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Comment   Philippe Bacchetta

General Comments

This chapter fits well the major theme of the conference, which is the impact of openness (or globalization) on monetary policy. An open issue is how the exchange rate and foreign prices should be considered in the conduct of monetary policy. The debate is present both at the policy and at the theoretical level. Should the central bank stabilize the exchange rate above and beyond its impact on inflation and output? At the theoretical level, a crucial element is how exchange rate changes are channeled through domestic prices. Because different transmission channels have potentially different implications for optimal monetary policy, it is important to investigate these various channels. The chapter by Corsetti, Dedola, and Leduc contributes to the literature by examining a new channel.

Since the version of the chapter appearing in the conference book already incorporates several of my comments made during the conference, my discussion will be brief. In particular, I will not discuss the link of the chapter to the literature: the second section of the chapter already gives a very nice overview of this literature.

One can label the model presented in the chapter as a "small shop" model: upstream producers sell their product to a large number of distributors, the downstream firms, who sell the product to consumers. This perspective can be contrasted with the "cup of coffee" model and the "auto parts" model mentioned in the literature review. A characteristic of the small shop model is double marginalization: since both the upstream producers and the distributors have market power, they both charge a markup. Moreover, since there is price stickiness at both levels, it is impossible to reach a first best with monetary policy.

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Optimal Monetary Policy

The chapter examines the implications of global welfare-maximizing monetary policy and compares it with the implications of simple rules. In such a rich model, the results are derived by simulating a calibrated version of the model. While the results are interesting, it is difficult to see the main mechanisms at work. But we know that in the context of open economy neo-Keynesian models, the main objective of optimal policy should be to lower the price level (see Bacchetta and van Wincoop 2000; Devereux and Engel 2003; Corsetti and Pesenti 2005). To better understand the issue, consider first a context where firms set prices one period ahead (instead of Calvo pricing). In this context the price is generally given by:

$$(1) \qquad price = \phi \frac{E\lambda\, Costs}{E\lambda\, Sales},$$

where ϕ is a markup and λ is a stochastic discount factor used to compute the certainty equivalent of marginal costs and revenues. The price can therefore be written as a markup over the certainty equivalent of costs, divided by the certainty equivalent of sales. Thus, optimal monetary policy will lower the markup and the certainty equivalent of costs and increase the certainty equivalent of sales. In Corsetti, Dedola, and Leduc's chapter, the price set by an exporting producer would be given by:

$$(2) \qquad \overline{P}_t = \phi_t \frac{E_t \lambda_t W_t D_t / \overline{Z}_t}{E_t \lambda_t \xi_t D_t}.$$

The optimal policy can increase the certainty equivalent of sales in particular by increasing the correlation between the nominal exchange rate ξ_t and demand. It can also attempt to decrease the correlation between the wage and demand to decrease the certainty equivalent of costs. As for the markup, however, monetary policy does not seem to have much of an impact.

This is where we need to abandon the assumption of one period ahead price setting and use the Calvo pricing assumption. This leads to equation (9) in the chapter. As is well explained in the chapter, this pricing assumption implies a dispersion in the prices of distribution firms and affects the demand elasticities faced by exporters. A higher price dispersion decreases the elasticity faced by exporters and, ceteris paribus, increases the price level. Since price dispersion increases with domestic inflation, this gives an additional incentive for central banks to stabilize inflation. Thus, we can expect that optimal inflation should be more stable than under a Taylor rule.

The previous reasoning shows that a crucial aspect in determining the welfare impact of monetary policy is the *level* of prices and of inflation as well as the correlation among major variables. Unfortunately, the authors do not give indications on these features in their numerical simulation. They only provide us with standard deviations. While this is valuable information,

it would have been even better to provide the other types of information. We would have gained a clearer insight about optimal monetary policy.

Some Further Comments

For the analysis of the chapter to be useful for policy analysis in the open economy, more work is needed. First, how does one implement optimal policy? Should policymakers solve the full model and their optimization problem or is there a more practical way to implement this policy? If we come back to the role of the exchange rate, to what extent should it affect monetary policy? The numerical results show that real exchange rate volatility is lower under optimal monetary policy than under a Taylor rule, but the difference is small. This would still imply that it is optimal to stabilize the exchange rate to some extent. More generally, how should we interpret these results?

Second, what would be the outcome under noncooperative policies? The analysis focuses on optimal cooperative policies. While this is a useful theoretical benchmark, it would be more realistic to look at noncooperative policies. Third, what is the welfare impact of the various policies? The welfare levels are not given in the numerical analysis, but it would be very useful to compare the welfare levels between the optimal policy and the other rules. This would give us a sense of how much is lost by not considering the international dimension of monetary policy. Finally, how do the implications for optimal monetary policy differ across the various models of exchange rate pass-through? It is not clear at this stage whether the alternative model presented by the authors has significantly different implications for monetary policy.

To summarize, Corsetti, Dedola, and Leduc offer a useful contribution to the literature. They develop a new perspective of exchange rate pass-through and examine optimal monetary policy in this context. While many of the results are interesting, more work is required to determine the usefulness of their approach and its policy implications.

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