**Peter Praet**

Member of the
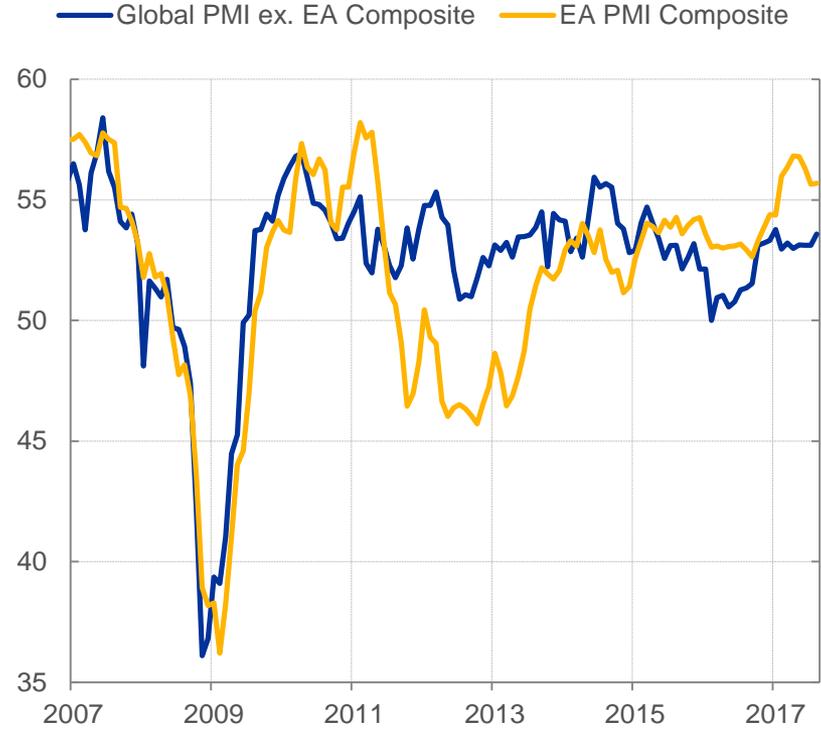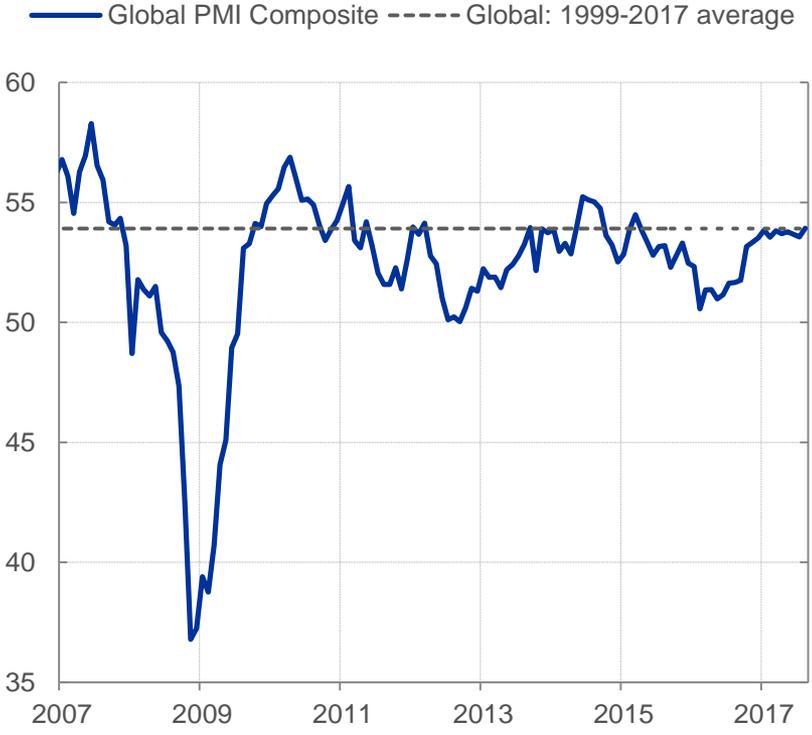Executive Board of the ECB

# The Eurozone's experience with unconventional Monetary Policy

**Monetary and Financial Policy Conference of the Money Macro and Finance (MMF) Research Group**

**London, 2 October 2017**

# Global and EA PMI composite output
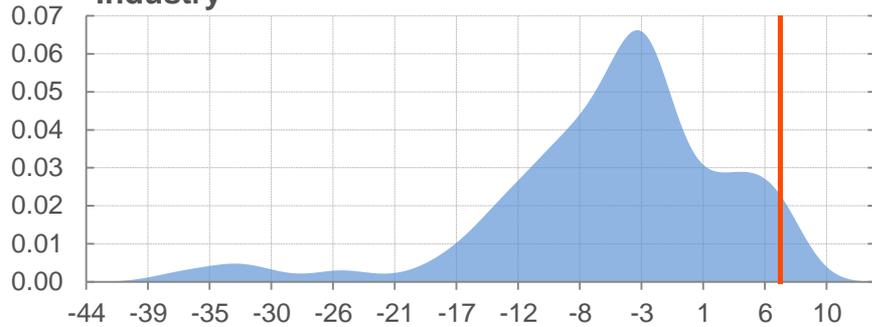(diffusion index; SA; monthly data)



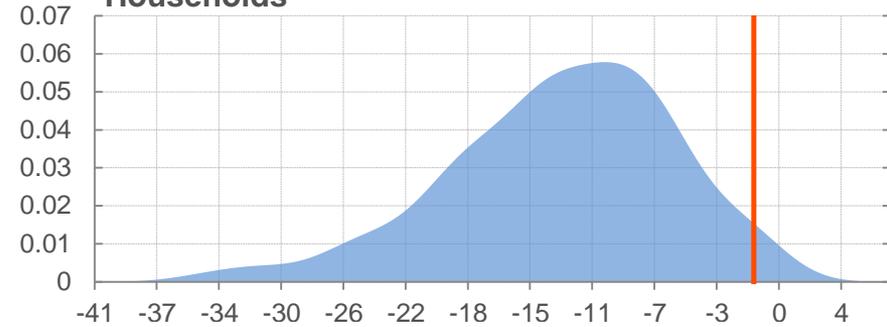Sources: Markit, ECB staff calculations.
Latest observation: August 2017.

Source: Markit.
Latest observation: August 2017.

2017-10-02
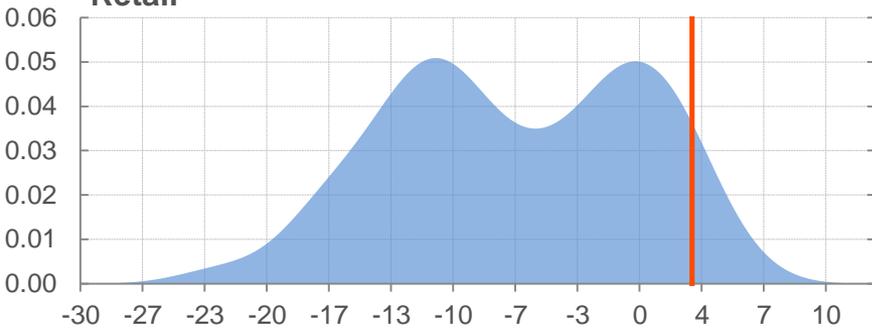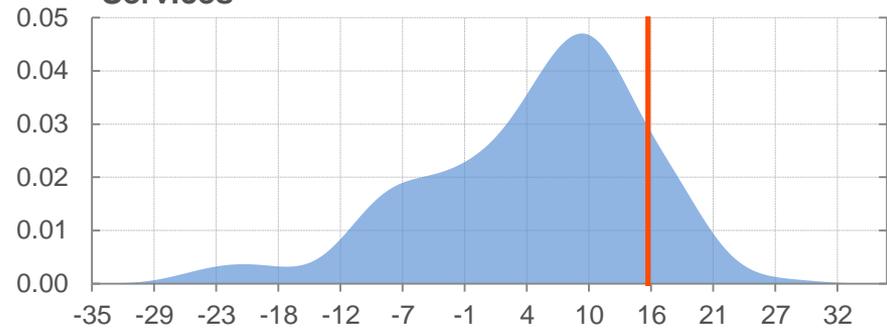
# Business and consumer sentiment
## (relative frequency)
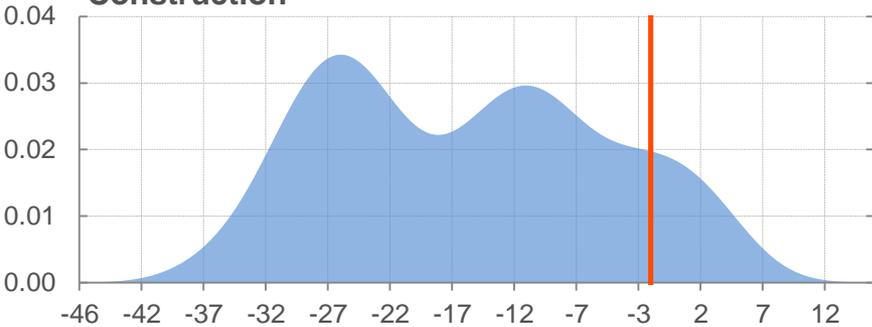


Source: European Commission.
Note: Historical distribution of balances of opinion for five different
sectors. Sample: January 2000- September 2017.
Latest observation: September 2017.

# M3 and loan growth
(annual percentage changes)
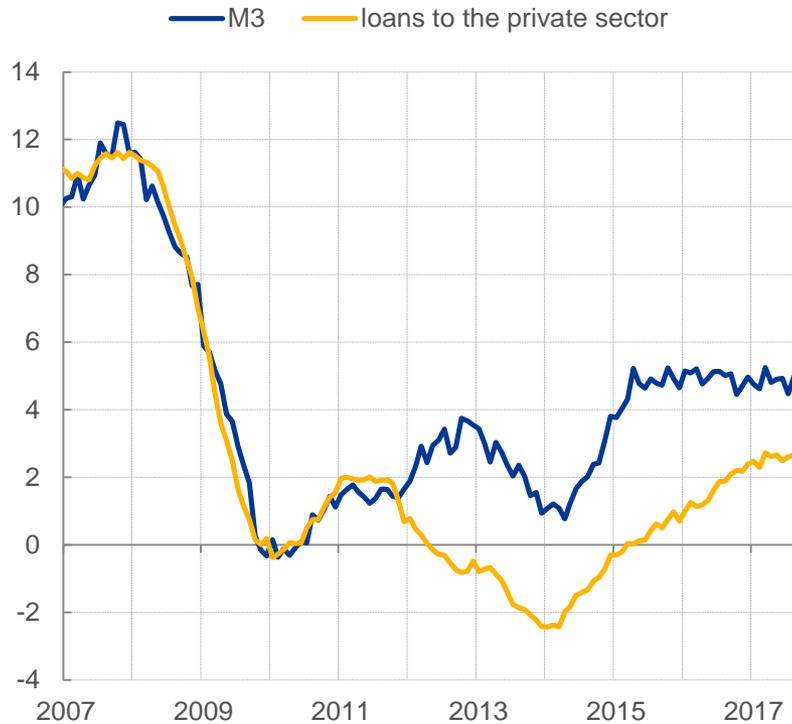


Source: ECB.
Latest observation: August 2017.

# Central bank balance sheets
(Jan. 2007 = 100)



Sources: ECB and Federal Reserve.
Latest observation: 22 September 2017.

# Bank loans to the private sector
## (annual percentage changes)

## HICP inflation and HICP excluding food and energy
### (annual percentage changes)
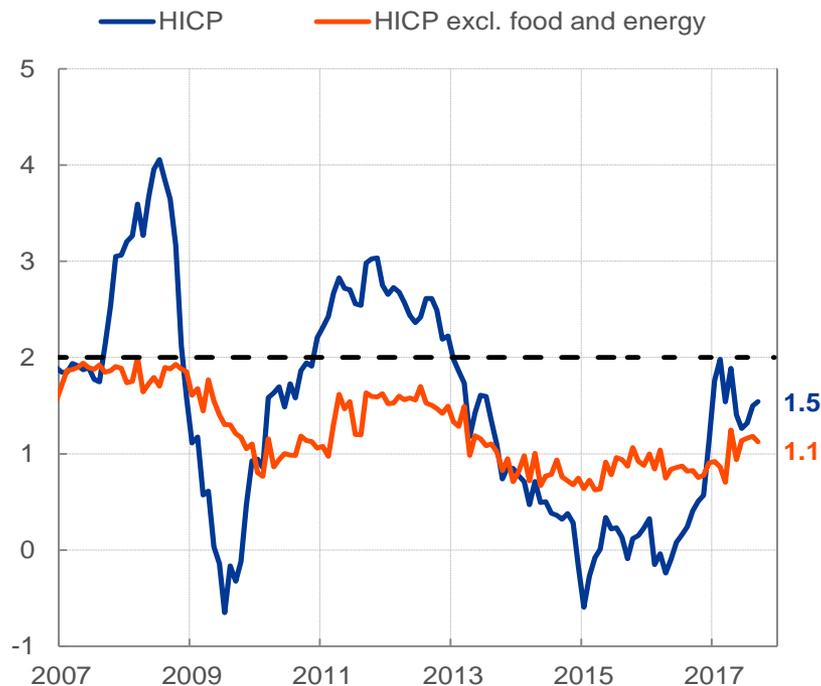


Source: Eurostat.
Latest observation: September 2017 (flash estimate).

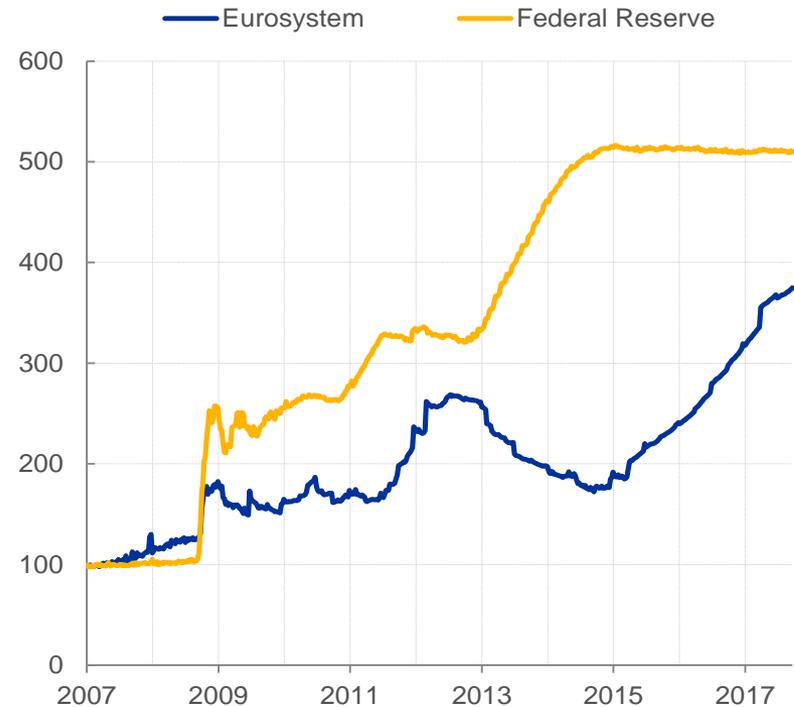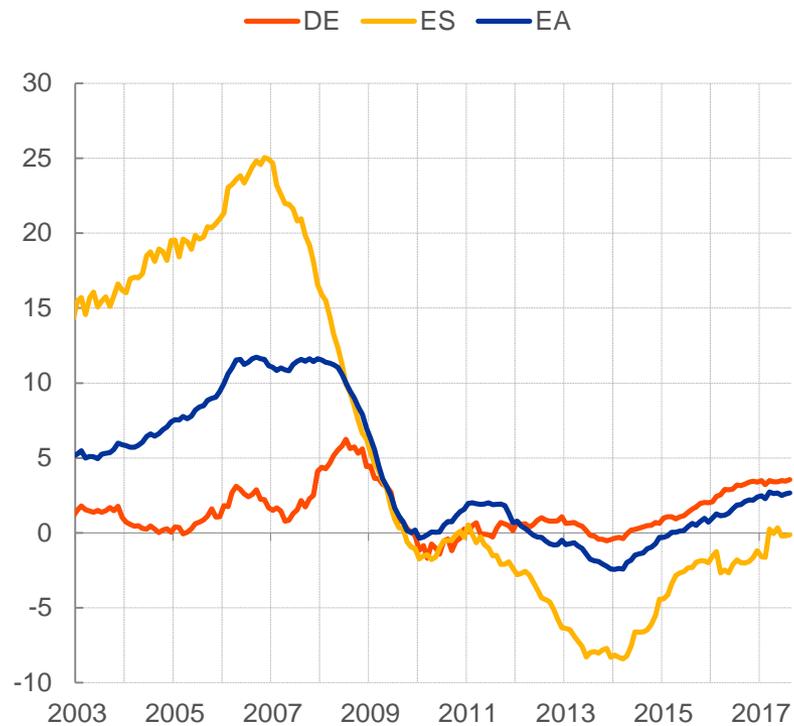## Risk neutral probability density function of euro area inflation over the next five years
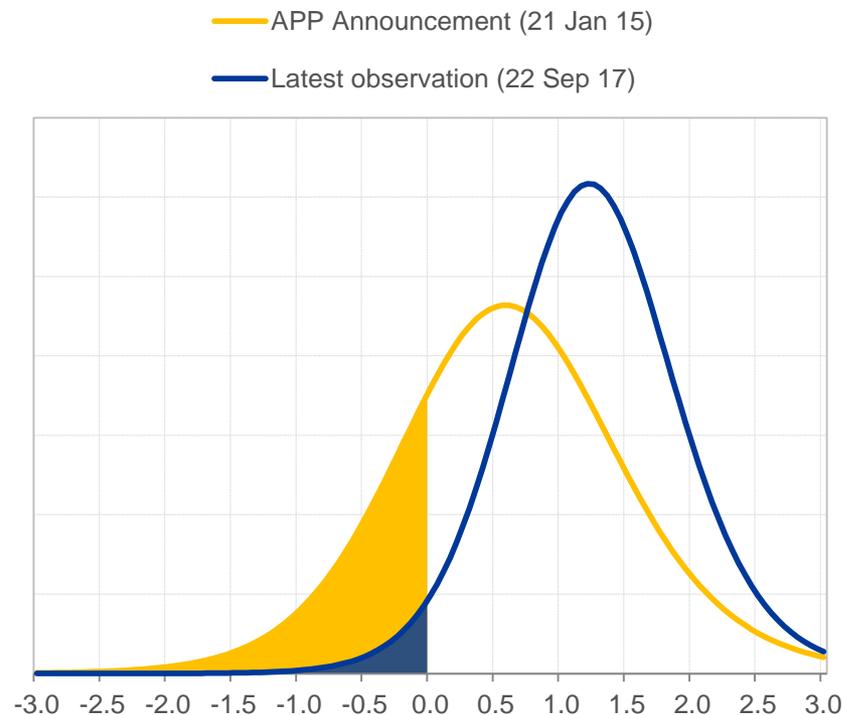


Sources: Bloomberg, Reuters, and ECB calculations.
Note: Density functions are computed from 5-year maturity zero-coupon inflation option floors under the assumption of risk neutrality. These "risk neutral" density functions may differ significantly from physical (or "true") probability distributions. Shaded areas indicate the probability mass assigned to an inflation rate below 0.0% over the next 5 years.
Latest observation: 22 September 2017.

## Measures of underlying inflation
(annual percentage changes)

- HICP excluding food and energy
- HICP excluding food, energy, travel-related items and clothing
- Long-term average HICP excluding food and energy
- U2 Core
- Super-core
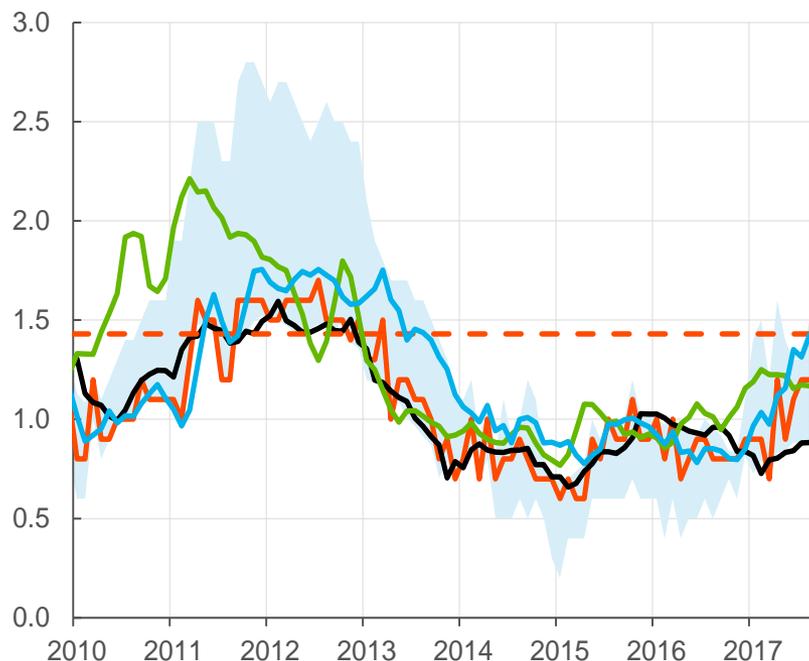


Sources: Eurostat and ECB calculations.
Note: The dynamic factor model (U2 Core) is based on the full 93 HICP items from each of 12 countries. Super-core is based only on those items in HICP excluding food and energy that are sensitive to slack as measured by the output gap. The range includes exclusion-based measures, trimmed means and a weighted median.
Latest observation: August 2017.

## Components of HICP excluding food and energy
(annual percentage changes, percentage point contributions)

- Clothing
- Travel
- Services excluding travel
- NEIG excluding clothing
- HICP excluding energy and food
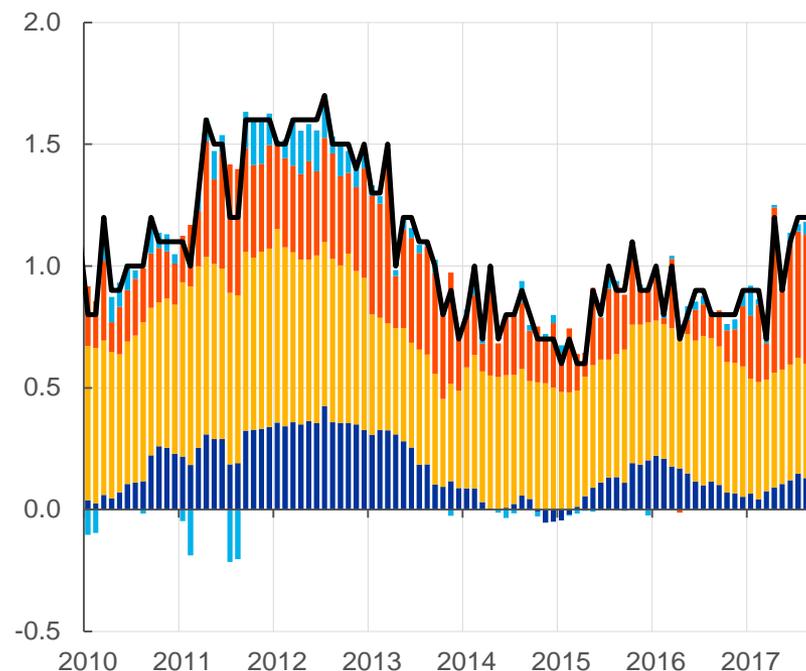


Sources: Eurostat and ECB calculations.
Latest observations: August 2017.

## Inflation in Services
## and Compensation per Employee in Services
(annual percentage change)



Legend: HICP services — Compensation per employee

Sources: Eurostat and ECB calculations.
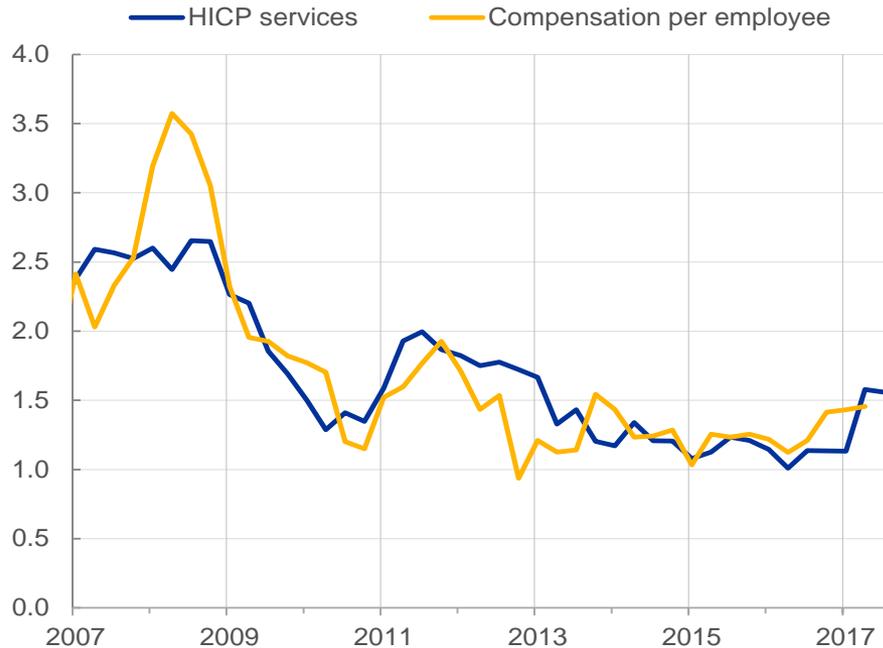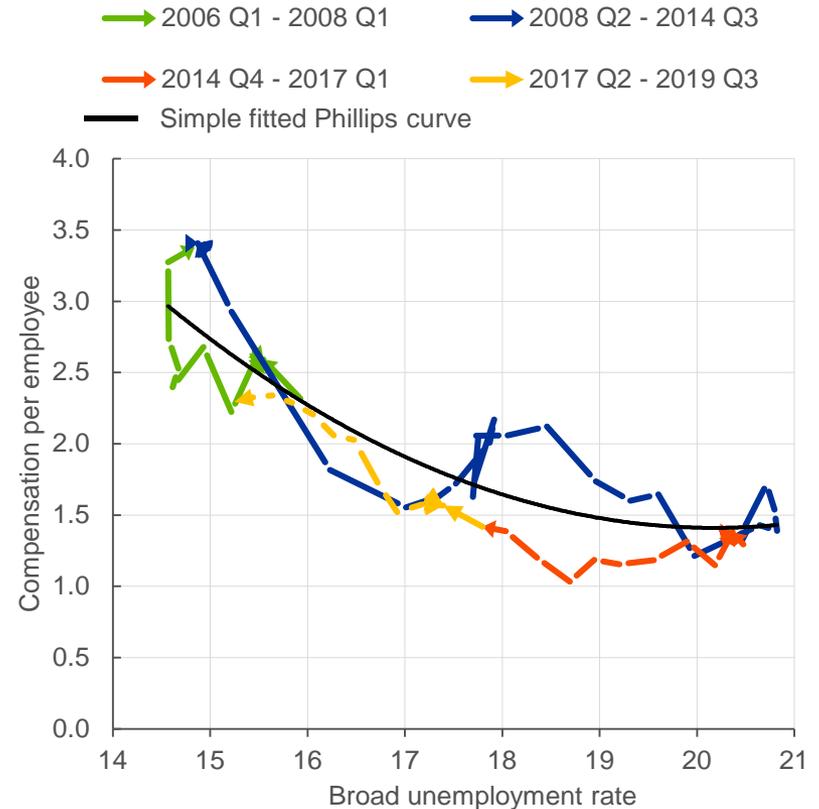Note: The latest observations are 2017 Q3 (latest data point refers to August 2017) for HICP services, and 2017Q2 for compensation per employee.

## Wage Phillips curve
(x-axis: percentage points;
y-axis: annual percentage changes)

Legend:
→ 2006 Q1 - 2008 Q1    → 2008 Q2 - 2014 Q3
→ 2014 Q4 - 2017 Q1    → 2017 Q2 - 2019 Q3
— Simple fitted Phillips curve



x-axis: Broad unemployment rate
y-axis: Compensation per employee

Sources: Eurostat and ECB calculations.
Note: Broad unemployment rate includes (i) total unemployed, (ii) underemployed part-time workers who currently have jobs, although not at the optimal weekly hours they would like, and (iii) inactive persons who are marginally attached to the labour market, as a percent of the labour force plus all marginally attached workers. The difference between the unemployment rate and the broad unemployment rate is assumed to decline at the same pace as observed in the past 6 quarters. The black line represents a simple fitted Phillips curve. Latest observation: 2017Q1.

# Implied unemployment gaps
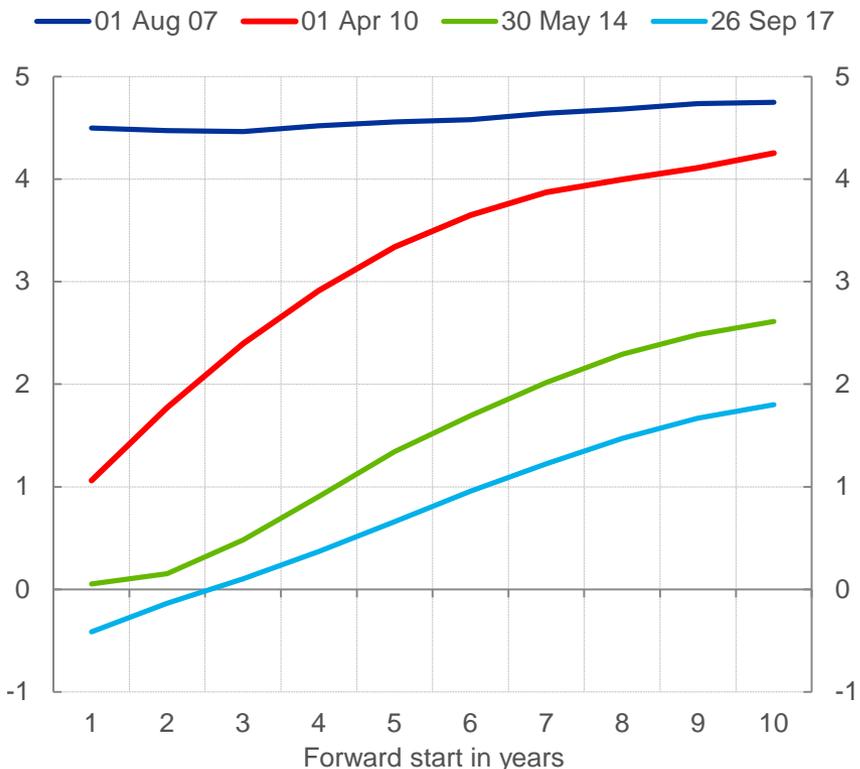(percentage points)
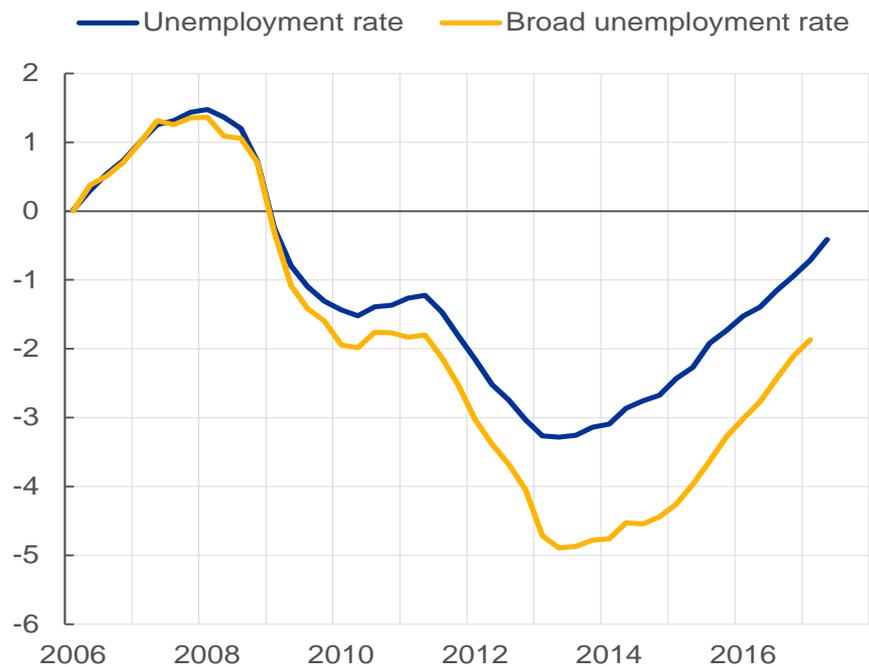


Sources: Eurostat (EU LFS).
Note: Seasonally adjusted data. Broad unemployment rate includes (i) total unemployed, (ii) underemployed part-time workers who currently have jobs, although not at the optimal weekly hours they would like, and (iii) inactive persons who are marginally attached to the labour market, as a percent of the labour force plus all marginally attached workers. To obtain the implied unemployment gaps both unemployment rates are expressed as differences to their 2006 average plus the 2006 unemployment gap from the June 2017 BMPE.
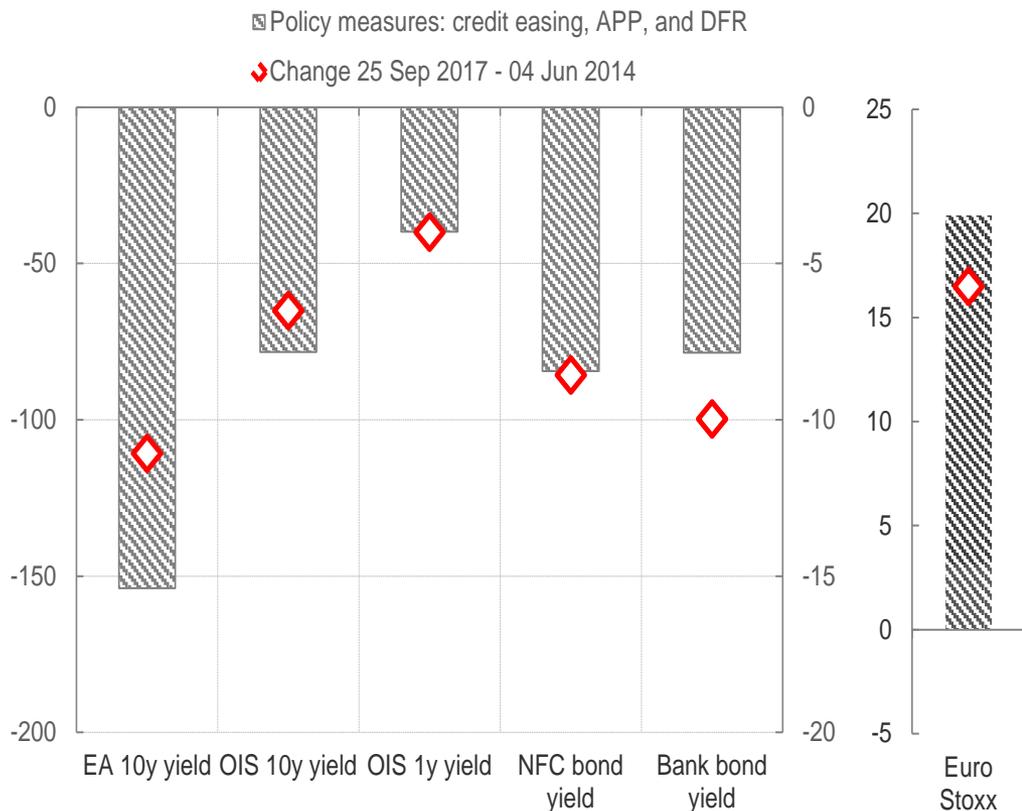Latest observation: 2017Q2 for unemployment and 2017Q1 for broad unemployment.

# Evolution of OIS forward curves
## (percentages per annum)

# Key financial indicators since June 2014 and impact of policy measures
## (basis points and index points)

Legend:
- 01 Aug 07
- 01 Apr 10
- 30 May 14
- 26 Sep 17

X-axis: Forward start in years

Legend (right chart):
- Policy measures: credit easing, APP, and DFR
- Change 25 Sep 2017 - 04 Jun 2014

X-axis labels: EA 10y yield, OIS 10y yield, OIS 1y yield, NFC bond yield, Bank bond yield, Euro Stoxx

Source: ECB.
Latest observation: 26 September 2017.

Sources: Bloomberg, ECB, ECB calculations.
Latest observation: 25 September 2017.

# Expectations of future short-term rate throughout periods of non-standard measures
## (percentages per annum)



Monetary policy package
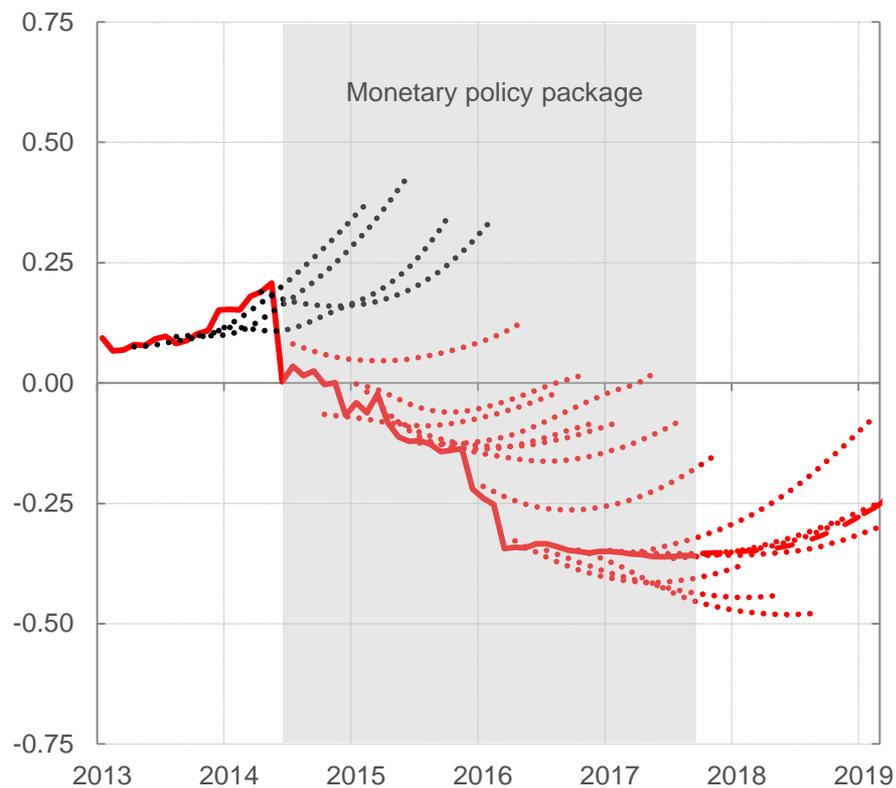
Sources: Bloomberg, ECB calculations.
Notes: Evolution of the OIS forward curve from pre-NIRP (black-dotted lines) to post-NIRP (red-dotted lines) period. The dashed red line shows the latest observation.
Latest observation: 27 September 2017.