

Peter Praet: The European Central Bank's fight against low inflation – reasons and consequences

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In the last half century central banks have come a long way in how they approach their macro-stabilisation functions.

As recently as the late 1970s, views still diverged across advanced economy central banks as to the efficacy of monetary policy in delivering price stability. Some, such as the Bundesbank and the Swiss National Bank, were already committed to using monetary measures to control inflation. But others, such as the Federal Reserve and various European central banks, remained more pessimistic in their outlook, believing that monetary policy was an inefficient means to tame inflation and that other policies should be better employed.¹

Illustrating this view, Fed Chairman William Miller observed in his first FOMC meeting in March 1978 that *“inflation is going to be left to the Federal Reserve and that’s going to be bad news. An effective program to reduce the rate of inflation has to extend beyond monetary policy and needs to be complemented by programs designed to enhance competition and to correct structural problems”*.²

In this context of timidity about the effectiveness of policy, inflation expectations were allowed to de-anchor, opening the door to bouts of double-digit price rises. The outcome was a phase of so-called “stagflation”, where both inflation and unemployment rose in tandem.

The policy lesson that emerged from this period was that sustainable growth could not be separated from price stability, and that price stability in turn depended on a credible and committed monetary policy. From late 1979 onwards – with Volcker’s assumption of the Fed chairmanship – central banks converged towards this orientation and took ownership for fulfilling their inflation mandates. As their renewed commitment to control inflation became understood, inflation rates fell steeply in a context of improved anchoring of inflation expectations. Central banks abandoned the self-absolving notion that price stability depended on other, non-monetary authorities.

As is well-known, the events that led to the 2008 crash confirmed that price stability is not a sufficient condition for macroeconomic stability. Yet it remains a necessary condition. And today in the euro area we face a situation where price stability is once more under threat – this time not through too high inflation, but through inflation remaining too low for too long.

In that context, the ECB has been engaged in an unprecedented expansion of its monetary policy toolkit to bring inflation back to its objective. Yet these measures have not been uncontroversial, and questions have been raised about their necessity. What I would like to talk about today, therefore, is not so much what the ECB has done, or how it works, but *why* the ECB has been so determined to raise inflation. That requires that we first take a closer look at the ECB’s objective.

¹ See Romer, C. and D. Romer (2013), “The Most Dangerous Idea in Federal Reserve History: Monetary Policy Doesn’t Matter”, *American Economic Review: Papers & Proceedings* 2013, 103(3): 55–60.

² Federal Open Market Committee meeting, Transcript, 21 March 1978.

The ECB's objective

The Treaty on the Functioning of the European Union establishes the ECB's primary objective as maintaining price stability. But unlike some other central banks, we have not been given a specific numerical inflation target by a legislature or ministry. To enhance accountability, in 1998 the ECB Governing Council decided that price stability should be defined in quantitative terms, as a year-on-year increase in the Harmonised Index of Consumer Prices for the euro area of below 2%, and that it should be maintained over the medium-term. Following a thorough evaluation of its monetary policy strategy in 2003, the Governing Council further clarified that, within this definition of price stability, it aims to maintain inflation rates "below, *but close to*, 2% over the medium-term".

In other words, since that clarification in 2003 the numerical *range* for the definition of price stability has been supplemented with a *focal point* at which the Governing Council aims, while the *temporal horizon* over which price stability has to be achieved has remained flexible. However, as inflation has consistently been ratcheting down to the bottom of the price stability range in the course of the past four years and our measures, as a consequence, have become more expansionary, how we interpret our objective and the relevant horizon for delivery have been called more into question. There have been two main issues raised.

First, some have asked *if the central bank should not be even more patient* in trying to bring inflation back to levels in the proximity of the upper ceiling of the price stability range.

In this line of thinking, low inflation today is predominantly being driven by global factors which will ultimately unwind if given sufficient time to work through the economy. Due to inertia in the wage and price formation process, there is no particular risk of bouts of very low or even negative inflation feeding into sustained deflation. The central bank should therefore emphasise its medium-term orientation and extend the policy horizon until inflation returns to the desired level.

Second, others have queried whether it is justified for the ECB to be *so attached to its focal point of below but close to 2% at all*.

Any rate of inflation between 0% and 2% would be equally consistent with our price stability definition, this argument goes. Indeed, when inflation is at the lower end of the range and conventional policy tools are close to exhausted, the costs of using unconventional measures to drive inflation up outweigh the benefits in terms of preparing the ground for higher inflation in a not so distant future. The central bank should thus not be obsessive about delivering on its aim of a close to 2% inflation rate.

Let me address each of these issues in turn.

How patient can a central bank be?

On the face of it, the argument that central banks can tolerate periods of too-low inflation is correct. Inflation can move temporarily below – or above – our aim without requiring an immediate policy response. That is the implication of our medium-term orientation, which gives the central bank discretion over whether to react to short-run macroeconomic fluctuations. Yet that discretion is always bounded by two factors: the *nature of the shocks hitting the economy*; and the *credibility of our objective* in the face of those shocks.

If the economy has been hit predominantly by demand shocks, there is no case for the central bank to delay policy action. Both economic activity and inflation will tend to move in the same direction, presenting the central bank with an unambiguous policy prescription, which is to make its monetary policy more accommodative for a negative shock, and less accommodative for a positive one. The medium-term in this case is the shortest period in which we can realistically bring inflation back to our objective, which is equal to the length of the monetary transmission lag.

However, if inflation developments are being driven by supply shocks – say, a supply-side induced decline in oil prices – the policy horizon can be more flexible. As activity and inflation move in opposite directions, if the central bank acts to counter fluctuations in prices, it risks exacerbating deviations from steady state output growth. But if instead we extend the medium-term horizon and tolerate lower inflation for a temporary period, there is no contradiction: we can “look through” the shock and wait until its effect on inflation fades out.

Crucially, however, our ability to lengthen the medium-term horizon in this way depends on our objective remaining credible – and especially when the economy is hit by repeated one-side shocks and inflation deviates from our objective systematically in the same direction for a prolonged period.

In such circumstances, the inflation process can become subject to short-term spells of inertial drift³.

But if agents remain confident that below but close 2% remains the orientation of policy, they will not factor in past developments into their forward-looking price- and wage-setting behaviour, and inflation will return to our objective in the steady state. If on the other hand the determination to reach our inflation aim were to be questioned by the public, firms and households might start to look more at the track record of recent inflation and incorporate that in their behaviour – which technically would correspond to a permanent downward displacement of the Phillips curve. What began as a temporary period of low inflation could then become *persistent*.

In other words, if in a prolonged period of low inflation the central bank is so tolerant with its policy that the public loses faith in its ultimate inflation objective, it risks not just that expectations destabilise from its aim, but that the economy settles into a new regime of lower inflation, with both inflation and inflation expectations *re-anchoring towards the lower end of its price stability range*. Faced with such a risk, the policy horizon would immediately have to be shortened to re-establish our commitment and ensure that any outbreak of adaptive expectations was transient.⁴

So is this relevant for the euro area today? Certainly, we have faced a succession of one-side global supply shocks since early 2013, and, with tangible intensity, since summer 2014 linked to the reversal of the commodities supercycle. This requires flexibility over the policy horizon.

In line with the rule-book that I just expounded, the ECB response was indeed measured in the early phase of rapid disinflation. Except for our announcement of forward guidance in the summer 2013 and a restriction of the monetary policy corridor in November of that year – both measures intended to insulate our money market conditions from the volatility introduced by the dollar tantrum episode in late spring of that same year – our policy rates and non-standard measures were left unaltered until June 2014. We acknowledged that, in conditions of slow recovery, the unwinding of the previous strong contributions of energy prices to headline inflation would counsel patience.

Yet, as the recovery proved more subdued and vulnerable to outside shocks than we had expected, and the descent of inflation to the lower portion of the price stability range accelerated and became more entrenched, our attention shifted to a wide spectrum of inflation expectations. The risk was that, unlike in previous episodes of sharp oil price reversals, inflation expectations might lose their resilience, due to accumulating evidence that the return of headline inflation to our objective had been repeatedly put back.

³ Gordon, R. (2013), “The Philips Curve is Alive and well and the NAIRU During the slow recovery”, NBER Working Paper, No 19390, August 2013.

⁴ For more on this point see Praet, P. (2015), “Price stability: a sinking will-o'-the-wisp?”, intervention during a panel on “The elusive pursuit of inflation” at the IMF Spring Meetings Seminar, Washington, 16 April 2015.

Indeed, despite a first reduction in the deposit facility rate to a moderate negative level in June 2014, and the simultaneous announcement of a first series of targeted long-term operations designed to unblock the transmission mechanism, during the summer of 2014 long-term inflation expectations started a gradual decline to levels unseen since the start of monetary union. With unabsorbed slack continuing to hold back core inflation, the end point of convergence after the negative supply-side shocks would fade out of measurement remained unclear, as core inflation – not headline inflation – is a good predictor of headline inflation over the medium term⁵.

As such, the importance of core inflation in determining long-term inflation expectations also appeared to be increasing. Without further decisive policy action, sized to a scale appropriate to arrest the process, a downward re-anchoring towards a lower inflation rate could not have been ruled out.

These considerations led the Governing Council to announce in January 2015 that the private-credit asset purchase programme that had already been decided over the previous summer would be expended in magnitude to include sovereign securities. The programme has been re-scaled and re-designed in December 2015 and in March of this year.

The costs of too-low inflation

Let me move to the second question about our policy: even if a re-anchoring of expectations around levels in the lower portion of the price stability range were to take place, why is that fundamentally a problem? The answer to this has two parts. First are the costs that come from the level of inflation being too low, both in the steady state and when dealing with the legacies of the crisis. Second are the costs that arise from transitioning between different anchors for inflation, and especially when the original objective is not being fulfilled.

In terms of the costs of too-low inflation, there are three main issues, each of which we emphasised when we clarified our objective in 2003.

First, in the presence of downward rigidities, delivering an inflation rate closer to 2% than to 0% supports product and labour market functioning.

On the product market side, it allows relative prices to adjust more easily across goods and services in response to shifts in aggregate supply and demand, which improves price signalling and resource allocation. At an average inflation rate of 2%, relative prices can realign around that level without producers necessarily needing to cut prices in nominal terms, whereas at lower inflation rates nominal downward rigidities are more likely to bite and hamper the adjustment process. On the labour market side, a 2% inflation rate provides an important margin of adjustment in the face of shocks. When demand falls and nominal wages are sticky rather than downwardly flexible, the unemployment cost is cushioned by the higher general rate of inflation, as this effectively lowers the real wages that firms have to pay.

In summary: the idea that nominal wage rigidities may be an insurance mechanism against deflation becoming endemic – just because it mechanically prevents prices from falling – is a partial equilibrium fallacy. In the face of declining prices, wage rigidities shift the burden of adjustment onto the scale of employment, as firms attempt to recover mark-ups which are being eroded by high labour costs measured in inflation-adjusted terms. The higher jobless rate which results from this labour shedding process exacerbates the downward pressure on the general price level and sets the conditions for this process to become self-feeding.

Second, following a similar logic, an inflation rate closer to 2% facilitates cross-regional adjustments in relative prices within a monetary union.

⁵ ECB (2016), “The relationship between HICP inflation and HICP inflation excluding energy and food”, Box 7, Economic Bulletin, Issue 2/2016.

A higher “nominal bar” allows countries to reduce inflation relative to the euro area average without having to run up against downward rigidities or enter outright deflation. This was an important consideration when the Governing Council first decided to identify the focal point close to 2% within its price stability range. At the time, core economies, such as Germany and France, were seen as being systematically driven towards the floor of the range since other “catching-up” economies, such as Spain, were operating at high inflation rates and therefore pulling up the euro area average. Letting the average increase toward the upper limit of the range would, it was thought, facilitate the workings of those core economies which were adjusting their relative competitiveness position vis-à-vis other members.

Today we face similar heterogeneity in country-based inflation, but the positions of the core versus non-core economies have reversed. Several non-core economies have had to undergo large relative price corrections to reverse the intra-area imbalances accumulated in the boom period. At the same time, core economies have systematically operated at lower inflation rates, pulling down the euro area average against which non-core countries have to adjust. In those conditions, ensuring that the “nominal bar” remains in line with our objective is essential to enable a smooth and expedited adjustment process. Indeed, as we remained mired in the legacies of the financial crisis, it is perhaps even more pressing today than it was in the early life of our currency union.

Third, an objective closer to 2% provides a crucial “safety margin” for monetary policy against running into the lower bound on policy rates, and thus provides more scope to use conventional instruments, rather than unconventional and still relatively untested measures, to respond to future shocks. This is because, for a given real interest rate, a higher inflation objective implies a higher nominal interest rate over the cycle.

Just as for relative price adjustments, this rationale is also perhaps more important today than when we established our aim. ECB estimates at that time suggested that, with an objective of 2%, the probability of interest rates reaching zero was close to zero.⁶

We know now that this was likely an underestimate. Moreover, we assumed a real equilibrium interest rate of 2% on average, which may well be lower today given the evolution of the secular and cyclical forces since then.⁷ In that context, if real rates were to continue their trend decline and inflation were to settle lower as well, nominal interest rates could well be considerably lower over future cycles. The central bank might then have to resort to unconventional measures more frequently to fulfil its mandate.

This reveals the implicit trade-off in the argument that central banks should not fight too-low inflation because the unconventional measures required to do so produce more costs than benefits. If central banks did not use such measures to raise inflation today, they would be more likely to have to use them tomorrow, by which time low inflation and sluggish growth would have interacted to cause an even deeper slump. By contrast, by acting decisively to defend our objective now, we ward off more severe macroeconomic imbalances and create the minimal conditions for macroeconomic normalisation, which in turn is a precondition for policy normalisation.

The costs of transitioning downwards

Alongside the costs of a low inflation regime, there are also costs associated with the transition process itself. Again there are three main issues.

⁶ Coenen, G. (2003), “Zero lower bound: is it a problem in the euro area?”, ECB Working Paper Series No. 269, September 2003.

⁷ For a fuller explanation of this point see Praet, P. (2015), “The low interest rate environment in the euro area”, speech at a Pension Funds Conference organised by De Nederlandsche Bank in Bussum, 10 September 2015.

The first is the impact of unexpectedly low inflation on real interest rates and debt dynamics.

When interest rates have reached zero, a downward re-anchoring of inflation implies rising expected real interest rates. That is very problematic in current conditions since, with the economy still adjusting to pre-crisis investment misallocations, the real equilibrium interest rate is now at very low – possibly negative – levels. A fall in inflation would thus pull short-term real interest rates away from their market clearing levels. Saving and investment imbalances would then have to be resolved in another way, which in a market economy would take place through a fall in income levels, in turn compressing savings. In other words, in the environment we face today, the transition to lower inflation rates would risk the economy adjusting through recession.

A parallel drop in inflation and rise in real rates would also complicate the necessary workout of the debt overhang bequeathed by those pre-crisis excesses.⁸

Lower-than-expected inflation implies that a higher share of firms' and households' income has to be diverted to debt service than was planned when the loan was taken out. That can in turn lead to a redistribution between borrowers and lenders, which may have negative demand effects due to their different propensities to consume and invest. Inflation turning out below expectations also more generally impedes the process of deleveraging which is required to reduce high debt levels.

Indeed, deleveraging can take place through two channels, which are both important: balance sheet deleveraging (i.e. debt repayment and write-offs) and macroeconomic deleveraging (i.e. growth and inflation). While it is sometimes argued that accommodative monetary policy delays the former, it also supports the latter. In fact, those economies where central banks have resorted to such policies earlier and more aggressively are also those that are most advanced with deleveraging. The reason is that by generating higher growth and inflation in line with their objectives they have been able to minimise the need for balance sheet deleveraging and the associated credit contraction. That has in turn contributed, in a virtuous circle, to a quicker elimination of slack and stronger nominal growth.

To illustrate, nominal GDP growth has contributed around 20 percentage points to both household and corporate debt reduction in the US, and almost 30 percentage points in the UK, compared with just 10 percentage points in the euro area.

Second – and more fundamentally – allowing inflation to re-anchor downwards comes with a high risk of credibility losses for the central bank, and especially when the objective is not being met.

Such losses create true welfare costs for society, as pointed out in the classical contributions by authors like Kydland and Prescott (1977) or Barro and Gordon (1983).⁹

And in the current low inflation environment, it would have similarly adverse implications for our credibility as the admissions by some central bankers in the late 1970s that high inflation was an intractable problem and impervious to monetary policy action. We know from that era how costly this can be for central banks' ability to deliver long-term price stability. Disavowing the inflation aim in current conditions might also be perceived especially negatively by the public, for instance as revealing expectations of “secular stagnation” and associated weak price pressures.

⁸ See Kalemli-Özcan, S., Laeven, L., and D. Moreno (2015), “Debt Overhang, Rollover Risk and Investment in Europe”, mimeo.

⁹ Kydland, F. and E. Prescott (1977), “Rules rather than discretion: The inconsistency of optimal plans”, *Journal of Political Economy*, 85, 473–490. Barro, R. and D. Gordon (1983), “Rules, discretion and reputation in a model of monetary policy”, *Journal of Monetary Economics*, 12, 101–120.

Indeed, Eggertsson and Pugsley (2006) show that, in a fragile post-crisis situation where monetary policy is sustaining the recovery, any perception that the central bank is adopting a greater tolerance towards a future regime of lower inflation can have very negative effects. Looking at the Great Depression period, they argue that the return of the US economy to recession in 1937 resulted from a perception that the Fed had abandoned its commitment to reflation, creating pessimistic expectations of future growth and inflation that fed into both expected and actual deflation. The economy then became caught in an equilibrium of “contractionary beliefs”.¹⁰

Third, once central banks let inflation expectations drift away from their previous anchor and fail to counteract this through forceful policy action, there is no guarantee that expectations will naturally settle at another desirable level.

As Orphanides and Williams (2004) show, it is precisely by defending its inflation objective that the central bank facilitates the public in learning how to process the flow of information, and thereby influences the formation of inflation expectations.¹¹

Without such an orientation, expectations may continue to drift in the same direction, and a *re-anchoring* of inflation expectations may morph into an outright *de-anchoring* of inflation expectations with no visible end-point. In such conditions, monetary policy would face an uphill battle to preserve inflation rates compatible with *any* reasonable definition of price stability.

To see this, consider a simple Phillips curve framework that relates inflation to measures of economic slack. Accommodative monetary policy reduces the degree of economic slack and thereby puts upward pressures on inflation – a move of the economy along a given Phillips curve. But when inflation expectations change, this is not the only dynamic pattern taking place. Instead, a change in inflation expectations alters the inflation rate to which the economy will gravitate when it reaches full employment. We can think of a decline in inflation expectations as a downward shift in the Phillips curve, leading to a lower intercept.

Clearly, this downward shift in the Phillips curve counteracts the reflationary impact that the accommodative monetary policy intends to achieve via the absorption of economic slack; and the downward impact may, in fact, dominate in certain conditions. In particular, if the relationship between inflation and slack is relatively weak – implying a flat slope of the Phillips curve – a given degree of monetary accommodation is less likely to trigger the upward momentum in prices necessary to compensate for falling inflation expectations. As a consequence, actual inflation may decline, even in situations where monetary policy has been successful in reducing slack.

The economy may then enter on a self-sustaining spiral: declining inflation expectations shift down the Phillips curve, which puts downward pressure on actual inflation, which in turn translates into a further decline in inflation expectations.

Conclusion

Let me conclude.

Decades of experience have confirmed the importance of price stability for macroeconomic stability and sustained economic growth. That is true both when inflation is too high and

¹⁰ Eggertsson, G. and B. Pugsley (2006), “The Mistake of 1937: A General Equilibrium Analysis,” *Monetary and Economic Studies*, Institute for Monetary and Economic Studies, Bank of Japan, vol. 24(S1), pages 151–190, December.

¹¹ Orphanides, A. and J. Williams (2004), “Imperfect Knowledge, Inflation Expectations, and Monetary Policy,” NBER Chapters, in: *The Inflation-Targeting Debate*, pages 201–246 National Bureau of Economic Research, Inc.

when it is too low. The prolonged period of low inflation we are in today has increased the risks that inflation misses might become persistent, which would be deeply damaging for the economy. This is why we have reacted so forcefully to secure our objective – and will continue to do so in the future if necessary.

To be sure, the crisis has proven that ensuring price stability is not sufficient for sustainable growth. It is only an enabling condition and other policies must also play their part. Still, the need for a superior policy mix is no excuse for central banks to be passive when their mandates are under threat. The ECB has demonstrated through its actions that it does not wait for others to move first.