# Pro-competitive effects of globalisation on prices, productivity and markups in the Euro Area

Topic: (3.3) International Trade (1)
Author: Raphael Seung-Ho Lee
Co-Authors: Mathilde PAK

Global trade has recently slowed down after a peak in the 1990s and early 2000s. Existing literature shows evidence of pro-competitive effects of trade liberalisation during this booming period on prices, productivity and markups. The goal of this paper is to assess whether such pro-competitive effects are still carried on in the manufacturing industry of five Euro Area countries (Austria, Germany, Spain, France and Italy).

Our analysis is based on Melitz and Ottaviano (2008) theoretical framework and its empirical setup by Chen et al (2004, 2009). Trade liberalisation is here assessed through import penetration in domestic markets and a larger market size, i.e. an increase in the number of firms. This would induce tougher competition. On the one hand, higher competition reduces markups by getting closer to the perfect competition. On the other hand, by a crowding-out effect, less productive firms exit the market and thus, average productivity goes up. Both effects result in a decline in the price level. The identification strategy is based on simultaneous equations in which productivity and markup are affected by imports penetration in final demand and the number of firms, and affect in turn prices. All three equations are estimated by an error correction model at industry level. Through this methodology, we can distinguish short- and long-term effects of trade openness and account for the productivity and mark-up channels affecting the price level.

The data used come from various datasets: BACH, Eurostat, OECD-STAN and WIOD. More specifically, BACH and Eurostat-SBS are used to get firms data like markups and the number of domestic firms. In a first step, we use OECD-STAN data to measure imports penetration in final demand. We can then directly compare our results with the existing literature on the same subject. In a second step, we use the update of World Input-Output Database (WIOD) through 2014 to build another value added imports penetration, based on Stehrer (2012) method.

The novelty of our paper is twofold. First, we carry out a sectoral analysis to shed light on sectors in which price competition is dominant over quality competition. Second, unlike the existing papers we consider global value chains (GVC), by measuring value added imports penetration in final demand. Since gross imports are recorded each time they cross borders, they include re-exported imports and can hence overstate their importance to competitiveness. In addition, the increasing importance of global value chains (GVC) has made the analysis of international trade more complex and traditional measures of trade are unable to take into account the full interdependence of markets and economies.

The comparison of the estimates from the estimation using the traditional measures and that using the value-added measures is striking. Our paper advocates the usage of value-added trade data in order to account for the global value chain.