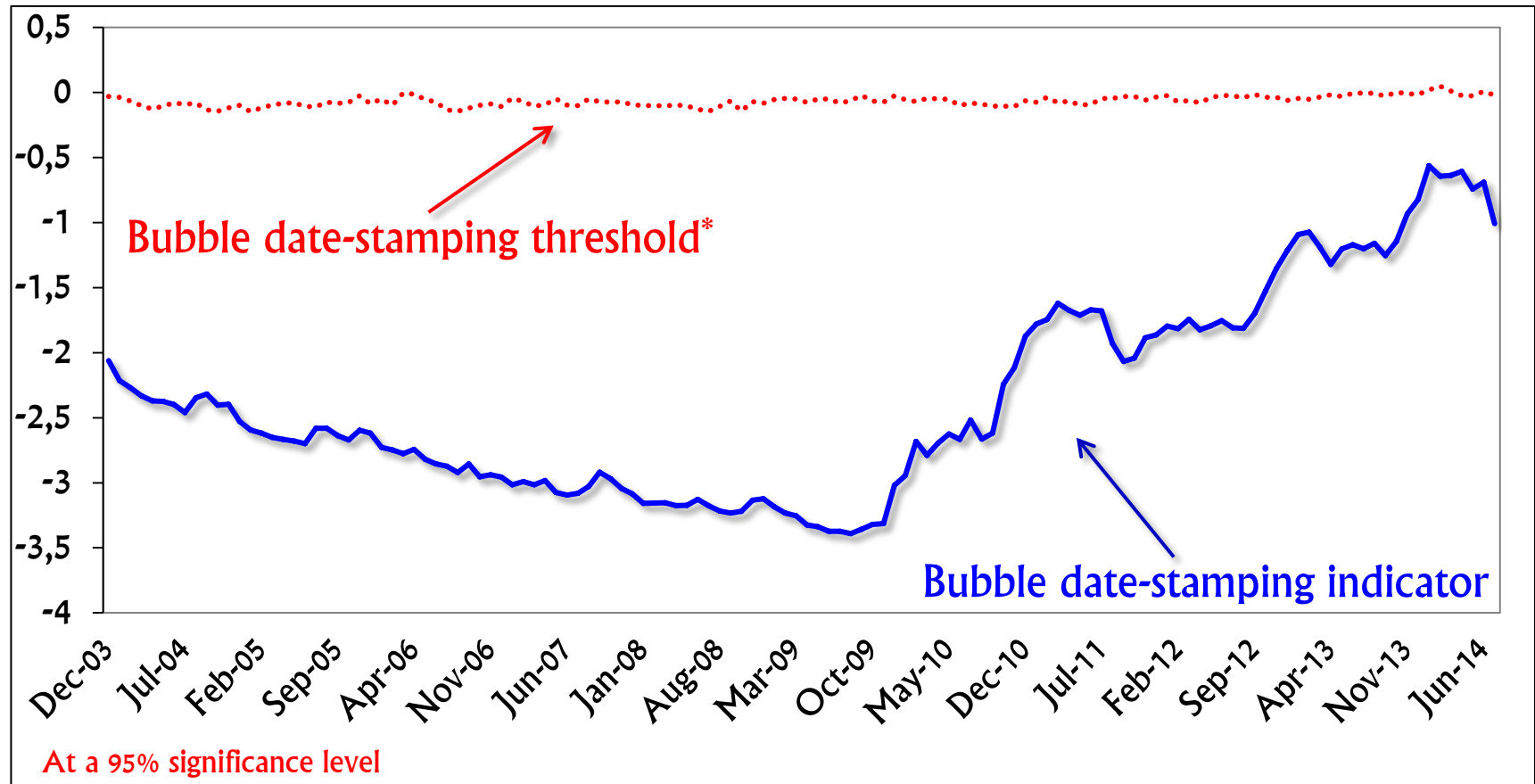
*The real forward yield is a benchmark for the real yield that will be prevalent at equal weight

Source: Based on Central Bureau of Statistics

Monitoring for a bubble in the housing market



(Monthly data, Dec 2003 – Jul 2014)



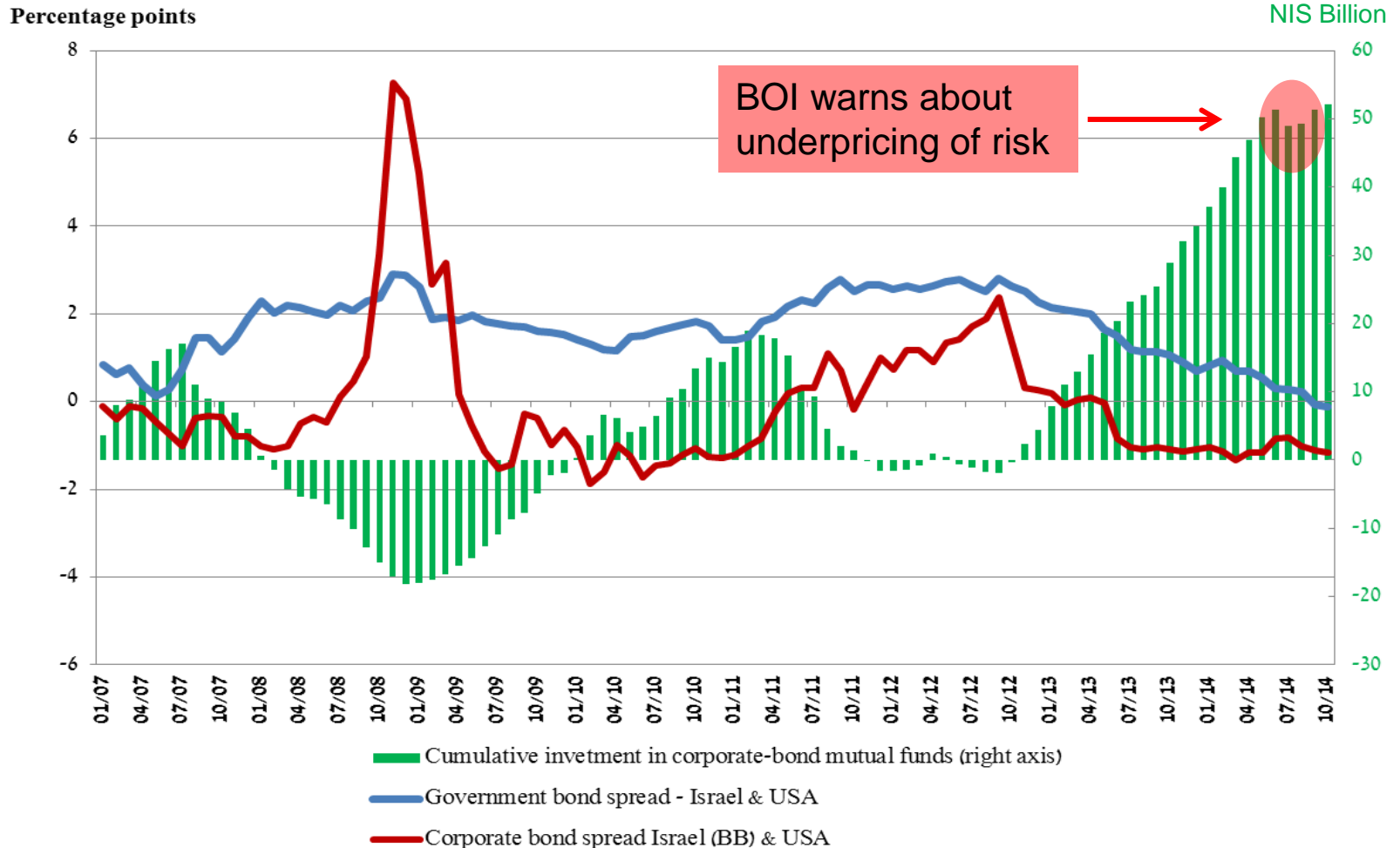
Notes: This figure plots the Phillips et al. (2011) bubble date-stamping and monitoring strategy applied to the log home price to rent ratio. The bubble Indicator (blue, solid) is the sequence of recursive ADF test statistics and the identification threshold (red, dotted) line is its corresponding 95% critical values sequence. Crossing the threshold from below may be interpreted as areal time indication for the beginning of a bubble period.



Households Search for Yield:

Bond spread between Israel and US and cumulative investment in corporate-bond mutual funds since 2009

(2007-2014, monthly)



* The US corporate yield based on BofA Merrill Lynch US corporate BBB effective yield
 Source: Bank of Israel and Federal Reserve Bank of St. Louis



Summary

- Conventional monetary policy reacted to developments in inflation and output (gap) growth.
 - FX intervention complemented conventional monetary policy. Was successful mainly in smoothing and slowing FX developments.
 - Macroprudential policies in mortgage market reduced risks for borrowers and banks but had limited effect on housing demand.
 - Macroprudential measures on financial assets – largely controlled by other regulators.
 - Need for coordination – Financial Stability Committee
-



THANK YOU!



EUROPEAN CENTRAL BANK

EUROSYSTEM

Sabine Lautenschläger

The interplay between macro-prudential, micro- prudential and monetary policies at the ECB

Conference

Macroprudential Policy - Implementation and
Interaction with other Policies

Stockholm, 13 November 2014

I. Conceptual interactions between macro-prudential, micro-prudential and monetary policy

- I. Systemic vs. institutional dimension of policies
- II. Main objectives, instruments, impact mechanisms

II. The ECB's institutional setup

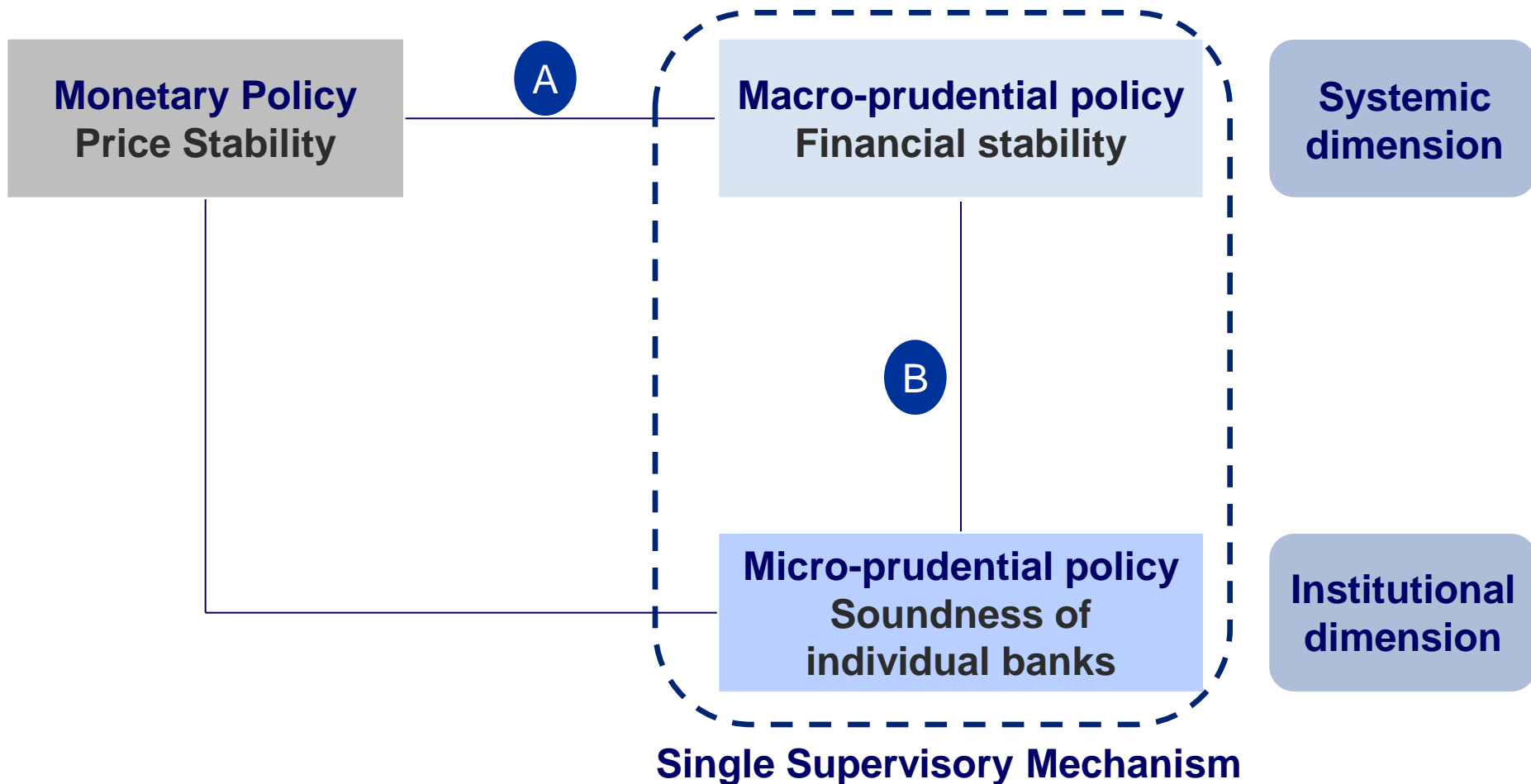
- Role of the Supervisory Board in micro and macro-prudential policy
- Role of the Governing Council in all three areas

III. Macro-prudential tasks and tools of the ECB

- Coordination mechanism between national authorities and the ECB
- Macro-prudential instruments available for the ECB

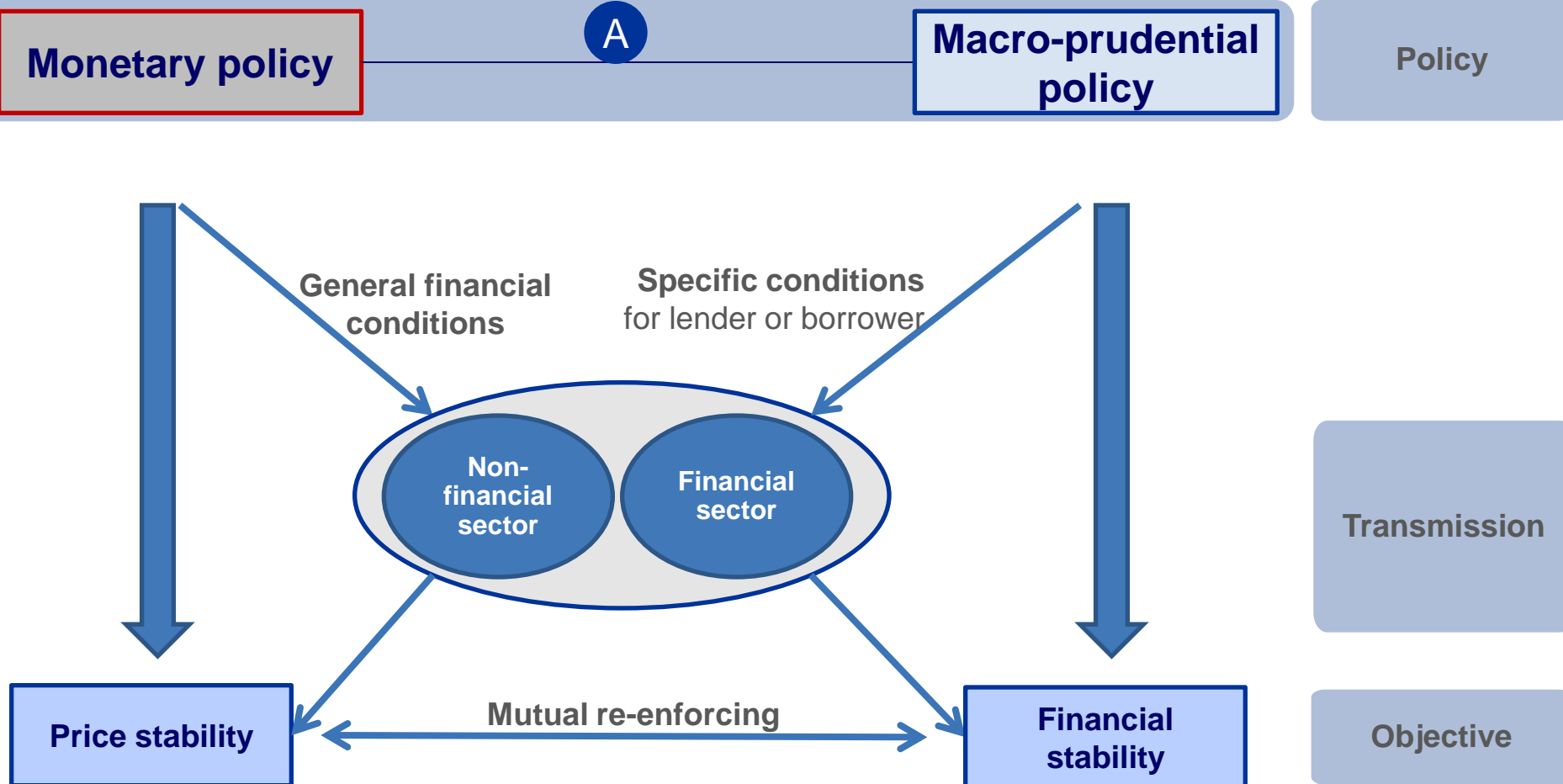
IV. Areas for improvement

I. Conceptual interactions



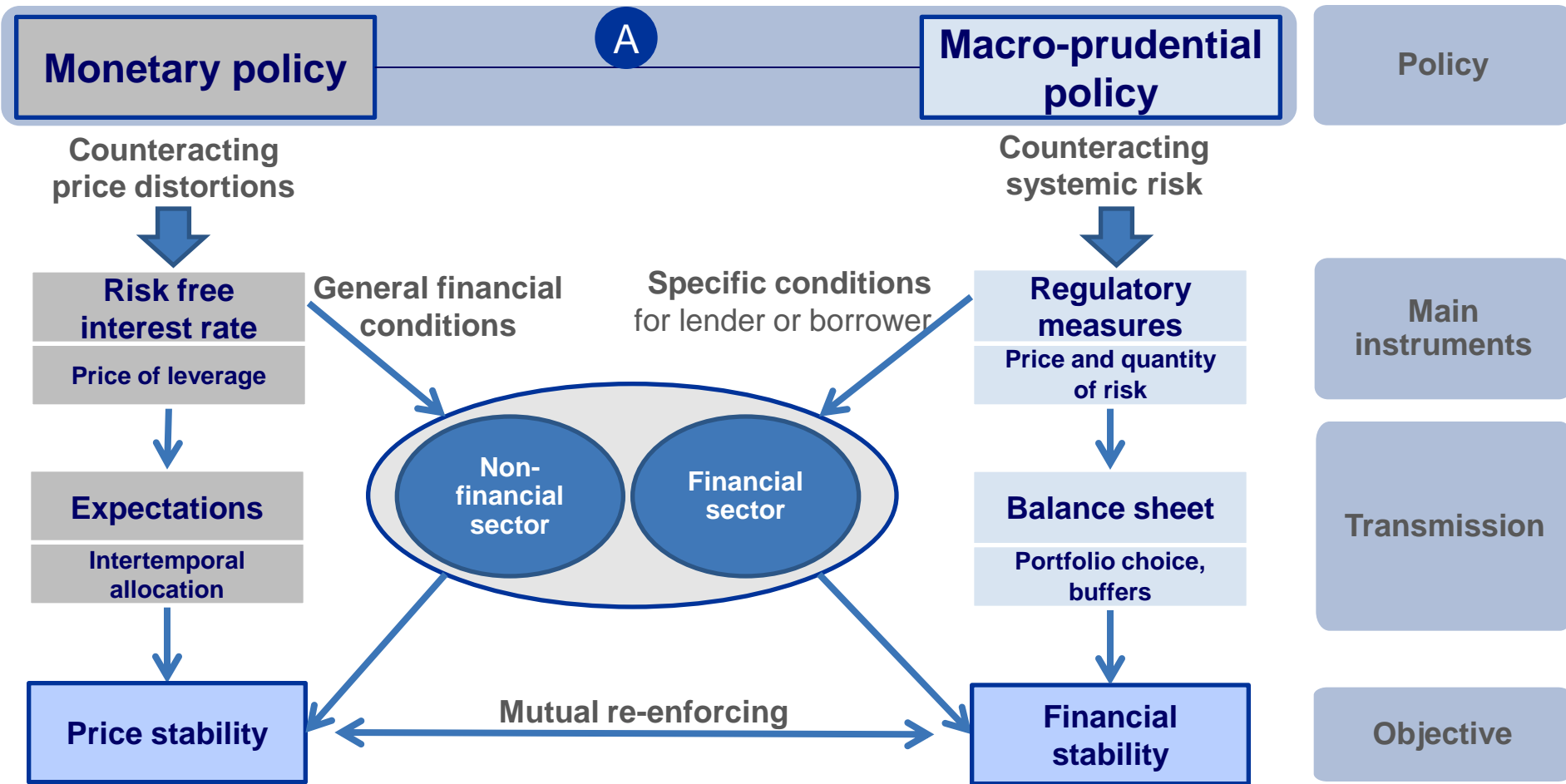
I.A) Macro-prudential and monetary policy

- Price stability and financial stability are mutually beneficial and re-enforcing
- Monetary policy sets general financial conditions
- Macro-prudential policy is more specific and targeted to sectors and imbalances



I.A) Macro-prudential and monetary policy

- Policies can have separate objectives and different instruments
- Policies interact in their transmission and affect each other's objective
- Potential policy conflicts need to be addressed by appropriate institutional set-up



I.A) Macro-prudential and monetary policy

Interaction via bank lending rates

Long-term lending rate is influenced by

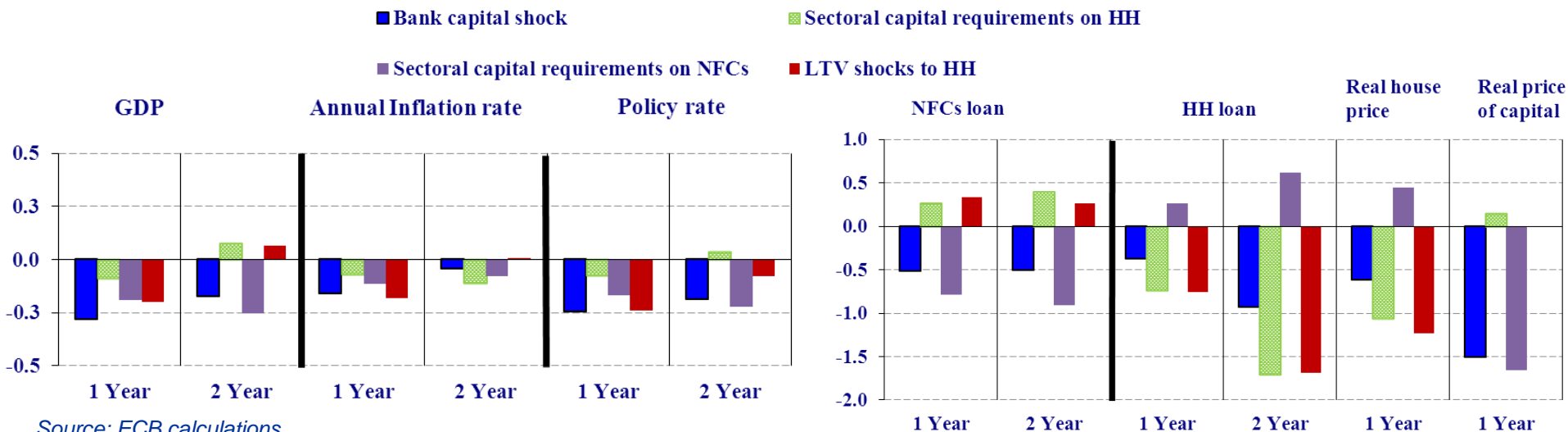
- Monetary policy rate (current and expected future)
- Term & risk premia, funding & capital costs
- Profit margins



Different macro-prudential measures

- may exert similar aggregate macroeconomic effects (LHS),
- are mitigated by an endogenous monetary policy response (LHS),
- but affect sectors and relative asset prices very differently (RHS).

Transmission of Macro-Prudential policies in the euro area
(in percentage point difference from baseline)



Source: ECB calculations.

Note: Simulations are based on Darracq, Kok, Rodriguez-Palanzuela (2011) and allow for endogenous monetary policy adjustment. Bank capital shock is a 1.5 percentage point increase in the capital ratio. The sectoral shocks on households and non-financial corporations are calibrated to generate same sectoral lending spread as the system-wide capital shock.

I.B) Macro-prudential and micro-prudential policy

- **Background:** Legal basis in CRR/CRD IV
- **Instruments** available for macro- and micro-prudential purposes
 - Capital requirements
 - Other instruments
- **Positive spillovers** of having both under the same roof
 - Information exchange
 - Common understanding of mutual interactions
- **Negative spillovers**
 - Different objectives, time dimension and overlap of instruments



The decision making mechanism should internalise potential spillovers between macro- and micro-prudential supervision.

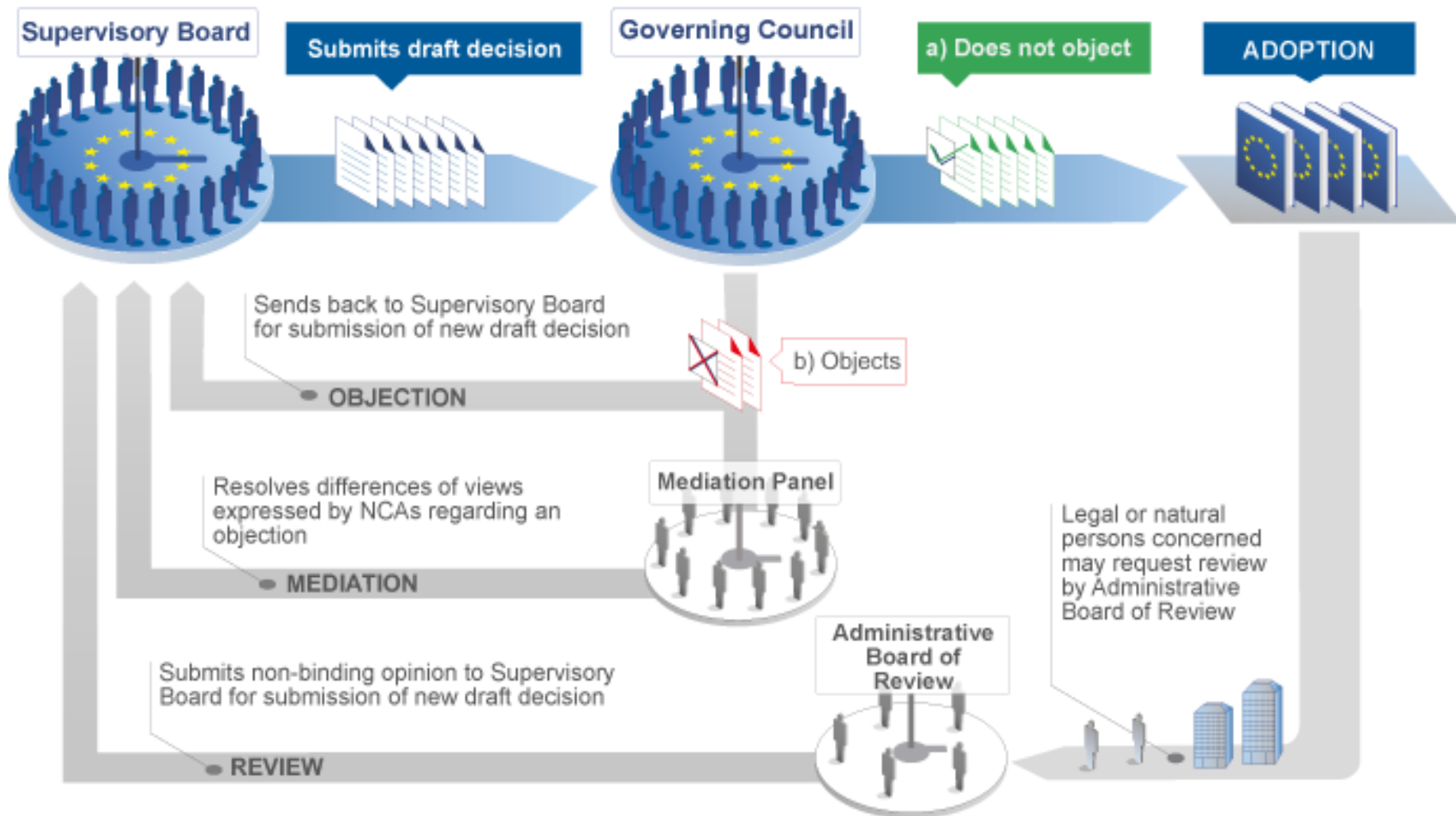
II. Institutional setup

General implementation

- **Governing Council** is ultimate decision-making body for monetary, micro- and macro-prudential policy
- **Supervisory Board** proposes micro- and macro-prudential measures
- **Potential conflict of interest** between monetary and supervisory policy calls for organisational separation of monetary policy and micro-prudential supervision
 1. Restricted information exchange for data, but separate analyses geared towards distinct objectives
 2. Separate decision-making process with non-objection procedure reduces possible conflicts of interest between monetary policy and supervisory objectives

II. Institutional setup

Detailed implementation



III. Macro-prudential tasks and tools of the ECB

I. Coordinating with national macro-prudential authorities

- The concerned authority of Member States shall duly notify its intention to the ECB prior to taking a decision.
- Where the ECB objects, it shall state its reasons in writing within five working days.
- The concerned authority shall duly consider the ECB's reasons prior to proceeding with the decision as appropriate.

II. Taking macro-prudential actions

- The ECB may apply (instead of national authorities of the participating Member State)
 - higher requirements for capital buffers
 - apply more stringent measures aimed at addressing systemic risks

Measures are subject to procedures set out in CRR/CRD IV and SSM Regulation

IV. Areas for improvement

Completing the macro-prudential toolkit

- **Bank-oriented instruments**
 - Setting exposure limits to non-bank financial intermediaries
- **Non-bank instruments**
 - Extending the regulatory perimeter to systemic non-bank institutions and activities
- **Market-based instruments**
 - Steering margin and haircut requirements in securities lending
- **Improving financial sector governance**
 - Aligning incentives and compensation to prudent risk-taking and long-term returns

Enhancing coherence between CRR/CRD IV and SSM Regulation

- Recognizing new institutional setup of macro-prudential policy in CRR/CRD IV with the ECB becoming a key player in macro-prudential policy within the SSM
- Clarifying and simplifying procedures between EU authorities and Member States



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Thank you for your attention