

Essays on Trade Liberalization with Firm Heterogeneity

Aleksandr Vashchilko, Vanderbilt University (aleksandr.vashchilko@vanderbilt.edu)

Dissertation Abstract

The first chapter of the dissertation (job market paper), considers the effect of changes in trade barriers on factor prices, employment, and productivity in a two-country, specific-factors model of international trade where the industry structure is one of heterogeneous firms and monopolistic competition. The introduction of the heterogeneity of firms is in accord with that of Melitz (2003) who introduced the self-selection of active firms into exporters and non-exporters.

Falling trade costs and changes in factor endowments lead to reallocation of resources both within and across industries, to changes in average productivity of firms across sectors, and to changes in factor prices. The analysis focuses on a case in which a relative abundance of the specific factors drives comparative advantage. Particularly, Countries **A** and **B** have equal quantities of labor (the mobile factor). Country **A** has more of sector-specific capital in sector **a**, than does **B**, while **B** has more of sector-specific capital in sector **b**, than does **A**. If a reduction in sector **a**'s variable trade cost occurs, then the average productivity of firms in sector **a** rises in both countries. The average productivity of firms in sector **b** falls in country **A** but rises in country **B**. The impact of this change on factor rewards in country **A** is similar to that predicted in the perfectly competitive version of the specific factor model: the return to capital rises relative to the wage rate in sector **a** and will fall relative to the wage rate in sector **b**, and, in addition, labor moves partially to sector **a**. The impact in country **B**, however, is the reverse, because this country has comparative advantage in sector **b**.

This paper adds to the work by Bernard, Redding and Scott (2007) that analyzed how country, industry, and firm characteristics interact in general equilibrium to determine the effect of transition from autarky to costly trade when both labor and capital are mobile across sectors. Particularly, this research provides insights into the effects of trade liberalization (the reduction in variable trade costs) when countries experience costly trade.

The second chapter considers the effects of trade liberalization in the short-run when the market structure differs across sectors. The case may be that some sectors could be characterized by perfect competition market structure, in which firms, having constant returns to scale and producing homogeneous commodity, charge a price equal to marginal cost. At the same time, other sectors might be better characterized by a monopolistic competition market structure, in which each firm exploits the demand for variety that is distinctive in some ways from other varieties. Using a traditional, specific-factors model with perfect competition in one sector and monopolistic competition with heterogeneous firms, similar to that of Melitz (2003) in another sector, this study examines the effects of trade liberalization for the cases in which sectors have different market structures. The results of this chapter indicate that the reduction in variable trade cost in the sector with perfect competition leads to a decrease (increase) in the average productivity of firms in a country's sector with monopolistic competition if that country is a net exporter (importer) in the sector with perfect competition. This finding demonstrates the robustness of the results presented in the first chapter in relation to the changes in market structure of one of the sectors.

The third chapter relaxes the assumption of constant elasticity of substitution between varieties, as in the Melitz (2003) construct, by adopting the specification of preferences, similar to Behrens and Murata (2005). As indicated in Melitz (2003), CES preferences do not allow for pro-competitive effect from trade liberalization when the number of firms in the market and prices they charge affect a firm's markup. The relaxation of this assumption provides more plausible predictions regarding the effects of trade liberalization.