Estonia's EMU Accession: Assessing the Impact on Trade

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Following a seminal contribution of Rose (2000) there is a vivid debate about the trade effects of the Euro. The author finds evidence that a monetary union boosts trade threefold in abolishing national currencies as a "significant barrier to trade". Even if the Rose study relies on the trade effect of currency unions with first and foremost small and less-developed countries, a variety of studies uses similar gravity estimation methods to analyse trade effects of the foundation of the Eurozone. Micco et al. (2003) wrote a first study to identify the effects of the Euro on trade using data from 1992 to 2002 covering three years after the foundation of the Eurozone. Several other papers followed, estimating an increase in trade due to the creation of the Eurozone of 5 to 15 per cent. [1]

Flam and Nordstrom (2006) estimate a Euro trade effect of 15 per cent and about half that value for countries outside the Eurozone. These countries do also benefit from a reduction in the numbers of currency conversions in Europe. Controlling for EU-nations reduces the EMU effect to 9 per cent. Nevertheless, transaction costs might still have existed in the intermediate phase between the introduction of the Euro in 1999 and the introduction of the paper Euro in 2001. Using two Euro dummies, Flam and Nordstrom (2006) account for this problem and estimate the effects of the electronic (1999-2001) and the paper introduction of the Euro (2001-2005) separately. In this study, the Euro boosted trade in the first period by 10 per cent and in the second period by 19 per cent.

Baldwin and Taglioni (2007), however, argue that the Euro effect captures some of the effects of the single market. Correcting for the ongoing progress in making the European Union a single market, Baldwin et al. (2008) estimate an increase in trade due to the Euro of 2 per cent only.

[1] Baldwin et al. (2008) provides an excellent overview of studies on the effects of EMU on trade.

In this paper we build a multisectoral general-equilibrium model and restrict our analyses on a pure transaction cost saving. We account for the specific trade structure of Estonia by using recent I-O tables from Eurostat. After the integration of Estonia into the international trading system , the openness of Estonia sharply increased till it peaked in the beginning of the 2000s at over 80 per cent of GDP. After the 2000s it declined to about 70 per cent. During this decade, the geographical structure of trade changed from distant EU-15 countries to neighbouring countries like Sweden. In the same time, Estonia experienced strong FDI inflows due to it's privatization activity.

As Price and Worgotter (2011) point out, the initial boost in export market shares ahead of EU-accession in 2004 was followed by a much smaller increase in the years thereafter. Other EU-8-countries like Poland, the Czech Republic or Slovakia experienced a long-lasting increase in export shares with EU-countries. Nevertheless, the division of trade in Estonia is not much different from the trade structure of other OECD countries; the 51 per cent share of intermediate goods is slightly lower than the OECD average, while capital (20 per cent) and consumer goods (21 per cent) nearly meet the OECD average. The division of production, however, follows a general trend. Post-socialist countries within the region are producing basically labour-intensive products, while developed countries are producing capital-intensive products. This division of production may not be sustainable. Labour mobility within Europe may result in higher wages in post-socialist countries, harming industries with a labour-intensive production structure. According to Tiits et al. (2006), labour-intensive products have a low value added and are used foremost as intermediates.

Estonia, like most small open economies, imports a huge variety of different products ranging from natural resources to high-end products. The strong share of intermediates among imports and exports and the huge variety of different import goods makes it unlikely that the accession of Estonia to the Eurozone results in a strong diversion of trade. With regard to the export mix of the Estonian economy, the transaction costs savings on the one hand may result in a gain in competitiveness while a rise in wages due to rising economic efficiency, on the other hand, may harm the export sectors of Estonia where wages are a dominant cost factor for these industries.

Using a multisectoral general-equilibrium model of Estonia, this paper quantifies the impact of the introduction of the common currency on trade. We restrict the analysis to transaction costs savings directly associated with the introduction of the Euro. The transaction-cost savings of EMU accession are expected to be moderate. Estonia, indeed, is a small open economy tend-

ing to gain more from a currency union than the average of EMU countries did in 1999, but a long history of pegged exchange rates and a low number of currency involved in foreign trade reduce the benefits of the Euro. In our simulation exercise, we quantify trade effects of EMU accession based on transaction costs savings. We use estimates by the Estonian National Bank calculating savings worth 0.2 per cent of GDP. In general, the methodology goes back to a study made for the European Commission. Cost savings of the Euro were associated with the suppression of first and foremost, costs related to converting currencies and, second, in-house costs firms have to bear by working in a multi-currency environment (Commission, 1990). However, according to this study, a country could save transaction costs up to one per cent of national GDP by introducing the Euro and follow-up study calculates even larger transaction-cost savings worth up to 1.5 per cent of GDP. The expenses for working in a multi-currency environment, in-house costs, are potentially underestimated by the Estonian National Bank . A firm survey undertaken by Ernst & Young indicates a significantly higher value of in-house costs. Following both studies, we assume a low value of in-house in our first (0.2 per cent) and a higher value in our second scenario (0.4 per cent). In both scenarios, trade effects of the accession of Estonia to the Eurozone are within the lower range of values estimated by empirical studies conducted after EMU accession. A small decrease in transaction costs results in an increase in imports by nearly 2 per cent for Intra-EMU imports and roughly 1.5 per cent from Extra-EMU imports. The increase in exports falls short of the increase in imports. The exports to Intra-EMU countries increases by 1.5 per cent and exports to Extra-EMU countries increase by 1 per cent. Considering the unfortunate labour market conditions in Estonia with a unemployment rate of more than 15 per cent, we derive strong welfare gains through the reduction of transaction costs. Estonians are able to increase both, wages and employment after EMU accession leaving households better off in terms of utility. Furthermore, our Results indicate that Estonia is not about to experience a strong trade diversion effect towards Eurozone countries; the percentage increase in trade with Non-EMU countries amounts nearly two thirds of the increase in trade with EMU countries.

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