Deep Integration in the Eurasian Economic Union: What are the Benefits of Successful Implementation and Wider Integration?

Abstract

We assess deep integration in the Eurasian Economic Union (EAEU) through the reduction of time in trade costs, the reduction of non-tariff barriers in goods and the liberalization of barriers against foreign suppliers of services. We develop an innovative multi-region model of trade and FDI for preferential trade analysis where we incorporate Dixit-Stiglitz endogenous productivity effects from trade and FDI liberalization. This model produces important differences compared with a perfect competition model. We build on numerous surveys and econometric estimates of the trade and FDI barriers in our focus countries that we helped develop.

We show that if the EAEU effectively implements its objectives for trade cost reduction, it would lead to significant welfare gains of between 0.8 to 4.8 percent of consumption, depending on the country. If these deep integration measures are extended to third countries, either by a wider liberalization effort or by spillovers, then the estimated welfare gains increase between 2.5 and 4.5 times for Belarus, Kazakhstan and the Russian Federation. Using the neoclassical model of labor migration, we estimate that the right to legally work in the Russian Federation is approximately of equal value to Armenia as the combined aspects of the reduction of trade costs, including FDI liberalization. Our estimates show that all the spillovers are beneficial to all the EAEU countries. We identify the different reforms and the different external region that are most important for each member country regarding spillovers, which may inform lobbying positions of the member governments.

1. Introduction

1.1 Innovative Modeling of Deep Integration in Preferential Trade Agreements

There is considerable evidence that non-tariff trade costs are a greater obstacle to trade than tariffs for most countries.[1] Regarding preferential trade agreements (PTAs) specifically, Limão (2016, pp. 307, 312) notes that in gravity models, tariffs alone can only explain a fraction of the trade impact; he calls for further research on the deep integration aspects of PTAs. Further, economic theory and a substantial and growing empirical literature based on firm level data shows that barriers to foreign direct investment of business services result in total factor productivity losses to the manufacturing sector and the economy of the host country more broadly.[2] In part motivated by these concerns, most modern trade agreements include "deep integration" aspects that go well beyond preferential tariff reduction, including efforts to reduce non-tariff barriers, facilitate trade and provide better market access to foreign providers of services. This partly motivates the conclusion of Schiff and Winters (2003) that the real gains from regional trade initiatives come from deep integration.

We assess the importance of deep integration in this paper by focusing on an important PTA, the Eurasian Economic Union (EAEU). The Eurasian Economic Union seeks to create a single market among

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[1] The estimates of Hummels *et al.*, (2007) and Minor (2013) show the trade facilitation costs alone (what they call the "time in trade" costs) are greater than tariffs as an obstacle to trade for most countries. The World Economic Forum (2012) found that the cost of trading is a more important obstacle to trade development than trade policies.

[2] See Markusen (1989; 1995; 2002) for the theory. Francois and Hoekman (2010) survey more than a dozen empirical studies that support this finding. In addition, in recent years, several studies that use firm level data support the finding that FDI and the wide availability of business services results in total factor productivity gains to the manufacturing sector and the economy broadly. These include Arnold *et al.* (2011) for the Czech Republic, Fernandes and Paunov (2012) for Chile, Arnold *et al.* (2016) for India, Shepotylo and Vakhitov (2015) for Ukraine and Duggan *et al.* (2013) for Indonesia.

the members by ensuring the "four freedoms:" freedom of goods, services, capital and labor. We discuss the mixed success of the EAEU below.

In this paper, we evaluate the potential impacts of three broader trade costs channels through which PTAs may reduce trade costs or increase productivity: time in trade costs (on both imports and exports); non-tariff barriers on goods; and barriers to foreign services providers both through foreign direct investment (FDI) and cross-border services. For this task we employ an innovative numerical multi-region, multi-sector general equilibrium model. The model captures the key stylized facts regarding FDI elaborated by Markusen (2002) and others (see section 2.2 for more details), including the "proximity burden" in services. Our FDI firms interact under monopolistic competition with endogenous productivity effects in the use of their outputs through the Dixit-Stiglitz mechanism from additional varieties of business services. We show that these innovative features, especially with FDI, leads to considerably larger estimated welfare gains.[3] We also provide an estimate of the free movement of labor, where we employ the well-known neoclassical model of labor migration.

An important part of our analysis is that one of us (Tarr) has led survey and estimation work in our four focus countries on: (i) the barriers to foreign providers of services (and the conversion of these barriers to ad valorem equivalents); and (ii) the foreign ownership shares by foreign region of our model.[4] Similarly, for non-tariff barriers in goods, one of us (Lipin) co-authored survey and econometric work to estimate the ad valorem equivalents in the three original members of the EAEU (Vinokurov *et al.*, 2015a; 2015b).

1.3 Key Results

Our results for our central scenario of EAEU integration shows significant gains ranging from 0.8 percent of consumption for the Russian Federation to 4.8 percent of consumption for Armenia. If the measures to reduce trade costs and liberalize barriers against FDI in services are extended to third countries, either by a wider liberalization effort or by spillovers, then the estimated gains increase to between 3.6 and 7.2 percent of consumption, depending on the country. The importance of spillovers is especially true for FDI liberalization. The significantly larger gains from wider liberalization or spillovers reflects the fact that the five EAEU countries collectively have only 2.2 percent of world GDP in 2017. The estimated gains are significantly smaller with our perfect competition model, which shows the importance of incorporating the endogenous productivity gains from trade and FDI liberalization in services.

Since remittance income is very important to Armenia, we use the neoclassical model of labor migration to estimate the legal right of Armenian citizens to work anywhere in the EAEU, in particular, in the Russian Federation. Our data shows that wages in Russia were more than twice Armenian wages prior to Armenian accession to the EAEU. We find that the right to legally work in the Russian Federation is

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[3] Recently, Arkolakis et al. (2018) produced a heterogeneous firms numerical model of FDI. They did not, however, consider preferential trade analysis. LaTorre and Yonezawa (2018) recently applied a similar model to the TTIP.
[4] See Kolesnikova (2014a; 2014b) for Belarus; Idrisov (2010a; 2010b) for the Russian Federation; Modebadze (2010) and Eroyants (2011) for Armenia; and Jensen and Tarr (2008) and Jafari and Tarr (2015) for Kazakhstan.

very substantial, approximately of equal value for Armenia to the combined aspects of the reduction of trade costs, including FDI liberalization.[5]

Although all of these trade costs reduction reforms are beneficial, we identify which reform and spillovers toward which region, provide the greatest gains to each of our four focus countries. This may facilitate lobbying among the EAEU members in the exchange of "concessions" common to trade negotiations.

8. Conclusions

We assessed the impact of measures to reduce trade costs in the Eurasian Economic Union through the reduction of time in trade costs, the reduction of non-tariff barriers in goods and the liberalization of barriers against foreign suppliers of services. We build on about ten background data papers done in our focus countries that one of us has either co-authored or supervised. We have developed an innovative model of trade and FDI to assess deep integration. The model incorporates the Dixit-Stiglitz mechanism in a multi-region model of preferential trade analysis. We showed that this model produces important differences in the results compared with a perfect competition model.

Our results for our central scenario of EAEU integration (with very limited spillovers or liberalization toward third countries) show significant gains, with Armenia and Belarus experiencing the largest gains at 3.1 and 4.8 percent of consumption, respectively. If the measures to reduce trade costs and liberalize barriers against FDI in services are extended to third countries, either by a wider liberalization effort or by spillovers, then the estimated gains increase between 2.5 and 4.5 times for Belarus, Kazakhstan and the Russian Federation. For Armenia, the right of its workers to legally work in Russia, including social benefits for the workers and their families, is likely the most important source of gains for Armenia.

Regarding spillovers from regions, for Armenia, Belarus and the Russian Federation, the European Union is the region that is most important. For Kazakhstan, however, China is most important for its trade, but the United States is most important with respect to FDI for Kazakhstan.

Regarding spillovers from the type of reform, we estimate that, for Belarus, trade facilitation and the reduction of non-tariff barriers on third countries are the most reforms for its additional welfare gains. For the Russian Federation and Kazakhstan, the reduction of FDI barriers against third country services suppliers is the source of the largest increase in welfare. For Armenia, it is the spillovers from the reduction of non-tariff barriers that contributes the most to its increase in welfare from spillovers.

Trade negotiation typically involves an exchange of "concessions." Our estimates show that all of these trade costs reduction reforms and all of the spillovers are beneficial to all the EAEU countries. Given the different estimated welfare gains from the trade cost reductions within the EAEU and from the spillovers, the results may help define the different lobbying interests among the EAEU countries regarding wider liberalization or willingness to encourage spillovers of the internal reforms.

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[5] This result is consistent with the estimates and views of Rodrik (2011) on the importance to poor countries of the right of its workers to migrate.