Exporters and Shocks

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January 2012

Aggregate exports are not very responsive to movements in real exchange rates, though they respond strongly to trade liberalizations. One explanation for this puzzle is that there are costs of adjustment in exporting at the plant level, such as sunk costs of entry. If the business cycle shocks that drive exchange rates are less persistent than trade liberalization shocks, the extensive margin of exports may react more to trade liberalizations than to real exchange rate movements (see Ruhl (2008)). In addition, if there are costs of adjustment for continuing exporters, the exports of continuing exporters may respond more to trade liberalizations than to real exchange rate movements (see, e.g. Drozd and Nosal (2011)).

We use 10 years of merged plant census and customs micro data for Ireland to test key aspects of these proposed explanations. We document the response of export participation and export sales at the firm-market level to both macro shocks and trade liberalization shocks. Our empirical strategy builds on the extensive literature on estimating export participation equations in the presence of sunk costs of entry, and also on a more recent literature that finds evidence of post-entry export dynamics. Crucially, we make use of the structure of our data set to focus in so far as is possible on producer responses to the relative-demand-shifting component of shocks. Our identification strategy relies on the fact that we observe exports at the level of the plant and the destination market. By comparing responses across markets within the same plant, we can clean out the first-order effect of cost changes (which may be correlated with both macro shocks and trade liberalization) on export status.

Our results suggest that participation responds to the relative-demand-switching component of real exchange rate movements in the direction one would expect: depreciations of the home currency against that of the destination market tend to induce entry and reduce exit, and vice versa for appreciations. However the size of these effects is small. Meanwhile our estimated elasticities of entry and exit with respect to tariff liberalizations are considerably greater in magnitude than those with respect to real exchange rate movements, though for some classes of firms, the estimated effects go in the opposite direction to what one might expect, with increases in tariffs being associated with increased entry and reductions in tariffs with increased exit.

On the intensive margin, we find point estimates of the firm-level elasticity of export sales with respect to movements in real exchange rates that are always below one, and not significantly different from one, consistent with low elasticities of aggregate exports with respect to movements in real exchange rates. Our point estimates of the elasticity of export sales with respect to tariff liberalizations are higher, between four and five, close to long run estimates of the elasticity of

aggregate exports with respect to tariff liberalizations. However these estimates are not significantly different from zero in all samples. These results are consistent with the hypothesis that there are market-specific costs of adjustment on the intensive margin.

Moreover, we provide independent evidence consistent with market-specific costs of adjustment for continuing exporters. We find that the probability of exit is negatively related to a firm's attachment to a particular market, as measured by lagged sales in that market or number of years in the market. We also find that the growth rate of market-specific sales is negatively related to tenure in the market.