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Poland and TTIP Trade Effects: Modest Gains

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The TTIP is a broad economic agreement. As far as international trade is concerned, apart from tariff elimination, the focus of the agreement is on the reduction of non-tariff barriers (NTBs), both in merchandise trade and in services. This includes regulatory cooperation in the form of a review of existing rules and increased mutual regulation and standards recognition, while cooperating on the joint elaboration of newly introduced technical and safety regulations. Separate chapters of the negotiated agreements will be devoted to technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS). Some sectors require sector-specific chapters and these include, *inter alia,* chemicals, pharmaceuticals and motor vehicles where national regulations are usually most common.

We aim to provide a comprehensive evaluation of the possible trade-related effects of TTIP on the economy of Poland. We use the GTAP[1] computable general equilibrium model, a widely used CGE modelling framework. In order to capture the country specificity in our simulation scenarios, we use estimates of NTBs that allow us to differentiate the impact of NTBs on the trade of Poland, the other new Member States (NMS) aggregately, Germany, Poland's largest trading partner, and the rest of the EU15. In this way, we can extensively analyse not only the bilateral impact of TTIP on Poland and the United States, but also on the bulk of Poland's bilateral trade relations.

Tariffs overall are low. In most sectors, the import-weighted average effectively applied tariff is lower than 5 percent, except for few selected sectors including agriculture, food and textiles/apparel. What matters are the non-tariff barriers. We estimate these barriers based on importer fixed effects in the gravity equation for both merchandise and services data. The details of the estimations are provided in Hagemejer and Sledziewska (2015). The overall NTB tariff equivalent in merchandise trade amounts to 26 percent, while in the EU15 it averages 21 percent. In services, the tariff equivalents tend to be higher (in construction and trade services they can go as high as 50 percent, while

1 For a complete description of the model, consult Hertel and Tsigas (1997).

in business services they are closer to 10 percent).

We consider three simulation scenarios: Partial, Actionable and Complete. They correspond to the removal of, respectively, 25, 50 and 100 percent of non-tariff barriers on top of the complete removal of tariffs. We treat the complete removal of NTBs as an upper bound for the possible long-run effects of TTIP. We treat the 50 percent actionability as the central scenario (Actionable) in our simulation (this is roughly compatible with the Ecorys (2009) survey assessment of NTBs actionability). We do not impose any shocks on the Coal-Petrol sector of the manufacturing industry, as we believe that analysis within this sector goes beyond the scope of our modelling. We also provide a long-run scenario in which we allow for investment-triggered capital accumulation as described by Baldwin (1992) and applied by Francois and McDonald (1996), where capital stock increases at a rate equal to investment, mimicking the steady-state in a dynamic growth model. All scenarios feature a complete elimination of tariffs in EU-US bilateral trade, as well as a reduction of NTBs modelled as a reduction of iceberg trade-related transaction costs.

The overall impact on macroeconomic aggregates is moderate, but varies slightly across the economies analysed. In the actionable scenario, the gains range from a 0.2-percent increase in the GDP of Poland and the NMS, through 0.4 percent and 0.3 percent for Germany and the rest of the EU15, respectively, to 0.5 percent for the United States. Policy shock has a minor effect on third countries. The distribution of the gains is somewhat in line with overall involvement in bilateral trade (the share of trade with the United States in total Polish trade amounts to half or less of the corresponding share of trade with the United States in total German trade). The United State gains slightly more than the EU15, while the NMS and Poland gain the least. The extra capital accumulation in the long-run scenario brings additional welfare gains to all economies involved and they amount to roughly 0.1 percent of extra GDP for Poland and the NMS; and proportionately more for Germany, the EU15 and the United States.

While TTIP certainly boosts Poland's trade with the United States, the impact on overall trade is rather low and TTIP is not necessarily trade-enhancing. Since Poland's major trading partners are now more involved in trade with the United States, due to limited resources, demand for Polish exports in the EU15 falls. Therefore, a large increase in exports to the United States is almost completely outweighed by a reduction of exports in Polish intra-EU trade. Poland's terms of

Table 1

Changes (%) in GDP

Scenario	Poland	NMS	Germany	rEU15	US	rEurope	Turkey	rAmerica	Asia	RoW
Partial	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Actionable	0.2	0.2	0.4	0.3	0.5	0.0	0.0	– 0.1	0.0	0.0
Complete	0.4	0.4	0.8	0.7	1.1	– 0.1	0.0	– 0.1	– 0.1	– 0.1
Actionable – LR	0.3	0.3	0.9	0.7	0.9	– 0.1	– 0.3	– 0.4	– 0.3	– 7.8

Source: Own simulation. LR - Long Run.

Table 2

Overall Import and Export Changes in Poland

Exports	NMS	Germany	rEU15	US	rEurope	Turkey	rAmerica	Asia	RoW	Overall
% change	– 0.1	– 2.0	– 1.7	66.2	0.0	– 0.6	– 0.6	– 2.1	– 0.9	0.4
pp contribution	– 0.02	– 0.5	– 0.6	1.7	0.0	0.0	0.0	– 0.1	0.0	0.4
Imports	NMS	Germany	rEU15	US	rEurope	Turkey	rAmerica	Asia	RoW	Overall
% change	– 1.4	– 4.4	– 3.3	61.3	0.5	2.2	3.1	3.1	0.3	– 0.2
pp contribution	– 0.1	– 1.2	– 1.1	1.7	0.0	0.0	0.0	0.4	0.0	– 0.2

Source: Own simulation.

trade slightly deteriorate, making imports from the rest of the EU more expensive. That leads to an overall decrease in imports, which is a sort of trade diversion effect.

The overall effects on output are diversified across production sectors. While there are virtually no effects on output on services, some production sectors clearly reduce output. These include (in the Actionable scenario) motor vehicles (– 1.3 percent), other transport equipment (– 4.2 percent) and metals – 2.9 percent). Some expansion is expected in 'traditional' Polish production sectors (labour intensive), which include textiles (1.7 percent), apparel (1.4 percent) and wood (1.3 percent). This also resembles the structure of an initially revealed comparative advantage for Poland concentrated within basic, labour-intensive sectors. Given the slightly unfavourable effect on terms of trade, the overall welfare effects (measured as the equivalent variation in percent of GDP) are almost zero. The overall welfare gains from TTIP for Poland are simulated at 0.1 percent similar to those of the NMS, versus 0.5 percent in Germany and 0.4 percent in the rest of the EU15. The highest overall gains are expected in the United States at 0.7 percent of GDP. The gains in the most ambitious scenario are roughly double those in the Actionable scenario.

While the overall effects are small for Poland to the extent of being almost negligible, one has to bear in mind that some sectoral reallocations are likely to occur; and this may have non-zero effects depending on wage rigidity and labour market flexibility. Moreover, simulations such as the one presented here are subject to certain risks both on the part of modelling and in the simulation scenarios. One that comes to mind is the level of initial NTBs and the scope of their liberalization; however, as these barriers include all possible determinants of bilateral trade that are not captured by gravity variables, they might be overestimated; and, therefore, reduce the overall impact. This is probably not the case for agriculture where trade is generally protected in many countries and the underlying econometric model may not be able to assess the benchmark 'free trade' levels. Deeper liberalization in agriculture may lead, however, to an amplification of the differences between Poland and other economies due to the relative structure of the Polish factor endowment.

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Table 3

Welfare Changes (in % of GDP, equivalent variation)

Scenario	Poland	NMS	Germany	EU15	US	rEurope	Turkey	rAmerica	Asia	RoW
Partial	0.0	0.1	0.2	0.2	0.4	– 0.1	– 0.1	– 0.2	– 0.1	– 0.1
Actionable	0.1	0.1	0.5	0.4	0.7	– 0.3	– 0.1	– 0.4	– 0.2	– 0.2
Complete	0.2	0.4	1.2	0.9	1.7	– 0.6	– 0.2	– 0.8	– 0.5	– 0.5
Actionable – LR	0.1	0.2	0.8	0.6	0.9	– 0.2	– 0.3	– 0.5	– 0.4	– 6.0

Source: Own simulation. LR - Long Run.