EU-ENP trade liberalization and transmitted convergence: Does firms' efficiency convergence imply regional convergence?

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ABSTRACT.

The objective of the study is to analyse the impact of trade liberalization and FDI on the efficiency of production at the firm level in EU and ENP countries. The study is directed to show not only one-way impact of liberalization on firms' convergence but rather its certain speciality is the intension to reveal the dual nature of convergence – the impact of firms' convergence on NUTS2 regional convergence.

1 Literature review

Taking into account that EU-ENP trade liberalization and competition intensification have a straight impact and determinate the speed of convergence at the firm level we are justified to wonder whether there is a convergence' transmission from the micro level to the regional/country level? Casting light on the determinants of convergence on firms' productivity and its following relationship with regional convergence could provide important political implications for a better design of ENP. While the concepts of σ-convergence and β-convergence have been used extensively in the literature for EU regions there are still no purposeful studies of convergence on the firms' level for the ENP countries. However different dimensions of convergence using a number of approaches have been studied for transition countries, often with separate attention to CIS countries. See e.g. Yasar and Morrison Paul (2007), Mitra (2008), Popko and Tkachuk (2007), Gorodnichenko et. al. (2008).

As indicated in Kaminski (2001), favorable to private sector business climate and success in FDI attraction (two thirds of which came from EU) led to industrial restructuring of CEECs economies that implied the shift to more advanced stages of production and their involvement in international trade. As a result, the share of manufactured goods in exports to EU considerably increased and CEECs composition of trade converged to that of EU-15 countries. M. Yasar and C. J. Morrison Paul (2007) show that presence of foreign affiliates of multinational firms leads to performance improvements for domestic firms that is, spillovers from foreign firms benefit domestic firms in transition economies.

There is evidence that differences among EU and non-UE countries have been growing so far. Thus by attracting MNCs, EU12 has substantially increased intra-industry trade in high value added products and became an export platform for serving different markets, while CIS countries failed to integrate into the global chains of production: the share of intermediate exports in the total export reached only 6% in CIS (Mitra, 2008) compared with three times as much in EU12. Cross-country differences in FDI per capita are striking as well, ranging from less than $167 in Kyrgyzstan to $7,212 in Estonia – more than 40 times larger (Mitra, 2008). D. Popko and O. Tkachuk's (2007) empirical findings based on gravity framework confirm the significant heterogeneity of trade convergence patterns among various transition countries.

There are a number of approaches to convergence measurement on the firms' level. Convergence amongst firms can be modelled in the same way as convergence amongst countries (Barro, 1991):

$$\Delta q_{it} = \beta q_{it-1} + X_{it} \varepsilon + u_{it} \qquad (1)$$

where q_{it} is the log of productivity (labour or TFP) of the ith firm in year t, X_{it} is a vector of exogenous control variables, ε is a vector of parameters, and u_{it} is an error term.

However, for production units using the distance from the frontier based on TFP is more appropriate (Kumbhakar and Lovell, 2000, Fried et.al., 2007, Earle et.al., 2006). Taking into account possible problems with TFP computing since firms could be reluctant to report levels of sales, capital, and other key variables, we can measure the Mahalanobis distance, which assumes that firms that are similar in a set of observed characteristics are likely to have similar efficiency (Gorodnichenko et. al., 2008).

2 Objective

Does intra-industry trade help economic convergence between EU and its neighbouring countries? Do successful firms go international? Does trade and investment liberalisation drive economic performance of the neighbouring regions between EU and ENP countries? Does firms' performance convergence support the economic and social convergence of neighbouring regions?

To address these questions we consider in the spirit of Helpman and Krugman (1985), Melitz (2003), Bernard et. al. (2006), Tybout (2003) the structure, sales and performance gap of the firm before, during and after liberalisation, accounting for different distinctive features of exporters and non-exporters across transition countries inside and outside EU. We'll pay a particular attention to the effects of asymmetric liberalisation (e.g. Ottaviano and Melitz, 2008) who consider the case of unilateral liberalisation in a two-country world, accounting for the New Union of Three (Belarus, Russian Federation and Kazakhstan entered into force on January 1st, 2010). In the long run the gains of liberalisation will shift in the patterns of entry in the new economic space EU-Union of Three.

Microeconometric analyses of panel data will be used to examine and forecast effects of trade and political liberalisation on firms' performance convergence measured by a lower dispersion of firms in terms of efficiency. This will allow shed some light on firm's convergence both in EU and ENP countries and on the role of FDI in the neighboring countries' firms restructuring with vertical and horizontal intra-industry trade potential. Among the drivers are institutional quality, economic and political freedom, regime-change, regional GDP, FDI, firms' mark-up, labour and capital performance, etc.

Then we expect to reveal a positive influence of firms' convergence closer to the efficiency frontier on the level of regional (NUTS 2) cohesion and convergence elaborated from the analysis (of our own or other teams of the WP). To capture the differences between the EU12 countries and ENP countries, we will separately estimate the models at both level of aggregation (firms and NUTS2) for the EU sample and for the ENP sample.

The results of the analysis will help us to conclude on homogeneity vs. heterogeneity of ENP and EU firms, institutional quality in transition, business climate and other implicit and explicit exogenous factors driving firms' performance and regional convergence.

3 Data

We intend to employ the Business Environment and Enterprise Performance Surveys ("BEEPS") conducted over 2002-2009 covering more than 11000 enterprises in 26 transition countries, Eurostat and UNSD COMTRADE data. BEEPS dataset contains the information on exact firms' locations within countries on the NUTS 2 level.

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