

Discussion of “Did Easy Money in the Dollar Bloc Fuel the Oil Price Run-Up?”

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1. Introduction

This paper addresses a traditionally sensitive issue concerning the international spillovers from the U.S. monetary policy. The issue is sensitive because many observers feel that U.S. monetary authorities make decisions that have potentially large consequences for the global economy, almost exclusively based on domestic considerations. In the early 1980s, for instance, the focus of the debate was on the high interest rate policy pursued by Chairman Volcker to stem U.S. inflation, soon followed by the debt crisis in the developing world. In the 1990s, similar concerns were raised in relation to the monetary contraction in the United States which preceded the Mexican debt crisis. In the new millennium, the focus is on the consequences of the prolonged phase of U.S. monetary expansion (rather than contraction)—an expansion that many find excessive even from a purely U.S. domestic perspective.

The specific question addressed by the paper is whether, among other things, low interest rates in the United States since 2004 fueled a commodity price boom. The transmission mechanism—from the expansionary monetary stance to oil prices—is best understood against a general context in which there are other, non-monetary factors also at work. These are the factors that explain high rates of energy-intensive growth in emerging-market economies. Against a background feeding expectations of high prices for energy and commodities, low U.S. rates (i) may have provided “fertile ground for speculation,” if anything, by keeping the cost of holding inventories low; (ii) together with dollar depreciation, may have

reduced the incentives to extract today rather than in the future; and (iii) most importantly, may have contributed to the overheating of the economies pegging to the dollar, which happens to be economies where growth is most energy intensive.

2. An Exercise in Optimal Currency Area Theory

In a nutshell, the paper presents a modern version of an exercise in the optimal currency area (OCA) theory. The main question of interest concerns the global macro implications of asymmetric shocks hitting the country at the center of an international monetary network of currency pegs, which accounts for about 20 percent of the world economy. Different from conventional OCA studies, the answer is built on New Keynesian foundations.

The world economy consists of three blocs: the United States (as the center country), a dollar bloc, and the rest of the world (the non-dollar bloc). The authors posit an exogenous country-specific recessionary shock in the United States, large enough to cause the Federal Reserve to cut interest rates by 2 full percentage points for a number of years (a measure desirable from a domestic perspective). The economies pegging to the dollar adjust their monetary stance accordingly and thus overheat (since they suffer no recessionary shocks).

While fitting conventional wisdom in many dimensions, the exercise also yields a non-obvious result. Namely, monetary overheating in the dollar bloc translates into a sharp rise in oil prices, despite the contained weight of these economies in the world economy and the large recessionary shock in the center country. This is a striking result—fitting the unusual evidence of a commodity price boom during a U.S. recession.

However, the real effect of monetary policy predicted by the model is short lived. In other words, the model suggests that the monetary expansion is unlikely to explain the persistence of the oil rise observed in the data.

3. Features of the Model

To fully appreciate these results, it is appropriate to discuss briefly four key features of the model. First, the model assumes that the

nominal price of imports is sticky in local currency—a hypothesis usually dubbed “local currency pricing,” or LCP.

In the early debate on open-economy macro, some studies have considered LCP as a possible reason for a country to pursue a currency peg. If (because of LCP) nominal rigidities in local currency limit the extent to which exchange rate movements can redirect demand across borders, it might be possible that the costs of giving up exchange rate flexibility are quite contained. Indeed, in some circumstances (e.g., if the basket of consumption goods is similar across countries, and shocks only hit productivity), the optimal policy actually implies that the exchange rate remains stable (see the discussion in Duarte and Obstfeld 2008 and Corsetti 2006).

We now understand that the results underlying the conjecture that LCP would motivate a fixed exchange rate are quite special. In general, LCP is not a reason to peg the currency. On the contrary, with an optimal policy in place, exchange rate variability may actually be higher under LCP than under the alternative (classical) hypothesis that goods prices are sticky only in the currency of the producers. These issues are analyzed in detail in the chapter that Luca Dedola, Sylvain Leduc, and I have written for the *Handbook of Monetary Economics* (Corsetti, Dedola, and Leduc 2011).

Correctly, the authors introduce the LCP hypothesis in the analysis as a way to keep the model close to the evidence (although the data also point to an asymmetry in the degree of pass-through across countries), not to motivate the dollar bloc. If anything, the results of the paper clearly stress undesirable consequences of pegging to the dollar.

Second, the model includes a parsimonious specification of the oil sector, which abstracts from “speculation” and oil supply decisions. Of course, there could be key interactions between demand and supply decisions—a subject that the authors will hopefully develop in another paper.

Third, financial markets are posited to be (exogenously) incomplete: agents can borrow and lend across borders trading a bond. As explained in the new *Handbook of Monetary Economics*, financial imperfections map into relative price misalignments and demand imbalances, creating potentially important trade-offs for monetary policymakers.

In Corsetti, Dedola, and Leduc 2010, for instance, with international trade in one bond, persistent asymmetric supply shocks in one region have very large effects on relative wealth and demand across borders (compared with both complete-market and financial-autarky economies). Under a reasonable calibration of the model, the fact that households and firms can borrow in anticipation of higher future income and productivity translates into strong demand imbalances which appreciate the country's real exchange rate. By the same mechanism (a boom in domestic demand), real shocks in the model under consideration appreciate the price of resources in fixed supply (oil). Not only the wealth wedge resulting from real shocks is in stark violation of efficient risk sharing. Real disturbances also result in large misalignment of relative prices, in turn amplifying the inefficient divergence in wealth.

The magnitude of the effects is especially large, by virtue of a fourth assumption, regarding the price *elasticity* of oil demand (in production and investment). This elasticity is assumed to be low in the short run but rising over time (in line with foreign trade). Such an assumption, which fits independent evidence, underlies the sharp equilibrium price adjustment to shocks on impact.

The reason why, in an incomplete-market environment, a low trade elasticity in the short run amplifies the consequences of financial imperfections rests on the implied strength of "income effects" in the transmission of shocks. This theoretical point has been analyzed in general in previous joint work of Dedola and Leduc (Corsetti, Dedola, and Leduc 2008). It has been revisited in the context of a general equilibrium model with oil production by Bodenstein, Erceg, and Guerrieri 2011. The latter contribution nicely illustrates the interpretative potential of models placing relative wealth effects at the core of the international transmission of shocks in the oil sector.

4. Explaining Persistence

As already mentioned, a key result of the model is that monetary expansion alone cannot explain the persistence in the oil price rise observed in the data. This is true despite the fact that the authors make sure to include in the model features producing "persistence" in a number of dimensions, including habit in consumption, adjustment costs in investment, a backward-looking component in the Phillips curve, and the like.

Based on the model, other “stories” seem to match the evidence much better. In particular, the authors stress the role of persistent positive shocks to productivity (raising permanent income) or persistent negative shocks to supply. Note that these shocks would have long-lasting effects on oil prices whether global or specific to the dollar bloc.

A prediction of the model worth stressing is that, in response to these real shocks, the price of oil remains rather flat over time. This follows from the fact that two forces offset each other dynamically. On the one hand, as the oil price elasticity becomes higher, firms and households substitute away from oil. On the other hand, as economic activity becomes stronger, a higher aggregate demand sustains the demand for oil, against the negative implications of a higher price.

Nonetheless, one could note that, while most of the discussion of the model referred to the period 2004–07, the quotations motivating the analysis are actually specific to the period between the end of 2007 and the summer of 2008. The short-lived oil price increase predicted by the model is not too far from the evidence for this period.

At face value, the results from the quantitative exercises are actually quite insightful into the economics of the first few quarters of the global crisis. The Federal Reserve did slash rates after the eruption of the crisis, and the dollar bloc did boom for many months; there is little doubt that expectations of asymmetric growth in Asia (and emerging markets) contributed to the commodity price booms. Of course, the financial sector was in turmoil. Yet, in that period, there was widespread hope that liquidity supports with some occasional bail-out would be the right medicine to help the international financial system metabolize the toxic assets and overcome the financial crisis rather smoothly (a hope that vanished in the fall of 2008).

5. Open Issues for Future Research

It is well known that the New Keynesian theory has limits in accounting for persistent effects of monetary policy. To assess the results of the paper more fully, one may wonder whether there is some fundamental characteristic of the economy that, by construction, is left out of the analysis.

An obvious instance of a distortion that is not yet encompassed in the model (at least to my knowledge) is the possibility of bubbles,

which would of course lead to a systematic rethinking of optimal policy design.

But even independently of bubbles, it is still possible that financial imperfections create large and persistent mispricing and misallocation, in the form of fundamental imbalances at both domestic and international levels. These distortions in turn may exist because monetary policy is sub-optimally conducted, in the sense that it fails to take into account the relevant policy trade-offs—for many reasons.

In an economy with frictionless financial markets, the main task of monetary policy consists of addressing the distortions posited by nominal rigidities. With financial imperfections instead, the interaction of monetary and real distortions posits a powerful challenge to monetary policy—but may also create opportunities for the policy-makers to redress fundamental misallocation and mispricing. I have little doubt that the profession will soon make substantial progress in refining our understanding of monetary and real transmission, and in redefining the objectives and strategies of monetary policy, at the national and global level.

References

- Bodenstein, M., C. Erceg, and L. Guerrieri. 2011. “Oil Shocks and External Adjustment.” Forthcoming in *Journal of International Economics*.
- Corsetti, G. 2006. “Openness and the Case for Flexible Exchange Rates.” *Research in Economics* 60 (1): 1–21.
- Corsetti, G., L. Dedola, and S. Leduc. 2008. “International Risk Sharing and the Transmission of Productivity Shocks.” *Review of Economic Studies* 75 (2): 443–73.
- . 2010. “Demand Imbalances, Exchange Rate Misalignment and Monetary Policy.” Mimeo.
- . 2011. “Optimal Monetary Policy in Open Economies.” In *Handbook of Monetary Economics*, Vol. 3B, ed. B. M. Friedman and M. Woodford, 861–933. Elsevier.
- Duarte, M., and M. Obstfeld. 2008. “Monetary Policy in the Open Economy Revisited: The Case for Exchange Rate Flexibility Restored.” *Journal of International Money and Finance* 27 (6): 949–57.