Central European University

The Euro before the EU?
An Estimate of the Effect of Euroization on Trade and Growth of Albania, Macedonia, and Serbia

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by
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This work is dedicated to my parents

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THE EURO BEFORE THE EU?
AN ESTIMATE OF THE EFFECT OF EUROIZATION ON TRADE AND GROWTH OF ALBANIA, MACEDONIA, AND SERBIA

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ABSTRACT

The successful introduction of the euro has resulted in a lively debate about the merits of early euroization of the new EU member states and the Western Balkans. Several studies on the subject have favored the idea of early euroization of these countries as a way of speeding up economic convergence with the Eurozone (Rostowski 2002, 2003; Schoors 2002; Corricelli 2002). A recent IMF study on the adoption of the euro in Central Eastern Europe asserts that potential gains from adopting the euro for trade and growth are substantial (Schadler 2005). This claim for Central European countries is bolstered by generalized gravity equation studies estimating the effect of common currencies on trade (Frankel 2005). In the existing literature on the pros and cons of early or unilateral euroization in Eastern Europe, notable absentees include the Southeastern European states of Albania, Macedonia, and Serbia. A few contributions have approached the issue in trajectory from the main focus of the discussion of early euroization in the new EU member states.

In this dissertation, I argue in favor of a more sophisticated and statistically more robust form of the gravity model than the traditional ordinary least square model used in other studies. I use a Poisson pseudo-maximum likelihood regression model, which I argue is better suited to estimate the impact of common currencies on bilateral trade. The dataset that I use includes information for 150 countries, dependencies, and territories. I estimate and compare potential effects of euroization on bilateral trade with the Eurozone and national incomes of Albania, Serbia, and Macedonia using coefficients from three different gravity equations: the Poisson maximum likelihood regression model, the ordinary least square model, and the coefficient of a meta study of 30 independent studies on this subject. Following that, I analyze the potential effects of euroization on intra-regional trade and economic integration in Western Balkans.

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CHAPTER 1

INTRODUCTION

The successful introduction of the euro has resulted in a lively debate about the merits of early euroization of the new EU member states and the Western Balkans. Several studies on the subject have favored the idea of early euroization of these countries as a way of speeding up economic convergence with the Eurozone (Rostowski 2002, 2003; Schoors 2002; Corricelli 2002). A recent IMF study on the adoption of the euro in Central Eastern Europe asserts that potential gains from adopting the euro for trade and growth are substantial (Schadler 2005). This claim for Central European countries is bolstered by generalized gravity equation studies estimating the effect of common currencies on trade (Frankel 2005). In addition, it is argued that a loss of monetary policy independence could be a benefit for these countries as fixed exchange rate systems have been associated with either higher output growth or significantly lower inflation while exchange rate variability has been a source of concern for Central European economies. Early or unilateral euroization will therefore tend to enhance the growth prospects of the new EU members (Grauwe and Schnabl 2005). Other economists have argued that the introduction of the euro has reduced the autonomy of national monetary policy in all non-euro states as the economic size of the Eurozone has made it very important for non-euro states to maintain a correspondingly stable exchange rate with the Eurozone (Plumper and Troeger 2004). As a result, opposition to the euro in non-participating countries has

decreased substantially while interest in adopting the euro, including through the introduction of unilateral euroization, has gone up since the euro entered into circulation.

In the existing literature on the pros and cons of early or unilateral euroization in Eastern Europe, notable absentees include the Southeastern European states of Albania, Macedonia, and Serbia. A few contributions have approached the issue in trajectory from the main focus of the discussion of early euroization in the new EU member states. An exception is the Southeast Europe program of the Vienna Institute for International Economy, which has produced some of the better informed studies on the issue of unilateral euroization and economic situations in these states. As an example, Gligorov (2002) has observed that the euro is *de facto* either the primary or the secondary currency in the Balkans, and that market-induced substitution of local currencies with the euro remained high even after periods of macroeconomic stability. At the same time, it is argued that monetary policies of the legally independent central banks in the Balkans have almost everywhere proved to have had adverse effects on economic growth.

A lack of general academic interest about the region, lack of comparable economic data from these countries, or sheer preoccupation with the more serious and immediate issues of ethnic conflicts and state and institution-building may have been the reasons for the absence of Southeast Europe from the euroization debate. In my opinion, the case for early or unilateral euroization of these states is even more compelling than for the Central European countries. On the one hand, their economic and trade relations are strongly determined by gravity factors or their proximity to the European Union and the Eurozone,

as indicated by the fact that trade with Southeast European countries and the Eurozone member states of Italy, Germany, and Greece comprises 40 to 85 percent of the total trade volume. On the other hand, while their political stability and economic development is a major security concern for the European Union their current prospects for EU membership are rather distant. Euroization of Southeast European countries could promote economic growth and economic convergence with the EU, deliver tangible benefits for the populations and, as a result, mitigate the pressure on domestic political elites and the EU to advance rapidly with vertical integration into the Union. This dissertation is a modest contribution towards this discussion and aims to provide an estimate of the potential effects of unilateral euroization on trade and national incomes of Albania, Macedonia, and Serbia. Thus the central research question is that, given the current level of political and economic relations with the EU and the prospect of their future membership, to what extent it is beneficial - for the purpose of economic growth - that Albania, Macedonia, and Serbia pursue a policy of unilateral adoption of the euro as legal tender before formal membership into the Union?

Since the Kosovo crisis of 1999, the European Union policy in Western Balkans has been based on the premise that political stability, democratization, and economic development of the region can be achieved only through future membership into the EU. Deepening regional integration in Western Balkans, and increasing bilateral trade with these countries and the EU have been important elements of this policy. The European Union is Western Balkans' main trade partner accounting for close to 60 percent of their total trade (ranging from about 44 percent for Macedonia to over 90 percent for Albania).

Introduction of the euro has also changed the context of monetary and exchange rate policies for these countries. Due to the extensive nature of their economic and political relations with the EU, the euro has become the international currency of choice in Albania, Macedonia, and Serbia. Unilateral euroization of Western Balkans could bring about substantial economic gains for the countries involved, and advance their European integration project.

Sovereign governments determine their exchange rate regimes by consideration of two interrelated sets of constraints; objectives of their economic and monetary policies, and the character of the international monetary system (Broz and Frieden 2001). Fixed exchange rate regimes have been the norm for most of the last century, especially for small and poor countries (WEO 1997). Even in the post Bretton-Woods period, small and poor countries have often opted to peg their national currencies to a strong currency such as the US dollar and more recently the euro. The main benefits of such policies have been the elimination of the risk of devaluation of a country's exchange rate, a higher level of confidence among international investors, reduced transaction costs, low inflation, and more investment and growth. The main costs of fixed exchange rate policies are considered to be the loss of an independent monetary policy and the risk of exposing the country to speculative attacks which in turn can set off a general domestic bank-run (Obstfeld and Rogoff 1995: 79). The benefits have often been found significant enough to offset these costs.

Since the publication of Mundell's seminal work in 1961, conventional wisdom has maintained that when policymakers consider participating in a common currency arrangement, they should try to determine if the common currency area to which they will belong is also an optimum currency area. Otherwise, according to the optimum currency area theories, costs of adopting the single currency would outweigh the benefits. Optimum currency area (OCA) theories stipulate that any two countries that react to an economic shock symmetrically, trade significant proportions of their GDP bilaterally, or have diversified products are better off with a fixed exchange rate or a common currency (Kenen 1969; McKinnon 1963; Mundell 1961). In addition, these theories maintain that reorganization of national currencies is feasible and the concept of optimum currency area has direct applicability only in areas where national sovereignty is being given up and member countries are also participating in a political integration or cooperation process (Mundell 1961; Mundell 2001). Optimum currency area theories have been criticized for underestimating the advantages of sharing a common currency, and for lacking operational indicators for factor mobility, openness and diversification of products (Grauwe 2000; McCallum 1999).

Recent research on the issue of common currencies has veered away from strict consideration of the optimum currency area criteria, and the gravity equation of international trade has emerged as the model of choice. The gravity model of international trade is an instrument that has proved remarkably successful in predicting the impact of various factors on international and regional trade flows, and has provided academics and policymakers with robust analyses of empirical data. In analogy to

Newton's law of gravity in physics, the gravity models of trade assert that trade flows between two countries are a direct function of their national incomes and other similarity factors such as common culture, history or institutions. In addition, trade flows are assumed to be an inverse function of geographical distance or other divergent factors between two countries.

Gravity findings about the impact of common currencies on bilateral trade differ considerably from estimations of other empirical models. According to this line of research, countries that use the same currency trade disproportionately more with each other, to an economically significant effect. According to Andrew Rose (2000; 2004), there is sufficient empirical evidence that trade between countries with the same currency is substantially higher compared to countries with different currencies. Nevertheless, there are two major problems with the gravity models of common currency effect on trade: First, many academics have taken issue with the fact that the number of currency union countries is only a small fraction of the large number of total observations in bilateral trade datasets. Second, most currency union countries are small, poor, or both, unlike the members of the Eurozone, and as such, findings of typical studies cannot be generalized for all countries and cannot be used to analyze public policy alternatives.

In this dissertation, I argue in favor of a more sophisticated and statistically more robust form of the gravity model than the traditional ordinary least square model used in other studies. I support the view that the log-linearized ordinary least square estimates of the effect of common currency on trade are biased, and thus cannot be generalized for all

countries. An estimation method that addresses this problem is the Poisson pseudo-maximum likelihood regression. Early applications of the Poisson distribution include the famous study of Bortkiewicz in 1889 on the annual number of deaths of Prussian solders from being kicked by mules. The Poisson maximum likelihood regression model has the required properties required for our task, given the exponential form of the gravity equation, the heterogeneity problem of the data, and the large number of zero values in the bilateral trade data. In addition, the Poisson maximum likelihood regression results can be generalized for all countries notwithstanding their sizes and levels of economic development; a major failing of previous studies on this subject. The dataset that I analyze in this dissertation comes from the World Trade Database for 1995, augmented by data from the United Nations International Trade Statistics Yearbook. The data includes information for 150 countries, dependencies, and territories. I estimate and compare potential effects of euroization on bilateral trade with the Eurozone and national incomes of Albania, Serbia, and Macedonia using coefficients from three different gravity equations: the Poisson maximum likelihood regression model, the ordinary least square model, and the coefficient of a meta study of 30 independent studies on this subject. Following that, I analyze the potential effects of euroization on intra-regional trade and economic integration in Western Balkans.

For any potential gains from trade to materialize, simultaneous improvements in property rights and law enforcement should generate market-oriented incentives and enable political and economic stability. Institutions and property rights structures are widely considered crucial to economic development, because only institutions that guarantee

property rights allow for business patterns that encourage the creation of wealth generating capital (North 1990; Rodrik 2003). Concurrent with my gravity model analyses, I discuss briefly the state of property rights, law enforcement and corruption in Western Balkan countries, and how they could hold back any potential trade gains resulting from unilateral euroization.

This dissertation is organized as follows: In Chapter 2, I discuss the current state of political relations between the European Union and Western Balkans. Chapter 3 discusses various political economy approaches to the study of currency unions and optimum currency areas, as well as the evolution of currency arrangements in Europe since the end of the World War Two. The gravity model of international trade and recent literature on the effect of a common currency on trade and economic growth are discussed in Chapter 4. Methodological issues of the gravity equation and the Poisson pseudo maximum likelihood regression model are the subjects of Chapter 5. Finally, in Chapter 6, I discuss estimates of the potential effects of unilateral euroization on the economies of Albania, Macedonia and Serbia.

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