

BBVA

RESEARCH

Madrid, October 24th

2016

Bank of Spain

Comments to
**Global disinflation in
an era of
constrained
monetary policy**

Rafael Doménech

Global disinflation: main IMF's messages

Inflation has declined substantially in a large number of countries as a result of persistent labor market slack and weaker import price growth (cross-border spillovers)

Phillips curve residuals have tended to become larger: a sign that price setters' inflation expectations have declined more than survey-based measures?

Inflation **expectations** in advanced countries with constrained monetary policy are more sensitive to unexpected changes in actual inflation or commodity prices

Most likely scenario: a recovery of inflation toward central banks targets as slack diminishes and declines in commodity prices fades, but with risks of a downward drift in inflation expectations

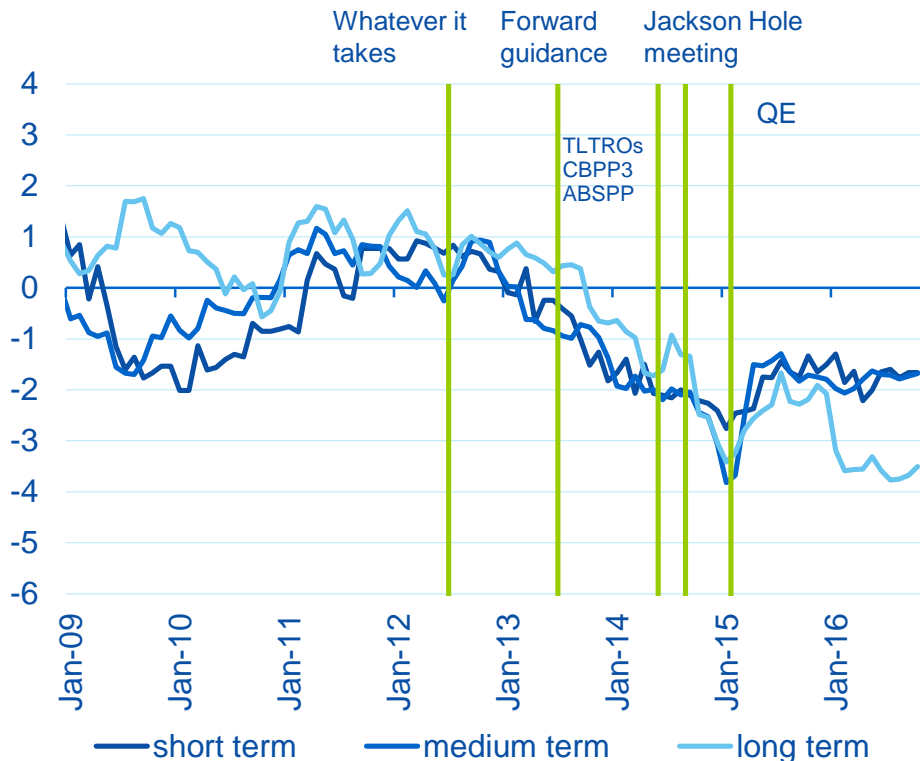
These results calls for a comprehensive and coordinated effort to tackle the risks of low inflation maintaining **monetary accommodation, and implementing policies to boosting demand** and reducing overcapacity

Structure

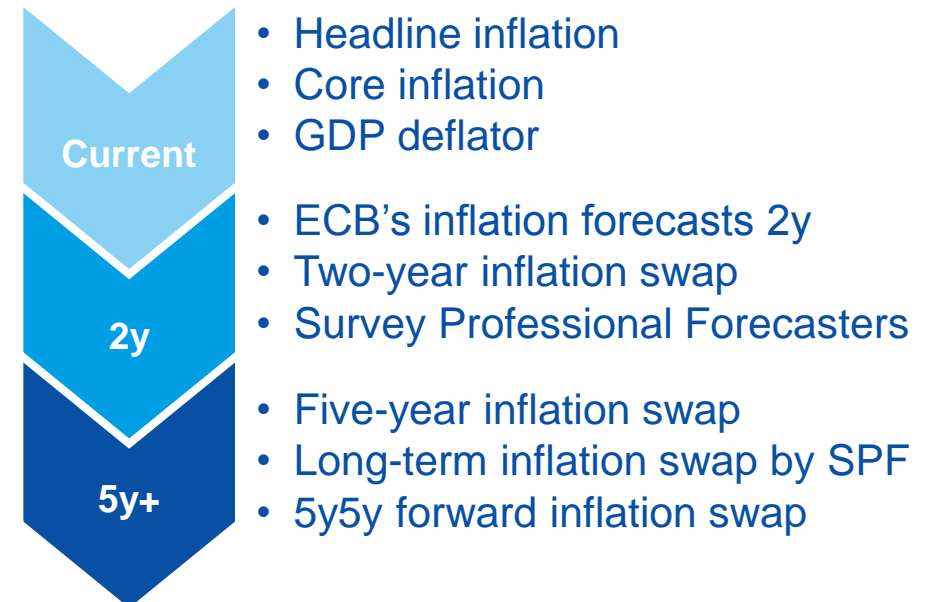
- 1. disinflation evidence for EMU and the Spanish economy**
2. Causes and effects of a low inflation scenario
3. Inflation outlook and policy challenges

A low inflation scenario: EZ Inflation Monitor Index

EMU: BBVA Inflation Monitor Index



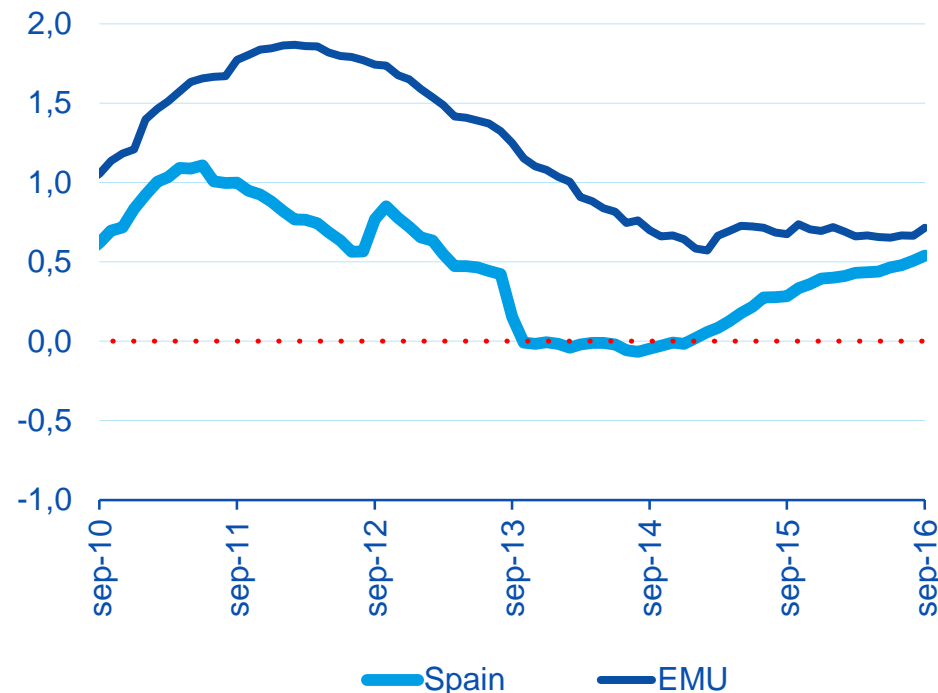
The principal component of the following variables at monthly frequency:



A low inflation scenario: trimmed mean inflation

Spain and EMU: trend inflation

(% YoY, Trimmed mean method)



Trimmed mean inflation

- This method utilizes the empirical **distribution of CPI components**
- The mean $\mu^{\alpha,\beta}$ trims $\alpha\%$ of extreme values in the left tail of the CPI distribution and $\beta\%$ in the right tail
- The criterion we applied to select the optimum trimmed-mean was its **predictive capacity** with respect to annualized mean inflation over a **forecast horizon of 30 months**

Structure

1. disinflation evidence for EMU and the Spanish economy
- 2. Causes and effects of a low inflation scenario**
3. Inflation outlook and policy challenges

Should we be worried about a low inflation scenario?

Main concerns about a low inflation scenario:

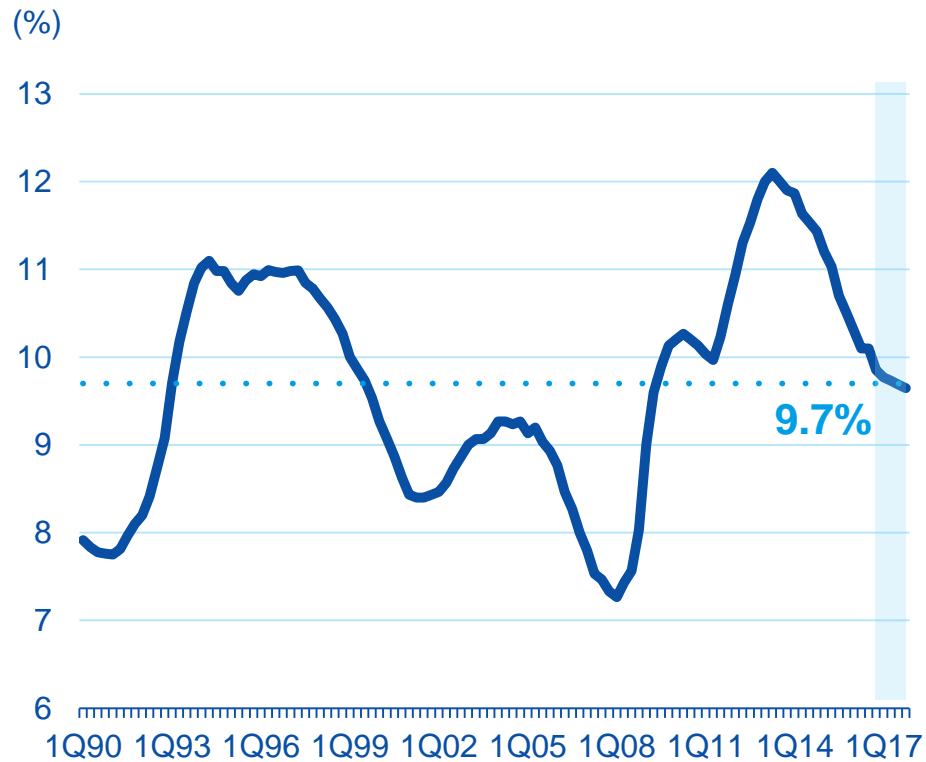
- When low inflation is caused by negative demand shocks vs positive supply shocks
- More difficult **deleveraging process and wage and relative prices adjustments**
- Risk of **de-anchoring inflation expectations**
- In combination with **low real equilibrium interest rates** it increases the probability of reaching the effective lower bound (ELB), making conventional policies less effective

What is behind low inflation in EMU?

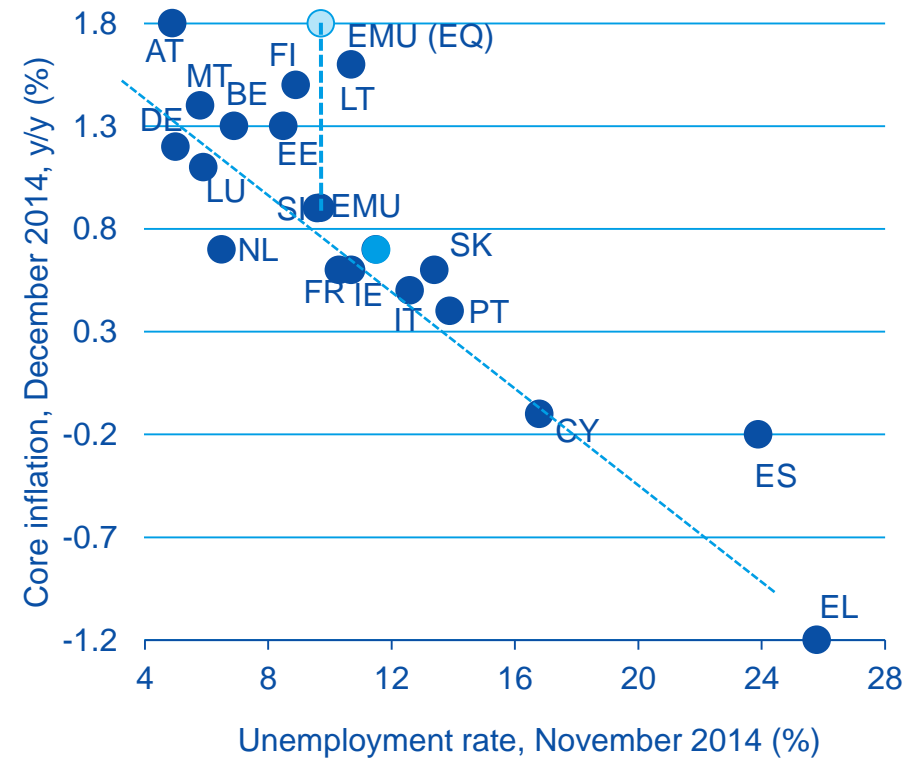
1. **Labor market slack:** lower inflation in countries with higher unemployment rates
2. Low **commodities prices** (e.g., oil prices) are good for EMU countries and facilitate the deleveraging process (Spain, as an example)
3. **Inflation expectations** are slightly procyclical, particularly in the case of financial market-based variables

1. Inflation and unemployment

Aggregate unemployment rate in EMU



Inflation and unemployment in EMU

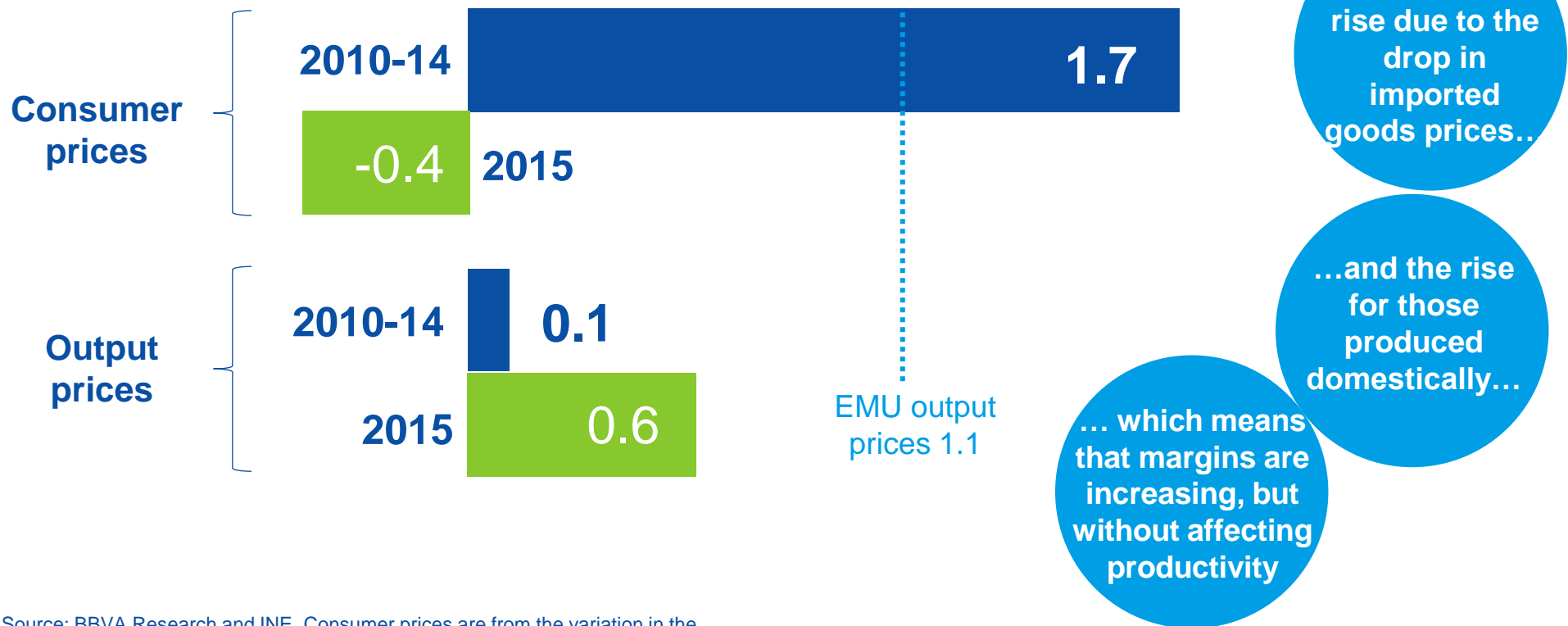


Source: BBVA Research based on Haver and the Area-wide Model for the EA
<https://goo.gl/pb7JfJ>

Source: BBVA Research based on Eurostat

2. Import prices and recovery

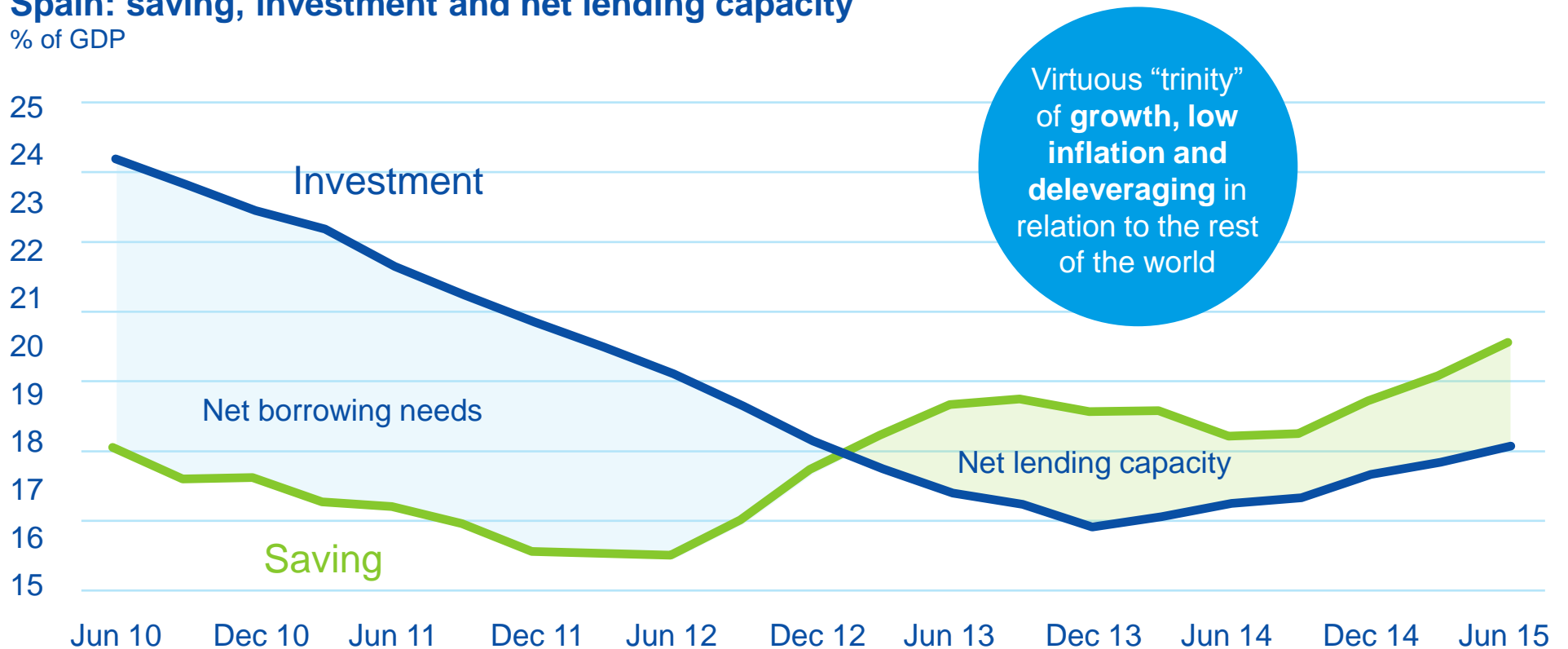
Spain: percentage change in prices
(Average percentage variation YoY)



Source: BBVA Research and INE. Consumer prices are from the variation in the Consumer Price Index. Output prices are from the GDP deflator

2. Import prices and recovery: the “divine coincidence”

Spain: saving, investment and net lending capacity
% of GDP

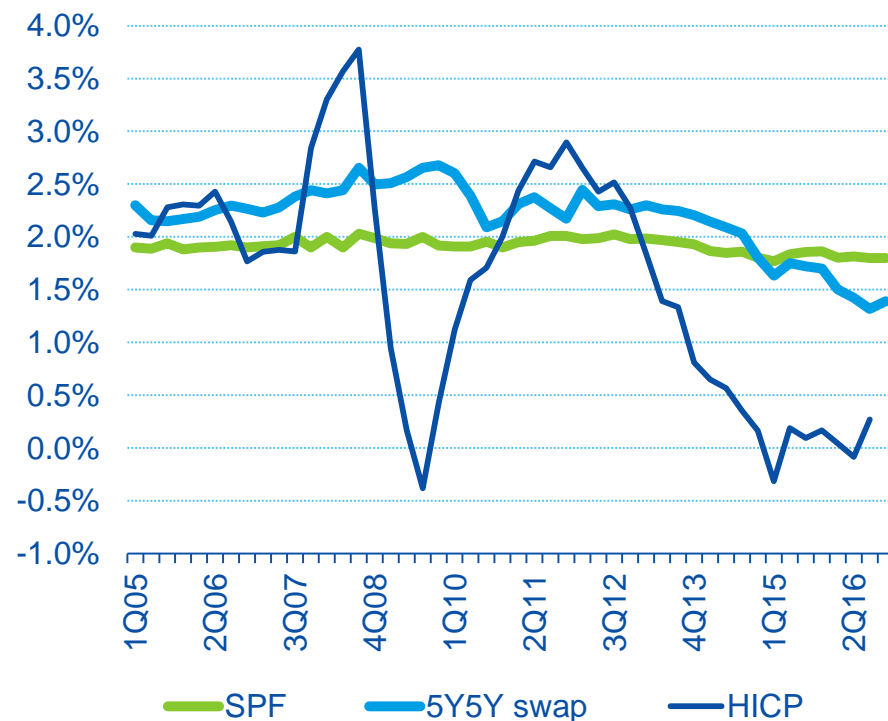


Virtuous “trinity” of growth, low inflation and deleveraging in relation to the rest of the world

3. Inflation expectations

HICP and inflation expectations in EMU

(y-o-y, %)



Source: BBVA Research

As recognized by the IMF, it is not a surprise to observe **differences in survey- and market-based measures** of inflation expectations

SPF long-term inflation expectations are rather stable

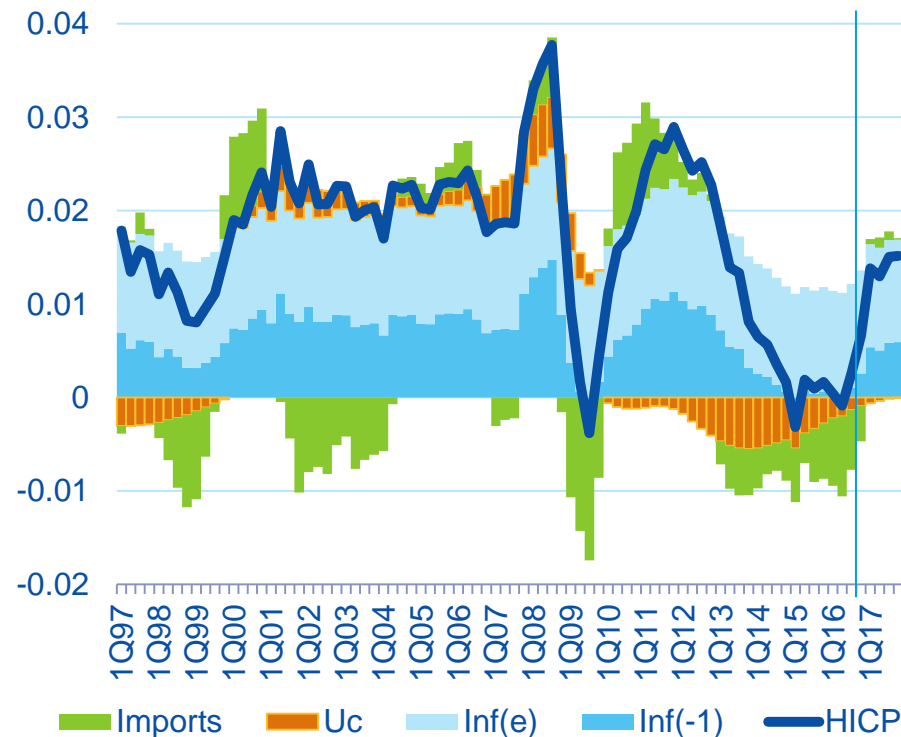
Market-based expectations are more volatile and deviate persistently from central banks' targets, due to **inflation surprises** and the perception of a **less effective monetary policy**

In EMU, the Phillips curve yields **better estimates with SPF long-term inflation expectations** than with 5Y5Y forward inflation swap

Explaining recent inflation dynamics

EMU: contributions to inflation

(y-o-y, %)



EMU: Phillips curve estimates

(1Q1997-3Q2016)

$$\pi_t = 0.61\pi_t^e + 0.39\tilde{\pi}_{t-1} - 0.24u_t^c + 0.16\pi_t^m + \varepsilon_t$$

- 2009: fall of import prices
- 2013-16: more persistent fall of import prices and cyclical unemployment rate
- Lagged inflation is important
- The negative contribution of import prices is expected to disappear in 2Q2017
- There is no evidence that residuals are larger but they were positive in the sovereign debt crisis and negative when financial conditions improve, a result in line with [Gilchrist et al, 2013](#)

Structure

1. disinflation evidence for EMU and the Spanish economy
2. Causes and effects of a low inflation scenario
- 3. Inflation outlook and policy challenges**

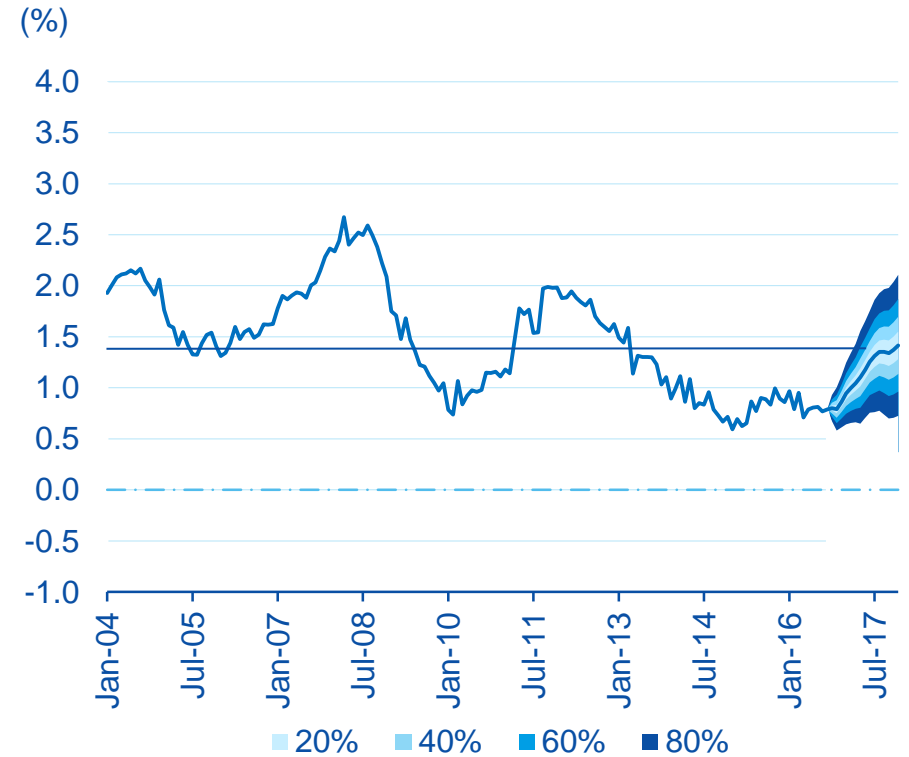
Forecasts for headline and core inflation in EMU

EMU: HICP forecasts



Source: BBVA Research

EMU: core inflation forecasts



Source: BBVA Research

Inflation forecasts and policy challenges

Base scenario: gradual recovery of inflation toward central bank targets

- **EMU**: inflation at 1.6% in Dec. 2017 and 30% probability of being greater than 2

Monetary policy challenges: instruments, effectiveness and credibility

- Base scenario: allow the **inflation to be higher than objective** for some time, if needed. Long-run challenges of low r^* (Lansing, 2016, Neut and García, 2016)
- Higher inflation scenario: QE **exit strategy** and forward guidance to avoid excessive volatility in financial markets (Bernanke, 2015, and Taylor, 2015)
- Lower inflation scenario: **additional measures**, interaction w/fiscal policy (Sims, 2016)

Fiscal policy challenges

- Base scenario: continue with **fiscal consolidation** and long-run fiscal union process
- Higher inflation scenario: **no plan B** in countries with high levels of public debt
- Lower inflation scenario: fiscal policy at **EU level** (ESBies, Brunnermeier et al, 2016)

BBVA

RESEARCH

Madrid, October 24th

2016

Bank of Spain



Comments to
**Global disinflation in
an era of
constrained
monetary policy**

Rafael Doménech