CROATIAN NATIONAL BANK

Economic situation and monetary policy: impact on the banking industry

XVIII European Congress of the The European Federation of Building Societies
Brave New World for Finance? Low Interest Rates – Regulation – Capital Markets Union
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1. Low interest rate environment: Current juncture

Low Interest Rate Environment: the New Normal or Financial Cycle Fluctuation?

The New Normal Hypothesis

- Secular stagnation
- Inadequate aggregate demand
- De anchoring of expectations
- Persistent low inflation
- Commodities prices decline
- Global savings glut aggravated by the raising inequalities
- Shift (permanent) in real returns
- Reduced capital intensity of leading industries(Facebook vs steelmaking)

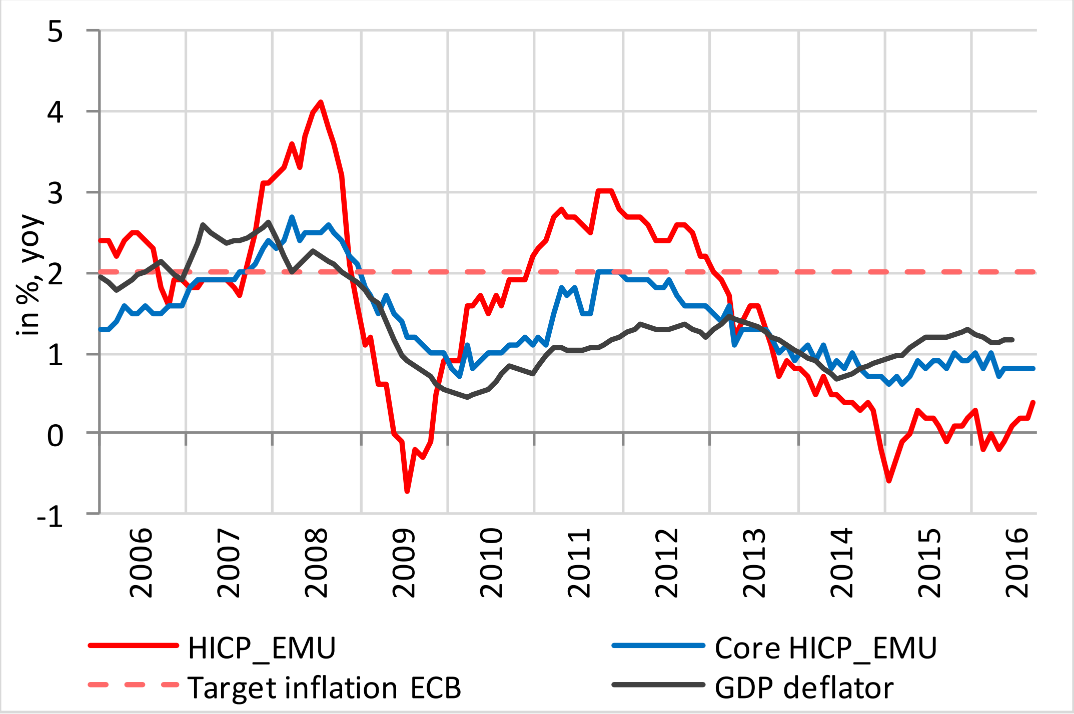
The Financial Cycle Hypothesis

- Growth is resuming, albeit slowly due to headwinds:
  - bubble bursting
  - balance sheet recession
  - debt overhang
  - inability /unwillingness to use proactive fiscal policy
- But some of the headwinds are in the process of dissipating.

New challenge for Europe and ...

- Low rates are symptom of the underlying economic situation
  - ... weak long-term growth trends and the protracted macroeconomic fall that has resulted from the crisis
  - ... driven by steady fall in returns on capital and persistently falling inflation from the end-2011

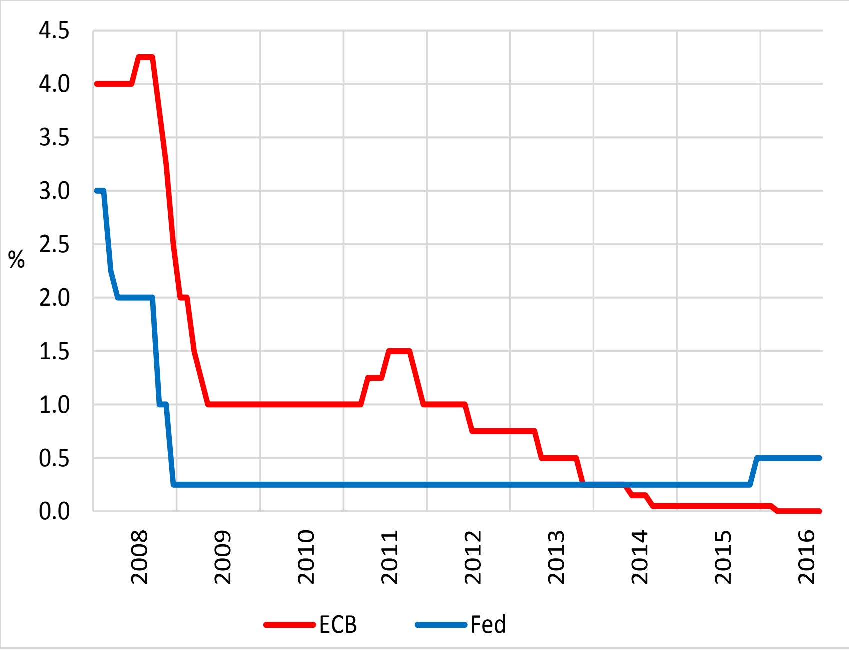
- Oil and commodity prices as major drivers of inflation - core inflation rate above headline inflation for the past two years - headline inflation well below ECB's price stability measure



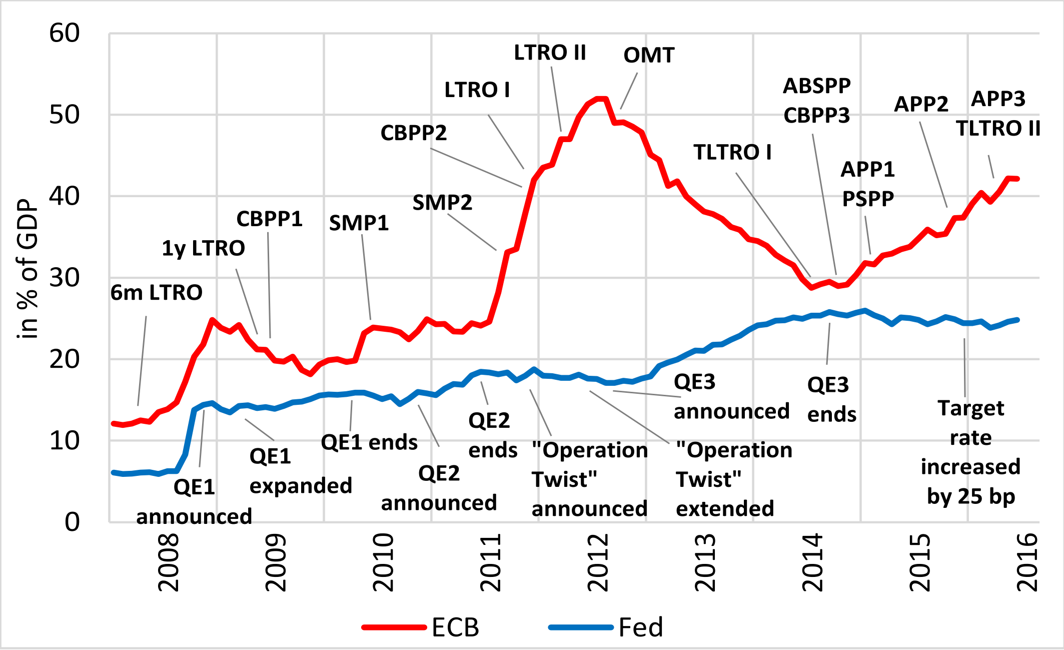
Sources: ECB and Eurostat.

... in part, a result of central bank policies since 2007 (QE programme)

Referent rates hit zero lower bound



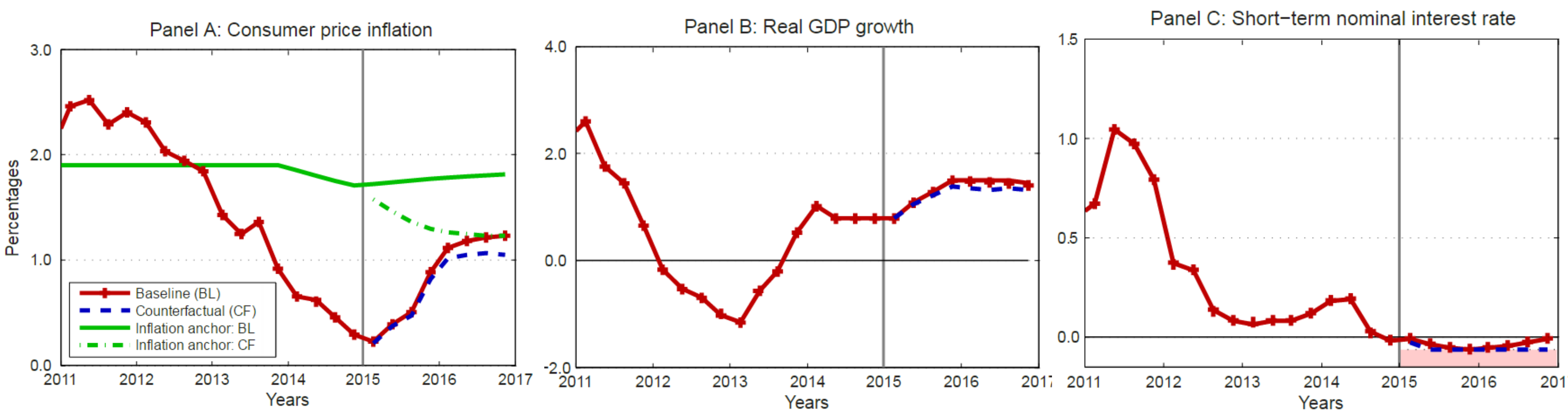
Central bank's balance sheet become a main player



Sources: ECB and Fed.

Role of ECB's QE for inflation expectations in the euro area

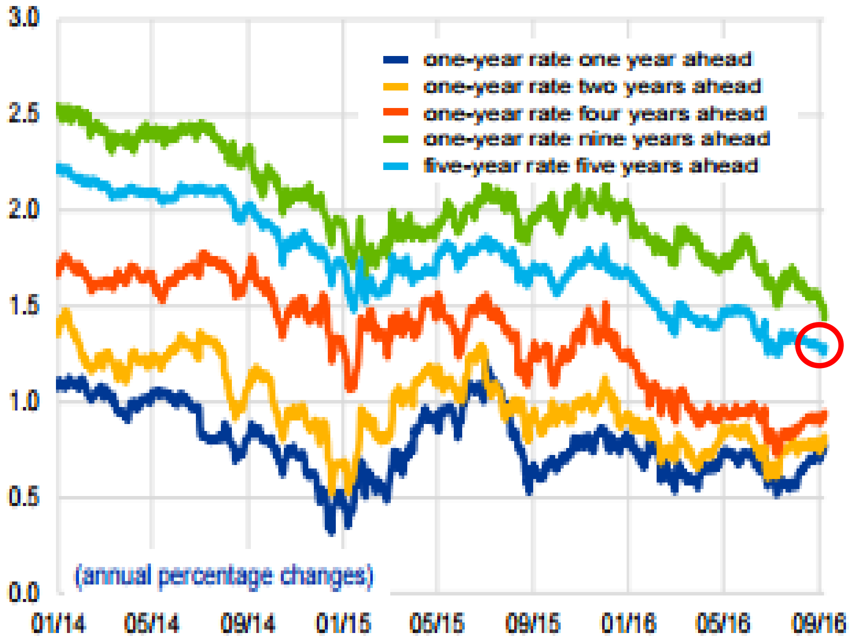
- Longer-term inflation expectations are generally seen to be an indicator of the credibility of central banks in achieving their price stability objectives and should, therefore, remain solidly "anchored".
- ECB's expanded asset purchase programme has been important in preventing a potential de-anchoring of inflation expectations and a further prolongation of the period of low inflation outcomes (Coenen and Schmidt, 2016)



Source: Coenen, G. and S. Schmidt (2016): The role of the ECB's asset purchases in preventing a potential de-anchoring of longer-term inflation expectations, ECB Research Bulletin.

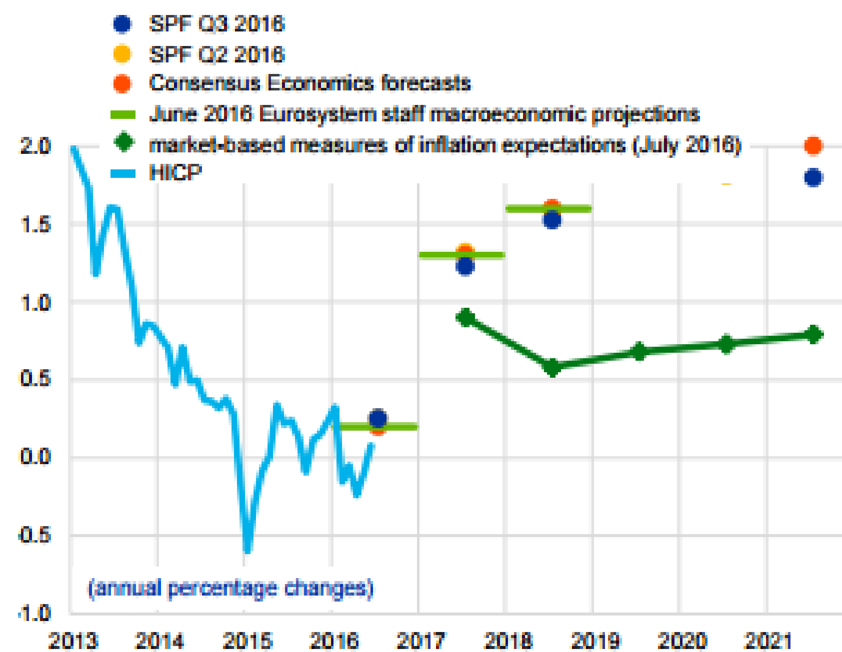
Excessively low inflation expectations, especially market-based
--- is monetary policy sufficient to keep the expectations (and inflation) stable

5Y5Y forward inflation swap rate* continued declining to 1.29% in early September ...



* the expectations for inflation over five years in five years' time
Source: ECB Economic Bulletin (August and September 2016).

... and remained substantially below survey-based expectations which have been more stable (around 1.8% for five years ahead) but still below ECB's target



Note: SPF (ECB Survey of Professional Forecasters); The market-based measure of inflation expectations is derived from HICPx (the euro area HICP excluding tobacco) zero coupon inflation-linked swaps).

2. QE impact on the financial markets

Nominal negative yields all around the bond market

- Yields from the short end to the mid-range of the curve are hovering in negative territory, not only in Europe
- About 55% of the Eurozone government bond universe is currently carrying a negative nominal yield (about 30% of them yielding less than 0,40%)
- Investors seek for safe assets

	3M	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	15Y	20Y	30Y
Germany	-0,81	-0,60	-0,62	-0,64	-0,59	-0,50	-0,47	-0,41	-0,32	-0,19	-0,06	0,08	0,28	0,47
Netherlands	-0,61		-0,60	-0,61	-0,57	-0,43	-0,42	-0,32	-0,21	-0,06	0,04			0,56
Finland		-0,57	-0,59	-0,58	-0,49	-0,45	-0,35	-0,28	-0,17	-0,06	0,09	0,39		0,61
France	-0,59	-0,58	-0,57	-0,55	-0,49	-0,38	-0,34	-0,24	-0,12	0,04	0,19	0,54	0,81	0,99
Austria		-0,54	-0,53	-0,52	-0,48	-0,43	-0,37	-0,35	-0,30	0,00	0,15	0,07		0,83
Belgium	-0,63	-0,61	-0,59	-0,55	-0,51	-0,43	-0,37	-0,29	-0,13	0,03	0,18	0,53	0,61	1,06
Sweden	-0,72	-0,73	-0,61		-0,50	-0,33		-0,22			0,14			
Denmarrk	-0,45	-0,68	-0,53	-0,15		-0,31	0,31				0,05			0,53
Italy	-0,35	-0,21	-0,09	-0,02	0,04	0,23	0,40	0,57	0,77	0,97	1,14	1,49	1,78	2,16
UK	0,10	0,15	0,17	0,16	0,21	0,24	0,32	0,39	0,47		0,56	1,00	1,15	1,27
Switzerland		-0,84	-0,84	-0,88	-0,85	-0,81	-0,75	-0,70	-0,60	-0,54	-0,50	-0,30	-0,18	-0,05
US	0,31	0,59	0,84	0,95		1,22		1,49			1,61			2,27
Japan	-0,25	-0,26	-0,18	-0,18	-0,17	-0,18	-0,18	-0,18	-0,15	-0,11	-0,06	0,09	0,30	0,38

Generic government rates monitor yield changes for government benchmark bonds. Past performance is not a reliable indicator of future results. Data as of 29 August 2016.

Source: Petersen, A.K. (2016). QE Monitor 'On the verge: preparing markets for more QE', 2 September 2016, Allianz Global Investors.

Negative-yield corporate and government debt surged in two-years period

- Continued issuance of bonds carrying negative yields
- Primarily government bonds in Europe and Japan but also a mounting number of highly-rated corporate bonds
- The total nominal value of corporate and government debt with a negative yield (according to the Bloomberg Barclays Global Aggregate Index), surged to 11,600 bn USD at the end-September 2016

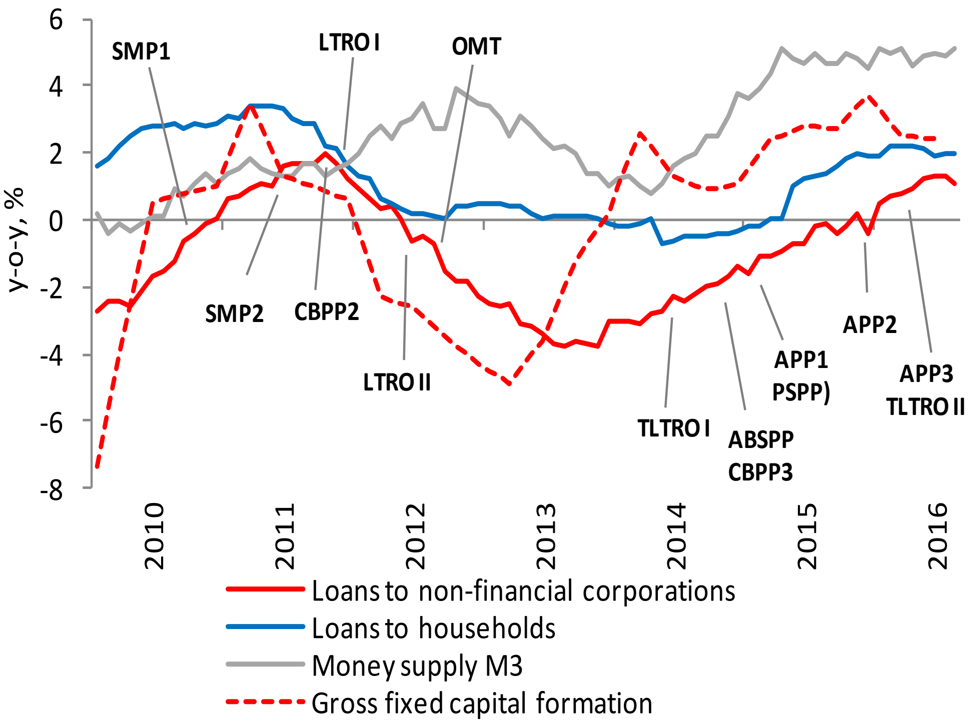
Source: Bloomberg.

Low yields contribute to reducing financing costs and expanding bank lending

Continued net easing of credit standards for corporates

Source: Petersen, A.K. (2016). QE Monitor 'On the verge: preparing markets for more QE', 2 September 2016, Allianz Global Investors.

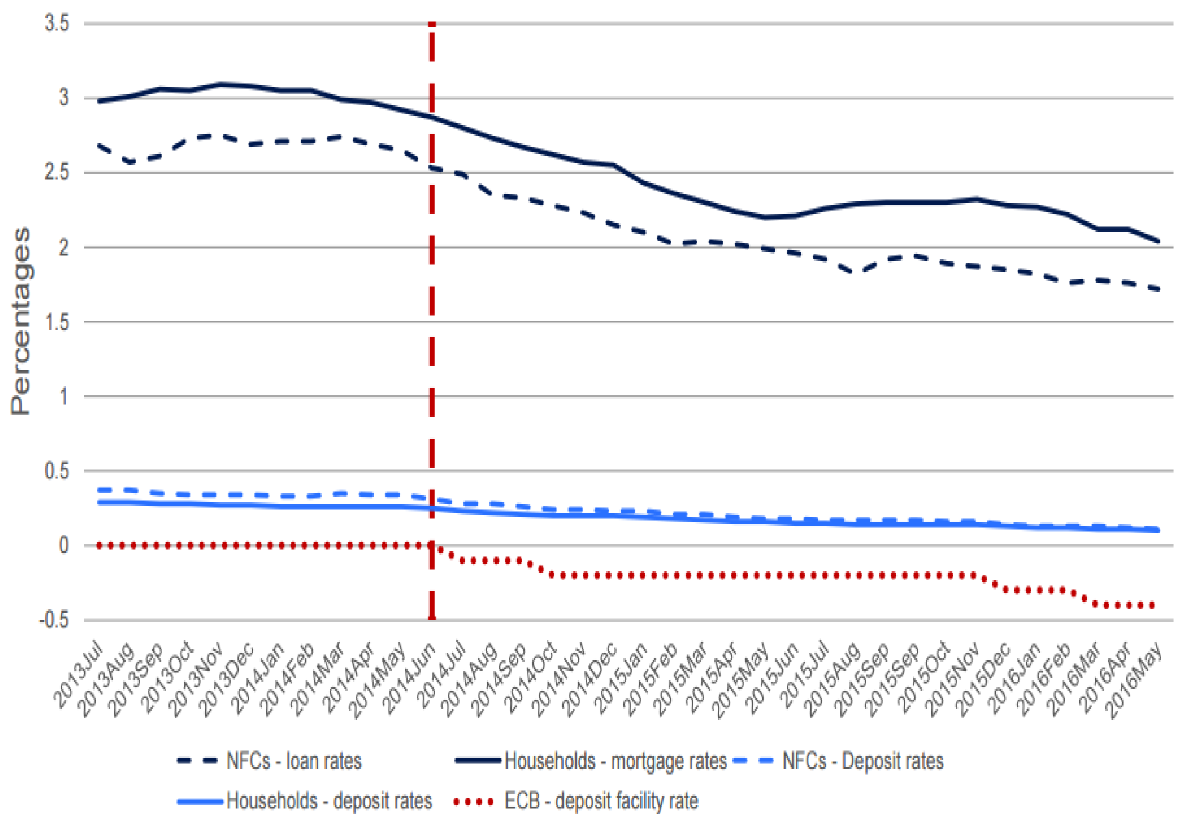
M3 grows at steady pace; loan dynamics continue gradual recovery



Sources: ECB and Eurostat.

Narrowing gap between loan and deposit rates and reduction in net interest margin ...

Declining rates are passed more strongly to loan rates than to deposit

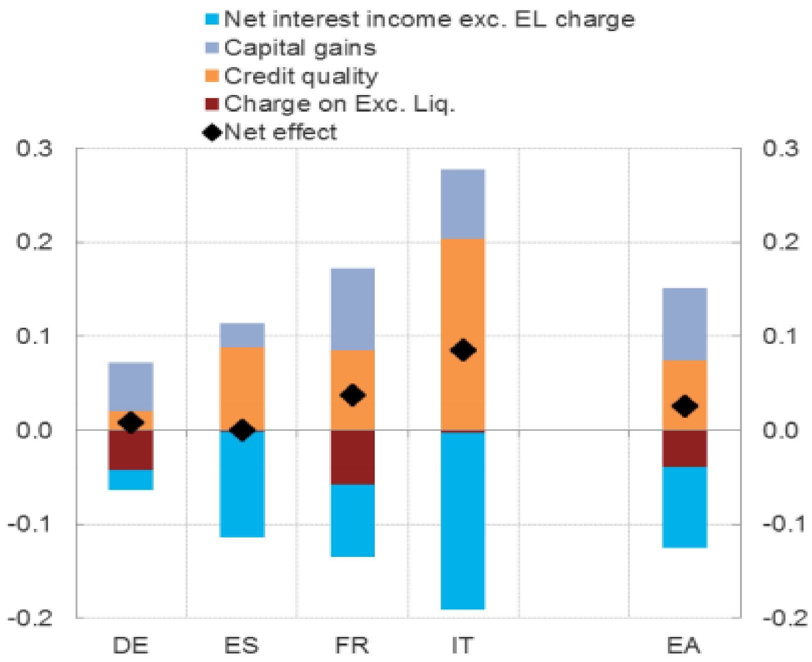


Source: Coeuré, B. (2016). Assessing the implications of negative interest rates. Yale Financial Crisis Forum, 28 July 2016.

... but, the overall impact on bank profitability is not so bad (compared with a scenario without any monetary policy action, ECB assessment)

Bank profitability and monetary policy: 2014-2017

(contribution to ROA, percentage points)



Impact on bank profitability:

- *on the negative side*
  - decreasing net interest income and charges on excess liquidity
- *on the positive side*
  - lower rates reduce firm default risk and lower the debt servicing cost of borrowers, which should improve credit quality
  - lower rates will lead to capital gains on the bond portfolio of banks.

Source: Coeuré, B. (2016). Assessing the implications of negative interest rates. Yale Financial Crisis Forum, 28 July 2016.

3. Low interest rates – potential risks and vulnerabilities

The prolonged period of low interest rates leaves the door open for risk build-up

- Excessive risk taking
- Fueling the asset bubbles
- Asset shortages
- Less enthusiasm for structural reforms
- Debt problems

It could seem that banks benefit from low interest environment (lower funding costs), but in long term ...

- Low interest rates create the **pressure on bank interest margins** which could slow down the process of balance sheet repair.
- Also, **asset-liability and risk management is challenging** - balancing between security, liquidity and returns (even for central bank reserve management).
- Further on, **banks** rarely have a **business strategy** for low or negative interest rates environment. They have to change their business model, cut their operating costs and reduce their non-performing loans – but except into the more risky areas, where could they go today?

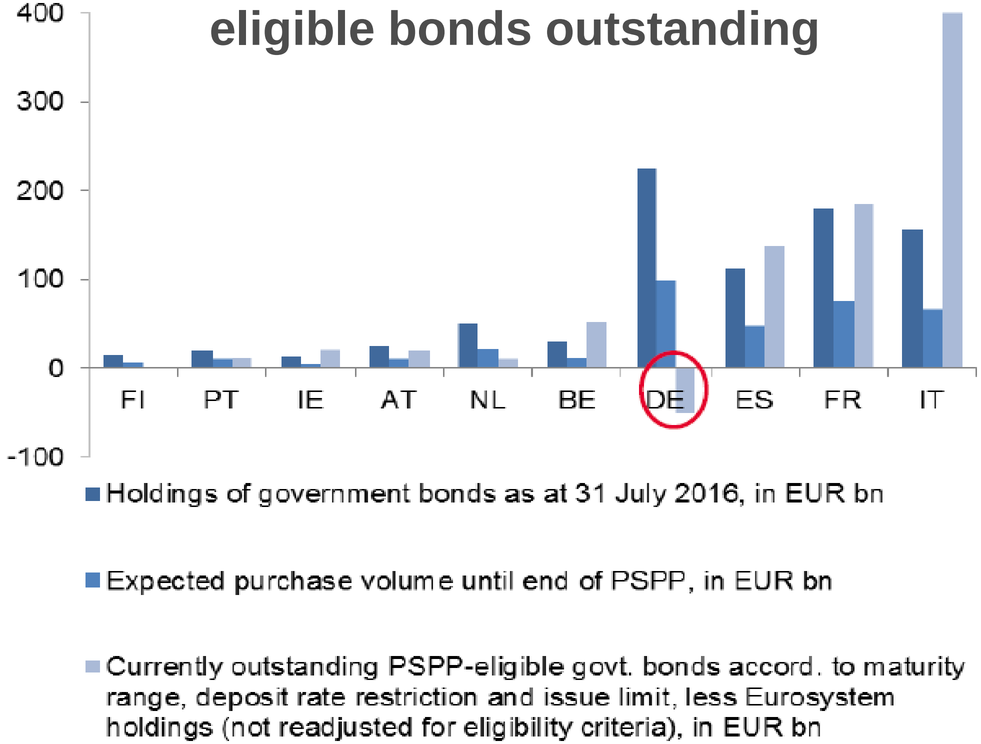
... low interest rates fuelling the asset bubbles

- Historically, **most bubbles were financed by (cheap) bank debt**. However, a **wide range of other factors** are often present when a bubble grows and bursts (political events, technological or financial innovations, etc.).
- More dangerous are leveraged ones
- Early leaning against the wind is preferable to late pricking of bubbles. Using (targeted) **macro-prudential instruments is a viable** (in the early stage of development) **alternative to interest rate policy.**
- Due to search for yield, there is a build-up of risk in many markets.
- **The exit from unconventional monetary policy should be well planned and well communicated.** Policy makers should be aware of a potential shift of risks to less regulated sectors (shadow banks) as well as bad disintermediation (based on regulatory arbitrage and search for yield).

Potential shortage of bonds' supply

- For the Eurozone as a whole, the currently available supply of assets eligible for the public sector purchase programme (PSPP) is still exceeding the ECB's expected demand until the end of March 2017.
- Still, the German Bundesbank could be the first National Central Bank (NCB) that runs out of eligible bonds to purchase

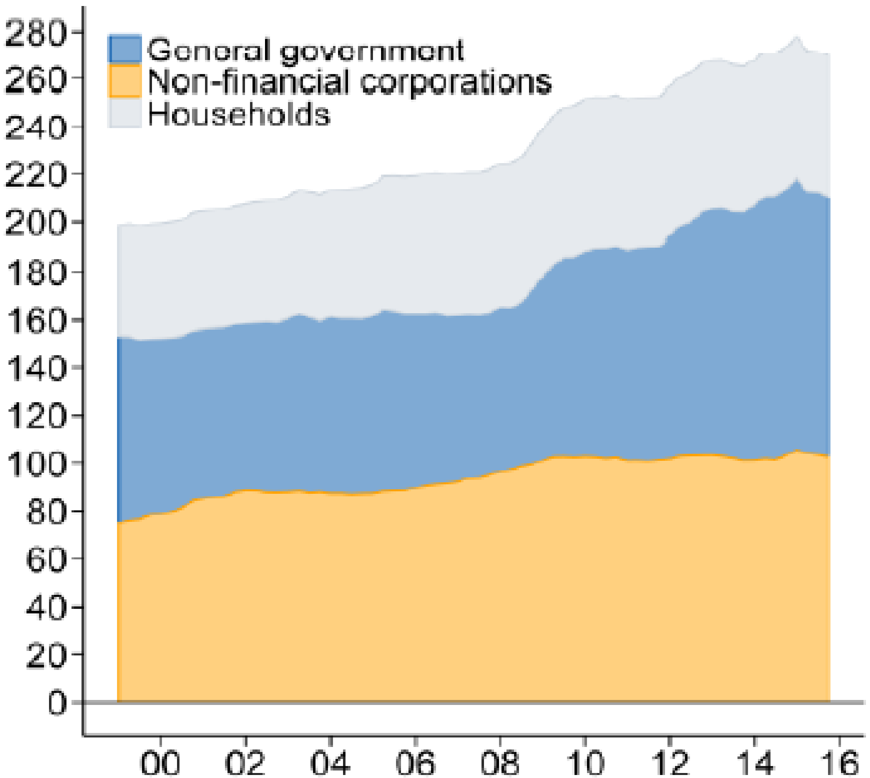
NCBs' PSPP holdings, implied buying and market volume of eligible bonds outstanding



Source: Petersen, A.K. (2016). QE Monitor 'On the verge: preparing markets for more QE', 2 September 2016, Allianz Global Investors.

QE and increased debt stock

Debt by sector in Euro area (% of GDP)



- Lower interest rates and increased lending contributed to debt stock expansion

Source: Folkerts-Landau, D. (2016). The ECB must change course, Deutsche Bank Research (June 8, 2016).

4. Where do we go from here?

In such environment, can central banks do more? (and should they)

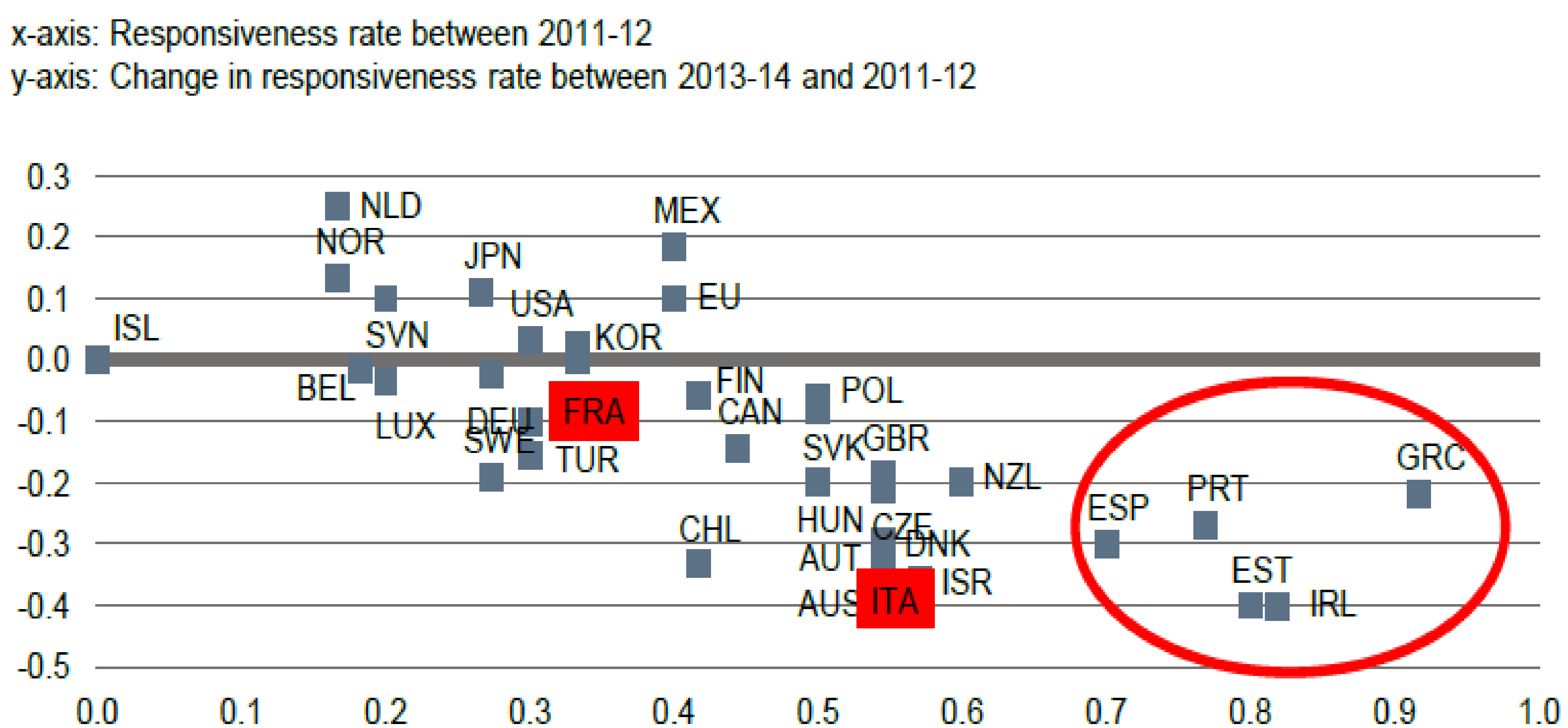
- QE measures have succeeded in influencing financial conditions even though their ultimate impact on output and inflation is harder to pin down; the balance of the benefits and costs is likely to deteriorate over time; and the measures are generally best regarded as exceptional, for use in very specific circumstances[1].
- Central banks are shouldering ever-increasing policy burdens *beyond their core mandate* of stabilising prices.
- Additional mandates are worsening trade-offs for central banks, while *distorting the incentives* of other policymakers. Central banks' 'mandate creep' may be detrimental to welfare[2].
- Monetary policy can only buy time and lower the cost of structural reforms, but cannot do so *ad infinitum*.

[1] Borio, C. and A. Zabai (2016): Unconventional monetary policies: a re-appraisal, BIS WP, July 2016.

[2] Gürkaynak, R. and T. Davig (2015): Perils of central banks as policymakers of last resort, VOXeu, 25/11/2015.

Fiscal (in cases when there is room) **and structural policies should act more decisively to avoid the economy falling in a low interest rate trap**

- OECD's reform responsiveness measure show less enthusiasm for structural reforms
- Reform momentum has slowed, especially in programme countries



Source: Folkerts-Landau, D. (2016). The ECB must change course, Deutsche Bank Research (June 8, 2016).

Thank you!

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