

The Euro Appreciation and ECB Monetary Policy*

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Abstract

The appropriate response to the euro appreciation is a challenge for the monetary policy of the ECB and the Eurosystem. Flexible inflation targeting provides the guidelines on the appropriate response to exchange rate movements: (1) Determine the nature of the shock underlying the exchange-rate move. (2) Determine how the shock affects the inflation and output-gap forecasts 1–3 years ahead or longer. (3) Adjust the instrument-rate plan accordingly. (4) Announce the current instrument rate and explain and motivate the decision.

Open-mouth operations (announcements of desired or undesired exchange-rate developments without much analysis and without action) or sterilized foreign-exchange interventions (foreign-exchange interventions without interest-rate adjustment while not in a liquidity trap) are either useless or counterproductive and should be avoided.

Good monetary policy is both simple and complicated. The *principles* for good monetary policy are simple: Perform *flexible inflation targeting*, which means aiming to stabilize inflation around an explicit low positive numerical inflation target with some weight also on stabilizing the output gap, that is, stabilizing output around a measure of potential output. Because of the lags between monetary-policy actions and the effect on inflation and output, the best way to do this is to look forward and perform *forecast targeting*. This means setting the central bank's instrument rate (more precisely, to choose an instrument-rate *plan*, a path for the current and future instrument rate) such that the corresponding inflation and output-gap forecasts “look good,” which in turn means that the inflation and output-gap forecasts approach the inflation target and zero, respectively, normally some 1–3 years ahead (but, more precisely, the whole future forecast paths should look good, not just the forecast at some fixed horizon).

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Although the principles are simple, the *practice* of constructing these forecasts and deciding on the appropriate instrument rate (plan) is quite complicated and difficult, however. It requires the collection and processing of large amounts of data, thorough analysis, and a skillful combination of judgment and model results. Since monetary policy works via the expectations of future instrument-rate settings rather than the current instrument rate, and since expectations of future inflation and output matter for the private sector's current pricing and production decisions, monetary policy is to a large extent the *management of expectations*. Therefore, the *transparency* and public understanding of monetary policy, including the inflation and output-gap forecast that guide it, increase the effectiveness of monetary policy; the explicit inflation target also provides an effective anchor for inflation expectations. Furthermore, explicit objectives and transparency are important for the *accountability* of central banks, which is of independent value in a democracy but also provides stronger incentives for central banks to achieve their objectives.

Interestingly, central banks in a few small- and medium-sized countries have been leading monetary-policy developments in the past decade and have come to represent international best practice, for instance, the Reserve Bank of New Zealand, the Bank of England, and Sweden's Riksbank, and an increasing number of central banks in other countries have chosen to follow their leads. In contrast, the central banks in the G3 are lagging behind—although they may follow internal procedures similar to forecast targeting with internal objectives not disclosed to the general public. The ECB—although having recently improved its definition of price stability and reduced the role of monetary aggregates—has chosen to be less transparent, for instance, in its publication of forecasts and in providing monetary-policy reports of less quality and information value than the reports of the best-practice central banks. The Fed and the Bank of Japan have even declined to announce explicit objectives, an effective and well-known way to avoid accountability.

Flexible inflation targeting provides the guidelines to how central banks should respond to any kind of shocks and disturbances, including movements in exchange rates and other asset prices. When an asset price moves, the *first* step is to analyze what is the source of the move, that is, the underlying shock. An exchange-rate movement can have many underlying reasons. It can, for instance, be a shift in portfolio preferences among international investors, which can be seen as a shift in the foreign-exchange risk premium. It can be a change in the equilibrium terms of trade (the relative price between imports and exports) or a change in equilibrium real

exchange rate (the ratio between foreign and domestic consumer-price indexes expressed in the same currency), which in turn are due to underlying shocks. The first step is a so-called signal-extraction problem, that is, extracting the underlying shock and its nature. Part of this is to assess whether the shock is temporary or persistent. There is no need to emphasize that this first step is a difficult and complicated one.

The *second* step is to assess what impact the inferred shock and its nature have on the inflation and output-gap forecasts. The impact will, for instance, depend on the nature and persistence of the shock. Furthermore, estimating the impact on the output-*gap* forecast requires that the impact on *both* the output and potential-output forecasts is assessed. Potential output is a complicated concept. The most appropriate concept for monetary-policy purposes is the hypothetical output level that would arise in the hypothetical situation where there is complete nominal price and wage flexibility but any real distortions such as taxes, imperfect competition, and information imperfections remain in place. This is not the same as the standard trend measures of potential output. Whereas potential output normally is independent of monetary policy, it does depend on the shocks hitting the economy. Again, it is not necessary to emphasize that this second step is also quite difficult and complicated.

The *third* step is then to decide, given the shift in inflation and output-gap forecasts, what revision, if any, of the interest-rate plan is required in order to make the inflation and output-gap forecasts look good. The new current instrument setting is then the first element in the new instrument-rate plan. It follows from the above that the new instrument setting is a very complex function of the initial movement of the exchange rate. It is so complex that it cannot be summarized as a simple formula. Therefore, there is no point in trying to determine a simple reaction function for the appropriate instrument-rate response to a movement in the exchange rate or some other asset price. It all depends on the nature of the inferred underlying source of the exchange-rate movement. The reaction function is best left implicit, implicitly defined by the three steps I have outlined above.

The *fourth* and last step is to announce and implement the new instrument rate, and to explain the analysis and the outcome of the three steps above to observers and the general public. The latter is what is done in the monetary-policy reports by the best flexible inflation targeters.

Against this background, what should the ECB (and the Eurosystem) do about the recent dramatic rise in the euro? As explained, the ECB should, first, infer the underlying shock that

has caused the rise in the euro. Second, it should determine how this shock affects euro-area inflation and output-gap forecasts. Third, it should determine what the appropriate revision of the interest-rate plan is and the corresponding current instrument-rate setting. Finally, it should announce and implement the new instrument rate, explain its analysis, and motivate its decision to observers and the general public.

If the ECB would follow this proposal for dealing with the rise of the euro, what analysis and decision is it likely to arrive at? First, appreciation of the euro is, mostly, the mirror effect of the depreciation of the dollar. The largest immediate challenge for monetary policy in the world is probably the disturbances caused by the completely reckless U.S. fiscal policy (see Gale and Orzog [1] and Mühleisen and Towe [2]), the resulting uncertainty about the necessary future correction of the unsustainable U.S. budget and current-account deficits, and the associated fall and instability in the dollar. The necessary future correction of the U.S. budget deficit may require a drastic future contraction of U.S. fiscal policy, which in turn may then induce quite expansionary U.S. monetary policy. The future correction of the current-account deficit will most likely require a drastic deterioration of the U.S. terms of trade. Since a fall in the U.S. price level or a rise in the price level in the rest of the world is unlikely, this will require a future nominal depreciation of the dollar. Expectations of a future depreciation of the dollar result in a current depreciation. A nominal and real current euro appreciation and an improvement in the euro-area terms of trade is the mirror effect of this.

So, the ECB will have to analyze what impact the U.S. budget and current account deficits and market reactions to these will have on the current and future euro-area terms of trade and the real euro exchange rate. A real appreciation of the euro for these reasons will tend to shift euro-area inflation forecasts down, for instance, through cheaper imports. It will shift euro-area output forecasts down, for instance, because of lower aggregate demand because of lower euro-area exports to the U.S. The welfare effects on euro-area citizens of lower output and employment are moderated by the improvement in the euro-area terms of trade; consumers and firms will benefit from cheaper imports of final and intermediate goods and raw materials. The impact on the potential-output forecast is more complex and requires further analysis. Nevertheless, this impact is essential in order to assess the impact on the output-gap forecast, since it is the output gap rather than output itself that should matter for the ECB besides inflation. If the potential-output forecast shifts down less than the output forecast, the output-gap forecast will shift down. When both the inflation and output-gap forecasts shift down, a lower interest-rate

plan and thereby more expansionary monetary policy is warranted.

Along these lines, everything else equal, the fall in the dollar and the rise in the euro tends to induce monetary expansion in the euro area. An appropriate response to the rise in the euro occurs, in a sense automatically, even though there is no independent exchange-rate target under flexible inflation targeting. Indeed, if countries in the world pursue flexible inflation targeting, such that each country pursues its own inflation and output-gap targets, this implies that any *explicit* international coordination of monetary policy is unnecessary. Instead, there is *implicit* coordination; each country responds to monetary-policy actions in other countries only to the extent to which those actions affect the country's inflation and output-gap forecasts. Regarding the exchange-rate, each country then responds to exchange-rate movements, to the extent to which they affect inflation and output-gap forecasts. I believe this is the best way for central banks outside the U.S. to respond to the depreciation of the dollar. For governments outside the U.S., the best response is to demand a new responsible and credible U.S. fiscal policy.

Furthermore, any open-mouth operations (announcements of desired or undesired exchange-rate developments without much analysis and without action) or sterilized foreign-exchange interventions (foreign-exchange interventions without interest-rate adjustment while not in a liquidity trap) are normally ineffective, except possibly in the very short run. In some cases they may be counterproductive. They may give the impression that central banks undertaking such actions do not understand economics, and they will sometimes lead to humiliation and reduced credibility of those central banks. Instead, if the exchange-rate movements are deemed to affect the inflation and/or output-gap forecasts, the appropriate response is an instrument-rate adjustment, that is, a non-sterilized intervention.¹

Note that the situation is different if a country is in a liquidity trap, as is the case for Japan. Then, monetary expansion as a response to the fall in the dollar cannot be implemented via a lower instrument rate. Instead, the country that is in a liquidity trap can and should use its exchange rate and undertake a monetary expansion through a depreciation and peg of its exchange rate, as in the Foolproof Way to escape from a liquidity trap that I have advocated (see Svensson [3] for details why this is both effective and feasible). Since this is a nominal exchange-rate depreciation, it occurs only in the country that is in a liquidity trap, and it results in more

¹ As open-market operations I have in mind statements expressing various views on exchange rates without much analysis and motivation. This is different from publishing careful—and difficult—analysis of what are reasonable equilibrium exchange rates and why current market exchange rates might be out of line. Publishing the central bank's judgments and assumptions on exchange rates and other asset prices used in inflation and output-gap forecasts is part of the transparency of flexible inflation targeting.

inflation and a higher price level in that country, it does not prevent the necessary long-run world terms-of-trade and real exchange-rate adjustment that is required by the future correction of the U.S. budget and current account deficits.

References

- [1] Gale, William G., and Peter R. Orszog (2003), “The Economic Effects of Long-Term Fiscal Discipline,” Urban-Brookings Tax Policy Center Discussion Paper No. 8, www.taxpolicycenter.org.
- [2] Mühleisen, Martin, and Christopher Towe, eds. (2004), *U.S. Fiscal Policies and Priorities for Long-Run Sustainability*, International Monetary Fund, Washington, DC.
- [3] Svensson, Lars E.O. (2003a), “Escaping from a Liquidity Trap and Deflation: The Foolproof Way and Others,” *Journal of Economic Perspectives* 17-4 (Fall 2003) 145–166.
- [4] Svensson, Lars E.O. (2003b), “The Magic of the Exchange Rate: Optimal Escape from a Liquidity Trap in Small and Large Open Economies,” working paper, www.princeton.edu/~svensson.