

## Peter Praet: Maintaining price stability in the euro area

Remarks by Mr Peter Praet, Member of the Executive Board of the European Central Bank, at the 15. Handelsblatt Jahrestagung "Zukunftstrategien für Sparkassen und Landesbanken", Berlin, 2 February 2017.

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### Introduction

The euro area recovery is progressing at a moderate, but firming pace.<sup>1</sup> The economy has now posted positive real GDP growth for 14 consecutive quarters. The unemployment rate is back to a single-digit figure. Economic sentiment is at the highest level recorded in almost 6 years. The monetary policy measures the ECB has taken over the past few years have contributed decisively to these positive developments.

After having hovered at levels well below 1% for three years, euro area HICP inflation has edged up towards the end of last year and, according to preliminary data, reached 1.8%, in January. The recent upward movement of inflation mainly reflects temporary factors, most notably the increases in energy and food prices. By contrast, underlying inflationary pressures have remained subdued and inflation excluding food and energy has mostly remained below 1% since late 2013.

The current environment still falls short of a sustained adjustment in the path of inflation to levels closer to 2% over the medium term. It will take time for inflation to stabilise around levels consistent with our price stability objective.

Recent developments show the role monetary policy plays in driving the economic recovery and, further down the road, in ensuring a durable return of inflation to levels close to 2%. By supporting highly accommodative financial and credit conditions, our current monetary policy stance is underpinning the recovery of the euro area economy. The gradual reabsorption of economic slack is working its way through to underlying inflation.

Continued monetary policy support is necessary to ensure a sustained convergence of inflation towards levels below, but close to, 2% over the medium term. This assessment was the motive for the Governing Council's decision of December last year to extend the asset purchases until the end of 2017 – or beyond, if necessary. It is *conditional* on the continuing support from these and past measures that we expect to see a return of inflation to levels closer to 2% over the medium term.

In providing the necessary degree of monetary accommodation going forward, the ECB will continue to adhere to its monetary policy strategy, that is look through transitory changes in inflation and remain focused on underlying inflation dynamics. The ups and downs of monthly data are not relevant if they are temporary and have no implications for the medium term outlook for price stability.

I will focus my remarks today on the relationship between economic activity and inflation. Eurosystem staff analysis has identified a large degree of economic slack as an important factor behind subdued inflation dynamics in the wake of the sovereign debt crisis. Despite the ensuing economic recovery, other – mainly cyclical – forces have been exerting disinflationary pressures. These forces, which are partly external and partly domestic, have masked the relationship between economic slack and inflation, and have been reinforced by a weakening of inflation expectations.

## Forces slowing down inflation in the euro area economy<sup>2</sup>

The euro area recovery has been characterised by a disconnect between economic activity and inflation – which some have referred to as a “missing inflation puzzle”. This disconnect becomes visible, for instance, when comparing actual growth and inflation outcomes for 2016 with those anticipated in the ECB staff macroeconomic projections of March 2014. The real GDP growth rate, which stood at 1.7% in 2016, essentially confirmed the March 2014 projection. HICP inflation, by contrast, turned out to be more than 1 percentage point below the rate projected in March 2014; and measures of core inflation, which strip out the direct disinflationary impact of the collapse of commodity prices over this period, have remained at 0.9%, about half the rate projected earlier.

This picture points to pronounced disinflationary forces that have confounded attempts to forecast the impact of improved economic conditions on inflation. Where do these forces come from? Do they pertain to cyclical influences that monetary policy can offset? Do they reflect broader structural shifts in the economy that the central bank is forced to watch as a bystander?

When answering these questions, it is useful to subdivide the inflation process into three factors, comprising: first, economic slack, measured by the output or unemployment gaps, for instance; second, a range of other domestic and global macroeconomic shocks that drive a wedge between that relationship, affecting either production costs or price mark-ups; and, third, inflation expectations, which feature as the – possibly time-varying – trend in this statistical relationship.

Following this logic, summarised by the well-known Phillips curve, recent research has explored whether the disconnect between inflation and the economic recovery may have derived from a genuine change in the causal relationship between economic slack and inflation, or from a prevalence of disinflationary pressures originating from other sources, including potential shocks and a downward shift of inflation expectations, which could have more than offset the typical impact of slack on inflation.

### *The relationship between inflation and economic slack*

With regard to the first dimension, the bulk of the evidence confirms that domestic cyclical conditions have played an important role in explaining disinflationary pressures. Domestic factors have been found to be the main driver of disinflation between 2012 and 2014, and have continued to weigh on inflation thereafter. Measures of economic slack, in particular, have proven informative in forecasting inflation outcomes. Moreover, Eurosystem staff calculations, using various combinations of economic activity indicators and inflation expectation measures, have found that more than 80% of the standard estimated Phillips-curve specifications confirm a significant relationship also during the more recent period of disinflation. These observations confirm that the relationship between economic activity and inflation, as postulated by the Phillips curve, has continued to play a role at the euro area level.<sup>3</sup>

The link between inflation and economic slack is complicated by several factors. On the one hand, the degree to which prices respond to slack may depend on the state of the business cycle and could change, in particular, in severe and protracted recessions. The empirical evidence on such non-linearities, however, is not conclusive.

On the other hand, secular shifts in the economy may have altered the relationship between inflation and economic slack. For instance, the trend towards a deeper integration of the global economy over the last decades is likely to have increased the importance of global relative to local conditions in shaping domestic cost and price pressures. A further often-cited factor is demographics – and especially the trend towards greater longevity – which may have interacted with cyclical conditions by inducing households to save more and, ultimately, put downward pressure on inflation.<sup>4</sup> Empirical evidence on this issue is inconclusive and demographics would

only have lasting effects on the economy if left unattended by monetary policy.

Overall, these observations have three important implications for monetary policy. First, the evidence confirms that the core Phillips curve connection linking inflation formation to resource utilisation remains a key ingredient in explaining the prevailing disinflationary pressures. Second, this finding implies that monetary policy, which typically affects the level of slack by steering financing and credit conditions in the economy, also retains significant influence on inflation outcomes. Third, domestic slack has not been the only disinflationary factor. To understand the drivers of low inflation, we thus need to look further afield – for instance, at shocks that have driven a wedge between the underlying relationship between inflation and economic slack in recent years.

### ***Cost and mark-up shocks***

Cost and mark-up shocks are forces that may have reinforced the disinflationary pressures exerted by economic slack during the crisis, while offsetting the inflationary pressures generated by the gradual reabsorption of slack thereafter. In the Phillips curve framework, such shocks would materialise as downward shifts of the curve that counteract upward movements along the curve on account of the compression of slack.

One such force is a shock to the cost structure of firms, deriving, for instance, from fluctuations in import prices. The fall in oil prices to historically low levels between 2014 and 2015 is a prominent example of this type of shock as it directly reduces firms' production costs, as confirmed by ECB staff analysis.<sup>5</sup> According to the same analysis, the drag of global factors on inflation has, indeed, more than compensated for the improvements in domestic drivers.

Changes in firms' ability to charge mark-ups over their own production costs can further blur the observed relationship between inflation and economic slack. Technological advancements, while also reducing distribution costs, can limit firms' pricing power by facilitating price discovery by customers. For example, the advent of online retail platforms has greatly increased price transparency among consumers as the share of people searching for information online has risen continuously in the euro area. The downward pressure on mark-ups and, hence, prices associated with the spread of e-commerce is consistent with an erosion of euro area firms' profit margins, which did not return to their pre-crisis levels until late 2014.

Empirical analysis does not, however, find robust evidence that mark-up shocks have been a particularly dominant determinant of disinflationary tendencies since the crisis. In any case, these forces are only temporary: they can move inflation away from its long-run trend, even for a protracted period of time, but cannot affect trend inflation itself, unless they infiltrate inflation expectations.

It is through inflation expectations that shocks to the inflation formation process which would otherwise have no relevance for a central bank can become a monetary policy problem. This brings me to the third element in the Phillips curve – its intercept – which is determined by inflation expectations.

### ***Inflation expectations***

In normal conditions, longer-term inflation expectations should be unaffected by transitory shocks, which typically dissipate over the medium term. However, recurrent shocks leading to a protracted period of low inflation can be misinterpreted as a lasting decline in trend inflation, and could jeopardise public faith in the central bank's commitment or ability to deliver on its objective. As a consequence, the shocks can become entrenched in expectations. In such cases, firms and households become more attentive to past inflation outcomes and less attentive to the inflation norm or central bank inflation target when forming their expectations about future price developments. To the extent that these expectations enter wage and price-setting decisions in

the economy, low inflation may become self-reinforcing: observed disinflation translates into a downgrade of inflation expectations, which in turn feeds back into lasting disinflation.

Evidence on the evolution of inflation expectations during the crisis indicates that this scenario was a concrete risk that the euro area was facing in mid-2014. For instance, staff estimates suggest that market-based longer-term inflation expectations became more than 1.5 times more sensitive to macroeconomic surprises than they had been in pre-crisis times.

By contrast, if longer-term inflation expectations are well-anchored, they do not respond to shorter-term macroeconomic developments. Instead, they remain entirely determined by the inflation objective that the central bank has committed to attain. But, especially after the oil price shocks in the second half of 2014, most measures for the sensitivity of inflation expectations have edged up.<sup>6</sup>

The observation of a weaker anchoring of inflation expectations, in principle, is consistent with different interpretations. It might reflect doubts either with regard to the central bank's *commitment* to pursue its objective, or with regard to the central bank's *ability* to achieve its aim. Available evidence tends to favour the latter interpretation: the sensitivity of inflation expectations has increased more at shorter maturities, which is indicative of agents expecting that it will take longer for the central bank to bring inflation back to levels consistent with its objective; at very long maturities, by contrast, the increase in sensitivity was contained, which may reveal that agents have never quite lost faith in the intention of the central bank to respect its mandate.

This evidence has crucial implications for monetary policy: many forces have combined to bring strong downward pressures to bear on the euro area economy and are slowing down the return of inflation to levels closer to our objective. But, importantly, these disinflationary forces are not beyond the remit of monetary policy. And it is precisely these underlying drivers behind trend inflation in recent years – rather than transient price dynamics with no implications for the medium-term inflation outlook – that have triggered the comprehensive package of monetary policy measures we have adopted since mid-2014.

### **Maintaining price stability over the medium term**

Headline inflation had started its decline already in late 2011, and has been falling short of the ECB's price stability objective – a medium-term inflation rate below, but close to 2% – since early 2013.

Initially, in line with the strategic prescription of avoiding an over-reaction to short-term factors driving inflation, the ECB looked through short-term developments. In the summer of 2014, the persistence of disinflationary forces could be clearly identified: first, measures of underlying inflation had been drifting down in synch with headline inflation for more than a year, and had reached historical lows.<sup>7</sup> Second, for the first time since the inception of Monetary Union, longer-term inflation expectations had started to fall as well.

Such fundamental risks to price stability required a forceful monetary policy response. Accordingly, the ECB deployed a series of unconventional monetary policy measures to ensure price stability. The comprehensive package of June 2014 comprised targeted long-term refinancing operations (TLTROs) and a cut of the deposit facility rate, moving it into negative territory. This package was combined with a, to start with, small asset purchase programme initially involving only private sector securities, which was later expanded to include public sector securities (becoming known as the public sector purchase programme – PSPP) and then scaled up over time. These measures were accompanied by further cuts in the deposit facility rate and further TLTROs; moreover, they have been complemented by our forward guidance.

This package has delivered a broad-based easing of euro area financial conditions since June

2014: money market conditions have improved substantially; long-term government bond yields, corporate and bank bond yields, as well as bank lending rates to firms and households, have declined markedly; and positive credit growth has returned to the euro area.<sup>8</sup>

The exceptionally favourable financial conditions have helped the economy recover from the shock waves of the financial and sovereign debt crises. They have insulated the recovery from global headwinds that have engulfed the euro area over the last two years, such as the tensions in global financial markets in August 2015 and the slowdown of global demand since the first half of 2015. More recently, the firming recovery has also broadened across countries and sectors. As regards inflation dynamics, our determined policy actions have been material in warding off deflation. They have also contributed to a re-anchoring of long-term inflation expectations. Market-based measures of inflation expectations, however, have not yet returned to their pre-crisis levels. Underlying inflation dynamics remain subdued, and risks and uncertainties still prevail, especially those related to the geopolitical environment.

To sum up, the ongoing economic recovery is still predicated to a large extent on very favourable financing conditions that, in turn, depend on continued monetary policy support. The firming recovery is not yet sufficiently robust to ensure a self-sustained convergence of inflation rates to levels closer to 2%. Overall, our monetary policy measures are effective, and are gradually bringing inflation back to a path that is consistent with price stability over the medium term. This takes time, and it requires determination and patience.

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<sup>1</sup> I would like to thank Sören Radde and Frédéric Holm-Hadulla for their contributions to this speech.

<sup>2</sup> See Ciccarelli, M. and Osbat, C. (eds.), “Low inflation in the euro area: Causes and consequences”, *Occasional Paper Series*, No 181, European Central Bank, Frankfurt am Main, January 2017, and the references cited therein.

<sup>3</sup> At the level of individual euro area countries, a large proportion of specifications also displays a significant Phillips curve slope, albeit with the exception of some euro area countries, probably on account of confounding factors related to global exposures and persistent structural changes. However, the finding that domestic cyclical conditions were an important driver of the disinflationary period from 2012 to 2014 is common to all countries.

<sup>4</sup> Theoretically, the impact of population ageing on inflation may go both ways, but the bulk of the literature points to a negative effect. See e.g. Bullard, J., Garriga, C., and Waller, C.J., “Demographics, Redistribution, and Optimal Inflation”, *Federal Reserve Bank of St. Louis Review*, Vol. 94, No 6, 2012; Shirakawa, M., “Demographic Changes and Macroeconomic Performance: Japanese Experiences”, Opening Remark at BOJ-IMES Conference, Bank of Japan, 2012; Carvalho, C., Ferrero, A. and Nechio, F., “Demographics and Real Interest Rates: Inspecting the Mechanism”, *European Economic Review*, North-Holland, April 2016.

<sup>5</sup> See Bobeica, E and Jarocinski, M., “Missing disinflation and missing inflation: the puzzles that aren’t”, *Working Paper Series*, European Central Bank, Frankfurt am Main, forthcoming.

<sup>6</sup> See e.g. Lyziak, T. and Paloviita, M., “Anchoring of inflation expectations in the euro area: recent evidence based on survey data”, *Working Paper Series*, No1945, European Central Bank, Frankfurt am Main, August 2016; and Speck, C., “Inflation anchoring in the euro area”, *Working Paper Series*, European Central Bank, Frankfurt am Main, forthcoming.

<sup>7</sup> See Box 7 “The relationship between HICP inflation and HICP inflation excluding energy and food”, ECB Economic Bulletin, Issue 2, 2016.

<sup>8</sup> For a more detailed assessment of the pass-through of our non-standard measures to financial conditions see, e.g., P. Praet, “The ECB’s monetary policy response to disinflationary pressures”, speech at ECB and Its Watchers XVII conference, Frankfurt, 7 April 2016; M. Draghi, “The state and prospects of the euro area recovery”, speech at the European Banking Congress, Frankfurt, 18 November 2016.