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Review of Economic Dynamics 9 (2006) 179–209
Review of Economic Dynamics
www.elsevier.com/locate/red

Trade deficits in the Baltic states: How long will the party last?

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Received 7 March 2004; revised 13 May 2005

Available online 15 August 2005

Abstract

Since their opening up to international capital markets, the economies of Estonia, Latvia and Lithuania have experienced large and persistent capital inflows and trade deficits. This paper investigates whether a calibrated two-sector neoclassical growth model can explain the magnitudes and the timing of the trade flows in the Baltic states. The model is calibrated for each of the three countries, which we simulate as small closed economies that suddenly open up to international trade and capital flows. The results show that the model can account for the observed magnitudes of the trade deficits in the 1995–2004 period. Introducing a real interest rate risk premium in the model increases its explanatory power. The model indicates that trade balances will turn positive in the Baltic states around 2010.

JEL classification: F41; C68

Keywords: Baltic states; International factor movements; Non-traded goods; Adjustment costs; Dynamic general equilibrium

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1094-2025/$ – see front matter
doi:10.1016/j.red.2005.05.006

1. Introduction

As the transition in Estonia, Latvia and Lithuania enters its second decade with trade deficits and capital inflows that show no signs of reversal, the general public and the Baltic politicians in particular are increasingly concerned about the consequences of the large deficits. Most economists approach the issue using the neoclassical framework and make the point that external deficits in poor countries are not a problem, but rather a sign of healthy development, as long as the foreign capital is wisely invested in the local economy. However, an elementary ingredient in the neoclassical message is that the developing country will, sooner or later, have to start repaying its foreign creditors.

Is there really no reason to worry about the size of the trade deficits in the Baltic states, as long as ten years after liberalization? The aim of this paper is to give a quantitative answer to that question. Calibrating and simulating a two-sector neoclassical growth model for each of the Baltic states, we investigate whether the trade deficits implied by the theory are in line with the magnitudes observed in the data. In simulations of the Baltic states as initially closed economies that suddenly open up to trade, we pinpoint the predicted timing of capital flow reversals in the model.

The type of model we employ is sometimes referred to as "the dependent economy model" (Turnovsky, 1997). It is a standard two-sector model of a small open economy with a traded good, a non-traded good, labor, capital and an investment good that augments the capital stock. Traded and non-traded goods are either consumed or used as inputs into the investment sector, in which case we can consider them as equipment and structures. Previous literature includes many applications of the model: Fernandez de Cordoba and Kehoe (2000) apply the model to study the Spanish economy after its entry into the European Community in 1986. Slightly different versions of the same model have been used to study the consequences of exchange-rate based stabilization programs in countries such as Portugal (Rebelo, 1993) and Argentina (Burstein et al., 2003).

In this paper, we use the same basic model as in Fernandez de Cordoba and Kehoe (2000), where the authors point to the importance of incorporating frictions in factor mobility for the two-sector growth model to explain data on capital flows and real exchange rates. Our paper builds on this finding and contributes to the development of the dependent economy model in two ways. Firstly, we specify adjustment costs in a way that enables us to calibrate the factor frictions used in the analysis. Relating the magnitude of frictions in the model to what we observe in the data is a prerequisite for taking the quantitative implications of the model simulations seriously. We calibrate the adjustment parameters to observations other than those that we want to explain. Fernandez de Cordoba and Kehoe (2000) do not do this. Secondly, we do modeling and data work to study the effects of incorporating a calibrated interest rate premium in our simulations for the Baltic states.

The sudden change of the economic system in the Baltic states after their independence in 1991 and an almost immediate economic liberalization make the countries well-suited as test cases for the model. Estonia, Latvia and Lithuania were completely closed off from the West before 1991 and upon opening, they were much poorer than their Western neighbors. The three countries are small and have become very open; the population ranges from 1.4 million in Estonia to 3.7 million in Lithuania, while exports plus imports amount to more than 110 percent of GDP in all three countries.