

ESSAYS ON THE MACROECONOMICS OF TRADE FLOWS

Chapter 1: Exports versus Multinational Production under Nominal Uncertainty *(job market paper)*

I consider the effects of nominal uncertainty on the decision firms face between exporting and multinational production. I develop a stochastic general equilibrium model of trade and multinational production and examine its implications under monetary uncertainty. If both exports and multinational production are priced in the local (destination) currency, the model implies that nominal uncertainty does not affect the relative decision. Because the vast majority of U.S. exports are priced in dollars, however, I consider an alternative model in which exports are producer-cost priced while multinational production is local-currency priced. In this model environment, an increase in foreign nominal volatility reduces multinational sales relative to exports. Intuitively, a foreign nominal contraction benefits an exporter through both the increased home-currency value of profits and the automatically lower prices faced by foreign consumers. Because multinational firms set their prices in the foreign currency, they do not benefit from the latter. I take the model's prediction to U.S. data, using inflation volatility as a proxy for nominal volatility. Using sectoral data on sales by majority-owned foreign affiliates matched with U.S. exports, I find that an increase in inflation volatility leads to a significantly lower ratio of multinational production to total foreign sales.

Chapter 2: Trade Flows, Menu Costs, and Exchange Rate Volatility

This paper examines the short-run effects of exchange rates on disaggregated U.S. imports and exports and the role that pricing behavior plays. I find that U.S. imports are nearly unresponsive to exchange rate changes, even at a disaggregated level. Exports are more responsive, but relative to a standard model of firm pricing, still muted. Moreover, the comparative statics implied by the model with regard to a sector's elasticity of substitution and price duration find little to no support in the data. Specifically, goods with very high elasticities as measured by long-run data do not respond to exchange rates substantially differently than those with very low elasticities. In addition, sectors with nearly flexible prices do not look much different from those with very sticky prices. This suggests that while complementarity in price setting and sticky prices help to mute the trade response, some other friction is needed to match the data. The small trade response found for sectors with very large measured elasticities implies that simply assuming low elasticities of substitution may be inappropriate.

Chapter 3: A Sectoral Explanation of the 2008-2009 Trade Collapse (with Andrei Levchenko and Linda Tesar)

The trade collapse of 2008-2009 was dramatic by historical standards. From its peak, imports as a share of GDP fell almost 30%. Most previous recessions, with the exception of 2001, do not display a systematic drop relative to output. We show how single-sector international business cycle models fail to match trade flows as well as relative price movements. A multi-sector model of the economy, explicitly incorporating durable goods and vertical specialization, can better explain the empirical facts. Durable goods demand is inherently volatile, and we show how durable goods have significantly more vertical specialization. These factors amplify each other and can explain trade volatility significantly better than either individually.