Three Essays in Macroeconomics

Productivity Gains from Input and Output Trade

This paper studies within-firm and between-firm productivity gains from input and output trade with heterogeneous firms, variable markups, and endogenous R&D. In particular, I show that input and output trade liberalization reinforce between-firm productivity gains, while within-firm productivity gains may instead interact negatively. I characterize these interactions theoretically and show how various aspects of trade liberalizations such as trade and entry costs, scope of new products or inputs, and country asymmetries impact both the productivity gains from input and output trade and the propensity for the channels of productivity gains to interact with each other, whether positively or negatively. These results offer some guidance toward answering the question of when input trade or output trade (or both) is the dominant driver of productivity gains from simultaneous input and output trade liberalization episodes and suggest that between-firm reallocation gains are a dominant source of gains to trade.

Input Trade, Labor Force Participation, and Unemployment

I study how input tariff liberalization affects labor force participation and unemployment. The rapid growth of input trade (now comprising 2/3 of world trade) and policy relevance following the 2008-09 trade collapse have made it increasingly important to understand how input trade affects domestic firms and labor markets, but compared to output trade liberalization, relatively little work has been done on the impact of input trade on labor markets. In this paper, I embed input varieties and search into a model of trade and heterogeneous firms. I analyze the short run and long run impacts of input trade liberalization on worker participation and unemployment in the domestic economy and compare the results to what we know about the effects of output trade liberalization.

Income Taxes, Worker Reallocation, and Employment

Empirical research (for example, Davis and Haltiwanger 2014) has shown labor market fluidity to be an important factor affecting aggregates such as unemployment and productivity. Labor market fluidity may also impact the costs and benefits of policies with distributional consequences such as trade (e.g. Helpman Itskhoki 2010; Cacciatore 2014). In this paper, I study how tax reforms may affect worker reallocation rates and aggregate unemployment in an environment with heterogeneous industries. This has implications for the extent to which tax reforms may be able to alleviate some of the distributional costs of trade (ideally without significantly attenuating gains to trade). To this end, I make significant modifications to the island economy of Alvarez and Shimer 2011, including the addition of an intensive labor supply margin, income taxes on earned income, and heterogeneity among industries. I seek to understand whether lower taxes increase the incentive to switch industries, thereby increasing worker flows as well as an optimal tax rate for this economy, and how tax reform affects overall unemployment and labor force participation rates.