The euro area economy is gradually emerging from a deep and protracted downturn. However, despite improvements over the last year, real GDP is still below the level of the first quarter of 2008. The picture is more striking still if one looks at where nominal growth would be now if pre-crisis trends had been maintained.

Amid such an environment, uncertainty about the economy naturally increases. There may be structural breaks in established macroeconomic relationships; firms and households may revise their expectations about the economy. Structural reforms introduced in response to the crisis may also alter the way the economy responds to shocks. In the euro area we still in the process of understanding the impact of all these factors after seven long years of crisis.

Uncertainty does not prevent the central bank from taking informed decisions. But it does increase the importance of how we gather and assess information – broadening the set of inputs that we use for our policymaking, and evaluating those inputs in a more contextualised way.

As such, policymaking inevitably becomes less easy to understand using mechanical policy rules, and the importance of judgement about the outlook for the economy – and communicating clearly that judgement – increases.

What is essential is that uncertainty does not give rise to indecision. Indeed, even under uncertainty the ECB has always proven in the past that it is willing and able to react to any event – and that remains the case today. In my remarks I would like to discuss some of the sources of uncertainty that the ECB currently faces, and how we are factoring them into our decision-making.

I will frame my remarks along three dimensions, namely (i) uncertainty about the current state of the economy, (ii) uncertainty about the structure of the economy; and (iii) uncertainty over the way economic agents form expectations about future economic developments and economic policy actions.1

Uncertainty about the current state of the economy

Deciphering the underlying state of the economy is challenging for policymakers in any environment, given the well-known issues surrounding the completeness of data and the lags in their release. In the current environment, however, a special form of uncertainty arises, which is linked not so much to the quality of data as to the context in which they appear. Let me explain what I mean with reference to the economic situation today.

On the face of it, the incoming data points to an overall picture of normalisation in the euro area economy. Domestic demand is gradually strengthening. The Commission’s Economic Sentiment Indicator remains at levels consistent with a modest pace of expansion. The Purchasing Managers’ Index has also held up during the early part of the autumn – contrary, perhaps, to what one might have expected given the shocks that appeared since the spring,

1 See Ben Bernanke’s speech at the 32nd Annual Economic Policy Conference, Federal Reserve Bank of St. Louis, 2007.
especially the slowdown in emerging economies. And while downside risks have increased, tail risks have receded – not least thanks to the policy reactions and communication of central banks in a number of major economies.

Yet policymakers have to set this positive snapshot of the economy against a wider backdrop that is less compelling. The risks around the evolution of the global economy have shifted downward, making the contribution of external demand to the recovery less assured. Domestic demand, though rising, also appears relatively weak if one considers that we are still in an early phase of the recovery and that there are important tailwinds supporting the economy – namely our monetary stimulus and lower oil prices. Investment has so far failed to perform its “accelerator” role for the recovery.

This relates in part to the fact that the euro area is in the aftermath of a major financial crisis followed by a “balance sheet recession”. Financial institutions, firms and households are going through a stock adjustment where the legacy of the crisis, in particular the high level of debt, still needs to be fully worked through. Indeed, this is the first cycle in modern times where real investment has not recovered its pre-crisis level after such a long period; it is in fact still 15% below.

That mixed picture for activity feeds into greater uncertainty over the outlook for inflation. While we expect headline inflation to gradually return towards 2%, price pressures remain subdued. Measures of underlying inflation have been drifting downwards since mid-2012 and have remained at the lower end of our price stability range for nearly two years. And even if we see the output gap steadily closing, there is quite some uncertainty surrounding its measurement. Looking forward, financial market prices suggest that inflation will remain below the ECB’s price stability aim for a protracted period of time.

So how should the central bank react in this environment?

Any potential action needs to be viewed in a context where the balance of risks to fulfilling our objective is on the downside. Certainly, the time horizon for central banks to normalise inflation cannot be pre-set, by statute, unconditionally. Indeed, in a vast part of the world where central banks are assigned numerical objectives for price stability, the stabilisation horizon is not defined in rigid calendar-time form, but is left rather flexible for central banks to determine according to the nature of shocks that cause inflation to deviate from target.

At the same time, a central bank cannot allow itself too much discretion over the time horizon when inflation should return to its target. A numerical objective which is rarely realised – looking forward and in retrospect – is no hard objective. Our independence rests on the fact that we are accountable, and that means delivering price stability over a horizon that is verifiable by the public.

Moreover, central banks know that if they lack a verifiable commitment to control inflation symmetrically over a horizon for which the public retains some visibility, this can result in inflation expectations becoming “unanchored”. It is in this spirit that a central bank may choose to proactively counter downside risks and thereby underpin the public’s faith in the effectiveness of monetary policy.

That is why the Governing Council concluded at its last meeting to thoroughly analyse “the strength and persistence of the factors that are currently slowing the return of inflation to levels below, but close to, 2% in the medium term”, and would re-examine “the degree of monetary policy accommodation.” We have to assess whether, taking the risks relating to our mandate into account, the overall picture in the euro area economy is one of sufficient speed and momentum in growth and inflation for the ECB to meet its medium-term mandate.
Uncertainty about the structure of the economy

To deliver our mandate, however, we also need to address the second dimension of uncertainty – uncertainty related to the structure of the economy. More precisely, we need to understand and respond to evolutions in the structure of the economy caused by the crisis.

There are two key structural conditions that matter for the central bank to meet its objective. First, the financial transmission channel must remain intact, so that monetary policy is able to maintain sufficient traction over the economy and economic slack remains controllable. Second, a structural connection between economic slack, inflation expectations and inflation needs to exist, with the Phillips curve providing the traditional framework to account for this relationship. How the crisis has affected both conditions has been a persistent source of uncertainty for monetary policy – and remains so, to some extent, today.

The process of monetary transmission has clearly become less regular during the crisis. In particular, the intermediation capacity of the banking sector has been affected by the legacy of a deep financial crisis, followed by a prolonged balance sheet recession. Such impairments do not impede the capacity of the central bank to control economic slack. But they require that we deploy monetary policy instruments that are effective in an environment of balance sheet adjustment – which is precisely what the ECB has done.

Specifically, we have launched measures designed to ensure that, even as banks continue to deleverage, they still have incentives to price and originate credit to the real economy in a regular fashion. Those measures include, most notably, our credit easing package consisting of the Targeted Long-Term Refinancing Operations (TLTROs) and Asset Purchase Programme (APP). Monetary transmission has also been supported by expanding the APP to include public sector securities.

These instruments have had a strong impact and have contributed to the lowering of market-based financing costs for both banks and non-financial corporations (NFCs). This has in turn, combined with greater competition among lenders triggered by the TLTROs, led to a sharp decline in banks' lending rates across euro area Member States.

Since April last year, lending rates to NFCs have fallen by some 110–140bps in major vulnerable countries, suggesting that the pass-through of the ECB’s policy stance strengthened in those countries that were hit hardest by the crisis. Evidence from the bidding behaviour of banks located in those countries highlights that banks which have participated in at least one of the first five TLTROs have lowered their lending rates by more than non-participants. Progress in repairing transmission is also visible in our SAFE surveys, where euro area SMEs signal an improvement in the availability of external sources of finance.

Still, even though the transmission of our monetary policy to financial conditions has proceeded well, the transmission of financial conditions to inflation has taken longer than we anticipated due to new forces that have pulled in the other direction, in particular in the global economy. In addition, other factors in the economy continue to drag on the recovery. Those include the lingering debt overhang in the public and private sectors and the weakness of the institutions in the euro area to deal with that debt overhang.

This implies two things. The first is that monetary policy needs to remain sufficiently accommodative to offset any headwinds and produce a sustained adjustment in the path of inflation. Indeed, continued support for nominal growth is vital to accelerate the process of balance sheet repair so that banks can smoothly transmit our monetary policy and firms and households can capitalise on it. The second is that other policies need to work alongside monetary policy in removing those disinflationary forces – for example, by governments improving the framework for resolution of non-performing loans.

But even if we can be confident that our policy can influence slack, can we be confident that slack can influence inflation?
Regarding the Phillips curve, a precondition for central banks to exercise monetary control is that it remains negatively sloped – in the inflation/unemployment space. There has been a debate stretching over decades about the stability of the Phillips curve and its power to explain inflation developments. That has only intensified during the crisis.

While there is no agreed upon functional form of the Phillips curve, my own assessment of the body of evidence is that, on the whole and using an array of different economic slack measures, the inflation-unemployment connection remains intact and in fact may have strengthened during the crisis. This appears to be especially true in countries such as Spain and Italy where lawmakers have actively reformed local labour market institutions and weak demand has led to a protracted period of wage moderation.

Another reason why I do not see signs of a disconnection between inflation and unemployment in the euro area is that – echoing a point also raised by Robert Gordon – the inflation process is occasionally subject to short-term spells of inertial drift, when supply side shocks hit repeatedly and cause serial downward inflation surprises. The sequence of negative commodity price surprises we have experienced may therefore have dampened the reflationary effect of the economic recovery, but only temporarily.

The slope of the Phillips Curve, however, is of course only one relevant aspect. What also matters for the central bank’s ability to deliver price stability is the intercept, which is determined principally by inflation expectations. This brings me to the third dimension of uncertainty that is relevant for our decision-making – uncertainty over the way economic agents form expectations about future economic developments and economic policy actions.

**Uncertainty over the way economic agents form expectations about future economic developments and economic policy actions**

In terms of inflation expectations, a series of both demand and supply shocks in the euro area have led, at times, to a possible loosening in the anchoring of agents expectations of inflation. Today, inflation expectations have only partially regained the values that would indicate a rapid and sustained adjustment in the path of inflation to levels closer to 2%. In particular, we have seen, on occasions, longer-term inflation expectations responding to short-term movements in oil prices. That is unacceptable for a central bank, insofar as it implies that people’s expectations of its reaction function have become less certain.

At the same time, the crisis has also left a mark on agents’ expectations of economic activity. Many countries are confronting a situation of disappointed growth expectations. For the euro area as a whole, 5 years ahead growth expectations among forecasters have been falling continuously since 2001, and during the crisis the distribution of those expectations has also widened, reflecting greater uncertainty about the lasting impact of the crisis on potential output. This matters for our policy insofar as lower expectations of future income feed back into the present and add to the forces weighing on against inflation.

Monetary policy cannot affect expectations about long-term growth: that is the task of governments introducing structural reforms. Monetary policy can and must, however, anchor inflation expectations. Indeed, when all the structural preconditions are in place for central banks to influence short-term real activity and limit excessive fluctuations in inflation – namely a negative Phillips curve coefficient and a viable transmission mechanism – a responsible monetary policy has the capacity to deliver on its mandate of price stability.

The ECB’s actions and communication internalise this responsibility. During the dark days of the crisis, many observers expected that the EU environment of diffuse macroeconomic authority would lead to strategic paralysis. Instead, the ECB has risen to its responsibility of ensuring control over inflation in the medium-term, and has responded vigorously to any risks of inflation expectations becoming unanchored. We will continue to do so for as long as needed to bring inflation back to our objective.
That being said, it is clear that all stakeholders in the fiscal and structural policy domains must play their part in ensuring a swift and sustained recovery. In particular, a concerted effort is needed to boost growth via increased investment. More investment in education and training as well as on R&D would put more of the labour force into work and foster new waves of innovation. In addition, measures to increase the profitability of investment would incentivise firms to capitalise on low interest rates and replace underutilised and obsolete capital as well as to invest in R&D and intangible capital. This is particularly acute in certain euro area countries where there has been a precipitous decline on the net return of capital.

Conclusion

To conclude, coming out of a prolonged and painful crisis a central bank inevitably confronts greater uncertainty. Achieving the objective of monetary policy becomes more complex, deploying the instruments of monetary policy becomes more complicated, and stabilising the public’s expectations of monetary policy becomes more challenging.

Responding to that environment requires that central banks assess and process information cautiously – that they take a broader view of the economy and a more preventive orientation towards emerging risks. But most importantly, it requires that they are ready to take informed decisions; to act under uncertainty and deliver their mandates.