Export Dynamics in Large Devaluations

George Alessandria

Federal Reserve Bank of Philadelphia

and

Sangeeta Pratap

City University of New York

and

Vivian Yue

Federal Reserve Board of Governors Hong Kong Institute for Monetary Research

April 2013

Summary

It is well-known that following an exchange rate depreciation exports tend to expand gradually. This gradual export growth is often attributed to non-exporters being slow to start exporting and existing exporters being slow to expand the products, markets, or customers to which they sell. It is also sometimes suggested that this weak export response arises because devaluations occur in periods of financial distress that make financing export expansion difficult. This gradual export expansion is thought to affect the dynamics of net exports and potentially output. Here, we reconsider empirically and theoretically the source of sluggish export growth.

We document the salient micro and macroeconomic features of export dynamics in large devaluations. We begin by characterizing the salient features of exports around large devaluations in 11 emerging markets. We focus on these periods of economic turmoil as these are large, easily identified events. First, we confirm that there is a gradual expansion of exports following devaluation. Second, we find a role for interest rates in dampening export growth. Specifically, we find that in countries with higher interest rates, the response of exports to the real exchange rate depreciation is even more sluggish. Using disaggregated data, we find that the extensive margin of trade (measured as number of products, destinations, and exporters) is important in this sluggishness, and that the level of aggregation is important in measuring the role of extensive margin in export growth.

We then develop a small open economy model in which exports are determined in part by the entry decisions of non-exporters and exit decisions of exporters. We show the model can capture the observed sluggish growth of exports following a devaluation and that these export dynamics lead net exports to shift more gradually from deficit to surplus. We find that these sluggish export dynamics lead to a sharper contraction in output but shallower depreciations associated with these devaluation episodes. Additionally the surge in intangible investment in exporting capacity makes measured labor productivity fall substantially. Compared to a model without this sunk export cost, this dampens export growth and leads to more gradual, hump shaped net export dynamics.