ECONOMIC GROWTH AND PRODUCTIVITY PERFORMANCE IN CENTRAL ASIA

Abstract

This paper analyzes patterns of long-term economic performance in all five Central Asian countries. We first look at sources of economic growth based on a simple growth accounting exercise. Our findings show that under the period of study total factor productivity growth rates were modest ranging from 1.7% for Kazakhstan, 1.4% for Uzbekistan, and 0.8% for Tajikistan and Turkmenistan to – 0.4% for the Kyrgyz Republic. The second part of the paper relates to exploring productivity level analysis across all Central Asian countries by decomposing differences in output per worker into differences in capital intensity and productivity. Results reflect different levels of productivity performance in the region compared with Japan and South Korea as frontier economies for the analysis.

Keywords: Economic performance, growth and productivity accounting, transition economy, Central Asia.

JEL classifications: O11, O47, O53, O57, P51.

About three decades ago the centrally planned economy in the former Soviet Union collapsed leaving newly independent states, in particular, countries in Central Asia to pursue their own path of post-communist economic transformation and destiny. Like other former Soviet republics and countries in Central and Eastern Europe all stan nations of the region, namely Kazakhstan, Kyrgyzstan,[1] Tajikistan, Turkmenistan and Uzbekistan initially seemed to be fairly well prepared for the transition to a market-based economy: they were relatively industrialized, their agricultural sector was operating at a reasonable level of performance, some of them were endowed with sizeable natural resources and there was well educated and healthy labor force in the region (Campos *et al.*, 2002).

Yet, the first years of the transition period remained economically painful and were accompanied by massive output fall, steady increases in overall prices for essential items, and a higher unemployment level (Pomfret, 2003). While Central Asian republics shared common pre-independence background, e.g., they had been thoroughly integrated into the Soviet Economy and heavily subsidized by Central Government in Moscow, differences in certain aspects of their transition period were left pronounced (Green et al., 1998). To some extent for Kazakhstan and Kyrgyzstan economic reforms were more successful and sounder at the outset compared with Tajikistan and Turkmenistan. Meanwhile, Tajikistan experienced intermittent civil war which disrupted further its economy. Uzbekistan was the least liberalized economy in the region in terms of its transition to market economy. In comparison to its neighbors, Uzbekistan experienced a smaller GDP contraction in the earlier period of its independence (Pomfret *et al.*, 2001).

Only by the late 1990s Central Asian republics of the former Soviet Union had been able to reverse overall declines in their output performance and had moved on growth trajectories (EBRD Transition Report 2002).

This paper aims to examine plausible sources of economic growth in the region over the past thirty years. Growth analysis is a long-run phenomenon and considering a longer time span will enable us to have a precise picture of patterns and dynamics of economic performance in Central Asian countries. By applying the standard growth accounting framework, we seek to understand the role of each input, e.g., capital, labor, and total factor productivity on output growth rates.

[1] In the text Kyrgyzstan and Kyrgyz Republic are used interchangeably.

Another underlying objective of the study pertains to exploring productivity performance in the region. The decomposition of output per worker into inputs and productivity and the comparison of each Central Asian country to a reference point is a relevant indicator to investigate the proximate cause of economic success in the region (Christensen *et al.,* 1981). After utilizing the development accounting technique all components of economic performance including variation in productivity for a particular Central Asian republic are compared to two major economies in Asia: Japan and South Korea.

Our research relates to some earlier contributions. However, it will bring other essential insights to existing literature.

First, our paper captures long-run economic performance and incorporates all countries of Central Asia into a single sample. Many studies related to the region were chiefly conducted either during the 1990s or early 2000s. Alternatively, several authors who explored similar research examined them along with a sample consisting of other post-communist states of the former Soviet Union, and Central and Eastern Europe (Campos *et al*., 2002; Rapacki, *et al*., 2009; Yormirzoev *et al*., 2020).

Second, a few scholars have recently conducted qualitatively motivated studies limiting their work only to statistical analysis of economic performance in Central Asia (Batsaikhan *et al.,* 2017). Some other pieces are focused on only a specific Central Asian economy. For example, a study by Turganbayev (2016; 2017) looks at growth patterns in Kazakhstan in terms of total factor productivity performance over individual regions of the country.

Third, we conduct several productivity level calculations for several time periods. By comparing each Central Asian republic with two major economies in Asia we attempt to identify the region's productivity gap prior to the dissolution of Soviet economy and its dynamics over the past two decades. Our empirical approach thus reflects possible changes in the level of productivity among countries under study and reference economies. To the best of our knowledge, no prior study has touched on this approach to explain productivity differences in cross-country economic performance in Central Asia.

The rest of the paper is organized as follows. Section two highlights economic performance in the region since 2000. Review of related studies is given in section three. Section four is devoted to

methodology. Data information is presented in section five. Results are then discussed in section six. The final section presents some concluding remarks.

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