Mario Draghi: Global and domestic inflation

Speech by Mr Mario Draghi, President of the European Central Bank, to the Economic Club of New York, New York City, 4 December 2015.

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Over the past years, central banks across advanced economies have provided unprecedented support to our economies, and the results are being felt. Output has been put back on an upward path. Growth is strengthening. The output gap is gradually closing, as is the case in the euro area, or in some cases it is closed already. Insofar as monetary policy is intended as a macroeconomic stabilisation policy, it is succeeding.

But our mandate is not phrased in terms of real growth. It is phrased in terms of price stability. And there, success is not achieved yet. Inflation remains low everywhere, lower than our objectives require. And medium- to long-term inflation expectations have been less steady for some time, and also generally lower than our objectives.

To some extent this apparent disconnect between real and nominal developments is an expression of lags in the transmission process. But it has also triggered suggestions that perhaps central banks are unable to fully control the trend in inflation – either because they lack the appropriate tools, or because inflation in any one economy is driven to a large extent by global factors outside their control.

I would dispute entirely the notion that we are powerless to reach our objective. The evidence at our disposal shows, on the contrary, that the instruments we are currently deploying are having the effect intended.

With this in mind, in my remarks this morning I would like to review both the nature of global factors affecting inflation dynamics today, and the developments in core inflation that are more determined by domestic factors.

Whether low inflation stems from one or the other, the central bank can act proactively to counter risks to price stability and maintain the anchoring of inflation expectations. In the euro area we have proven that our monetary policy tools work and, with the right calibration, have sufficient traction over the economy to deliver our medium-term mandate.

This was reflected in the Governing Council's decision yesterday to expand our monetary policy stance.

The role of global inflation

Over the last decade there has been a growing interest in the concept of "global inflation". This is the notion that, in a globalised world, inflation is becoming less responsive to domestic economic conditions, and is instead increasingly determined by global factors.[1]

Looking at the drivers of inflation across advanced economies today, we do indeed see a strong global component in low inflation. Decomposing inflation for the average OECD country, it is clear that since mid-2014 there has been a notable decline in domestic shocks

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1 Inflation as a global phenomenon has been documented e.g. by M. Ciccarelli and B. Mojon (2010), "Global Inflation", The Review of Economics and Statistics, 92:524-535. Measures of global economic slack are good predictors of national inflation in advanced countries, as shown empirically e.g. by C. Borio and A. Filardo (2007), "Globalisation and inflation: New cross-country evidence on the global determinants of domestic inflation" BIS WP no. 227; and in New Keynesian open economy models e.g. by R. Clarida, J. Gali, and M. Gertler, (2002) "A Simple Framework for International Monetary Policy Analysis," Journal of Monetary Economics 49: 879–904.

driving disinflation, and a notable increase in global shocks. Those global shocks are, however, overwhelming associated with oil and commodity price falls (Figure 1).

As is well-known, global factors linked to oil and commodities should not, in principle, have any effect on price stability over the medium-term. They may have a lasting impact on the price *level*, but not on the *rate of change* of prices. All things being equal, lower prices for oil should, over time, lead to higher prices elsewhere as disposable income increases and overall demand from consumption and investment rises.

In light of this, central banks typically choose to “look through” such global forces until their effect on inflation fades out or until prices reverse. As oil and commodity prices swings have opposing effects on output and inflation, monetary policy usually does not want to overreact and reinforce the effect on growth, in either direction.

But falls in oil and commodity prices can have a more lasting impact on inflation – and hence become relevant for monetary policy – if they feed into core inflation. That can happen under two circumstances.

The first is if price falls are symptomatic of weakening global demand, rather than a boost to global supply. Then, lower oil prices might be accompanied by declining net exports, which could in turn cause firms to cut back on investment and drag down core inflation. This blunts the growth-bolstering effect of lower commodity prices. Imported inflation might also be depressed as foreign producers cut prices in reaction to weakening global growth.

The second circumstance is if there is a *succession* of supply shocks that keep inflation low for a long period and cause firms and households to revise down their inflation expectations. In that situation, low oil and commodity prices can have “second round effects” as lower expectations feed into wage bargaining and price setting, thereby affecting core inflation. Then, the effect of supply shocks becomes more similar to demand shocks.

In both cases, central banks end up facing a situation not of a benign supply shock, but rather of an adverse demand shock that, if left unaddressed, could derail price stability over the medium-term. That would call for a more forceful monetary policy response. Importantly, there were signs in the past that such circumstances were present in the euro area.

Estimating the relative contributions of supply and demand in oil and commodity price dynamics is always complex, but combining evidence from several different sources, both effects appear to have been at play. While supply shocks explain an important part of oil prices over the last year, adverse demand shocks have also increased driven by the slowdown at the global level (Figure 2).

In that context we have also seen that, while the euro depreciation is contributing to higher import prices in euro, export price inflation in our main trading partners has remained depressed, contributing to weak producer price pressures. This in turn has weighed on the recovery of industrial goods inflation, which is sensitive to global inflation and makes up around a quarter of the consumption basket in the euro area.

At the same time, a succession of oil price shocks over recent years has led to a prolonged period of low inflation in the euro area which, at times, has been reflected in declines in measures of inflation expectations. Against that backdrop, we have seen a higher risk that a continued period of low inflation – even if supply-driven – could start to have second-round effects and feed into core inflation.

In sum, while in general the forces driving global disinflation are ones that should not, over the medium-term, affect central banks’ ability to deliver price stability, in the euro area the risks were higher that they might not “wash out” over time, and might instead feed into core inflation. For that reason, they became relevant for our monetary policy.

The role of domestic inflation

These global factors, however, have by no means been the only force driving disinflation in the euro area. If we decompose inflation in the euro area and the United States, a striking difference is that, at least until the start of this year, domestic factors explain a much more important part of our disinflationary trend (Figure 3). This stronger role for domestic forces in the euro area has contributed to core inflation diverging from some other advanced economies. It has hovered consistently around 1% since mid-2013 (Figure 4).

The ECB's objective is headline inflation, and there are good reasons for this, not least to keep purchasing power stable. Headline inflation is also a better predictor of short-term inflation developments. But core inflation has to be taken into account because it is more closely linked to *medium-term* inflation trends. In fact, ECB staff analysis shows that core inflation is a better predictor of medium-term headline inflation than headline itself. Persistently low core inflation is therefore a risk to our mandate.

So why have domestic factors affected inflation more in the euro area?

The main reason is that, from 2011 onwards, the euro area experienced a sovereign debt crisis and a double-dip recession, while other advanced economies recovered (Figure 5). That led to a very prolonged downturn, which was associated with a decline in employment, depressed wage growth, and low business and consumer confidence. According to ECB estimates, disinflation in this period is well explained by the existence of a very wide output gap.[2] The divergence in core inflation between the euro area and other advanced economies, in other words, is a story of domestic economic weakness.

This has particularly been reflected in weak services inflation, which is more strongly determined by the domestic economy and domestic wage pressures than other inflation components. And with services making up 43.5% of the consumption basket, that creates a strong drag on overall inflation. Services are also an important input into manufacturing, causing low services inflation to spillover into prices of domestic industrial goods.

Looking at the situation today, we do see some improvements as the economic recovery takes hold. As domestic demand strengthens, inflation has risen from its trough. In recent months, the share of items in the consumption basket with an inflation rate below 1% has fallen slightly, and crucially, the share with an inflation rate below 0% has fallen significantly, from 33% at the beginning of the year to below 21% now. This underlines that, thanks to our monetary policy actions, the risk of deflation in the euro area is firmly off the table.

Yet despite those positive signs, the trend in services inflation continues to be relatively weak. Whereas disinflationary pressures on industrial goods can be partly offset by exchange rate, higher services inflation will depend on stronger wage growth. All measures of wage growth, however, are stuck well below their historical averages. And though the euro area unemployment rate is declining – down almost 1.5 percentage points from its 2013 peak – a great deal of slack still remains in the labour market.

Indeed, if unemployment continues to decline at its current pace, it may take years before the euro area returns to its pre-crisis unemployment rates. And as we have seen in the UK and the US, even at that point – when the so-called "NAIRU" is reached – there may still be a substantial time lag before a tight labour market translates into higher wages. This suggests that, for services inflation to rise over the medium-term, we will need to see a faster closing of the output gap in the euro area and a quicker return towards full employment.

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2 "Understanding Inflation Dynamics and Monetary", Policy Panel remarks by Vítor Constâncio, Vice-President of the ECB, at the Jackson Hole Economic Policy Symposium, Federal Reserve Bank of Kansas City, 29 August 2015.

The ECB's monetary policy response

So putting the picture together, we have seen two factors that could endanger medium-term price stability in the euro area and warrant a monetary policy response: a global environment of volatile oil and commodity prices that could feed into expectations; and a domestic environment where persistent slack continues to constrain price pressures.

But as we have shown, even with interest rates at zero, we have an array of conventional and unconventional measures to deliver that response. Since the summer of last year we have cut our policy rates into negative territory, launched a credit easing package and begun purchasing private and public sector securities under the asset purchase programme (APP). A large body of evidence has accrued in that time that our instruments are powerful. And that evidence has allowed us to refine further our understanding of the amount of stimulus required to bring inflation back to 2% without undue delay.

For example, since we launched our credit easing package in June 2014, composite lending rates for firms have declined by more than 80 basis points for the euro area as a whole, and by between 110-140 basis points in stressed economies. That is a formidable pass-through. ECB staff estimates suggest that we would have needed to reduce the standard policy rates by around 100 basis points in June 2014 to achieve a similar effect on bank lending rates.

Improving financing conditions have also fed into improving macroeconomic conditions. According to Eurosystem staff assessments, our measures will add almost 1% to GDP between 2015 and 2017. And we are seeing an effect even on smaller firms that are typically harder for monetary policy to reach. In our most recent survey on smaller firms in the euro area, for instance, we saw for the first time since 2009 that the net percentage of small firms registering an improvement in business activity has turned positive, for all size sub-groups.

Crucially, our measures are also gradually feeding through into inflation. Inflation would likely have been negative this year were it not for our measures. And according to the staff assessment, in the absence of our measures, it would be at least half of a percentage point lower next year and between 1/4 and 1/3 of a percentage point lower in 2017.

So in assessing how to respond to the risks to price stability, the question we faced was not whether our tools worked – indeed, they are probably the dominant force spurring the recovery we see today. It was whether, in light of the evolution of those risks, the *calibration* of our policy was still sufficient.

This is the question that the Governing Council addressed yesterday.

On the real side of the economy, our assessment was that the recovery is ongoing and the economy remains resilient to volatility in the global economy. Domestic demand is replacing foreign demand as the engine of growth, and our outlook for the coming years is broadly unchanged. On the nominal side, however, we perceived that the downside risks to the inflation outlook had increased, especially given continued declines in oil prices and a large output gap. Without further monetary policy action, the date when inflation returns to our objective would once more have been pushed back.

The Governing Council therefore decided that, to secure the path of inflation back towards 2%, the calibration of our existing monetary policy measures needed to be adjusted.

Specifically, we decided to lower the interest rate on the deposit facility by 10 basis points to –0.30% and to extend the APP. The monthly purchases of €60 billion under the APP are now intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term. We will also reinvest the principal payments on the securities purchased under the APP as they mature, for as long as necessary.

To help you appreciate the import of the overall recalibration of our asset purchase programme, you should consider that the extension of our net purchases to at least March

2017 and the decision to re-invest the principal payments on maturing securities for as long as necessary will add EUR 680 billion – some 6.5% of the euro area GDP – in liquidity to the system by 2019, relative to the situation that would have prevailed under previous policies. This will strengthen our forward guidance on interest rates and ensure that liquidity will remain very supportive in the long term.

There was very broad support among members of the Council for recalibrating our instruments to put inflation trends back on the path towards 2% that we envisaged when we launched our purchase programme.

There was also very broad agreement with the *extent* of the recalibration, which was based on technical work carried out by the staff of the whole Eurosystem in our committees. The analysis we did before the inception of our asset purchases, and the evidence accumulated since, give us confidence that the additional measures announced yesterday provide material upward pressure on price dynamics to reach our objective as initially intended.

Arguably, the only difference between our current situation and a more traditional situation is that our monetary policy stance is not determined primarily on the basis of just one tool – interest rates – but on the basis of an array of tools, which include also the pace of asset purchases, and forward guidance on both interest rates and asset purchases.

But similar to the times when we steered policy primarily through interest rates, we are continuously monitoring economic and financing conditions, on which our policy action is always conditional. If these developments change in directions that make it necessary to respond again, we are of course ready at any time to adjust this array of tools to secure the return of inflation to our objective without undue delay.

There is no particular limit to how we can deploy any of our tools. And in this context it is important to recall that we operate under a clear framework of monetary dominance – we are ultimately driven by our mandate of maintaining price stability.

Indeed, it is inevitable that unconventional policy settings, ranging from negative interest rates to purchases of a broad range of assets, can have unintended consequences on allocation and distribution. In the selection of our policy tools, we aim to minimise the extent of such distortions, which is why, for instance, we have so far focused our asset purchases as much as possible in the most liquid and generic asset classes.

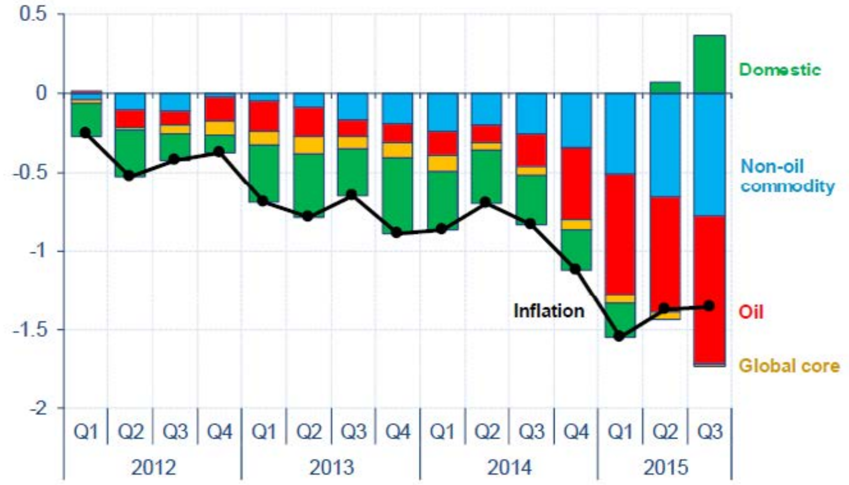
But there is no doubt that if we had to intensify the use of our instruments to ensure that we achieve our price stability mandate, we would. There cannot be any limit to how far we are willing to deploy our instruments, within our mandate, and to achieve our mandate. And indeed the European Court of Justice has stated that the ECB must be allowed "broad discretion" when it "prepares and implements an open market operations programme".

I can say therefore with confidence – and without any complacency – that we will secure the return of inflation to 2% without undue delay, because we are currently deploying tools that we believe will achieve this, and because we can, in any case, deploy our tools further if that proves necessary.

Inflation

Decomposition of headline inflation

contribution of shock to deviation of inflation from baseline; average industrialized country



Source: OECD and ECB staff calculations. Note: the chart shows the percentage point contribution of different types of shocks to explaining the evolution of headline inflation in OECD countries: (1) shocks to oil prices, (2) shocks to non-oil commodities, (3) shocks to global core inflation, and (4) shocks to domestic inflation. A negative contribution implies that that the specific shock contributed to lowering inflation, whereas a positive contribution indicates that this shock put upward pressure on inflation. The contributions are estimated in a quarterly structural VAR model containing oil prices, non-oil commodity prices, OECD global core inflation and national headline inflation for each of 23 OECD countries. The chart reports the average results across those countries. The identification strategy uses a Choleski decomposition of the variance-covariance matrix with the variables ordered in the VAR as in the sequence listed above.

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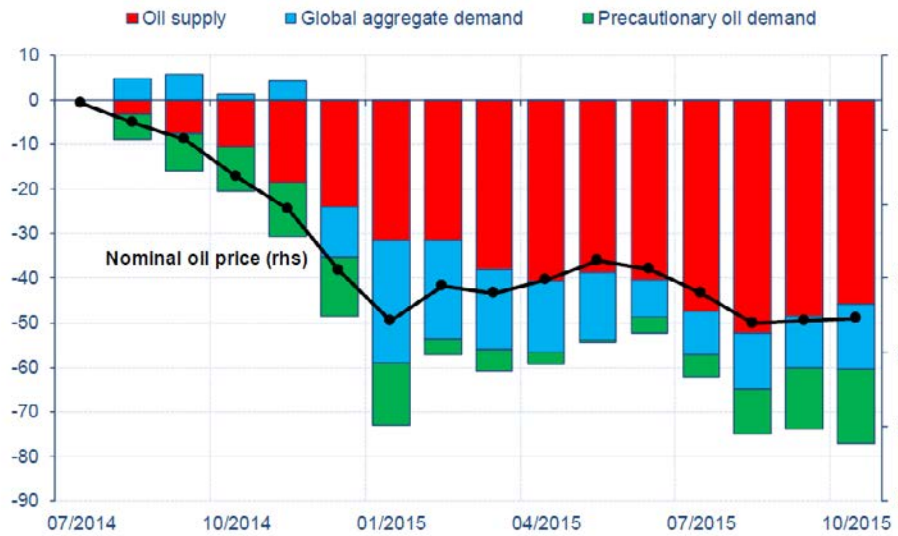
Oil prices

Historical decomposition of the price of oil

cumulated contributions of the different oil shocks in percentage points, 2007q1 = 0; nominal oil prices in USD per barrel



Source: ECB staff calculations.

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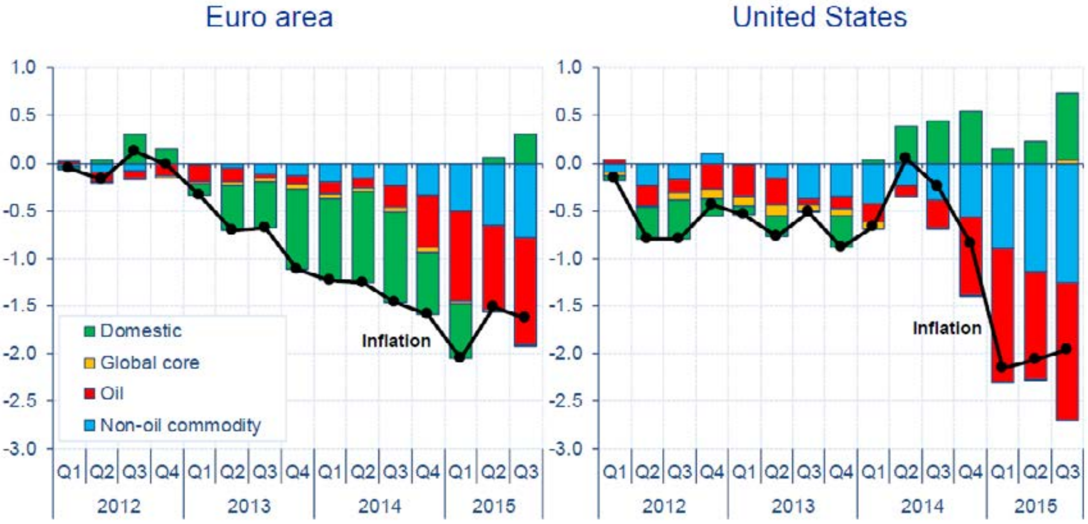
Shock decomposition of headline inflation in the euro area and the United States

Decomposition of headline inflation

contribution of shock to deviation of inflation from baseline



Source: OECD and ECB staff calculations. Note: the chart shows the percentage point contribution of different types of shocks to explaining the evolution of headline inflation in OECD countries: (1) shocks to oil prices, (2) shocks to non-oil commodities, (3) shocks to global core inflation, and (4) shocks to domestic inflation. A negative contribution implies that that the specific shock contributed to lowering inflation, whereas a positive contribution indicates that this shock put upward pressure on inflation. The contributions are estimated in a quarterly structural VAR model containing oil prices, non-oil commodity prices, OECD global core inflation and national headline inflation for each of 23 OECD countries. The chart reports the average results across those countries. The identification strategy uses a Choleski decomposition of the variance-covariance matrix with the variables ordered in the VAR as in the sequence listed above.

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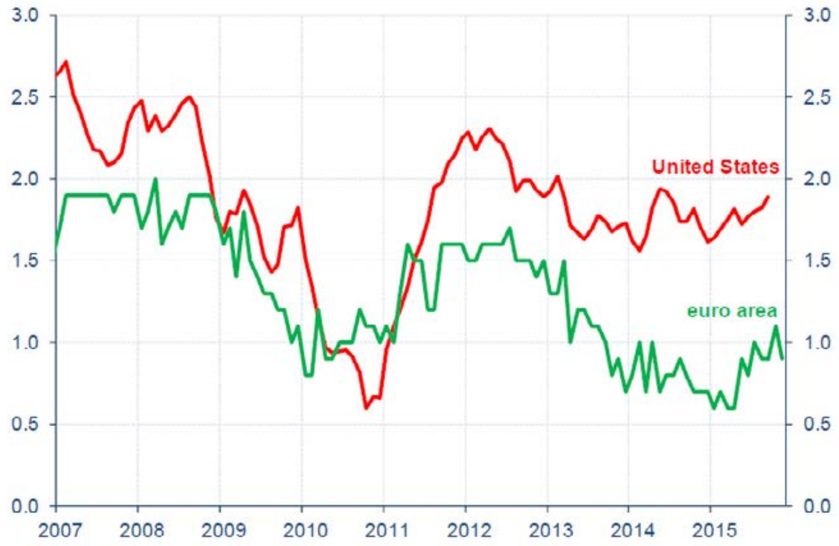
Core inflation in the euro area and in the United States

Core inflation

y-o-y percentage changes



Source: Eurostat and Federal Reserve.

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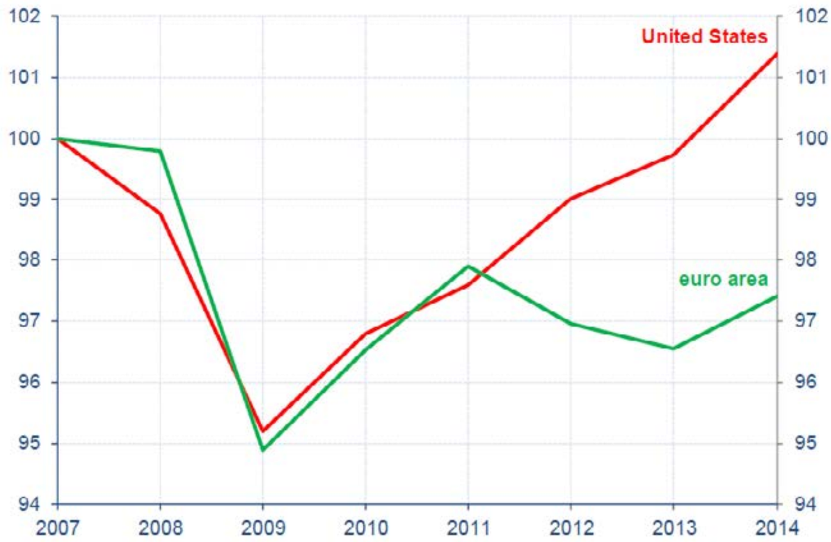
GDP per capita since the financial crisis in the euro area and in the United States

GDP per capita

2007 = 100; 2010 prices and exchange rates (2010 euro)



Source: Statistical Office of the European Communities/Haver Analytics and Bureau of Economic Analysis/Haver Analytics.

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