



Monetary policy normalization in the euro area

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1 Reminder: Effects of APP

ECB monetary policy normalization: First 18 months

ECB monetary policy normalization: Now and next steps

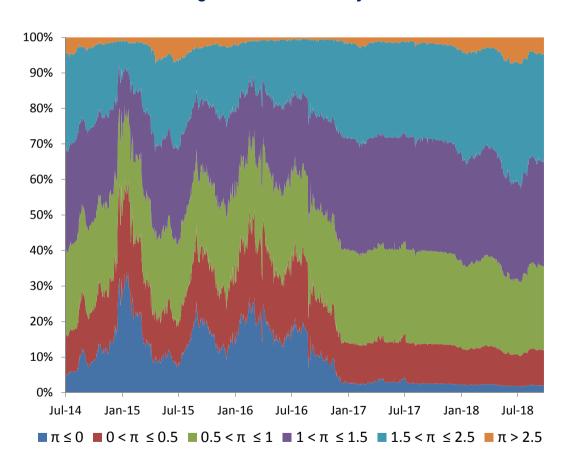
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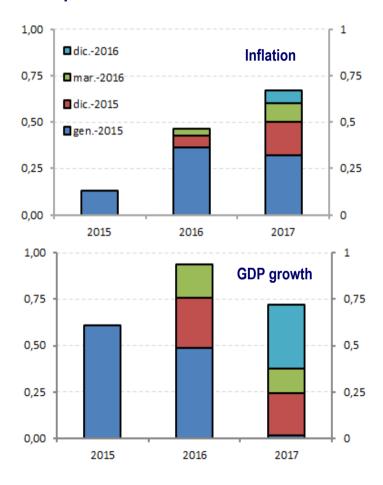
ECB monetary policy normalization: Now and next steps

Reminder: APP effectively removed deflation worries, and gave major boost to both GDP growth and inflation

Option-implied (risk-neutral) probability distribution of average inflation over a 5-year horizon



Impact of APP on GDP and inflation



Source: based on Cecchetti, Natoli & Sigalotti (2015).

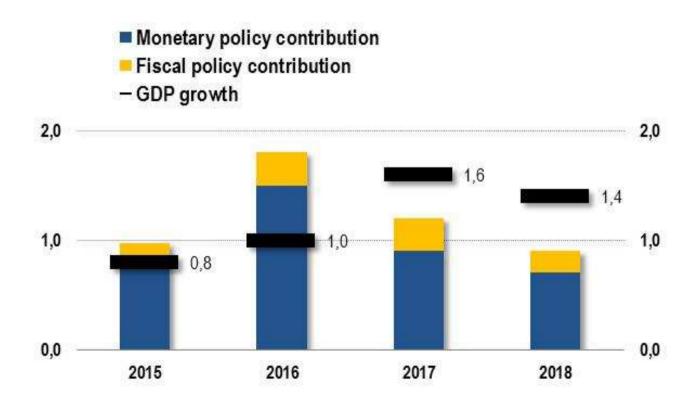


Source: estimates by Banca d'Italia staff.

Monetary policy support to growth remains relevant, "but growth is increasingly self-sustained" (Visco, May 2018)

Contribution of economic policies to Italian GDP growth

(percentage points and per cent)



Source: Annual Report, May 2018.



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Monetary policy recalibration has been cautious and gradual ...

Recalibration started two years ago and gradually involved all monetary policy tools:

>	December 2016	Monthly purchases	down from	80 to 60	bln (starting
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April 2017)

June 2017 Easing bias on policy rates is removed

> October 2017 Monthly purchases down from 60 to 30 bln (starting

January 2018); statement on reinvestment

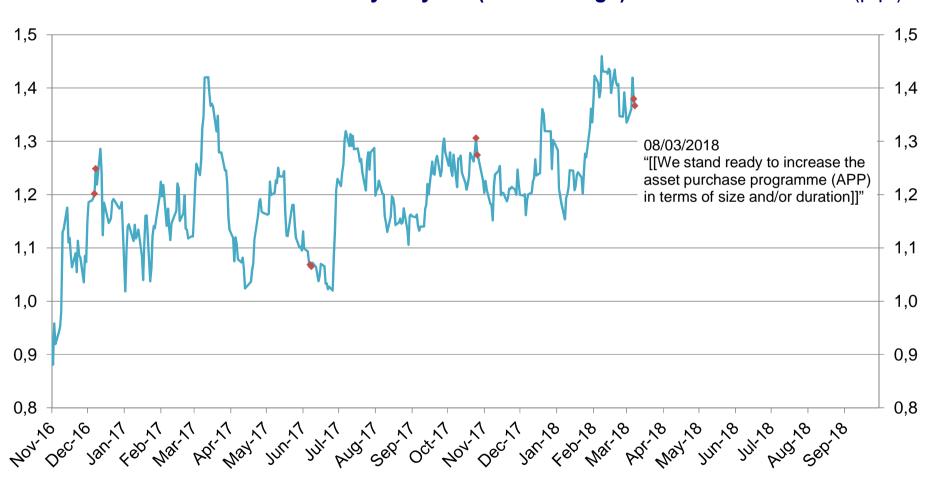
> March 2018 Easing bias on APP (possibility of increasing purchases

in case of unfavorable developments) is removed



... and market reactions have been muted throughout

Differential between euro area 10-year yield (AAA average) and 3 month Euribor (p.p.)





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Inflationary pressures have been slowly building up

New indicator built at the Bank of Italy provides a synthetic measure of inflationary pressures and can be interpreted as the probability that inflation will be 1.9 per cent or higher 12 months ahead.

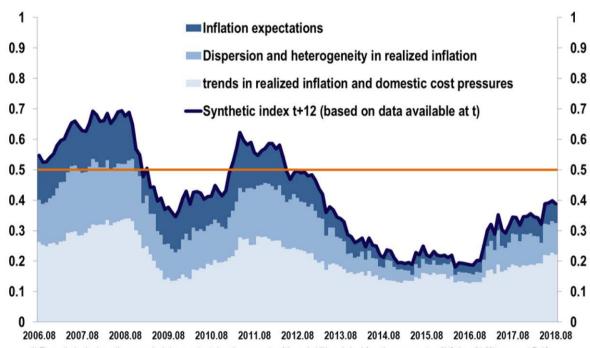
15 inflation-related indicators, grouped in 4 categories:

- Past realized inflation
- 2. Dispersion in realized inflation
- 3. Inflation projections
- 4. Expectations

The synthetic indicator is given by the principal components of the fitted values of 15 regressions (one for each indicator).

Contribution of each of the 4 categories to the evolution of the indicator may be easily computed (using loadings).

Synthetic indicator of the probability that inflation 12 months ahead exceeds 1.9%



(*) The vertical axis shows the composite index, constructed as the aggregate of the probabilities, derived from the components, of inflation of 1.9% or more at T+12 based on the information available at T; the horizontal axis shows actual T.





Net asset purchases: going, going, ... gone

> June 2018

"We anticipate that, after September 2018, subject to incoming data confirming our medium-term inflation outlook, we will reduce ... monthly ... purchases to €15 billion until the end of December 2018 and then end the purchases."

> September 2018

"After September 2018, we will reduce the monthly pace of the net asset purchases to €15 billion until the end of December 2018 and we anticipate that, subject to incoming data confirming our mediumterm inflation outlook, we will then end net purchases."

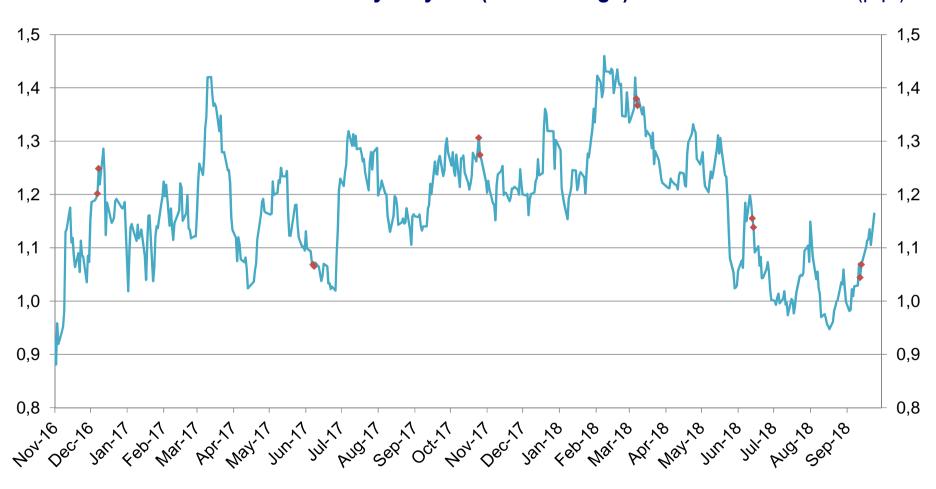
At the same time, it was stated over and over again that "an ample degree of monetary accommodation is still necessary for the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term."

ECB monetary policy will keep being guided by the same principles that have been guiding it in the recent past: "For ... a rising inflation path to materialise, we need to remain **patient**, **prudent and persistent**" (Draghi, European Parliament, 24 September 2018).



Market reactions have remained muted

Differential between euro area 10-year yield (AAA average) and 3 month Euribor (p.p.)





And now?

Two main levers (including "enhanced forward guidance" on both):

LEVERS

Policy rates

 Reinvestment: "We intend to reinvest the principal payments from maturing securities purchased under the APP for an extended period of time after the end of our net asset purchases, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation."

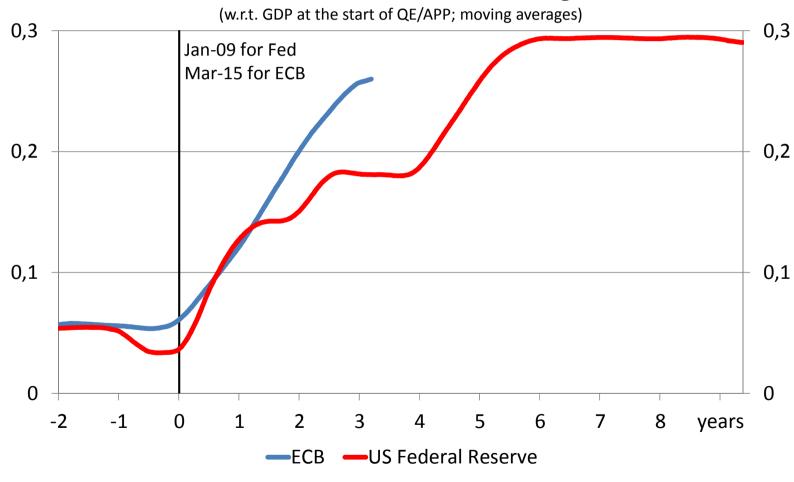
MARKET EXPECTATIONS

- ➤ EONIA swaps signal first 10 bp increase in deposit rate in 2019Q3. About 70% of Bloomberg & Reuters samples expect 15-20 bp increase in 2019Q3; almost all expect it by end-2019. More forward guidance expected (3/4 expect it in 2019Q2).
- ➤ Bloomberg: virtually all analysts expect reinvestment to continue for at least two years after the end of net purchases (46% think two; 24% three; 27% four).



Length of reinvestment: lessons from the Fed

Central bank's bonds holdings





Early exit riskier than late exit

High uncertainty surrounds a number of key factors (e.g.: level of the natural rate of interest; size of output gap and labor market slack).
There is a material risk of undermining ongoing economic upswing; and, an imprudent early exit from our expansionary stance could backfire and would eventually require more accommodation.
Fewer tools will be available to CBs to combat such eventuality, and there would be a reputational damage.
By contrast, many tools are at the disposal of central banks to tackle price pressures if exit is delayed.
Macro prudential policies could also be activated to contrast local financial imbalances.

Other effects of normalization (including international spillovers)

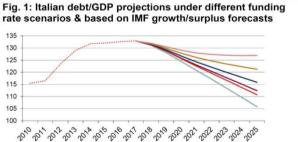
Brainard (2017): "for a foreign economy that is at the effective lower bound, tightening in the home country through balance-sheet policy will be less welcome than through short-term rates."

Advanced economies: Term premia drive the high correlation in DE and US long rates (e.g., Pericoli, 2014); causality can go both ways (Taper Tantrum vs. Bund Tantrum).

Italy: increase in yields is NOT *PER SE* a source of risk for debt sustainability. A decline in primary surplus, on the contrary, may jeopardize the decrease of public debt.



EA and US rate comovement



EMEs: until recently, stress in EMEs was limited; it has risen sharply in last few weeks, but cannot be compared with the abrupt corrections in capital flows and asset prices at the time of taper tantrum (for now).



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Open issues on the new normal

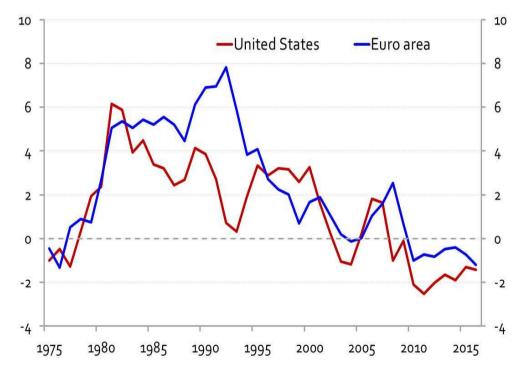
- Which strategy: Back-to-normal? Higher inflation target? Move to (temporary?) price level targeting? Other?
- Which instruments should be retained: QE, TLTRO, negative rates? What is their optimal mix?
- Which operational target(s) and framework: Corridor vs. floor systems? Large vs. lean balance sheet?

Answers to these issues should take into account the experience of the long crisis but also structural changes to economy and financial markets (banks vs. financial markets); regulation (e.g., possible impact on LCR to CB balance sheet); lack of safe assets; and more (see, e.g., next slide).



Are structural factors putting downward pressure on interest rates?

Estimates of the natural rate of interest (percentage points)



Source: Gerali and Neri (2017)

- Estimates of the natural rate of interest for the euro area and US (e.g.: Gerali and Neri, 2017) suggest a trend decrease since the 1980s and point towards negative values in recent years.
- If the natural rate of interest were to stay around zero, even if inflation returns to levels consistent with the definition of price stability, the ECB main policy rate should be around 2 percent in steady state (i.e., when the output gap is 0), which may not give enough leeway to cut policy rates in response to future recession.
- In that environment, asset purchases may become one of the main ways to provide monetary policy accommodation.
- In that case, going back to the previous size of the balance sheet might not even be possible.



End of presentation

