

Benoît Cœuré: Opening remarks at the ECB workshop on “Markets for inflation protection: recent developments, modelling tools and policy implications”

Opening remarks by Mr Benoît Cœuré, Member of the Executive Board of the European Central Bank, at the ECB workshop on “Markets for inflation protection: recent developments, modelling tools and policy implications”, Frankfurt am Main, 30 August 2012.

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I wish to thank Søren Autrup and Magdalena Grothe for their contribution to this speech. I remain solely responsible for the opinions contained herein.

Ladies and gentlemen,

It is a great pleasure for me to welcome you on behalf of the Executive Board of the European Central Bank to this topical workshop on “Markets for inflation protection: recent developments, modelling tools and policy implications”. This event aims to encourage a sharing of views among central bankers, treasuries, investment banks and researchers from academia. I am very pleased to see such a broad collaborative effort being made to better understand developments in markets for inflation protection.

In my remarks today, I will first give a short overview of the current size of these markets in the euro area. I’m also going to summarise how the European Central Bank uses information extracted from inflation-linked products for its day-to-day analysis and assessment of monetary policy. In the final part, in view of the difficult and volatile market conditions we are currently facing, I will refer to the challenges for central banks in using information coming from markets for inflation protection.

Looking back at the early times of the inflation protection market in the early 2000s, it is impressive how it has developed in terms of the size, liquidity and diversity of both issuers and investors. It has also become “mainstream” in the sense that some of the original controversies surrounding it no longer exist. Indeed, central banks no longer consider the existence of a market for inflation protection as a sign of mistrust in their ability to deliver price stability. Quite the contrary, they see it as completing the universe of financial securities and thereby expanding risk sharing in the economy and contributing to economic stability. These developments show that financial innovation can in fact provide benefits for the society, provided that it is well designed and supervised. This has not always been the case in the past, however. But it does not mean that it cannot be the case for the future.

Inflation-linked bonds now constitute an important segment of the sovereign bonds issued by France, Italy and Germany (see slide 2). The outstanding amount in these three euro area countries combined has reached €350 billion so far in 2012 and the market is well established. Apart from products linked to national CPI indices, a large part of these markets consist of bonds linked to the euro area HICP, which we use at the ECB for our analyses of inflation expectations.

Apart from the inflation bond market, there is a growing swap market (see slide 3). The inflation-linked swap market has gained liquidity and, for us policy-makers, it is another source of signals about inflation expectations and it helps us to understand their term structure. Finally, an interesting, but still developing market is the market for inflation options. It potentially can deliver signals on the probabilities of various inflation outcomes, as priced by investors, but the liquidity and segmentation of inflation options remain a significant challenge.

Let me now say a few words on how we use signals extracted from markets for inflation protection for our daily analysis (see slide 4). The ECB monitors inflation expectations by using surveys and implied signals from swap and bond markets. Market-based indicators are more volatile than survey-based indicators. In part, the volatility is related to noise due to the

market turbulence experienced in recent years. However, movements in market-based measures provide information on inflation expectations beyond what is contained in survey information. In particular, monitoring developments in inflation risk premia can help to assess inflation concerns among market participants.

Looking at the developments in market-based measures of medium to long-term inflation expectations in the euro area during the crisis, inflation expectations seem to be well-anchored in spite of market turbulence and uncertainties regarding future developments (see slide 5). As the chart shows, the anchoring is confirmed by stable survey-based measures as well.

Comparing euro area data with that of the United States and United Kingdom, inflation expectations in the euro area derived from inflation-linked markets seem to have been relatively stable during the financial crisis, in fact more stable than for the other two currency areas (see slide 6). For the euro area in particular, inflation expectations have remained very well anchored following the non-standard liquidity provision measures undertaken by the ECB. The anchoring of expectations at relatively low levels probably reflects continued negative output gaps in the euro area as well as confidence that the ECB will be able and willing to drain liquidity if and when necessary to control inflation. In a nutshell, it is evidence that the euro area financial crisis has not eroded trust in the euro as a currency.

However, central banks are currently facing important challenges in using information from markets for inflation protection to support monetary policy decisions (see slide 7). During the crisis, and especially after the bankruptcy of Lehman Brothers, inflation-linked markets were characterised by high volatility and low market liquidity, which made it very difficult for policy-makers to infer signals about the level of inflation expectations, as perceived by market participants. Also, they have not escaped the trend towards fragmentation which has been a common feature of euro area capital markets throughout this crisis.

During the euro area sovereign bond market crisis, and especially in the second half of 2011, country-specific developments were increasingly apparent. In particular, the rising yield spread between French and German bonds meant that the euro area real yield curve estimated on French and German bonds became biased. The technical solution was to split the estimation of the real yield curve into the country-specific yield curves before aggregating back to a euro area real yield curve. I believe our colleagues will present this new approach in more detail during the workshop.

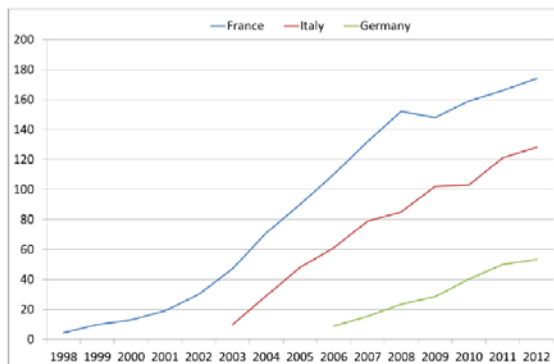
Finally, regarding the markets for inflation options, we still need to understand better to what extent we can trust the signals extracted from these markets as being accurate information on the inflation and deflation tail risks perceived by investors. We need to understand the impact of particularly large players in the options market on shorter-term price developments and need to find ways to assess the maturity of these markets. Our goal should be to be able to routinely extract probability density functions for inflation expectations based on a robust methodology, as we already do for short-term interest rates or stock indices. This would be particularly useful to inform our policy making process in a world where risk management plays a key role in policy decisions.

Having briefly sketched out our analysis and concerns, I would like to stress that the ECB has a strong interest in the developments in markets for inflation protection. They provide us with tools for monitoring inflation expectations in the euro area for various horizons at a high frequency. Such tools are unique and that is why we need to make sure that we interpret the information from inflation markets correctly and understand the broader context of the observed developments.

I trust this workshop will give you a good opportunity to reflect on these issues. I would like to wish you some interesting and productive discussions.

Size of the inflation-linked bond market in the euro area

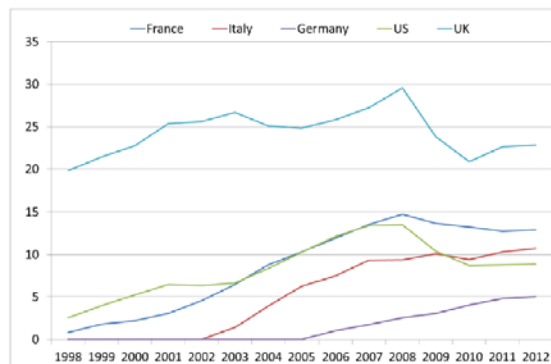
Outstanding inflation-linked bonds
(EUR billion)



Sources: Debt management offices of Germany, France, Italy, UK and US and OECD central-government debt statistics and ECB calculations.

Note: Including inflation uplifting. 2012 refers to end of May except for Germany (end of April).

Inflation-linked debt as a share of
total long-term debt (%)



Sources: Debt management offices of Germany, France, Italy, UK and US and OECD central-government debt statistics and ECB calculations.

Note: Including inflation uplifting. 2012 refers to end of May except for Germany (end of April) and UK (end of March).

Relevant markets for inflation protection

- **Inflation-linked bonds:**

national CPIs, euro area HICP

- **Inflation swaps:**

increasing liquidity, less volatile signals

- **Inflation options:**

*developing market, still segmented,
signals about probabilities of inflation outcomes*

Use of signals extracted from markets for inflation protection

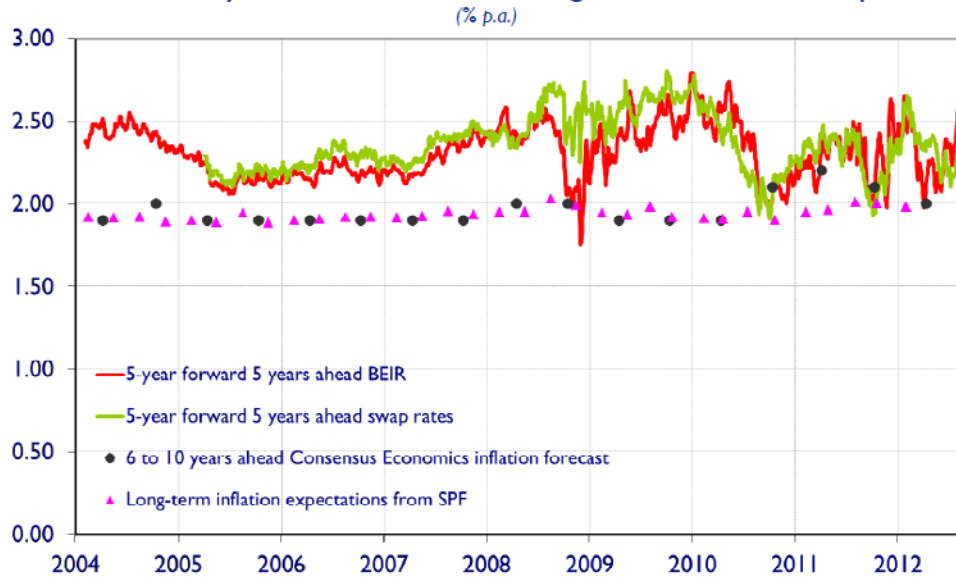
- Survey-based information (low frequency)
- Market-based information (high frequency)



Volatility: partly noise, partly information on inflation risk premia

Signals from markets for inflation protection – anchoring

Market- and survey-based measures of longer-term inflation expectations



Sources: Reuters, ECB, Consensus.

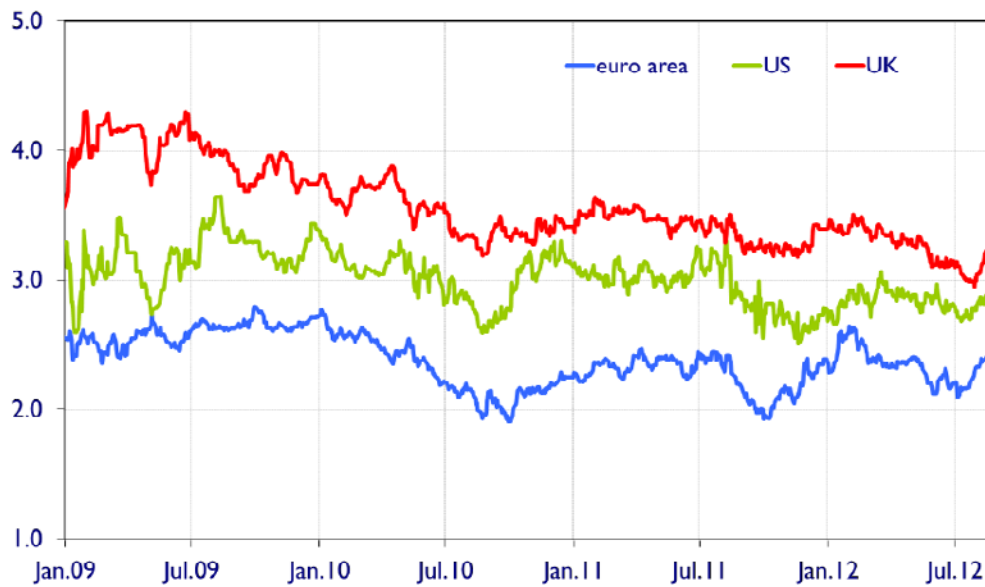
Latest observation: 27 August 2012.

Note: Market rates are seasonally adjusted.

Signals from markets for inflation protection – international comparison

Five-year forward five year ahead inflation swap rates

(% p.a.)



Sources: Reuters, ICAP.

Latest observation: 28 August 2012.

Challenges for central banks in using information from inflation markets

- Volatility and liquidity effects
- Country-specific premia
- Maturity of markets for inflation options