Heterogeneous Firms, Workers, and Tasks: Does Trade Liberalization Induce Polarization of the Labor Market?

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November 13, 2016

Abstract

The relationship between international trade and wage inequality is one of the most debated issues in economics. It is well documented that developing economies have increased their participation in international trade over the last decades. These unskilled-labor-abundant countries mostly export unskilled-labor-intensive goods to developed countries. Hence, it follows from the standard Heckscher-Ohlin trade model that the skill premium should increase in developed countries and decrease in developing ones. However, in contrast to the model predictions, there is a number of developing countries experienced an increase in the skill premium over the past decades (see e.g. Goldberg and Pavcnik 2007, Parro 2013). A vast recent literature addresses this issue (see, among others, Burstein and Vogel 2016, Epifani and Gancia 2008).

Moreover, recent labor studies report quite notable trends of both job polarization (sorted by education, wage level, or task content) and wage polarization in many developed countries over the latest decades (see Acemoglu and Autor 2011, Autor et al. 2006, Autor and Dorn 2013, for the US; Keller and Utar 2016, for Denmark; Goos and Manning 2007, for Britain; Goos et al. 2009,2014, for the sample of European countries). While it is believed that pervasive computerization — replacing (mostly) the middle-skilled (routine) tasks — may contribute significantly to these patterns (see, among others, Autor et al. 2006, Autor and Dorn 2013), there is a shortage in additional theoretical explanations which can potentially reconcile with growing empirical evidence for the notable role of international trade (see e.g. Keller and Utar 2016). To partially fill this gap, I exploit the seminal Helpman-Itskhoki-Redding (2010) framework to examine the implications of trade on wage inequality between high-skilled,

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middle-skilled and low-skilled labor. In particular, I extend this framework to the case of multiple occupations and (three) observable skill groups. This modification is simple, yet, capable enough to explain the existing polarization patterns.[1]

I show that if the elasticity of substitution between high- and middle-skilled occupations is higher than between high- and low-skilled ones, then trade liberalization may lead to polarization of the labor market: middle-skilled workers' wages in manufacturing sector tend to decline relative to wages of both high-skilled and low-skilled workers, while supplemented by decrease in a share of middle-skilled occupations. In particular, the higher productivity of a firm, the higher its payments to and hiring rates of high-skilled workers relative to both middle-skilled and low-skilled workers. In addition, more productive firms also tend to pay higher wages to low-skilled occupations relative to middle-skilled ones and hire relatively more low-skilled workers. Thus, trade openness, while reallocating resources towards more productive firms as in Melitz (2003), may consequently cause polarization of the labor market that reconcile with some recent empirical findings for developed countries (see e.g. Keller and Utar 2016).

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[1]See also Monte (2011).

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