Over the course of the crisis, the making of monetary policy has become progressively more complex. We have operated in an environment where the limits of our traditional instruments have been tested, and where new instruments have had to be introduced. This has required adaptation, not just by those of us who decide on it, but also by the Watchers who observe it and attempt to anticipate it.

Meetings such as this today have therefore taken on a special importance, since they represent an opportunity to communicate in both directions: for us to explain to you our assessment and our reaction function, and for you to provide your feedback.

So in that spirit, I would like to make three points today.

First, that our monetary policy is working and that it has been a key factor behind the resilience of the euro area economy over recent years. Second, that the recovery is progressing and may now be gaining momentum, though risks still remain tilted to the downside. Third, that despite these improvements, inflation dynamics continue to depend on the continuation of our current monetary policy stance – a stance that is determined by the interaction between all three main policy instruments: interest rates, asset purchases and forward guidance on both.

**Monetary policy is working**

For a large part of the crisis, the story of the euro area was one of abortive recoveries. The rebound that took place from 2009 to 2011 was derailed by the onset of the sovereign debt crisis. We then saw a nascent recovery beginning in mid-2013, but it also lost steam by the summer of 2014 as the external environment became more uncertain. The euro area economy, in other words, was consistently struggling to gain momentum and seemed highly vulnerable to new shocks.

This is not surprising given the severity of the crisis and the depth of the economic slump. Even today, the legacies of the financial crisis are still a drag on the recovery and the global environment remains uncertain. The balance of risks to the growth outlook remains tilted to the downside due to geo-political factors.

But things have also been clearly improving. Since mid-2014, the recovery has evolved from being fragile and uneven into a firming, broad-based upswing. Quarterly GDP growth has been consistently between 0.3% and 0.8%. Employment has grown by more than 4.5 million people. And this is despite the fact that we have encountered adverse shocks in that period, not least the slowdown in emerging market economies and renewed tensions in the euro area banking sector.

So what accounts for this improved resilience of the euro area economy? Certainly the recovery cannot be explained by “endogenous” or underlying growth forces, which were unusually weak in its early phase. Nor can several of the “exogenous” factors that have supported previous euro area recoveries provide an answer.

First, in the past euro area growth has been closely interdependent with world trade, with external demand playing a central role in supporting the recoveries after the dotcom crash and the Lehman bankruptcy. Since mid-2014, however, world trade has weakened considerably and last
year grew at the slowest pace since the financial crisis. Yet the correlation with euro area output has more or less broken down. Growth has accelerated even as world trade has fallen back.

Second, though fiscal policy has stopped being a headwind – as it was during the 2011–13 period – it has not been much of a tailwind to the recovery either. With governments still undertaking a necessary process of balance sheet repair, fiscal policy between 2013 and 2015 was basically neutral and provided only a mildly positive contribution to growth last year. This contrasts with both the post-Lehman and post-dotcom recoveries where the fiscal stance was more expansionary.1

Third, the contribution of the supply side to the recovery has so far been limited. There have been few structural reforms in the last few years that would justify higher expenditure by firms and households as they revise up their future income. And this is especially true for reforms to product markets and the business environment, which typically have the strongest impact on current spending.

So based on simple growth accounting, there are only two “exogenous” factors left that can realistically explain the resilience of the recovery: the collapse in oil prices in 2014–15 and our monetary policy. And this is also what we find in our internal model-based estimates, which show that growth has been highly reliant on these two forces. All told, we estimate that half of the extra GDP growth achieved during the current recovery has been attributable to our policy, with a material contribution from oil prices as well.

This central role played by monetary policy can be further demonstrated by looking at the channels through which our policy has been working. One channel has been the divergence of monetary policy cycles across advanced economies since mid-2014, and its consequences for exchange rates, which have helped insulate euro area exporters from weakening global demand. They have in fact been able to maintain or even regain market shares as world trade has slowed.

But still more important has been the effect of our policy package on the domestic economy. As I have outlined in detail elsewhere2, since we adopted our credit easing package, we have seen a substantial easing in financing conditions for the euro area economy. Market financing costs have fallen, while bank lending rates for both firms and households have dropped by more than 110 basis points and are now at historical lows. This has been accompanied by rising lending volumes and improved access to finance, especially for small- and medium-sized enterprises.

And crucially, our policy has not only eased financing conditions on average, but triggered a remarkable convergence in borrowing costs across different euro area countries. Granular data show that in June 2014 the median lending rate for firms in vulnerable economies was 120 basis points higher than for those in stronger ones – despite overnight rates being close to zero. Today the difference is only 20 basis points. Without this, it is likely that large parts of the euro area would have been remained stuck in a self-sustained credit crunch.

The recovery is progressing and gaining momentum

As this policy stimulus has worked its way through the economy, the atypical makeup of the recovery – relying mostly on monetary policy and oil prices – has been gradually shifting towards a stronger contribution from underlying growth forces. This is evident from the fact that, as the impetus coming from oil prices wanes, the economy is accelerating rather than slowing.

There are indeed three features of the recovery which give us confidence that it may be gaining its own momentum, although – given the severity of the slump we are emerging from – monetary policy still remains critical to facilitate the transition.

The first is that the recovery is being propelled by a virtuous circle between rising consumption, employment growth and labour income. As low financing costs and, initially, low oil prices have
fed through into household spending, the labour market has strengthened and real disposable incomes have accelerated. Around 50% of the rise in real labour income since mid-2014 can be explained by more people in work, with most of the rest explained by lower inflation boosting real wages.

This has in turn fed further consumption growth as households have kept saving rates stable, leading to higher employment, income and spending. And as aggregate demand has strengthened, investment has also begun a cyclical recovery, which we expect to reinforce growth dynamics going forward. However, it still remains 10% below its pre-crisis peak and well below its historical trend.

Importantly, domestic demand has firmed against the backdrop of improved private sector balance sheets, which is the second key feature of the recovery. For virtually the first time since the start of monetary union, spending has been rising while indebtedness has been going down. Especially in formerly stressed countries, debt ratios for both firms and households have fallen substantially. And pertinent for the strength of the recovery, the drivers of this deleveraging have been changing.

Bear in mind that there are two types of deleveraging: “macroeconomic” deleveraging – reducing debt ratios through nominal growth – and “balance sheet” deleveraging: paying off or writing down debt. Historically, the most drastic processes of deleveraging, including the post-war episodes and the recent post-crisis episode in the US, have relied on both mechanisms. But the contribution of nominal growth has always been decisive for success.

In the euro area, until recently, real growth and inflation were too low to foster macroeconomic deleveraging, so balance sheet repair had to take place through the more painful channel, conflicting with the objective of macroeconomic stabilisation. Rising nominal growth is now helping to reconcile those two goals. Nevertheless, further efforts are still needed to work through the legacies of the crisis, especially in parts of the euro area banking sector where non-performing loans remain high.

The third important feature of the recovery is its broadness across sectors and countries – which is to say, it has not only strengthened but become more homogenous across the euro area. This reflects above all the effectiveness of our measures in narrowing financing conditions across different economies.

If one looks at the percentage of all sectors in all euro area countries that have positive growth, the figure stood above 80% at the end of last year – above its historical average of 73% and the level observed during the 2009–11 recovery. Similarly, the dispersion in growth rates across both sectors and countries has also narrowed significantly and both are now at their lowest level since 1997.

The same story is visible for employment. In early 2014 the vast majority of euro area headcount growth was coming from Germany. As that year progressed the contribution from Spain began to rise, driven by the recovery in activity and previous labour market reforms. And since the second half of 2015 the employment turnaround has extended into other formerly stressed economies as well, including in particular Italy, Ireland and Portugal. Just as for GDP growth rates, the dispersion of employment growth across euro area countries is now at record low levels.

So though the risks to the growth outlook remain tilted to the downside – mainly on account of the geo-political factors I mentioned earlier – the balance seems to be shifting upwards. This is reflected in recent sentiment indicators, which suggest that the recovery may be gaining momentum. The latest euro area composite Purchasing Managers’ Index (PMI), for example, which is a reasonably consistent leading indicator for euro area GDP growth, gave the highest reading since April 2011.
This was also the assessment of the Governing Council at its last monetary policy meeting in March, where the staff projections for growth in the coming years were revised slightly upwards. And in light of the improving risk outlook, the Council affirmed that it is no longer concerned about deflation risks, nor do we perceive a sense of urgency to take further measures to combat adverse tail risks.

**Inflation dynamics depend on continued policy support**

Yet despite these signs of progress, it is clearly too soon to declare success. In important ways the outlook for price stability remains unchanged. In particular, while growth and employment rates have been converging upwards across the euro area, significant gaps still remain in terms of levels. In large parts of the euro area there are still substantial under-utilised resources, reflected in a negative output gap and high unemployment rates.

And this is of course crucial for our assessment of the path of inflation – namely, whether we see a sustained adjustment that would warrant a scaling back of our exceptional degree of monetary policy accommodation.

Let me remind you that we have established four criteria to confirm a sustained adjustment: first, that headline inflation is on a path to levels below but close to 2% over a meaningful medium-term horizon; second, that inflation will be durable and stabilise around those levels with sufficient confidence; third that inflation will be self-sustained, meaning it will maintain its trajectory even with diminishing support from monetary policy. And finally, it goes without saying that in each case the relevant metric is euro area inflation not the inflation rates of any individual country.

For the first criterion, the assessment does now seem to be improving: our latest projections foresee the path of headline inflation now much closer to the target over 2017–2019. But the inherent uncertainty in the forecasting process needs to be mitigated by cross-checking with other available information on inflation dynamics. Particularly useful here are measures of underlying inflationary pressures, since they can be monitored in real-time and tend to be more informative than headline inflation for medium-term price developments.

For us to be confident in the second criterion – that inflation is not just converging towards our aim, but stabilising around it – we would need to see signs of such pressures building. But there is so far scant evidence of this.

Much of the increase we have seen in headline inflation in recent months has been driven by its volatile components. Of the 1.4 percentage point rise from November last year to February this year – when inflation peaked at 2% – more than 90% was explained by energy and food price inflation. Measures of underlying inflationary dynamics, by contrast, remain subdued. One such measure, HICP excluding food and energy, has hovered around 0.9% since mid-2013 and still shows few convincing signs of an upward trend. Most alternative measures are also sluggish by historical standards and show little movement towards our aim.

An important source of subdued underlying inflation trends has been weak domestic price pressures, driven partly by subdued wage growth. Despite the domestic nature of the recovery, annual wage growth in terms of compensation per employee reached the historical low of 1.1% in the second quarter of 2016. Wage growth has since recovered somewhat – rising to 1.4% by the end of last year – but remains well below historical averages. This is where the issue of levels comes in – that is, the significant degree of labour market slack.

Decomposing the forces that have weighed on wage growth, we find two principal drivers: first, the still-high unemployment rate and its effect on wage bargaining dynamics; and second, a below-average contribution from past inflation in wage formation, caused by the last few years of exceptionally low headline inflation. As monetary policy has successfully supported demand and stabilised inflation expectations, both of these drivers should wane going forward. Their dragging
effect on wage growth, however, will take time to fade out.

Labour market slack will lessen as unemployment continues to fall, but it is unclear how quickly this will feed through into wage dynamics — especially if the experience of other advanced economies is instructive. A strengthening labour market may attract “marginally attached” workers back into the labour force, or encourage those “underemployed” to seek more hours, causing the effective supply of labour to rise in tandem with demand. Domestic wage pressures may therefore only materialise later in the economic expansion.

The influence of the second driver — low past inflation — should also dissipate given the recent recovery of headline inflation. But this may take some time since a number of factors might slow down the reaction of wages to higher inflation.

First, wage negotiations in many countries and sectors have largely been concluded for this year, meaning any impact of higher inflation via negotiated wages is likely to be delayed. Second, in countries where formal wage indexation has declined sharply during the crisis, the pass-through of headline inflation to wages may have weakened. Third, that pass-through also depends in part on labour market slack, since in an environment of high unemployment trade unions may be prepared to prioritise job security over some loss in real wages.

In short, for the time being there are grounds for being cautious when assessing the durability of the inflation outlook. For us to feel confident that inflation will indeed stabilise around our aim, we would need to see clear evidence that underutilised resources are declining and feeding through more convincingly into domestic price formation.

For that, it is clear that continued support for demand remains key. And this provides the answer to the third criterion: we are not yet at a stage where inflation dynamics can be self-sustaining without monetary policy support. The recovery of inflation still depends on the very favourable financing conditions that firms and households enjoy, which in turn depends on the substantial degree of monetary policy accommodation we have in place today. Accordingly, our inflation projections still include a material contribution from monetary policy over the next two years.

For this reason the Governing Council at its last meeting confirmed the appropriateness of the current very accommodative monetary policy stance.

The monetary policy stance is still appropriate

Yet it is important to understand that our stance is no longer determined by just one tool, policy interest rates. It is determined by the calibration of, and interaction between, the whole array of instruments we have introduced: the level of policy rates, the pace of asset purchases, and our forward guidance on both. It is the combination of all these tools that sets a given stance. The different elements have complementary effects on preserving the very easy financing conditions that are necessary for generating sustainable inflation convergence.

Our current interest rate policy and our forward guidance on the future path of rates affect the risk-free term structure of interest rates, which is the benchmark for the pricing of all other assets and interest rates. Our asset purchases complement these interest rate policies by directly compressing the term premium and other risk premia, both via portfolio rebalancing effects and by underlining the central bank’s commitment to keep interest rates at a low level – i.e. signalling effects.

And since the Governing Council deems the current stance fully appropriate, it confirmed at its last meeting that net asset purchases will continue until the end of December 2017, or beyond, if necessary, and in any case until we see a sustained adjustment in the path of inflation consistent with our inflation aim. It also confirmed its expectation that key ECB interest rates will remain at present or lower levels for an extended period of time, and well past the horizon of our net asset...
purchases.

This implies that our various policy instruments are deliberately chained together in such a way that the forward guidance applied to our asset purchase programme – which is time- and state-dependent – extends also to our interest rate policy. So our forward guidance is de facto on the entire package, not on any specific component of it. And this guidance relates not just to the conditions under which we would withdraw stimulus – i.e. the sustained adjustment in the path of inflation – but also to the sequence of measures we would use to do so.

The logical basis for this sequence stems from the same reason why we exploited the margin provided by conventional interest rate policy before resorting around the same time to negative interest rates and large-scale net asset purchases.

In a multi-country monetary union such as the euro area made up of segmented national financial markets, asset purchases are inevitably more difficult to calibrate, more complex to implement, and more likely to produce side-effects than other instruments. So it is natural that we turned to them only after other, more conventional options were becoming exhausted. Similarly, lowering interest rates into negative territory in a largely bank-intermediated financial system was a step into uncharted waters.

From today's perspective, however, the negative rates, in conjunction with the other elements of our easing package, have turned out to be powerful in terms of easing financial conditions. And the potential negative side effects have so far been limited. As household deposit rates have been sticky at zero, banks' net interest rate margins have fallen somewhat. But the impact on bank profitability has been offset by the positive effects of easier financial conditions on the volume of lending, and the reduction in loan-loss provisions, as monetary policy has lifted economic prospects.

The current wording of our forward guidance reflects exactly this assessment of side effects. And from today's standpoint, I do not see cause to deviate from the indications we have been consistently providing in the introductory statement to our press conferences.

**Conclusion**

So to conclude: we are confident that our policy is working and that the outlook for the economy is gradually improving. As a result, the forces that are currently weighing on domestic price pressures should continue to wane.

But even so, we have not yet seen sufficient evidence to materially alter our assessment of the inflation outlook – which remains conditional on a very substantial degree of monetary accommodation. Hence a reassessment of the current monetary policy stance is not warranted at this stage.

Before making any alterations to the components of our stance – interest rates, asset purchases and forward guidance – we still need to build sufficient confidence that inflation will indeed converge to our aim over a medium-term horizon, and will remain there even in less supportive monetary policy conditions.

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1. On the basis of the underlying government primary balance as a percentage of potential GDP (OECD data).