

# How central banks meet the challenge of low inflation

**Marjolin lecture delivered by Mario Draghi, President of the ECB,  
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Robert Marjolin was a pivotal figure in the birth of Economic and Monetary Union. When the Treaty of Rome was signed in 1956, the aims of European Economic Community were largely limited to creating a customs union and a common agricultural market. Neither was perceived to require monetary integration. It was only with the launch of the so-called “Marjolin Memorandum” in 1962 that the recognition surfaced that a single market and a single money were linked and that a serious discussion on European monetary integration began.

Today, more than 60 years on, monetary integration in the euro area is both complete and secure. But monetary *policy* faces many challenges. Those challenges have not changed our mandate. But they have altered the way in which we deliver it.

To understand how we have responded to those challenges, it is useful to distinguish between two types.

First, there are challenges that are *common to all* central banks in advanced economies, which are linked to a global low inflation environment.

Second, there are challenges that are *special to us* in the euro area, which are linked to our particular institutional context.

## What is common for all

The most fundamental question facing all major central banks today is this: can our price stability mandates still be delivered? Across advanced economies inflation is low, and has been low for some time. And in several of those economies, long-term inflation expectations, based on market prices, remain below our numerical definitions of price stability. That has led some to question whether it makes sense for central banks to pursue expansionary policies to meet their inflation objectives. Are they fighting a futile battle against forces beyond their control?

There are essentially *three lines of argument* in favour of monetary policy not reacting to the low inflation we see today.

## The causes of too low inflation

The *first line of argument* is that low inflation is increasingly being caused by structural factors in the global economy that cannot be addressed through domestic monetary stimulus. As a result, it is said, previous notions of what we considered low and stable inflation – inflation rates around 2% – are no longer realistic. Central banks should adjust their objectives downwards accordingly.

If this argument were accurate, it would constitute a very fundamental criticism of central banks' mandates. After all, the decision to grant central banks price stability objectives, and to give them independence to deliver those objectives, was based on the understanding that inflation is always, ultimately, a monetary phenomenon. It could thus always be controlled in the medium-term by a committed monetary authority.

So is it true that structural changes we see today are having a *permanent* impact on long-term inflation levels?

One such change that is often mentioned in this respect is demographic change. This certainly heralds important economic shifts, but its impact on inflation is *ex ante* unclear. It might put downward pressure on prices if aggregate demand falls more than aggregate supply. But it might equally create upward price pressures: according to the life-cycle hypothesis, an ageing population implies that the elderly eventually dissave and consume more. <sup>[1]</sup>

Which effect dominates will depend on a range of factors. In any event, it seems unlikely that demography can explain why inflation is low today across advanced economies that have very different demographic profiles.

Moreover, even if ageing were to lead to a period of disinflation, for example through savings and investment imbalances, there is no reason why that should imply a permanently lower inflation rate. An excess of savings would simply mean that the equilibrium real interest rate required to deliver price stability would be lower, and the central bank would have to factor that into its monetary policy. Put another way, the effects of ageing would call for us to adjust our *instruments*, but not our objectives.

Other structural shifts are also seen by some as having a long-term impact on inflation. One is the fact that the long-term cycle in commodity prices is now going into reverse. Another is technological change, especially e-commerce, which increases price transparency and intensifies competition between suppliers and retailers, which may keep prices low. A third is globalisation, which may increase the importance of global prices relative to domestic prices, making it harder for advanced economies to avoid importing disinflation from abroad. <sup>[2]</sup>

Each of these changes might have an influence on the inflation rate. We cannot deny that. But there is nothing about them which suggests these effects are permanent. For example, permanent changes in the supply of energy are likely to have a permanent effect on the price level. But at some point energy price disinflation must reverse, if only due to base effects. Similarly, the price-containing impact of e-commerce, if any, will last only until the diffusion of e-commerce has stabilised. And

lower imported inflation thanks to globalisation should eventually lead to higher prices elsewhere, as disposable income increases and the levels of wages and other costs equalise across countries.

So there is no reason why any of these structural changes should make our current price stability objectives unobtainable. They may create global disinflationary forces, but those forces are transitory in nature. What can affect our objective, however, is if those forces have a *persistent* impact on inflation – which is to say, if they become embedded in inflation dynamics and inflation expectations. But that is not a structural issue; it is about the credibility of monetary policy in anchoring inflation expectations.

This brings me to the *second line of argument* against active monetary policy

## **The response to too low inflation**

There are some who argue that, so long as we are experiencing mainly positive global supply shocks, there is no need for central banks to be overly responsive. We can simply redefine the medium-term horizon over which price stability is maintained and “wait it out” until inflation returns to our objective. Indeed, the reason central banks do not define the medium-term as a period of calendar time is that the horizon for action depends on the nature of the shock.

This viewpoint is correct, as far as it goes. Central banks do typically refrain from reacting to supply shocks that have opposing effects on output and inflation, so as not to overreact and reinforce the effect on growth, in either direction. And that might even be the case when faced with a *succession* of supply shocks, such as the steep falls in oil prices we have experienced recently. Each shock should in principle have a short duration and should not have a persistent effect on inflation.

However, since there is always a backward-looking component in inflation developments, the longer inflation stays too low, the greater the risk that inflation does not return automatically to target. Specifically, if agents start to look at the track record of recent inflation, rather than the inflation objective, it affects their benchmarks for wage and price setting decisions. What happens then is that low inflation feeds into inflation expectations and creates second-round effects.

In that situation, even what began as a positive supply shock can turn into a negative demand shock. As inflation expectations fall, it pushes up real interest rates, producing an unwarranted monetary tightening. And the unexpected low inflation raises real debt burdens, which has a negative effect on aggregate demand due to the different propensities to consume and invest of borrowers and lenders. Output and inflation, then move again in the same direction – but this time downwards.

For that reason, in a context of prolonged low inflation, monetary policy cannot be relaxed about a succession of supply shocks. Adopting a wait-and-see attitude and extending the policy horizon brings with it risks: namely a lasting de-anchoring of expectations leading to persistently weaker inflation. And if that were to happen, we would need a much more accommodative monetary policy

to reverse it. Seen from that perspective, the risks of acting too late outweigh the risks of acting too early.

In sum, even when faced with protracted global shocks, it is still monetary policy that determines medium-term price stability. If we do not “surrender” to low inflation – and we certainly do not – in the steady state it will return to levels consistent with our objective. If on the other hand we capitulate to “inexorable disinflationary forces”, or invoke long periods of transition for inflation to come down, we will in fact only perpetuate disinflation.

This is the clear lesson of monetary history, especially the experience of the 1970s. At that time, many policymakers argued that persistently high inflation was structural and central bankers could do little to reduce it. For example, in May 1971, when Arthur Burns was Chairman, the official staff presentation to the FOMC declared – like some of our critics today – that *“the question is whether monetary policy could or should do anything to combat a persisting residual rate of inflation ... the answer, I think, is negative ... it seems to me that we should regard continuing cost increases as a structural problem not amenable to macroeconomic measures”*.<sup>[3]</sup>

Similarly, 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”*.

<sup>[4]</sup>

It was only when Paul Volcker arrived as Chairman in 1979 and shortened the policy horizon that the Fed took ownership for controlling inflation. Inflation, which peaked at around 15% in March 1980, fell below 3% by 1983.

Some argue that today the situation is different; that whereas Volcker could raise rates to 20% to tame inflation, central banks fighting disinflation are inhibited by the lower bound on interest rates. The Japanese experience after the bursting of the housing bubble in early 1990s is often presented as evidence.

But the Japanese case in fact only reinforces the importance of full commitment from policymakers. As long as the commitment of the Bank of Japan to a low positive inflation number was not clear, actual inflation and inflation expectations stayed in deflationary zone. Since the Bank of Japan has signaled its commitment to reach 2% inflation, however, core inflation has risen from less than -0.5% in 2012 to close to 1% today. This is still short of the 2% objective, to be sure, but downward price shocks are also hitting Japan like all other advanced economies.

We now have plenty of evidence that, if we have the will to meet our objective, we have the instruments. As the ECB and others have demonstrated, the lower bound for policy rates, wherever it might be, is not at zero. And we have also shown how non-standard tools can be used to deliver monetary stimulus even without altering much the overnight rate, and produce equivalent effects.

For example, the non-standard measures the ECB has taken since summer 2014 have produced a pass-through equivalent to a *100 basis point* rate cut in “normal” conditions.

So there is no reason for central banks to resign their mandates simply because we are all being affected by global disinflation. In fact, if all central banks submit to that logic then it becomes self-fulfilling. If, on the other hand, we all act to deliver our mandates, then global disinflationary forces can eventually be tamed.

## **The costs of fighting too low inflation**

Still, there are some that argue that even if central banks can lean against global disinflationary forces, in doing so they do more harm than good. In particular, expansionary monetary policies at home lead to the accumulation of excessive foreign currency debt or asset price bubbles abroad, especially in emerging markets. And when these financial imbalances eventually unwind, it weakens global growth and only adds to global disinflation. This is the *third line of argument*.

But I ask, what would be the alternative? Would it help emerging markets if advanced economy central banks failed on their mandates? Would that be more likely to contribute to global growth? Clearly, the answer is no. The stability of large economies is vital to their trading partners and to the global economy, and diverting monetary policy away from that aim when our economies are still fragile would not be in their interest. In the euro area that is especially true for our neighbouring economies, which export around 50% of their goods and services to the euro area.

In fact, when central banks have pursued the alternative course – i.e. an unduly tight monetary policy in a nascent recovery – the track record has not been encouraging. Famously, the Fed began raising reserve requirements in 1936-37, partially due to fear of a renewed stock bubble, but had to reverse course the next year as the economy fell back into recession. That has also been the experience of some central banks in recent years: raising rates to offset financial stability risks has undermined the primary mandate, and ultimately required rates to stay lower for longer.

This suggests that the so-called “assignment problem” between monetary policy and financial stability at the domestic level should also apply at the global level. Monetary policy should not try to balance opposing objectives: it is optimal for all parties if it delivers its mandate. And if that creates financial stability concerns, they need to be addressed by other policies more suited to the task. And in fact there are several policy levers available.

Countries can improve their financial regulation and supervision to make their financial systems more resilient to external shocks. They can adjust their fiscal policies. They can adopt macro-prudential measures. The evidence suggests that such policies can be effective: emerging market countries differ significantly in their sensitivity to global financial developments on account of their policy frameworks. <sup>[5]</sup>

We also have some anecdotal evidence that macro-prudential measures are working in Asian economies, especially in cooling off the real estate sector.

Finally, these general considerations aside, it is worth questioning whether such arguments about monetary policy spillovers actually hold for the euro area. For example, if we look at spillovers into asset prices, there is no evidence that the announcement of the APP induced a surge in portfolio flows into emerging market economies. In fact, empirical evidence suggests that global investors rebalanced out of emerging market bond and equity markets into bond markets of advanced economies, in particular in the euro area, in response to the APP launch. <sup>[6]</sup>

And if we look at foreign currency debt, while low euro area interest rates have led to significant increases in euro-denominated debt security issuance outside the euro area in the past two years, issues in euro still only account for about one-quarter of international bond issuance, while issues in dollar account for two-thirds. What is more, recent foreign bond issuance in euro is dominated by investment grade US corporates, and among the emerging markets, highly-rated issuers. The evidence of unhealthy spillovers and financial stability risks therefore seems limited.

## **What is special to us**

So even in the face of common global shocks, central banks have the ability to deliver their mandates. But in the euro area, that requires a different monetary policy response than for others. That is because we also face a second set of challenges that are largely specific to us. They result from our institutional structure: conducting monetary policy in a segmented banking and capital market, and without a single area-wide fiscal authority as a counterpart. There are two types of challenges in particular that emerge from this.

## **Transmitting the stance**

The first relates to monetary policy transmission. Many central banks have faced impairments in the transmission process during the crisis – that is why, for example, the Fed began intervening in markets for mortgage-backed securities, or the Bank of England launched its funding-for-lending programme. But it is clear that those impairments have been more severe in the euro area. And moreover, they have had a distinct regional dimension that was not visible in other jurisdictions.

Our specific challenge arises from having an incomplete banking and capital market, which leads to lower sharing of risks. Relative to a fully integrated market, portfolios of private assets in the euro area are less geographically diversified, concentrating the effect of local economic slumps. Credit markets are less integrated, making it harder for agents to borrow from other parts of the union to smooth out such shocks. And institutions for cross-border public risk-sharing are less developed, placing the full burden of dealing with the after-effects on individual sovereigns.

This has two consequences for monetary transmission. First, it means that some of the main transmission channels – namely the bank lending channel and the balance sheet channel – are more likely to be disrupted in the event of major shocks. And second, since private risk and sovereign risk are linked at the national level, it means that financial fragmentation takes place along national lines. That hampers the traction of monetary policy in the regions where monetary stimulus is most needed.

None of this means we cannot fulfill our mandate. But it does mean we have to design our instruments to compensate for it. That is why, for large parts of the crisis, our measures were also geared towards addressing impairments in the smooth transmission of our policy.

Early on in the crisis, this meant substituting for the drying up of the interbank market, including at longer maturities, to ensure the flow of cross-border liquidity. Later, we took out unwarranted redenomination risks from sovereign debt markets, helping attenuate the bank-sovereign nexus. More recently, we have launched a credit easing package which aims, among other things, to ensure that bank deleveraging does not produce excessive dispersion in lending rates across countries. The evidence suggests that each of these measures has been successful. <sup>[2]</sup>

Still, it is clear that fragmentation risks can only be definitively removed by addressing their institutional drivers. That is why the creation of Banking Union, which is the topic of our conference today, was such a fundamental addition to monetary union.

The Single Supervisory Mechanism provides a framework for a more integrated banking market, which would be less likely to fragment under stress. The Single Resolution Mechanism facilitates greater risk-sharing across borders. And the commitment to develop a Capital Markets Union is the first step towards greater geographical diversification, especially in cross-border holdings of equity.

What is still missing, however, is agreement on the third leg of Banking Union – deposit insurance – which is an essential part of a genuinely single money. For this reason, the Commission's proposal to establish a European Deposit Insurance Scheme is welcome. On the one hand, it sets out the ambitious objective of establishing a truly European system of depositors' protection. That will support the creation of an internal market for deposits in which the fungibility of deposits is assured independently of jurisdictions, and trust in deposits is equalised.

On the other, it is realistic in its design and provides a number of safeguards against moral hazard, so that risk-sharing does not become risk-shedding. "Risk reduction" and "risk-sharing" measures are two sides of the same coin and should be pursued in parallel: they are both essential to protect the stability of the European banking sector and ensure a homogenous transmission of our monetary policy.

## **Expanding the stance**

The second, specific challenge we have faced in the euro area has come when we needed to expand our monetary stance – specifically, when we shifted from interest rates as the main instrument of monetary policy to asset purchases via the APP.

In part, large-scale asset purchases aim at reducing the risk-free rate by taking out duration from the market for sovereign bonds. In the euro area, however, we do not have a single risk-free rate since we do not have a single fiscal issuer that acts as a benchmark. And there is no national market which could act as a substitute, not only due to volume constraints, but also because no government security in the euro area is truly risk-free. The prohibition on monetary financing means that every sovereign bond carries a degree of credit risk.

In this context, asset purchases of the size we deemed appropriate must inevitably be implemented in multiple markets. And that means monetary policy operations may unwittingly impact on credit allocation across regions and types of borrowers. That is not unusual – all monetary policy has allocative consequences. Nor does it create a limit on us fulfilling our mandate. But it does require that we aim to mitigate those consequences, under the constraint that we achieve our price stability objective. That can be done in two ways.

The first is by designing our monetary policy instruments in a way that minimises distortions. We did this under the APP by intervening mainly in the most “commoditised” asset classes, i.e. the government bond markets in each country, and by spreading our interventions proportionally across jurisdictions. That effectively constructs a diversified pan-euro area portfolio.

Second, allocative effects can also be reduced by further integrating the markets in which we intervene, in particular government bonds. To that end, a robust fiscal framework which is enforced credibly would reduce the risk inherent in individual government bonds in the euro area, which would in turn make the impact of interventions in different markets more homogenous.

Still, there can be no doubt that if we needed to adopt a more expansionary policy, the risk of side effects would not stand in our way. We always aim to limit the distortions caused by our policy, but what comes first is the price stability objective. That is the implication of the principle of monetary dominance, which is embedded in the Treaty and which lends monetary policy its credibility.

Monetary dominance means that we can – indeed we should – acknowledge and draw attention to all the consequences, intended or unintended, of our monetary policy operations. But it also means that we should never fail to deliver on our mandate solely on account of those consequences. Doing so would be tantamount to redrafting our mandate under the law, something we are not at liberty to do.

## **Conclusion**

Let me summarise.



There are forces in the global economy today that are conspiring to hold inflation down. Those forces might cause inflation to return more slowly to our objective. But there is no reason why they should lead to a permanently lower inflation rate.

What matters is that central banks act within their mandates to fulfill their mandates. In the euro area, that might create different challenges than it does in other jurisdictions. But those challenges can be mitigated. They do not justify inaction.

<sup>[1]</sup>Most empirical results that find ageing is disinflationary have focused on Japan, as its transition from aging society to aged society is one of the fastest (see, for example, Jong-Won Yoon, Jinill Kim & Jungjin Lee, 2014. "Impact of Demographic Changes on Inflation and the Macroeconomy", IMF Working Papers 14/210, International Monetary Fund). However, a recent BIS working paper by Juselius and Takats (2015) contradicts the prevailing view: looking at low-frequency correlations, they find that a larger share of young or old cohorts is associated with higher inflation, while a larger share of working-age cohorts is correlated with lower inflation. This highlights how difficult it is to quantify the impact of this structural factor on inflation. See Mikael Juselius & Elod Takats, 2015. "Can demography affect inflation and monetary policy?", BIS Working Papers 485, Bank for International Settlements.

<sup>[2]</sup>Inflation as a global phenomenon has been documented e.g. by Matteo Ciccarelli and Benoit Mojon, 2010. "Global Inflation", *The Review of Economics and Statistics*, 92:524-535.

<sup>[3]</sup>Federal Open Market Committee meeting, Memorandum of Discussion, 11 May 1971.

<sup>[4]</sup>Federal Open Market Committee meeting, Transcript, 21 March 1978.

<sup>[5]</sup>See Ben Bernanke, 2015. "Federal Reserve Policy in an International Context", paper presented at the 16th Jacques Polak Annual Research Conference Hosted by the International Monetary Fund, November 5–6, 2015.

<sup>[6]</sup>See Johannes Gräb & Georgios Georgiadis, 2015. "Global Financial Market Impact of the Announcement of the ECB's Extended Asset Purchase Programme", Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute Working Paper No. 232, March.

<sup>[7]</sup>For evidence on the effectiveness of the ECB's measures since summer 2014 see speech by Mario Draghi at the European Banking Congress: Monetary Policy: Past, Present and Future, Frankfurt am Main, 20 November 2015.