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Understanding Russian regions' economic performance during periods of decline and growth—An extreme bound analysis approach

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ABSTRACT

This article uses "extreme-bound"-type analysis to revisit the determinants behind the widely differing economic growth in Russian regions prior to the recent global financial crisis. Using data of regional growth in 1995–2006 for 77 Russian regions, it examines the growth drivers for the phase of economic decline up to 1998 and for the period of strong growth afterwards separately. Looking at forty variables considered to be potentially related to growth, it determines, for each of the two periods, the ones robustly associated with Russian economic performance. Among the variables considered are proxies of politico-institutional features, indicators of economic reform, and measurements of both economic and non-economic initial conditions. The main findings are as follows: during the period of economic decline up to 1998, differences in Russian regional growth were almost entirely driven by initial conditions, with resource and human capital endowments, industrial structure, and geographical location playing the dominant roles. However, after the 1998 crisis, the importance of initial conditions declined and was basically reduced to fuel production, advantageous geographical location, and population structure. There is also some evidence that more reform-oriented policies and better regional leadership made a difference. These results could be seen as pointing to determinants of economic performance in periods of actual economic decline being different from those in normal times of economic growth.

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1. Introduction

This article uses ‘‘extreme-bound’’-type analysis to revisit the determinants behind the widely differing economic growth in Russian regions prior to the recent global financial crisis. Using data covering economic growth in 77 regions in 1995–2006, it examines the growth drivers for the phase of economic decline up to 1998 and for the period of strong growth afterwards separately. Looking at forty variables considered to be potentially related to growth, it determines, for each of the two periods, the ones robustly associated with Russian economic performance. Among the variables considered are proxies of politico-institutional features, indicators of economic reform, and measurements of both economic and non-economic initial conditions. The main findings, based on close to one million regressions, are as follows: during the period of economic decline up to 1998, differences in Russian regional growth were almost entirely driven by initial conditions, with resource and human capital endowments, industrial structure, and geographical location playing the dominant roles. However, after the 1998 crisis, the importance of initial conditions declined, and was basically reduced to fuel production, advantageous geographical location, and population structure. The evidence also points to more reform-oriented policies and better regional leadership making a difference.

The article's main contribution to the literature is twofold: First, it is a rare attempt to study drivers of economic performance also in a period of economic decline. Second, it contributes to the growth-during-transition literature by looking at regions within a single country, Russia. Compared to cross-country investigations, this has the advantage that many unobservable or poorly observed factors (e.g. with respect to cultural values) that could have an impact on countries' growth performance are likely to be relatively similar within a single country. With respect to earlier studies on Russian economic growth, this article has the advantage of looking at a longer time span and relying on a more elaborate econometric approach.

As mentioned, the Russian pre-crisis period presents a rare opportunity for studying the factors behind economic performance in periods of sustained economic decline. Such an exercise stands out from the growth literature that has typically focused on the determinants of economic growth during periods when countries have, by and large, actually been growing. The neglect of periods of sustained economic decline in the economic growth literature primarily reflects the rarity of such events. It may, however, also result from an implicit assumption that the factors generally considered to be driving growth are also relevant factors in periods of prolonged economic decline. Substantial differences in factors driving Russian pre- and post-crisis growth would, however, point to dissimilar determinants of economic performance in situations of economic growth and decline.

As the study of Russian regional growth can contribute to a better understanding of the forces that were at work during economic transition, there have been several attempts at studying Russian regional growth performance, with sometimes contradictory outcomes. Berkowitz and DeJong (2003) claim that for the 1994–1996 period the Russian regions that advanced faster on reforms had a larger share of private small enterprises, which in turn would have led to higher income growth or, at least, lower declines.[1] Ahrend (2000), based on data up to 1998, finds neither differences in the depth of economic reform, nor political variables to explain much of the variation in regional performance, with the principal determinants being the initial structure and competitiveness of a region's industry, or a region's human capital and natural resource endowments. Popov (1999) argues that initial conditions, measured by resource advantages, played a significant positive role in determining changes in output and income, whereas Mikheeva (1999) finds initial export shares to be highly important in explaining differing regional performance. Yudaeva et al. (2004) find little impact of

[1] This finding, however, has been criticised as not being particularly robust and possibly driven by a peculiarity in data collection. During the nineties, the Russian national statistical agency GosKomStat (now RosStat) accounted for undeclared income by correcting reported regional income using retail trade data. Given that in the mid-nineties the main activity of a very large share of private small enterprises was in trade, retail trade would have been expected to be correlated with the numerical importance of enterprises that have their main business in trade. It has therefore been argued that finding a correlation between income data and the share of private small enterprises is neither surprising nor particularly meaningful.