Human Capital and Growth: A Panel Analysis for the EU-15, Selected Accession Countries and Russia

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1 Introduction

Since 1989, the year in which the political and economic transition in Central and Eastern Europe began, a lot has changed. While the geographically Western transition countries are facing EU-membership (Poland, Czech Republic, Slovakia, Hungary, Slovenia and the Baltic States), some are in a queue (Bulgaria, Romania) and some are not taking part in the enlargement process of the EU (e.g. Russia, Ukraine, Belarus). The decision for or against EU accession is generally one of a political nature, but without economic growth and development, none of the transition countries would even have the opportunity to join the club.

All transition countries experienced a phase of recession after the breakdown of their systems (see e.g. Kornai 1996). Only in the course of the 1990s were they able to return to positive growth rates with high variation between the countries. Some countries reached dynamic growth in the early 1990s while others had much longer recessions or set-backs in economic development. Table 3 in the annex shows the growth rates in real GDP per capita of selected transition countries and the Euro Area in the 1990s.

This discussion paper is an empirical analysis of the factors that have contributed to the growth of transition and EU countries in the course of the 1990s. We use the same methodology as Bassanini, Scarpetta and Hemmings (2001) who analyzed growth in OECD countries in the course of the 1970s and 1980s with respect to human capital, and several other variables that represent the influence of politics and institutions. In the framework of a panel model, we analyze growth in the EU-15 and four transition countries – Poland, Hungary, the Czech Republic and Russia – in the period of transition up to 2002.

The paper is organized as follows: In chapter 2 the theoretical background of the determinants of economic growth is described. In chapter 3 the model is presented, and chapter 4 then gives an overview on the underlying data. The empirical results are presented in chapter 5 and finally, chapter 6 concludes this discussion.

2 Determinants of Economic Growth

2.1 Accumulation of Capital and Labour

There are many determinants of economic growth. In his famous "Inquiry to the Causes of the Wealth of Nations," Adam Smith found several factors that foster economic growth (Smith, 1993 [1776]). A framework for empirical analyses of economic growth was later developed by Robert Solow. In his neoclassical growth model, accumulation of physical capital and labor are the main determinants of economic growth (Solow, 1956). While savings and investments foster growth, population growth was identified as having a negative impact on national income per capita. But Solow himself already recognized that the simple neoclassical