Cross-Country Differences in Convergence in CESEE
**Introduction**

Since 1989, there have been large differences in the convergence of the income levels of the former communist countries in CESEE with those in the US. Most Central European countries have seen a sharp rise in relative incomes, but many countries in former Yugoslavia and the CIS have not – indeed, some countries, including Moldova and Serbia, are now poorer than they were in 1989 (Figure 1). The difference between Ukraine and Poland is particularly stark. In 1989, both had similar income levels, but Poland is now more than three times as rich (Figure 2).

![Figure 1. Transition outcomes](source: Total Economy Database and IMF staff calculations.)

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1 Bas B. Bakker is the Senior Resident Representative and Krzysztof Krogulski an economist in the IMF’s Regional Office for Central and Eastern Europe in Warsaw. The views expressed in this paper are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.
As a result, cross-country income differences in CESEE remain large. In 1989, the Czech Republic, Russia, Slovenia and Croatia had the highest income per capita in 1989, about 4 times as high as in Albania and Moldova, the poorest in the group. Twenty-six years later, the differences are even larger. GDP per capita in Slovenia is 6 times as high as in Moldova (Figure 3).
What explains these differences?

These differences in convergence do not seem to reflect data problems. True, GDP statistics in 1989 were not very good. It is hard to measure value added when prices are not quite right. Moreover, GDP at that time was probably not a good indicator of consumer welfare. Much of what was produced was not wanted by consumers (e.g. military expenditures) and/or of low quality. Nevertheless, these issues apply to all post-communist countries in the regions – it is not clear that some countries suffered from data problems more than others.

Indeed, more direct measures of economic activity also suggest large initial output falls and large cross-country differences. Between 1990 and 1995 electricity consumption per capita fell by almost 40 percent in Ukraine and Moldova. By then electricity consumption in Poland had nearly recovered to its 1990 level (Figure 4).

Figure 4. Alternative measure of decline in economic activity

Instead, several factors seem to have played a role:

- The speed of transition to a market economy
- War and conflicts
- Boom-busts
- EU Membership
- Whether transition has been completed

Countries that reformed early had a shorter and shallower post-transition recession. The lower the EBRD transition index in 1995 (i.e., the less the economy was reformed), the sharper the output decline between the beginning of transition and 1995 (Figure 5).
Why was this? In late 1989, a fierce debate broke out over what came to be called gradualism versus shock therapy. Many gradualists argued that the structural flaws of the economy would frustrate attempts at liberalization, and therefore that reforms should be implemented in a gradual, sequenced way. But for others—including key figures such as Leszek Balcerowicz in Poland—understanding the nature of the problem meant the opposite: reform was a seamless web that could only succeed if all the changes happened together, because liberal prices, improved governance, and a stable economic and financial environment were needed to reinforce one another; little could be achieved with a partial reform. The evidence from the past 25 years has vindicated the seamless web theory of transition. There is no doubt that some reforms took much longer than anticipated, including privatization, both of banks and companies. But it seems clear that the countries that made sweeping changes, and that kept at reform and stabilization have done well. Countries that followed a more gradual path suffered from the decline of the old industries, and did not get the boost from the growth of new firms. Moreover, in some countries bouts of macroeconomic instability repeatedly undermined reforms and sapped political momentum.

Weaker growth in the early transition years was not compensated by faster growth later. Countries where output declines were deeper in the early 1990s did not see more rapid growth in subsequent years (Figure 6).

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2 This is not to say that the rapid and seamless approach was without problems, notably large losses of output and high unemployment in the short run. Thus, reform will always have to worry about the social safety net and, under some circumstances, may benefit from external assistance, which is where the IMF and others can come in.
Wars and conflicts also played an important role. It is striking that the five countries with the lowest growth all had a war or serious conflict between 1990 and 2015 (Figure 7).

Avoiding boom-busts helped boost longer-term growth. Steady growth rates seem to be more conducive to higher longer-term growth than booms followed by busts. Between 2002 and 2008, Romania had a capital inflows-fueled boom and grew much faster than Poland, but thereafter it suffered a deep bust, and between 2002 and 2015, Poland has grown faster (Figure 8).
EU accession was a powerful catalyst for reforms and upgrading of institutional frameworks. CESEE countries that joined the EU were required to bring their regulations and institutions up to Western European standards. There is a striking difference in the level of the EBRD transition indicators between the EU countries and non-EU countries (Figure 9). Thus, prospects of EU Membership have led to more reforms and, as a consequence, to stronger growth (Figure 10).
Countries that upgraded their institutions to EU standards saw a decline in cross-country income differences. Countries that joined the EU in the 2000s show a clear pattern of convergence. The difference between Bulgaria and Slovenia has narrowed by 15 percent of Slovenia’s GDP since the former begun EU accession negotiations in 2000 (Figure 11, right panel). Similarly, a group of candidate and potential candidate countries, including Croatia (which joined the EU only in 2013), have converged as well (Figure 11, left panel).

Source: EBRD, Total Economy Database and IMF staff calculations.

Note: The EU has recognized Bosnia and Herzegovina as potential EU candidate countries.
By contrast, there was no convergence among the European CIS-countries. Russia, the richest of CIS, countries grew by only 0.6 percent annually since 1989, while output per capita declined in Moldova and Ukraine. Only Belarus achieved growth rates comparable to the non-CIS countries, but its largely unreformed economy may have approached the limits of the current extensive growth model (Figure 12).

Figure 12. Convergence in European CIS region

Countries that have a more completed transition are richer. There is a strong correlation between progress in market reforms and a country’s income level (Figure 13). Similarly, richer countries have a more vibrant private sector (Figure 14). Correlation does of course not mean causality, but is it telling that there is no highly reformed poor country.

Figure 13. Market reforms and income level

Source: EBRD, Total Economy Database and IMF staff calculations.
Convergence post-2009 crisis

Post-2009, catch-up has slowed down. Pre-crisis convergence was rapid and widespread. In some countries, the GDP per capita gap to the US narrowed by more than 12 percentage points in 2003-08. Since 2010 only two thirds of countries in the region have continued to catch-up with the US, while Ukraine and Slovenia saw a widening of income differences (Figure 15). Moreover, if we include the 2009 crisis, which was deeper in CESEE than in Western Europe, convergence has been even less.
More recently, there have also been large differences across regions: while the CIS was in recession, the non-CIS countries doing much better.

- The CIS countries suffered from falling commodity prices, and from the impact of sanctions on Russia.
- By contrast, the non-CIS countries saw a gradual acceleration of GDP growth, on the back of a pick-up of domestic demand in the euro area. Labor markets in many EU New Member States (NMS) are tightening rapidly, and unemployment is quickly approaching pre-crisis lows, though GDP growth rates are well below those in the pre-crisis years.

**How can we boost convergence going forward?**

GDP per capita is the product of GDP per worker (labor productivity) and the share of the population that works (the employment rate):

$$\frac{GDP}{POP} = \frac{GDP}{E} \ast \frac{E}{POP}$$

Low GDP per capita can thus be the result of both low labor productivity and a low employment rate. In CESEE, both factors play a role:

- In most CESEE countries, the employment rate is below that in Western Europe (Figure 18). Low employment rates are a particular problem in SEE and some CIS countries.
- The labor productivity gap with Western Europe is still large, even though it has declined in the past twenty years.

**Figure 16. Big differences in growth among regions**

![Figure 16](http://www.imf.org/external/pubs/ft/reo/2016/eur/eng/pdf/rei0516.pdf)

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To raise labor productivity more investment is needed. The capital stock per worker in a typical CESEE economy is only about a third of that in advanced Europe. Domestic saving rates are too low in most the region; policies should therefore focus on institutional reforms that reduce inefficiencies and increase returns on private investment and savings.

Boosting total factor productivity (TFP) is important as well. CESEE countries have to address structural and institutional obstacles that prevent efficient use of available technologies, or lead to inefficient allocation of resources. The recent IMF CESEE report suggests the largest efficiency gains are likely to

Source: Total Economy Database, UN population statistics and IMF staff calculations.
come from improving the quality of institutions (protection of property rights, legal systems, and healthcare); increasing the affordability of financial services (especially for small but productive firms); and improving government efficiency.

**Conclusion**

Since the fall of communism, there have been large differences in convergence of income levels with the US among CESEE countries. Much of these differences reflect differences in policies. Countries that reformed more and earlier saw faster growth than countries that reformed less or later. Macro-stability also helped, and countries that avoided boom-busts tended to grow faster.

Continued convergence will require higher investment, higher TFP and higher employment rates. The capital stock per worker is still below that in Western Europe. Higher investment rates will require higher saving rates, lest large current account deficits emerge anew. Addressing structural and institutional obstacles would also help convergence, as it will support higher labor force participation and allow for a more efficient allocation of resources.
Bas B. Bakker
International Monetary Fund
BBAKKER@imf.org
www.imf.org

Bas B. Bakker is the IMF’s Senior Regional Resident Representative for Central and Eastern Europe in Warsaw. He joined the IMF in 1993 and has held in four IMF departments, working on a range of countries, and policy and research issues. He has worked extensively on central and Eastern Europe, including as head of the Emerging Europe Regional Division and as mission chief for Bulgaria, and is the co-author of the book “How Emerging Europe Came Through the 2008/09 Crisis: An Account by the Staff of the IMF’s European Department.” He is a national from the Netherlands and obtained his PhD in economics from the University of Groningen. He is married with three kids.

Krzysztof Krogulski
International Monetary Fund
KKrogulski@imf.org
www.imf.org

Krzysztof Krogulski is an Economist in the International Monetary Fund’s Regional Office for Central and Eastern Europe in Warsaw. He is responsible for surveillance and analysis of cross-regional developments and supports outreach of the IMF in the region. He graduated from the Warsaw University.

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