

The Euro in Perspective

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Dinner Speech at the Conference on
“Market Economy in Europe and the Integration Process:
The Power of Ideas and Social Change”

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Thank you for inviting me to participate in this conference on the market economy and economic integration in Europe, and to explore the idea that the classical principles of economic liberty are more consistently embraced by European institutions than by national institutions.

Just before the introduction of the euro, I was invited by Otmar Issing to come to Frankfurt to discuss the problems of monetary policy with a new currency. Otmar Issing often recalls that discussion, and I can say that it was fascinating to have had the chance to offer some advice on that visit, but also to be at the first “ECB and Its Watchers” conference in 1999 and at several later ones. Today, two decades later, I want to consider the euro in perspective—both an historical and a global perspective—based on what we have experienced in the years since then.

Successes

Many successes have been rightly associated with the introduction of the euro and the creation of the European Central Bank (ECB). Early on, the ECB handled communication and transparency issues very well. That was certainly an area of concern of mine 20 years ago when the diverse communications strategies of many national central banks with different languages and widely different traditions had to be carefully taken account of and integrated. Issing (2004) reviews the impressive innovations: the press conferences—including the introductory statement, questions and answers, public projections by the staff, and good connections with academics and banking economists through the watcher conferences. This was an amazing accomplishment, and much has been copied by other central banks, including the Fed as it now too uses post-meeting press conferences. Transparency and clear policy communications are hallmarks of economic systems that emphasize economic freedom.

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The ECB has also been a voice for structural and market-based reforms in individual countries. Indeed, this is another good example of the idea that underlies this conference, that economic ideas are often more embraced by international bodies than by institutions in countries.

And while the euro has not become as much of an international currency as many had hoped, the ECB has gained respect as a transnational institution in Europe, perhaps more than the European Parliament and the European Commission.

From the beginning, there was of course the concern that a single currency regime could be a deterrent to economic stability compared to a flexible exchange rate regime, but there were few empirical studies which “attempted to evaluate the effects of fixed-versus-flexible exchange rates....while dealing with expectational issues and capital mobility, both of which are widely viewed as crucial to exchange-rate behavior. Policy advisors, therefore, have had to rely on the ambiguous theoretical studies or on intuitive judgments.” (Taylor (1993)).

For this reason, in Taylor (1999a), I used an estimated multi-country model to calculate the quantitative impact on economic stability of a move from flexible exchange rate between Germany, France, and Italy to a fixed exchange rates as in a single currency. The loss was there, but importantly not so large that it could not be offset by sound fiscal policy with automatic stabilizers.

For this approach to work, however, the new monetary policy had to be systematic and rule-like. In a paper “What the European Central Bank Needs to Do,” I argued that the ECB should follow a rules-based monetary policy so that a rules-based fiscal policy could be more easily constructed and followed (Taylor (1999b)).

However, as time went by and the years turned into decades, one could see actions and reactions which represented deviations from rules or strategies, and these have resulted in a move toward a more interventionist, less market-based institution. I will give empirical evidence of this move based on my research and that of others focusing on the years from 2003-2006 and from 2014-2018. To be sure, I am not referring to the famous “Whatever it takes” comments, but rather to specific monetary policy actions.

The Period Leading Up to the Global Financial Crisis: 2003-2006

That there were large deviations from rules-based policy in the years 2003-2006 leading up to the global financial crisis was shown empirically in research by Ahrend, Cournède and Price (2008) at the OECD. Figures 1 and 2 summarize their results. The scatter plot in Figure 1, which is drawn from their 2008 paper, shows, on the horizontal axis, the deviation from the Taylor rule in the Eurozone countries. It was quite large for some countries, especially Greece, Ireland and Spain. Figure 1 also shows housing investment and thus the relationship between housing investment and the deviation from the rule. Figure 2 shows the relationship between housing *loans* and the same deviation over the same period.

Both Figure 1 and Figure 2 show a strong positive relationship between interest rate deviations from a rule-like policy and the housing market. The deviations are largest in Greece, Ireland and Spain, and these are the three countries with the largest booms in both housing investment and lending according to the OECD data. According to Ahrend (2010) “below Taylor’ episodes have generally been associated with the build-up of financial imbalances in housing markets.”

Germany is on the other side of the scatter, with interest rates closer to the rule and much more modest developments in housing. Of course, within the Eurozone there is only one policy interest rate, but that rate was too low for macroeconomic conditions in some countries. Even within the “one size fits all” framework of the Eurozone, it appears that the rate could have been nearer the middle, and thus higher. More recent evidence confirms this as I show later in this talk.

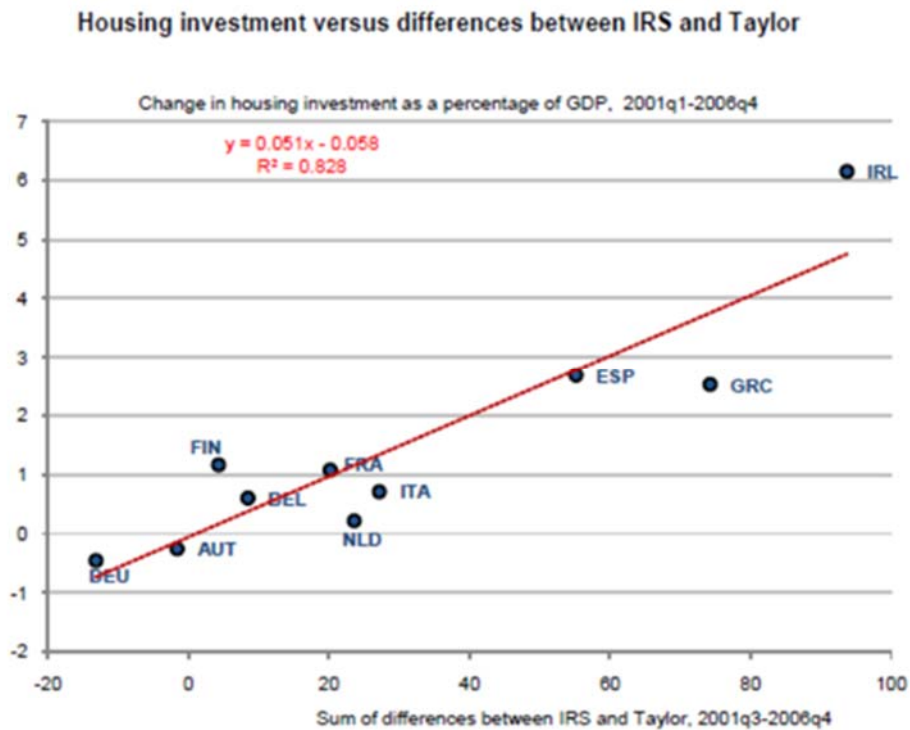


Figure 1. ECB: Deviations from Rules-Based Policy and Housing Investment

Source: Ahrend, Cournede, and Price (2008)

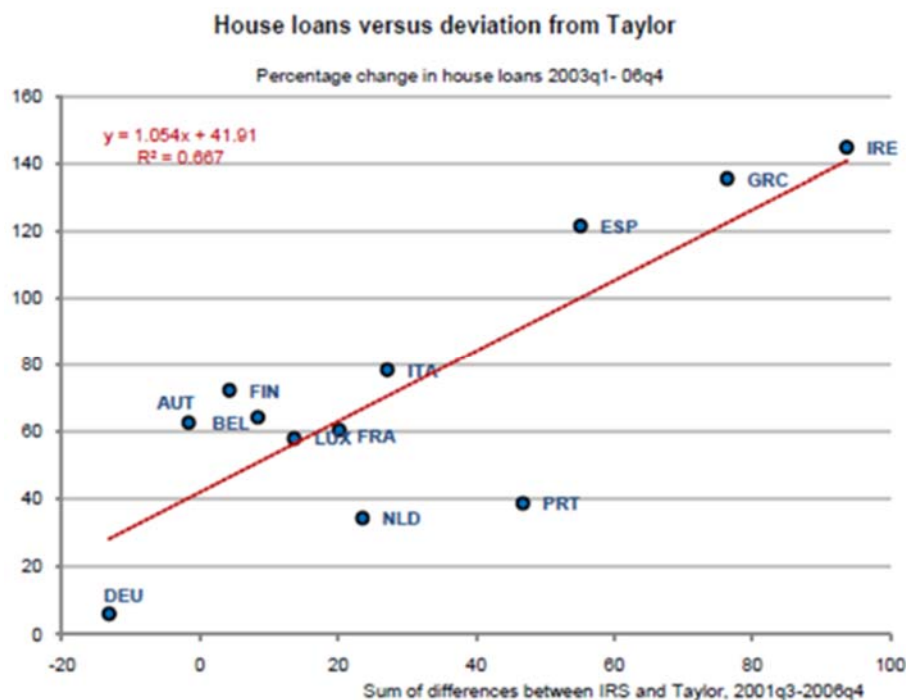


Figure 2. ECB: Deviations from Rules-Based Policy and Housing Loans

Source: Ahrend, Cournede, and Price (2008)

Additional empirical research by Oscar Jordà, Moritz Schularick, and Alan Taylor (2015) further examined the Eurozone countries during this period, and it yielded similar results. They found that “...common monetary policy administered by the ECB meant that for some countries monetary conditions would be ‘too loose,’ whereas for some others they would be ‘too tight.’ Booming economies would be encouraged to grow, slumping economies to decline, resulting in greater real economic instability Prima facie, the events in the Eurozone in the 1999–2008 pre-crisis phase seem to conform to this narrative.”

Figure 3 from their paper shows the key findings. It compares three Eurozone countries—Ireland, Spain and Germany—over the period from 1999Q1 to 2008Q1. The top panel of Figure 3 indicates that the ECB interest rate was too low for conditions in Ireland and Spain as measured by the Taylor rule throughout this period. In contrast, in Germany the interest rate was quite close, perhaps a bit on the high side, to what such a rule would say.

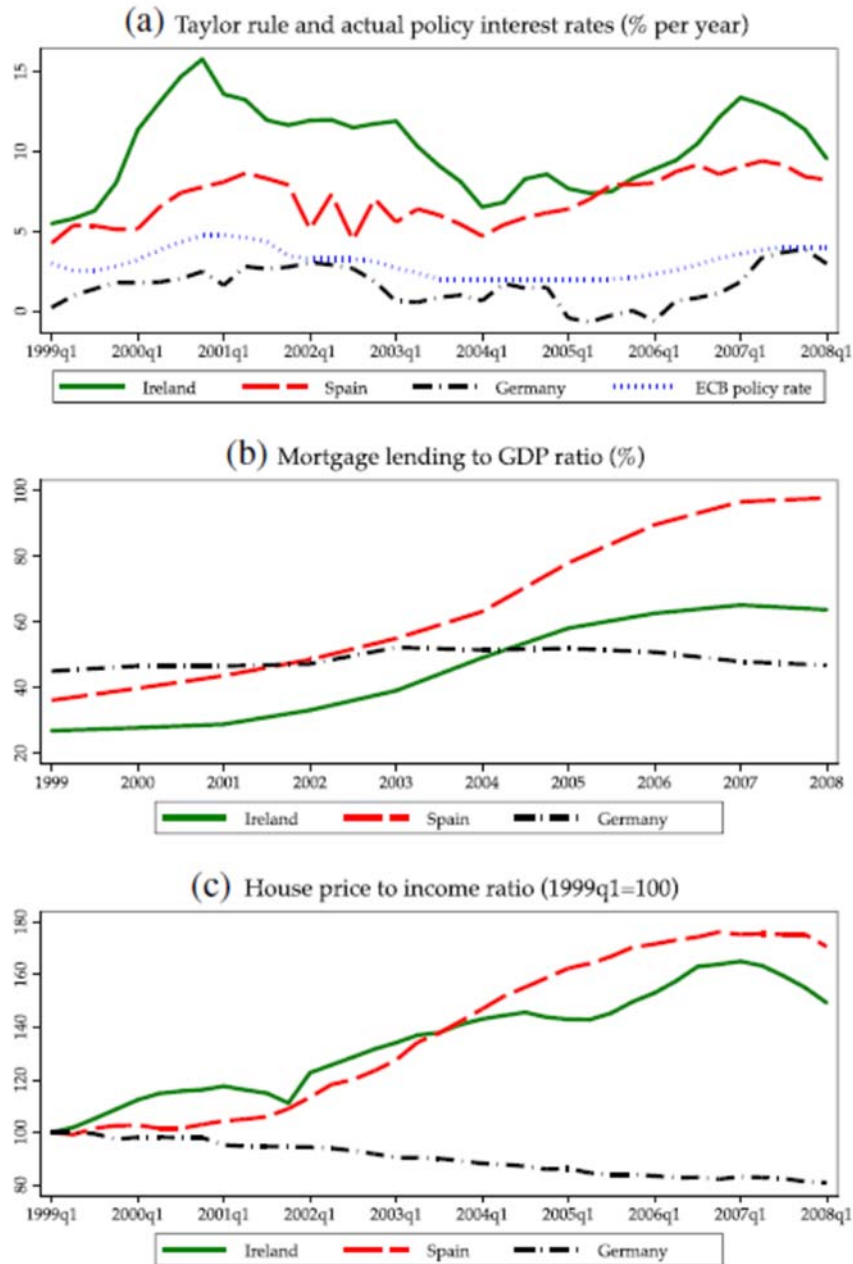


Figure 3. ECB: Deviations from Rules based Policy, Ireland, Spain, Germany

Source: Oscar Jorda, Moritz Schularick, Alan Taylor (2015)

The second panel of Figure 3 looks at mortgage lending as a share of GDP for these three countries. It shows that mortgage lending grew much more rapidly in Spain and Ireland compared with Germany, much as one would expect from the interest rate difference.

The third panel of Figure 3 shows housing prices in the three countries, confirming the association of interest rate deviations from policy rules and housing price inflation pointed out by Ahrend, Cournède and Price (2008). The authors write that “These data provide some support to the hypotheses, often asserted in analyses of the Eurozone crisis, that periphery countries experienced an exogenous monetary easing which went on to fuel credit and housing price boom and bust cycles—ending in economic crises and output disasters for countries like Ireland and Spain.”

More recent evidence comes from the just-released 2018 *Annual Report* of the Council of Economic Experts in Germany. Figure 4, which is drawn from the *Report*, illustrates the findings. For four countries—Germany, France, Italy and Spain—the charts in Figure 4 show each country’s policy rule and a range of interest rate setting around that rule. It also shows the actual interest rate of the ECB—the main refinancing rate—and a eurozone rule for the ECB.

As summarized by Wieland “Taylor rules for France, Germany, Italy and Spain suggest ECB policy too easy for Spain (a lot), Italy and France during boom years prior to financial crisis.” In contrast the rate for Germany is close to what the policy rule for Germany would suggest. The *Report* confirms the findings of Ahrend, Cournede, and Price (2008) and Jorda, Schularick, and Taylor (2015), though it does not go on to consider the effects on housing.

CHART 55
Taylor rules for selected euro area countries

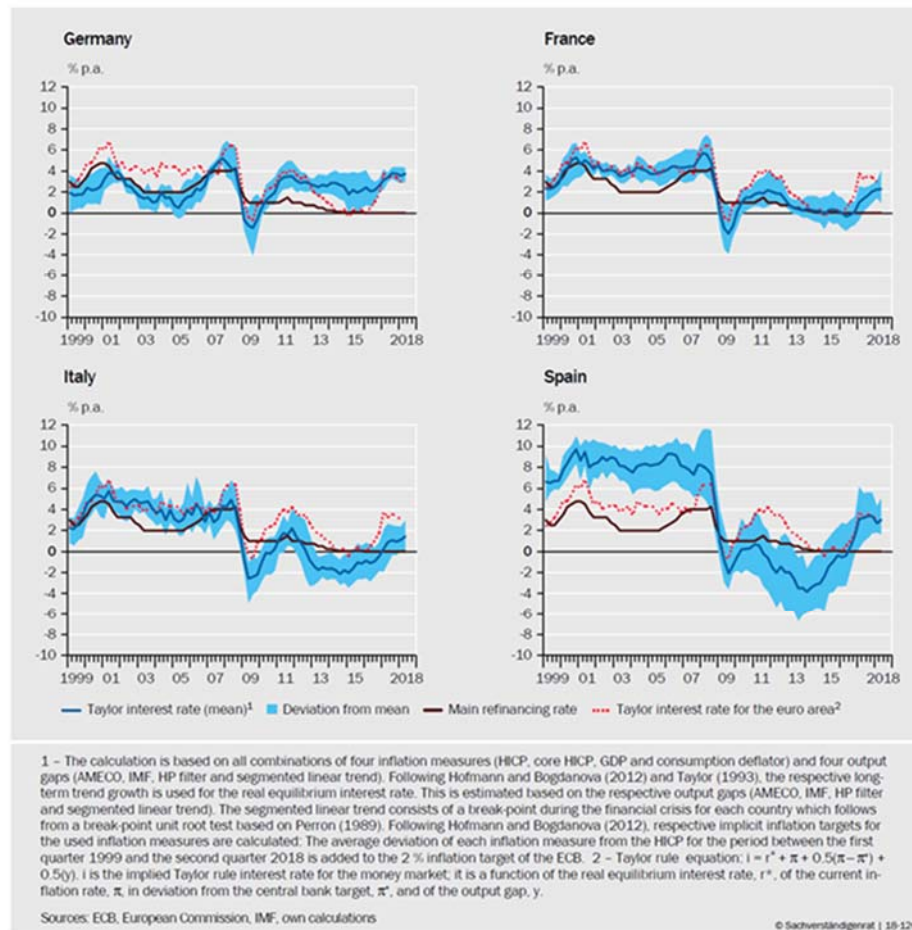


Figure 4. ECB: Deviations from Rules-Based Policy in Four Countries

Source: Council of Economic Experts, Germany (2018), Annual Report 2018/19,

One might ask, what caused these deviations? A possible explanation, which I favor, is that there is an international contagion of monetary policy actions from one central bank to another, including deviations from rules-based monetary policy. Other empirical results (some of which are contained in Ahrend, Cournède and Price (2008) and Jorda, Schularick and Taylor (2015)) show that there were deviations of interest rates from policy rules in other countries during the period running up to the crisis. The contagion is often due to exchange rate considerations.

Note in Figure 4 that there the policy rate for the ECB is someone lower than the policy rule for the whole ECB. Figure 5, presented at the European Central Bank Conference on *Globalisation and the Macroeconomy* in 2007 (Taylor (2007a)), shows why this may have occurred. It indicates that there is a correlation between the Fed and ECB. The blue line shows

the deviation of the ECB policy rate from the Taylor rule with inflation measured as the four-quarter rate of change in the harmonized index of consumer prices.

A regression of this deviation on a constant and on the U.S. federal funds rate shows a statistically significant coefficient on the federal funds rate of .21. The plot of the fitted values from this regression is shown by the red line in Figure 5. Thus, a good part of negative residual (policy rate below the rule) at the ECB is “explained” by the federal funds rate being lower than normal. The connection illustrates the international contagion of monetary policy deviations.

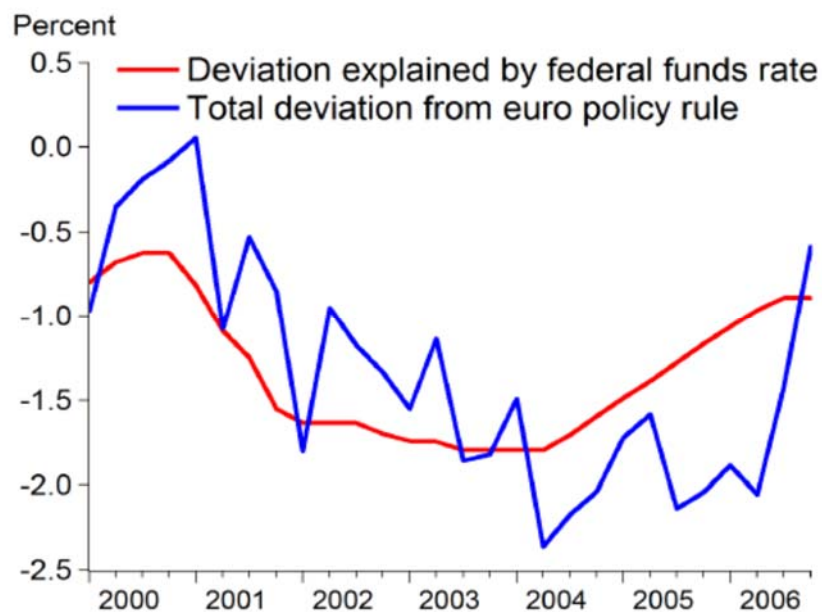


Figure 5. Eurozone Deviations from Policy Rule 2002-2005: A Possible Explanation

Source: Taylor (2007a)

There is, of course, much evidence that the federal funds rate was too low for too long in that period. Jarocinski and Smets (2008), in research conducted at the ECB, found evidence of the Fed’s “easy monetary policy” and that this policy “contributed to the boom in the housing market in 2004 and 2005.” See also Taylor (2007b).

Large-Scale Asset Purchases and the Explosion of Reserve Balances: 2014-2018

To explore deviations from rules-based policy in more recent periods, we must recognize that the ECB has been using two separate monetary policy instruments in recent years: the policy interest rate and the size of the balance sheet. In Taylor (2019), I examined the balance sheet of the European Central Bank as well as the Federal Reserve and the Bank of Japan. The purchase of financial assets by these banks has been financed by increases in central bank liabilities, mainly “reserve balances.” In addition, the ECB, and each of these other central banks, sets its short-term policy interest rate.

For the ECB and the two other central banks, the monetary policy framework thus includes six different policy instruments: the balance sheet items (R for reserve balances) R_E , R_U , and R_J , and the short-term policy rates (I for interest rate) I_E , I_U , I_J , where the subscripts indicate the Europe (E), United States (U), and Japan (J).

Figure 6 shows the path of reserve balances in the ECB along with the exchange rate through January of 2019. Note that there is a strong correlation between reserve balances and the exchange rate. In particular, the Figure shows the weakening of the euro against the dollar after the large-scale expansion at the ECB.

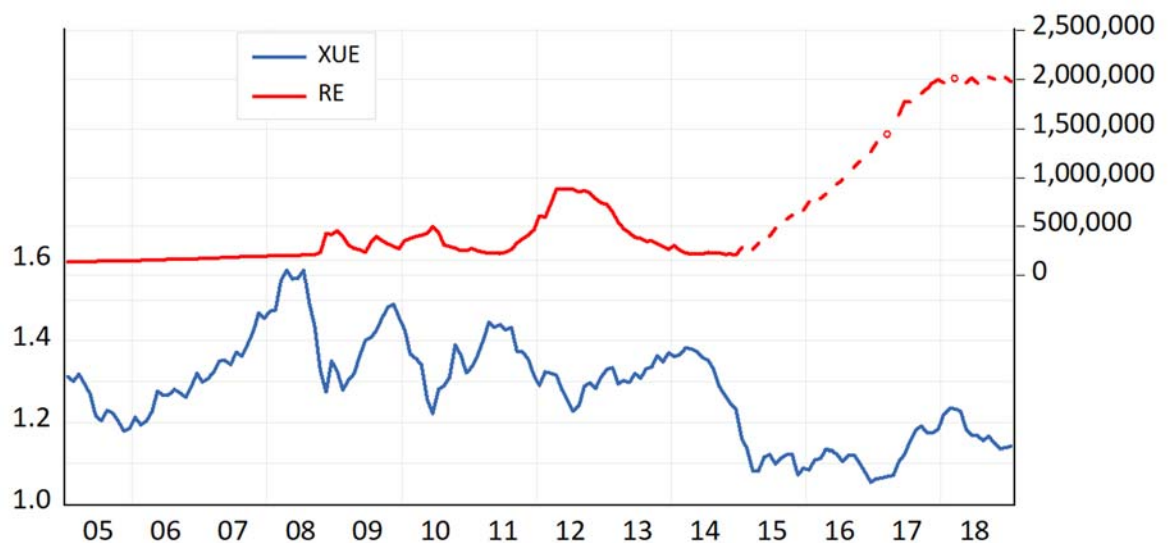


Figure 6. Reserve Balances (RE) at the ECB and Euro-Dollar Exchange Rate (XUE)

Source: Taylor (2019), Updated

Figure 7 shows the actual the paths of reserve balances for the Fed and the BOJ along with the ECB. The scale for reserve balances is shown on the right-hand vertical axis measured in units of the local currency—millions of dollars, hundreds of million yen, and millions of euros. The lowest line in the figure is the exchange rate between the dollar and the euro.

The Fed started large-scale asset purchases of U.S. Treasuries and mortgage-backed securities in 2009. These purchases, called Quantitative Easing (QE), were financed largely with reserve balances. This expansion of reserves balances in the United States was followed by an expansion by the Bank of Japan at the start of 2013. Soon thereafter the ECB started increasing reserve balances. In other words, there is a positive correlation between reserve balances in these countries.

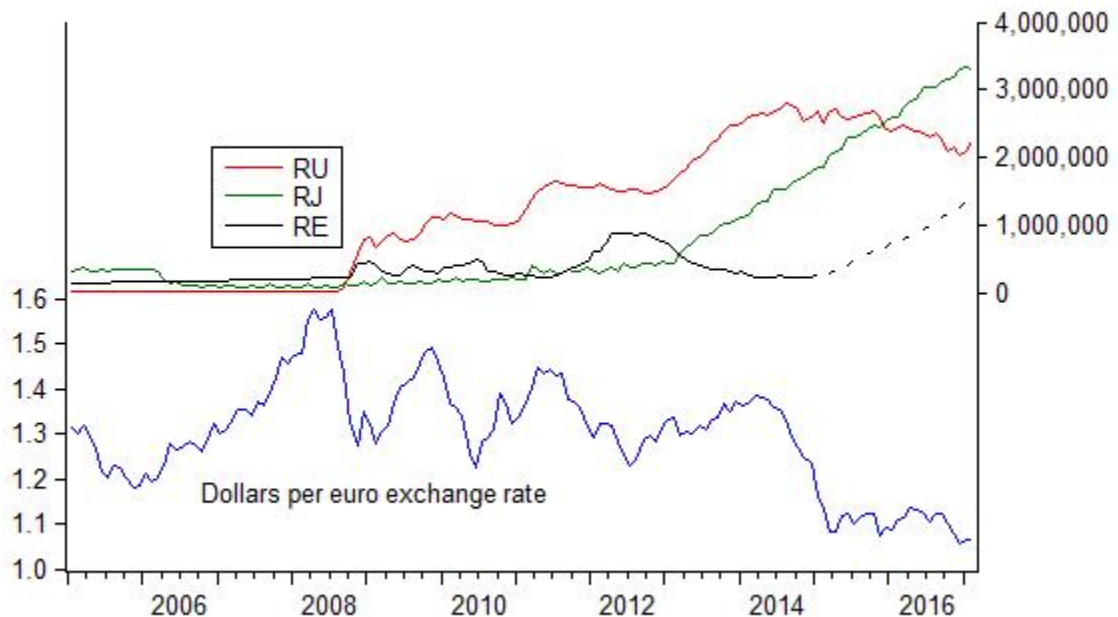


Figure 7. Reserve Balances at the ECB (RE), the Fed (RU) and the Bank of Japan (RJ)
Source: Taylor (2019)

Various policy statements by central bankers are consistent with these time series: Following the global financial crisis and the start of the US recovery, the yen significantly appreciated against the dollar as the Fed extended its large-scale asset purchase program financed with increases in reserve balances. The yen appreciation became a key issue in Japan. Lead by Haruhiko Kuroda, the Bank of Japan implemented its own quantitative easing, and a depreciation of the yen followed. The subsequent moves by the ECB toward quantitative easing were also due to concerns about an appreciating euro. At the Jackson Hole conference in August 2014, Mario Draghi spoke about these concerns and suggested quantitative easing, which soon followed. This shift in policy was followed by a weaker euro.

While the correlations show a close association between the policies in the different countries, there are also statistically significant exchange rate effects in estimated regressions of exchange rates on reserve balances, as reported in Taylor (2018). The regressions show that an increase in reserve balances by the ECB causes the euro to depreciate against the dollar. Similar effects are seen in the other countries.

Conclusion

Looking back with perspective of the two decades since the euro and the ECB were created, one sees successes and developments that are consistent with the principles of economic freedom: The emphasis on transparency and clear communications about monetary policy, the very goal of price stability, the frequent endorsement of structural and market based reforms in member countries, principle that automatic fiscal stabilizers and sound budget policy are key complementary parts of macroeconomic policy, the encouragement of open capital markets, and the notion, as expressed by Mario Draghi (2016), that “We would all clearly benefit from...improving communication over our reaction functions...”

These favorable developments contrast with actions that are less consistent with the principles of economic freedom, and which are often observed in national institutions in Europe. One explanation for the developments is that many of these same ideas underlie the thinking of central bankers at many other central banks around the world, and that central banks tend to follow each other as they endorse such ideas.

However, accompanying these favorable developments, as I see it, has been a deviation from rules-based policy and strategies, an increased use of discretionary interventions, and a resulting uncertainty about what the reaction function is. These interventions may have delayed the move to more classical liberal policies in other areas of economic policy.

These less-favorable developments have been rationalized by many factors, such as the effective lower bound on interest rates or changes in the transmission mechanism of monetary policy. But the research presented here shows that the actions and reactions relate more to international factors which have been a source of these deviations. Ironically, therefore, international influences and pressures that have led to policies more conducive to economic freedom, may also have led to policies less conducive to economic freedom. If so, this is yet another reason for a rules-based reform of the international monetary system.

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