

Christian Noyer: Three questions on inflation and money

Speech by Mr Christian Noyer, Governor of the Bank of France, at the European Economics and Financial Centre (EEFC), London, 11 September 2007.

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Keeping inflation in check is Central Banks' main objective. Understanding the inflation process is Central Banks main concern. In recent years, we can take satisfaction in the fact that price stability has been achieved in most countries. At the same time, inflation dynamics may have become more complex. Our ability to consolidate our past successes in the future may well depend on our capacity to further deepen our knowledge on what, ultimately, determines the inflation rate.

Today, I would like to address three specific questions which have been extensively discussed, but not yet fully answered, in the academic and policy-making community: what is the impact of globalisation on inflation? Has the inflation – output trade-off changed as a consequence? And, finally, how can money aggregates help us in our efforts to achieve price stability?

Globalisation and inflation

In the last twenty years, greater integration in goods, services, labour and capital markets has coincided with stable and low inflation. Is there a link?

Globalisation has made a significant contribution to price stability. With new large new players (such as China and India, or Eastern European countries) entering the world economy, cheap imports have become available to developed countries. The fall in import prices in developed economies allowed real consumption wages to grow without impacting real production wages. This, in turn, has raised the level of employment compatible with price stability, or, put differently, lowered the inflation rate for any given level of employment.

The effects of globalisation may also be felt more indirectly through increased competition, both on the products and labour markets. On the products market, globalisation has eliminated the least productive domestic firms (those that set the highest prices) and reduced the pricing power of remaining domestic firms. It may also have created the conditions for wage moderation by increasing the degree of competition on the labour market.

Overall, these developments have made it easier for Central Banks to bring down inflation without real costs to the economy. But it is doubtful that we can count indefinitely on such "tailwinds".

Inflation only partly depends upon imported prices. Many goods and most services are still produced domestically with little competition from abroad. Domestic factors thus remain crucial determinants of inflation rates. Globalisation lowers the relative price of tradables to non-tradables in an open economy. But the overall level and dynamics of prices ultimately remain determined by the monetary authorities provided they ensure that steady growth in overall nominal demand is maintained through an appropriate monetary policy.¹

In addition, it is possible that the effects of globalisation on inflation will be reversed in the future. Strong growth in big emerging economies is increasingly putting pressures on the price of oil, food and other commodities. While labour supply in these countries will remain abundant, it is not all that clear whether it will remain cheap. Indeed, we are currently seeing

¹ Speech by Charles Bean, "Globalisation and Inflation", to the LSE Economic Society, 24 October 2006.

an increase in export prices in emerging countries, which translates into higher import prices for developed economies. This inflationary impact seems to have grown over the past few years, while, by contrast, the disinflationary impact of globalisation seems to have slowed down.

Going further, some analysts have suggested that, because of capital market integration, real interest rates will equalize around the world, thus reducing the ability of national Central Banks to control inflation. However, this need not be true. Indeed, the classic Mundell-Fleming analysis concludes that monetary policy should be more effective, rather than less, in the case of international capital mobility, although it can operate through different channels of transmission including the exchange rate.

But inflation is more than the direct result of macroeconomic shocks. It is a process in which business cycles as well as expectations play an important role. Has this process changed?

A change in the output – inflation trade-off?

Inflation dynamics have changed over the past fifteen years or so. Inflation persistence has declined, or, in other words, upward changes in the path of prices have become more temporary and easily reversed. Also, inflation itself has become less responsive to shocks. Both are very welcome developments for monetary policy.

Maybe the most documented and commented-upon change in inflation dynamics has been the so-called flattening of the Phillips curve. This, in economists' jargon, means that domestic inflation has become less sensitive to the domestic output-gap; or, alternatively, that it has become more stable during the business cycle.

There are several possible – and not mutually exclusive – explanations for this phenomenon.

It may well be that expectations of future inflation have become a more important determinant of current inflation at the expense of the current output gap, which would signal that monetary policies have become more effective in anchoring the inflation rate.

Most explanations, however, are of a more structural nature.

It is possible is that, as a result of structural reforms, the NAIRU has decreased in many countries in recent years, thus giving the "optical" impression of a horizontal Phillips curve during this period.

Another interpretation is that firms change their prices less frequently both because it is less necessary in a low-inflation environment and more difficult due to increased competition, including from abroad. These arguments, however,² have been challenged on the basis that, in an increasingly competitive environment, setting the "wrong" price has become more costly for firms in terms of foregone profits, which should encourage them to adjust their prices more frequently. If anything, according to this view, competition and globalisation should be expected to steepen the Phillips curve.

In a broader sense, globalisation itself may also be responsible for the flattening of the Phillips curve. In an open economy, domestic demand changes can easily be satisfied through increased imports. As a consequence, domestic inflation may become less sensitive to the domestic output gap and more sensitive to global tensions on production capacities.

² Notably put forward by Laurence Ball.

Finally, it is possible that (due to immigration and structural reforms) labour supply has become more elastic in many countries, and, as a consequence the cyclical of wages (and prices) has been reduced.³

Flatter Phillips curves may be a mixed blessing for Central Banks. In such circumstances, looking at actual and projected inflation may not be sufficient to detect incipient imbalances between supply and demand. In other words, inflation becomes less informative about the output gap. There is a risk, then, that imbalances are allowed to build up to a point where a stronger reaction may become necessary. To prevent that risk, Central Banks may want to look at information coming from a broader set of indicators, chosen because of their ability to detect, at an earlier stage, potential inflationary pressures. Obviously, monetary and credit aggregates for instance are good candidates for such a job.

What role for money in monetary policy?

As you may know, this is precisely what is done in the context of the Eurosystem's two-pillar monetary policy strategy which assigns an important role to money. This structure is based on a particular premise and has one important implication.

The premise is that even if money has no systematic and immediate influence on prices, it can provide valuable and specific information on future inflation, at time horizons stretching beyond those usually adopted for the construction of central bank inflation projections. Because of the long-term relation between money growth and inflation, money has leading indicator properties on future price developments.

Though it is fair to say that the apparent link between monetary developments and inflation has deteriorated over the recent years, there is still strong statistical evidence of a link between monetary growth and inflation at a low frequency. This relation holds for the euro area, but also for the US, the UK and large OECD countries, with monetary trends systematically leading inflation trends.⁴

The implication referred to is the need to cross-check the information on inflationary pressures and risks to price stability; this cross-checking implies that we bring together and compare different analytical strategies and that we systematically use all the information relevant to decision making. The main issue is to ensure that risks to price stability over the medium term do not materialize and that medium to longer-term inflation expectations remain solidly anchored at levels consistent with the price stability objective. Such anchoring is a prerequisite for monetary policy to make an ongoing contribution towards supporting sustainable economic growth as well as job creation.

Of course, monetary policy does not react mechanically to monetary developments, but rather responds to the information in monetary aggregates that is relevant for maintaining price stability over the medium term.

To make best use of the informational role of money, however, we have to address numerous and increasing challenges.

³ It is worth noting that not everybody is convinced that globalisation has played an important role in the flattening of the Phillips curve. For instance, Frederic Mishkin, Axel Weber and Donald Kohn emphasize the uncertainty surrounding the quantification of this globalisation effect, and Laurence Ball even questions this effect on theoretical grounds. Part of these doubts comes from the apparent lack of robustness of the result indicating that domestic inflation has become more sensitive to global output-gap fluctuations, which tends to weaken the case for the globalisation explanation of the flattening of the Phillips curve.

⁴ Benati L. (2007), "Long-run evidence on money growth and inflation", forthcoming in the ECB Working Paper Series.

One major difficulty is identifying in real time the nature of monetary developments and their implications for future price developments. The challenge of monetary analysis is to see through the noise in monetary data to recover those underlying trends which are relevant for monetary policy decisions. Meeting this challenge has not been straightforward in recent years in the euro area.

First of all, short-run monetary developments are often affected by transitory shocks. We need to identify and account for such temporary “special factors” or “distortions” that may affect monetary developments and blur their information content.

Second, and more permanently, it is necessary to disentangle, in monetary and credit developments, those which reflect structural and permanent changes from those which simply result from movements in the level of interest rates and the position in the economic cycle.

Finally, we must be able to assess whether these developments result from money supply shocks, in which case they clearly entail some risks to price stability, or whether they are caused by money demand shocks that may raise the desired level of money balances without necessarily impacting aggregate demand. Such demand shocks can be triggered by structural changes in the behaviour of economic agents or result from portfolio shifts or financial innovations in the context of financial globalisation. There are indeed some signs that a money demand shock occurred at the beginning of the 2000s in the euro area, as illustrated by a structural shift in the trend velocity of money, which summarises the relationship between money, output and the price level.⁵

One possible consequence of current events in credit markets may be to trigger a re-intermediation process, i.e. an expansion of banks' balance sheets which may further complicate our reading and interpretation of monetary and credit dynamics in the months to come.

Conclusion

There is no doubt that globalisation has impacted in various and non-trivial ways the functioning of our economies. In doing so, it has blurred the information content of many important variables or indicators relevant for the monetary policy maker, making monetary policy probably more complex in a context of increased uncertainty.

Economic theory usually distinguishes between parameter and model uncertainty. In the presence of parameter uncertainty, i.e. when the policy maker is uncertain about the impact a policy instrument has on the economy, economic theory suggests that it is optimal to respond more cautiously than would be the case in the absence of uncertainty (this is the well-known Brainard conservative principle). By contrast, model uncertainty would require more active monetary policy, the idea being to insure oneself against particularly bad outcomes.

I will leave it to your wisdom to guess in the present circumstances which of these two approaches would be preferable. Thank you for your attention.

⁵ Bordes, C., Clerc L. and Marimoutou V. (2007): “Is there a break in equilibrium velocity in the euro area?”, Banque de France, Notes d’Etudes et de Recherche n° 165, February.