

INTRODUCTION

Exchange Rates and External Adjustment

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A central tenet of international macroeconomics, famously articulated by Friedman (1953), is that flexible exchange rates allow national monetary authorities to pursue domestic macroeconomic objectives while letting the exchange rate fluctuate. Mundell and Fleming, in their seminal work, further articulated conditions under which exchange rate fluctuations would facilitate the adjustment of the domestic economy to foreign disturbances. Consider, for instance, an adverse shock that makes investing in a small open economy less desirable relative to the rest of the world. In the workhorse model, this would trigger net capital outflows and lead to a depreciation of the currency. In turn, that depreciation would make domestic exporters more competitive, thus improving the trade balance. This conventional wisdom has been challenged on several fronts. On the microeconomic side, the impact of exchange rate movements on trade flows has proven quite elusive. On the macroeconomic side, recent work such as Rey (2013)'s critique of the Mundellian Trilemma has forced a revisit of the relationship between exchange rates and external adjustment in a world characterized by pervasive financial market imperfections.

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The *IMF Economic Review* considered that it was important to take stock on some of these questions. Together with the Swiss National Bank, it organized a conference on “Exchange Rates and External Adjustment” on June 24–25, 2016, in Zurich. The conference sought to address both macro- and microquestions such as the impact of portfolio choice on external rebalancing; the role of financial fragmentation on the adjustment process, the role of fiscal policy in the adjustment process, or why trade flows seem so unresponsive to exchange rates. As luck would have it, the conference took place the very next day following the Brexit vote and many coffee break discussions were devoted to the implications of that decision for the Sterling and for the UK economy more generally!

This special issue includes some of the key papers presented at this conference. As usual, all papers went through a rigorous refereeing process and benefited from extensive feedback from discussants, conference participants, members of the Editorial Board and members of the conference organization committee.

The first paper in this issue, “How Important are Trade Prices for Trade Flows,” by Logan Lewis (Board of Governors of the Federal Reserve System), revisits the question of why do international trade flows respond so little to exchange rate changes, using a new perspective based on product-level data. The paper tests whether the new generation of sticky price models that explain the behavior of imports and exports prices at the product level can also explain the behavior of trade flows. In the empirical analysis, the paper estimates the response of import and export trade values to exchange rates by making use of Census data that records the universe of bilateral trade in goods. The paper then shows that models with menu costs and strategic complementarities in price setting fail in explaining trade flows. In particular, because of the asymmetry in the currency denomination of US international trade, sticky price models that improve the fit of trade flows in one direction (either imports or exports) necessarily make the other direction worse. However, strategic complementarities in price setting imply that firms may choose to not fully pass-through the exchange rate shock into local prices, and therefore the trade response will be suitably reduced, bringing the model closer to the data. The main results of the paper are unchanged when heterogeneity in trade elasticities and the role of imported intermediates are introduced. However, the paper finds an asymmetric response to exchange rate changes: exports are more responsive in the short run to dollar appreciations, and imports initially rise in response to dollar depreciations.

The next paper, “Is Optimal Capital-Control Policy Countercyclical in Open-Economy Models with Collateral Constraints?”, by Stephanie Schmitt-Grohé and Martin Uribe (Columbia University) considers a small open economy with flexible prices and pecuniary externalities due to a collateral constraint. In such a setting, as in similar models such as Bianchi (2011), it is well known that the laissez-faire equilibrium leads to excessive external borrowing. It follows that a benevolent planner can improve outcomes by limiting external borrowing, through the use, for instance, of capital controls. It is sometimes argued that policymakers should also use capital controls countercyclically, i.e., raise taxes in booms to curb external borrowing, and reduce them in downturns. Yet, and

this is the main contribution of this paper, this conclusion is not supported by the class of models such as the one studied by the authors. In fact, in these models, the risk of hitting the borrowing constraint is highest in downturns, which is when the policymaker will work hardest to curb borrowing. It follows that the optimal capital control policy is pro-cyclical, not countercyclical: taxes on debt increase in downturns and are lowered in booms. The authors conjecture that adding nominal rigidities—and therefore a role for aggregate demand—might overturn the result: If downturns are associated with involuntary unemployment, reducing borrowing at those times could make the recession worse, something the policymaker might wish to avoid. Furthermore, if wages are downwardly rigid, the size of the recession might be directly related to the size of the preceding boom, and reducing borrowing during the boom might prove valuable. The paper vividly illustrates that normative prescriptions derived from rigorous models with financial frictions may not always coincide with popular perceptions.

“Exchange Rate Adjustment in Financial Crises,” by Michael Devereux (University of British Columbia) and Changhua Yu (Peking University) explores a similar question. The authors present a model of a small open economy subject to endogenously and occasionally binding constraints. They use the model to compare outcomes under fixed and flexible exchange rates. While in normal times both regimes perform similarly, the authors find that the economy performs far worse in a crisis under an exchange rate peg. An important technical novelty of the paper is to present a global solution method—that allows a proper treatment of occasionally binding constraints—for a small New Keynesian economy with sticky prices. The paper’s main finding—that a flexible exchange rate regime performs much better than a peg—echoes the older Mundellian prescription, but in an environment that allows for strong financial frictions, i.e., the kind of model where the Trilemma is expected to fail. As such, it presents a useful counterpoint to the recent pessimism about the usefulness of exchange rate flexibility for emerging economies.

The following paper, “Are Capital Inflows Expansionary or Contractionary?” by Olivier Blanchard (Peterson Institute for International Economics), Marcos Chamon, Jonathan Ostry, and Atish Ghosh (International Monetary Fund) revisits a central proposition of the Mundell Fleming approach that capital inflows are contractionary and capital outflows are expansionary. The paper has two parts. In the first part, it proposes a simple and very natural extension of the workhorse Mundell Fleming model to include both bonds (whose yield is the policy rate) and non-bonds financial assets. In this extended model, capital inflows into non-bonds may reduce the cost of intermediation for domestic firms, offsetting the negative effect of the domestic appreciation on aggregate demand. The model suggests that the nature of capital flows matters. Flows into bonds will be contractionary. Flows into non-bonds may be expansionary. The model has implications for the effect of sterilized foreign exchange interventions, which again depend on whether the initial flows are into bonds or non-bonds. In the empirical part, the paper finds reasonably supportive evidence for the predictions of the model: Bond net inflows are contractionary (although not very significant),

while non-bond net inflows are expansionary. The paper has important implications for policymakers and goes to the heart of the questions the conference set out to address.

The next paper, “Fixed on Flexible: Rethinking Exchange Rate Regimes after the Great Recession” by Giancarlo Corsetti (Cambridge University), Keith Kuester (University of Bonn) and Gernot Müller (University of Tübingen) explores the benefits of having a flexible exchange rate when the zero lower bound (ZLB) on nominal interest rates becomes a binding constraint for monetary policy. This paper revisits this issue from the perspective of a small open economy. The authors find that while a peg can be beneficial when the recession originates domestically, a float dominates in the face of low global demand and deflationary pressures stemming from abroad. Even in the absence of additional domestic monetary stimulus (with rates at the zero lower bound), the domestic currency depreciates in nominal and real terms, enhancing the country’s competitiveness and insulating to some extent the domestic economy from foreign deflation. Moreover, in general, fiscal policy is an effective substitute for monetary policy at the ZLB amid flexible exchange rates, regardless of the origin of the shock. The authors conclude that the ZLB problem does not generally undermine the classical case for monetary autonomy in small open economies.

The last paper in this issue, “Trade Integration and the Trade Balance in China, by George Alessandria (University of Rochester), Horag Choi (Monash University) and Dan Lu (University of Rochester) studies the dynamics of China’s gross and net trade flows, export participation, real exchange rate and growth over the last two decades through the lens of an estimated Dynamic Stochastic General Equilibrium (DSGE) model. The model includes endogenous trade participation by firms, and trade barriers that make exporting an explicitly forward looking decision. Three results for the trade balance stand out from their analysis: First, much of China’s trade growth was unexpected. Trade integration in the 2000s reflected a series of reductions to Chinese and worldwide trade barriers. Second, the Great Trade Collapse after the Global Financial Crisis reflects a transitory rise in worldwide trade barriers but no persistent increase in the growth rate of those trade barriers. Since the Great Recession, average barriers have stabilized at low levels while China has erected large barriers on inward trade flows. Third, most of the slowdown in trade since the Great Trade Recovery reflects the waning influence of past trade agreements rather than an outright reversal. Finally, the model primarily attributes the movements in the real exchange rate to differences in trade costs and productivity. Indeed, the appreciation since 2004 is primarily a result of the higher trade barriers on Chinese imports more than offsetting the expected depreciation from Chinese productivity growth and a decline in the discount factor.