



Globalization and economic growth: Evidence from two decades of transition in CEE



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ABSTRACT

This paper examines the role of various aspects of globalization for economic growth in ten CEE economies. In contrary to previous papers, we restrict our analysis solely to the first two decades of transition. Using the globalization indexes published by the Swiss Economic Institute, we found strong and robust evidence of growth-stimulating effect of globalization processes, especially in social and economic dimensions. On the other hand, the role of political dimension of globalization was not found to be statistically significant in any research variant.

The result, which seems to be particularly interesting, is that the development of the internet, television and trade in newspapers (the social dimension of globalization) had at least as strong positive impact on economic development in CEE economies in the first two decades of transition as the rise in international trade, growth of foreign investment, reduction of import barriers and development of a tax policy (the economic dimension).

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1. Introduction

Globalization is usually thought of as a process of unification of goods and capital markets across the world in which barriers to international trade and foreign investment are reduced. Globalization can be caused either by technological progress which reduces transport costs and improves information flows or by economic and policy changes focused on reduction of protectionism, liberalization of foreign investment and migration rules.

There are many studies which have been focused on the impact of globalization on the growth of output in the long run. In the economic theory the long-run growth rate is usually identified with so-called *steady state growth rate* (for short SSGR). In general, previous investigations were performed by means of two types of methods. At the very beginning, the growth equations with relatively large cross-sectional dimensions were estimated and interpreted. The second group of methods got popular mainly due to improved software packages, availability of longer time series and development of panel data methods with higher time series dimensions.

It is usually stressed that globalization processes are especially important in the case of developing and transition economies. Thus, it is not surprising that discussion on the role of globalization in the development of CEE economies in transition has gained

considerable attention in recent years. However, the rising interest in conducting research on this particular group of countries has primarily focused on theoretical deliberations, while clearly less attention has been paid to rigorous empirical studies.

In general, the motivation to analyse the dynamic links between globalization and growth in GDP in the case of new EU member countries in transition from the CEE region is twofold. First, despite the common opinions one cannot forget that globalization brings not only a chance to develop but it also implies some new challenges and risks. Since integration with global markets leads to increased competition it is not obvious whether an economy will significantly benefit from rapid globalization.² The latter is especially important in the case of CEE transition economies which are not experienced in dealing with various aspects of globalization. Therefore, detailed empirical analyses are required to precisely assess the growth effects of globalization, which in turn is crucial for further decision-making.

Second, to the best of our knowledge, in the literature there are also no detailed analyses devoted to the links between economic growth and globalization for the group of CEE economies in transition, which would use the most recent and comprehensive data along with carefully selected econometric methods. The available literature has not given a full picture of growth-globalization links in CEE economies in transition so far, as most of the previous papers have been based solely on economic aspects of globalization (e.g.

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² Even such famous proponents of globalization like [Blinder \(2006\)](#), [Summers \(2006\)](#) or [Krugman \(2007\)](#) have acknowledged that globalization has also some drawbacks, especially in terms of implying inequality and insecurity.

trade openness, foreign direct investment) while other dimensions of globalization (e.g. social or political) have been rather marginalized. Moreover, the globalization-growth links in this group of countries with restriction to only the transition period have not been examined in detail so far.³ It is without question that from the very beginning of the transition the structure of these relationships started to evolve dynamically as the CEE economies began to operate on global markets without hindrance and limitations. This way our paper fills the gap in the existing literature by providing an extensive analysis of the impact of various forms of globalization on economic growth which is focused solely on the period of transition in CEE.

Another important point that distinguishes our paper from other contributions on globalization and economic growth is that we employed a set of comprehensive measures of globalization instead of using only one specific measure. Such an approach allows us to analyse many aspects of globalization processes. Moreover, to test the stability of our empirical results and formulate reliable conclusions we focus on few hundred different specifications of growth models. At this place it is worth to mention that previous studies on globalization often present quite different results concerning the real impact of globalization on economic growth. The contributors stress two main reasons for these differences. The first one underlines the fact that the definition of a relevant measure of globalization is difficult to formulate, because a reliable aggregate indicator should be based on many economic, political and social variables. Secondly, there is no unique view on how the output equation should be formulated to efficiently assess the impact of globalization on the long-run rate of growth of output or the SSGR.

Since globalization is not easy to measure, the definition of an overall index of globalization is the most important step in the process of quantification of its sources and effects. Some comprehensive measures of globalization were developed by means of the weighted average or the principal component methods.⁴ In this paper we will focus on detailed analysis of the index of globalization calculated by the KOF Swiss Economic Institute.⁵ This measure of globalization, currently considered as the most comprehensive one, was developed by Dreher (2006). It is also based on the principal component method. This index is aimed to combine several variables not only from the economic sphere, but also from the political and social ones. In this indicator the economic part is weighted by around 37%, political dimension by around 26% and social aspect by around 37%. The globalization index is updated annually for 208 countries.⁶

The proper choice of model specification is also important to assess the growth effects of other variables, like education and public expenditure on infrastructure, investment ratio, aid, foreign direct investment,

financial reforms, etc. Commenting on the state of literature, Rodriguez and Rodrik (2001) stressed that many measures of openness (often treated as synonyms of globalization) are flawed.⁷ This is especially misleading in case of studies which conclude that openness significantly improves growth, nevertheless the fact that the econometrics applied is oversimplified and therefore hardly leads to any reliable conclusions.⁸ Therefore, conducting the empirical analysis in as comprehensive way as possible (e.g. by considering multiple variants of the econometric model) is one of the main goals of our research.

The content of this paper is as follows. Section 2 reviews the most important contributions concerning the impact of globalization on economic growth. Special attention is given to CEE economies in transition. Section 3 is concerned with a presentation of the dataset. Section 4 presents main research hypotheses examined in this paper. In Section 5 the discussion of methodological questions in respect to the specification and estimation is showed. Empirical results and their discussion are provided in Section 6. Finally, in Section 7 we summarize the major conclusions and suggest directions for future research.

2. Literature overview

The content of this section may be divided into two main parts. The first part is dedicated to a general and brief overview of previous papers dealing with the role of globalization in stimulating economic growth. In the second part we will focus solely on previous papers on globalization-growth links in the case of CEE transition economies.

In recent decades economists have paid much attention to the role of globalization in economic growth. It is worth noting that several distinguished journals have published special issues dedicated solely to the topic of globalization. Woods (1998), Manning (1999), and Bata and Bergesen (2002a, 2002b), among others, provided editorial introductions to these special issues. Moreover, a number of books on this topic have also been published. In general, previous papers usually underline the positive effects of globalization in stimulating economic growth.⁹

As we stressed in the introductory part, an important stream of research identifies globalization as openness, especially the trade openness. However, the interpretation and definition of trade openness differs among authors. In line with this interpretation of globalization, Dollar (1992) found out that outward-orientation of an economy as well as high exports and the sustainability of imported goods and machinery support growth. Barro and Sala-i-Martin (1995), Sachs and Warner (1995), Edwards (1998), Greenaway et al. (1998) and Vamvakidis (1998) demonstrated on a basis of cross-country regressions that trade protection reduces growth rates. Ben-David (1993) and Sachs and Warner (1995) expressed the view that only open economies experience unconditional convergence.

However, Rodriguez and Rodrik (2001) raised some doubts about the robustness of the openness-growth correlations detected in the reviewed contributions as in previous papers the control for other important growth indicators was rather insufficient and therefore the usage of the openness measures was not fully justified. The authors

³ Some papers examined the nexus between globalization and growth in specific CEE countries (e.g. Mutascu and Fleischer (2011) did this in case of Romania). However, as far as we know, there are no studies which would concentrate solely on the transition period (for example, Mutascu and Fleischer (2011) drew their conclusion based on 1972–2006 sample).

⁴ One of the first examples of such a measure was defined by Sachs and Warner (1995) and currently is recognized as the *binary index of openness*. Kearney (2003) constructed a database and defined a composite globalization index consisted of economic, social, political, and technology-related components. Lockwood (2004) stressed that the ranking of countries was sensitive to the way these indicators were measured, normalized and weighted. Two alternative approaches to the Kearney index were also developed on the basis of the principal component analysis (Heshmati, 2006) and factor analysis (Andersen and Herbertsson, 2005). Lockwood and Redoano (2005) also presented an index of globalization that measures the economic, social and political components of globalization.

⁵ The data and description of the KOF indexes can be downloaded from <http://globalization.kof.ethz.ch>.

⁶ At this place we should mention that previous empirical studies using KOF indexes have been based either on time series data or on panel data. Time series analyses are usually related to an individual country, thus many country-specific issues are likely to be highlighted (Greiner et al., 2004). On the other hand, panel-based contributions are believed to provide much more robust empirical findings due to the considerable number of degrees of freedom (Rao and Vadlamannati, 2011). Therefore, panel methodology is usually recommended when the time dimension of examined dataset is relatively small.

⁷ In empirical investigations it is difficult to distinguish between “openness”, assessed solely by means of economic variables, and the “level of globalization”, which actually should also take into account some political and social aspects. In spite of these differences, some authors consider “openness” and “globalization” to be synonyms. This is partly justified by the fact that economic variables dominate in many measures of overall globalization.

⁸ In turn, Easterly et al. (2004) observed that this literature has the usual limitations of choosing a specification without clear guidance from theory.

⁹ In one of the recent papers, Chang and Lee (2010) provided evidence supporting the existence of a long-run unidirectional causality running from the KOF overall index of globalization, economic globalization, and social globalization to growth in 23 OECD countries in the period 1970–2006.

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