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## **Two Periods of the Peripheric Capitalist Development: Pre-Communist and Post-Communist Eastern Europe in Comparison**

*Abstract:* In the long term perspective two post-communist decades in the Eastern Europe were most recent attempt to close the economic development gap with the West after the communist “detour from the periphery to the periphery” (Iván Berend). The 1989 revolutions involved the restoration of capitalism and new integration into the capitalist world system. The paper compares the performance of post-communist capitalism in the reduction of the economic disparity with that of the pre-communist capitalism in 1913–1938. For almost all countries covered by the long-time diachronic comparison, the periods of catching up alternated with those of falling behind. All Eastern European countries except Romania decreased during pre-communist period their GDP gap separating them from the capitalist world system hegemonic power (U.S.). The catching-up performance of post-communist countries widely varies: best performers during post-communist time performed better than the best performers in the 1913–1938 period, while the worst failures under post-communism performed worse than the weakest performers in 1913–1938.

*Keywords:* Eastern Europe, catching-up development, pre-communism, communism, post-communism.

### **Introduction**

The comparison of two historical periods, separated in time by half a century, may not seem like a sane contribution to the celebration of the 25<sup>th</sup> anniversary of the end of communism in Poland. However, the comparing the post-communist period with that of interwar independence is an integral part of the celebration of the most important national holidays in the post-communist Baltic States—Estonia, Latvia, and Lithuania. Only in 1918–1940 could all three Baltic nations use the institutions of the modern state to foster the development of national “high cultures” in the vernacular languages. In Soviet times, national cultures and languages were perceived to be endangered because of the the policies of russification of the Soviet authorities and mass immigration from other Soviet republics.

Therefore, to begin with, the post-communist transformation in the Baltic States was about the restoration of the independent nation-state. The assumption of legal continuity grounds the much disputed citizenship laws in Estonia and Latvia that granted citizenship rights only for people who had such rights by 1940 and their descendants (Pettai 2010). The principle of restoration was implemented most consequently in Latvia, which is living under the Constitution (*Satversme*) of 1922. This may be the reason why Latvian scholars were pioneers in the comparative work on

the period before World War II (WW II) and post-communism. They published several ground-breaking contributions (Seleckis 2000; Krastinš 2001; Zile 2001) in the late 1990s and early 2000, celebrating the anniversary of the first decade after communism, drawing its critical balance and using achievements of the first decade of interwar independence from 1918 to 1928 as the benchmark. Estonians followed in 2008, celebrating the 90<sup>th</sup> anniversary of the Estonian independence (Valge 2008), with Lithuanian researchers joining with the comparison of the two twenty year periods of interwar and post-communist Lithuania (Norkus 2014).

The aim of present contribution is to demonstrate that the “Baltic approach” to post-communist transformation (diachronic comparison with pre-communist period) may also be useful for the audit of post-communist achievements for those Eastern European countries which were independent national states before World War I (WW I) and remained at least nominally sovereign independent states under communism. I will apply “Baltic approach” by comparing the economic performance of the restored capitalism in the Eastern European countries during the post-communist and pre-communist periods of similar length.

While rich advanced countries seem to be already mature for alternative ideas of the well-being and indexes of the economy’s performance (cp. Coyle 2014, Fioramonti 2013 etc.), in the poorer countries the best test of the quality of economic system arguably remains the capacity to decrease the gross domestic product (GDP) per capita gap, or to achieve convergence with them. How much then post-communist countries did catch up with or fall behind after the restoration of capitalism in comparison with the pre-communist period of similar length? This is the research question of the paper.

I will not avoid the comparisons of pre-communist and post-communist periods with the communist intermezzo, but this will not be my focus, because there already is a lot of research on the failures of the state socialist system (e.g. Berend 2006, 2009; Turnock 1997, 2006). Due to the special occasion for this contribution, data limitations and inter-temporal comparability problems, I will focus on the Eastern European countries that enjoyed national statehood before communism. However, where it is possible and appropriate (to provide broader background and illuminating contrasts), I will expand the scope of my comparisons, including new independent states, countries from other regions or with different economic systems (e.g. interwar USSR).

In the first section, I will provide the historical and conceptual background (drawn from the capitalist world system (CWS) analysis) for the diachronic comparison of the post-communist and pre-communist periods as well as the rationale behind the specific measure (“American standard”). It will be my instrument which I will use for the evaluation of economic achievements of pre-communist and post-communist catching-up capitalist development. In the second section, I will discuss time scope, case selection, and data problems. The presentation and discussion of the findings of three comparisons (across East European pre-communist countries, across all post-communist countries and across pre-communist with post-communist periods of selected Eastern European countries) will follow. Finally, I will cross-check some

(most puzzling) findings with data (where available) from other sources and close with the questions for further research.

### **On the Catching-Up Development and the “American Standard” as the Measure of its Economic Achievements**

Iván Berend (1996; 1998; 2003; 2006; 2009), Andrew Janos (2000), Iván Szelényi (Eyal, Szelényi, and Townsley 1998) and many other authors provide a wide picture of the history of Central Europe since XIX century as a “detour from the periphery to the periphery”: futile struggle to catch up with advanced capitalist countries at the heart of the CWS. In the XIX<sup>th</sup> and XX<sup>th</sup> centuries, Central European countries failed to achieve this aim, because their capitalist development was repeatedly derailed by the imperialistic schemes of neighbouring Germany and Soviet Russia. The former contested hegemony in the CWS, while the latter was bidding for world revolution, ending instead with an enlarged version of Imperial Russia, and embedding a parallel world anti-system (“socialist world system”).

The real substance of “building communism” in the Soviet Union and other economically underdeveloped countries was very frankly disclosed in the III Programme of the Communist Party of the Soviet Union (CPSU), adopted in October 1961 at its XXII Congress. In this programme building of communism was operationally defined as “catching up and overtaking U.S.” by 1970 or by 1980 at the very latest. “The national income of the USSR in the next ten years will increase by nearly 150 per cent, and by about 400 per cent in twenty years” (Programme of CPSU 1961: 84–85). According to Soviet planners, in 1980 the total industrial output would have exceeded overall US industrial output “by not less than 500 per cent,” labour productivity—by “roughly 100 per cent” (Programme of CPSU 1961: 64), and already in 1970 the USSR would have outstripped the US “in output of the key agricultural products per head of population” (Programme of CPSU 1961: 72). Overtaking of the U.S. would herald the definitive victory of socialism in the “peaceful competition of two systems,” proving the superiority of socialism as system of production and innovation even in the eyes of populations in the developed capitalist countries, not to speak about the billions of people living in the former Western colonies and semi-colonies.

There is no consensus about the causes of the breakdown of Communism in 1989–1990 in the Soviet Studies and then post-communist transformation research. I would bet that Soviet empire would not have dissolved, had the USSR fulfilled the promise to catch up with U.S.—even if this would have happened only in 1990 or in 2000, and not in 1970 or 1980 (as was promised). Of course, even in such a case there would be no communism on the Earth in the authentic Marxian sense, because the utopia can never become true. However, this is just not a relevant issue for my main topic.

In fact, in late 1960s the promise of catching and overtaking U.S. was only a standing joke even in the USSR. Instead of celebration of the Soviet catching up with U.S., the year 1980 witnessed the birth of *Solidarność* in Gdańsk, leading to the first victorious anti-communist revolution in Poland in 1989. But at least one country under

Communist rule managed to increase its national income by more than 400% in only twenty years. However, it was not USSR but China (in 1990–2010), and this may be one of the main causes why this country still remains nominally communist.

The last sentence of the III CPSU Programme was: “the party solemnly proclaims: the present generation of Soviet people shall live in communism!” (*Programme of CPSU 1961: 128*). The popular belief during the time of “extraordinary politics” (*Balcerowicz 1995: 265–273*) in the early 1990s, which helped to endure the hardships of “shock therapy,” was that market reforms will turn former post-communist countries into rich countries such as those in Western Europe and U.S. even in a shorter time than the span of life of single generation.

Since late 1990s, the accession to EU is the new source of the hope for present generations in the post-communist countries that their homelands will become as rich as the “old West.” The EU cohesion policy, financed from structural funds, provides robust prop for this hope, making the membership in the EU an irresistibly attractive aim for broad populations of former communist countries. Recent events in Ukraine are living testimony to the spell of EU membership, which is perceived as a ticket to the speedy lift into the top floor of the CWS. In the post-communist countries already possessing this ticket, there is an encompassing consensus among all “systemic” political forces that “convergence with EU” is the next national strategic goal.

To measure the progress towards this goal, public opinion makers and analysts in the new EU member states most frequently use the index of GDP per capita at purchasing power parity (PPP) in percent of EU average (since 2014, EU = 28). In 2013, the wealth rankings of EU members varied from 45% of EU average for Bulgaria to 257% for Luxembourg (with 67% for Poland) (*Eurostat 2014*). For obvious reasons (there was no EU at this time, and there are no appropriate data) this index cannot be used to measure the variation in wealth ranking of the European countries before communism.

Importantly, “EU average standard” has drawbacks even when it is applied to measure the catching up performance only during post-communist period. With every new (relatively poor) member joining, the “EU average standard” benchmark value is sinking. If Ukraine or/and Turkey join EU, many countries which have accessed EU in 2004 will converge with EU during just one year. This is one of the reasons why I prefer to use the “American standard,” to compare the performance of economic development during two periods under consideration. The application of this index involves comparing the GDP per capita at PPP of specific country with that of U.S. at the same time (US = 100%).

There are more advantages that emerge as a result of choosing U.S. as our benchmark. Similarly to gold standard-based money which was reputed to anchor most stable monetary systems, “American standard” is less exposed to the danger of measurement errors because of changes in the value of the “measuring rod” itself. In our case the danger of such errors is very great, because the fortunes of other prospective CWS core benchmark countries fluctuated much more wildly over last hundred years. Differently from the Western European countries, after the U.S. emerged as the most

powerful and rich nation in the world during the WW I, its position remained unchanged. Finally, there are two special reasons to prefer “American standard,” which are related to the place, time, and occasion of its present application. Firstly, this is the strong positively loaded presence of US in the social imaginary of the Eastern European countries with the record of mass emigration to US (first of all, Poland, Lithuania, and Slovakia). Secondly, celebrating next anniversary of the demise of the social system which was created by the most virulent anti-capitalist ideology, it may be just a matter of historical justice to measure the achievements of pre-communist and post-communist capitalism with the same benchmark, which Communists did (fatefully) choose to evaluate the performance of their allegedly superior alternative. A reader unpersuaded by my American choice is welcome to replicate my analysis with some Western European country as a benchmark, using the data in the [Table 1](#) or in the primary source (see below). In this contribution, I have just too little space for such replication.

### Data and Cases

A researcher who is interested in the developments in the former communist countries only during post-communist period can draw upon several databases containing regular, standardized, annual measurements of many macroeconomic indicators. In many cases, the best option is quantitative data published by the Eurostat, equalized across countries by the conversion of currencies and standardization of definitions. However, Eurostat time series comprise only those post-communist countries, which are actual or prospective EU members, and even for those that are covered, most data series start in the middle of 1990s. Another broadly used authoritative source of internationally and cross-temporally comparable quantitative data is World Bank’s World Development Indicators (WDI) database ([World Bank 2014](#)). Although I will use the WDI data to cross-check some of the findings, it is only of limited usefulness for my aim, because even the longest data series in this collection start only with the year 1960.<sup>1</sup>

So the single source containing comparable GDP data on some Eastern European countries during both periods is the dataset compiled by famous British economic historian Angus Maddison (1926–2010). It contains data on populations, GDP and GDP per capita of since 1 A.D. Next data points are for years 1000, 1500, 1600, and 1700, with earliest continuous data series (only for some countries) starting in 1820 ([Maddison 2010a](#)). Before Maddison’s publications, standard source with internationally and cross-temporally comparable data of national income of European countries was Paul Bairoch’s (1976) paper. However, his data series end in 1975, have more gaps, and are marred by other deficiencies.<sup>2</sup> Therefore, they cannot serve as major source for my aim.

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<sup>1</sup> For more detailed discussion of data sources of quantitative macro-comparative research see e.g. [Babones 2014](#).

<sup>2</sup> E.g. Baltic countries in the interwar time are considered as single unit.

The primary source of the most of the GDP figures in the Maddison dataset is the Penn World Table (PWT). It is a set of national-accounts data, originally developed by economists Irving Kravis, Alan Heston, and Robert Summers (1982), employed at the University of Pennsylvania. Presently, this dataset is maintained by scholars at the University of California, Davis and the Groningen Growth and Development Centre (GDC) of the University of Groningen. The data series published by Maddison himself end with 2008 (Maddison 2010a). Shortly before his death, a group of his colleagues initiated a Maddison Project to extend and update his data by taking into account new research. In 2013, they published the update of the original dataset (Bolt and van Zanden 2013), where original data series were extended by two years (2009–2010).

Pending future updates of the Maddison dataset, the data for post-communist era are limited to 1990–2010 period. The World Bank WDI 2014 edition provides the GDP at PPP data up to 2013. Sadly, they are not strictly comparable with those in the Maddison dataset and in its update, because World Bank and GDC (and PWT) experts apply different mathematical formulas to aggregate the intermediate results of the multilateral cross-national price comparisons into final value of GDP index. Maddison dataset GDP figures are derived using formulas invented by Roy C. Geary or Salem H. Khamis, with 1990 as benchmark year to recalculate nominal GDP (in current prices) into real GDP (in constant prices). The experts of the World Bank convert (deflate) nominal GDP into real GDP, changing benchmark year every 5 years, with 2005 and 2011 used in most recent updates. More importantly, they derive GDP values from intermediate comparisons of prices, using the procedure invented by Ödön Èltetö, Pál Köves (Hungarians) and Bohdan Szulc (Pole). So while GDP data in the Maddison dataset are in 1990 Geary Khamis international dollars (1990 GK\$), those in WDI database are calculated in 2005 or 2011 international Èltetö, Köves, and Szulc dollars (EKS\$) (Maddison 2010b).

Simply put, if you read in the Maddison dataset that GDP per capita in Poland in 2010 was 10,762 1990 GK\$, then you are receiving the information about the value of Polish output in U.S. at the prices of 1990. The GDP per capita of U.S. itself was in the same year 30,491 GK\$. So Poland's GDP per capita in 2010 was 35.3%, while in 1990 it was only 22.0% of U.S. GDP per capita (23,201 GK\$ in U.S. and 5,113 GK\$ in Poland), with GDP lag decreasing by 13.3 percentage points. This is a simple measure ("American standard"), which I will use to compare the economic progress during two post-communist decades (in 1990–2010) with that in the pre-communist period.

When applying this measure for interwar period, we must confront two sets of comparability problems. First of them is related to the changes in the borders and political identities of the units compared. On this problem, I am just accepting (together with the data) the solutions of Maddison and his collaborators. Second set of comparability problems is related to the delimitation of the cases in time. It is up to the dataset user's choice, so let me discuss this problem in more detail.

For the communist period, the choice of 1990 as base year is imposed technically, because this is the year when continuous time series for former Soviet and Yugoslav republics begin both in the Maddison dataset and in (with some exceptions) in the WDI database. Until next Maddison dataset update, we must acquiesce to closing in

Table 1

**GDP per capita (in 1990 GK\$) and its changes (in %) in the post-communist  
and selected benchmark countries in 1913–2010.**

	1913	1924	1938	1938 (1913 = 100%)	1990	2010	2010 (1990 = 100%)
Albania	811	nd	nd	<b>nd</b>	2,499	5,375	<b>215.1</b>
Argentina	3,797	4,055	4,072	<b>107.2</b>	6,433	10,256	<b>159.4</b>
Armenia	nd	nd	nd	<b>nd</b>	6,066	10,215	<b>168.4</b>
Azerbaijan	nd	nd	nd	<b>nd</b>	4,639	8,841	<b>190.6</b>
Belarus	nd	nd	nd	<b>nd</b>	7,194	13,659	<b>189.9</b>
Bulgaria	1,137 (1911)	1,026	1,499	<b>131.8</b>	5,597	8,496	<b>151.8</b>
Chile	2,988	3,062	3,161	<b>105.8</b>	6,401	13,883	<b>216.9</b>
China	552	nd	562	<b>nd</b>	1,871	8,032	<b>429.3</b>
Croatia	nd	nd	nd	<b>nd</b>	8,123	9,849	<b>121.2</b>
Czechoslovakia	2,096	2,353	2,882 (1937)	<b>137.5</b>	8,513	13,020	<b>153.0</b>
Czech Republic	nd	nd	nd	<b>nd</b>	8,895	13,097	<b>147.2</b>
Estonia	2,100	2,337	2,745	<b>130.7</b>	10,820	19,032	<b>175.9</b>
Finland	2,111	2,224	3,589	<b>170.0</b>	16,866	23,290	<b>138.1</b>
Georgia	nd	nd	nd	<b>nd</b>	7,616	6,171	<b>81.0</b>
Germany	3,648	3,199	4,994	<b>136.9</b>	15,929	20,661	<b>129.7</b>
Hungary	2,098	2,476	2,655	<b>126.5</b>	6,459	8,353	<b>129.3</b>
Kazakhstan	nd	nd	nd	<b>nd</b>	7,548	11,258	<b>149.1</b>
Kyrgyzstan	nd	nd	nd	<b>nd</b>	3,602	2,947	<b>81.8</b>
Latvia	2,100	nd	2,800	<b>133.3</b>	9,916	11,898	<b>120.0</b>
Lithuania	1,400	1,400	2,000	<b>142.9</b>	8,663	11,004	<b>127.0</b>
Macedonia	nd	nd	nd	<b>nd</b>	5,755	6,141	<b>107.0</b>
Moldova	nd	nd	nd	<b>nd</b>	6,170	4,145	<b>67.2</b>
Poland	1,739	2,117 (1929)	2,182	<b>125.5</b>	5,113	10,762	<b>210.5</b>
Portugal	1,250	1,401	1,747	<b>139.8</b>	10,826	14,279	<b>131.9</b>
Romania	1,741	1,152	1,242	<b>71.3</b>	3,511	4,653	<b>132.5</b>
Russia	1,414	891	2,150	<b>152.0</b>	7,779	8,660	<b>111.3</b>
Slovakia	nd	nd	nd	<b>nd</b>	7,763	12,877	<b>165.9</b>
Slovenia	nd	nd	nd	<b>nd</b>	11,351	17,529	<b>154.4</b>
Sweden	2,874	3,366	4,901	<b>170.5</b>	17,609	25,306	<b>143.7</b>
Tajikistan	nd	nd	nd	<b>nd</b>	3,016	1,661	<b>55.1</b>
Turkmenistan	nd	nd	nd	<b>nd</b>	3,636	4,432	<b>121.9</b>
Ukraine	nd	nd	nd	<b>nd</b>	6,027	4,524	<b>75.1</b>
UK	4,921	4,921	6,266	<b>127.3</b>	16,430	23,777	<b>144.7</b>
Uruguay	3,310	3,397	3,676	<b>111.1</b>	6,465	11,526	<b>178.3</b>
USA	5,301	6,233	6,126	<b>115.6</b>	23,201	30,491	<b>131.4</b>
USSR	1,414	891	2,150	<b>152.0</b>	6,894	7,733	<b>112.2</b>
Uzbekistan	nd	nd	nd	<b>nd</b>	4,260	6,027	<b>141.5</b>
Yugoslavia	973	1,066	1,249	<b>128.4</b>	5,646	6,693	<b>118.5</b>

Source: Bolt and van Zanden 2013.

The data about Czechoslovakia, Yugoslavia, and USSR in 2010 are aggregates from their former constituents' data. The data for Russia in 1913, 1924, and 1938 refer to the territory of former USSR in 1990 borders. Nd—no data.

2010, when presently available data series end. For the pre-communist period, there are no reasonable alternatives to 1938 as end point, because for some important cases (first of all, Poland) this is the last datapoint before the interruption of data series during the years of WW II. Actually, the pre-communist period data series for Czechoslovakia already ends in 1937.

The choice of base year for pre-communist period is a much more daunting task. This is because the choice of the base year decides a lot in the statistical comparisons. In the narrative synoptic Eastern Europe history books, we invariably find chapters or book parts on the “inter-war period,” starting with the end of WW I in October–November 1918, when most of the new Eastern European states proclaimed their independence. However, in the standard handbooks of historical statistics many data series of most Eastern European countries (except Czechoslovakia) contain the gaps for first post-war years (see e.g. [Mitchell 2007](#)). Also in the Maddison dataset the inter-war data series for Poland starts only in 1929, for Romania—in 1926, and for Hungary—in 1924.

But even if these data gaps were non-existent, I would dispute the substantial wisdom of choosing 1919 or 1920 as the first year of the period. There is an obvious reason: the economies of all Eastern European countries suffered major setbacks during WW I, with some of them (e.g. Poland) approaching pre-war level only on the eve of the great world economic crisis. Starting with base year marked by low initial value, we cannot avoid exaggerating the overall progress during pre-communist period. Therefore economic historians are using 1913 as the base year for the statistical analysis of the economic dynamics of the interwar period. I see no heavy reasons to deviate from this convention when answering my research question.

In contrast, the use of 1990 as a base year for the assessment of the achievements of next two post-communist decades does not harbour such danger, because it antedates the transformational recession. At the same time, it does not serve to exaggerate the economic “achievements” of the communist period, because in 1990 the economies of most would-be post-communist countries performed worse than in the best or top years of communist age. Conceptually, 1990 can hardly be treated as beginning of transformation, similar to 1913 being not the beginning of post WWI development. Rather, they are indicative of the end of “old regime” periods. Nevertheless, there are no better base years from the technical point of view.

For post-communist period, data series for successor states of USSR and Yugoslavia start with 1990 both in the Maddison project dataset and other broadly used statistical sources (including World Bank’s WDI). And luckily, there are data points for almost all relevant countries in 1913 in the Maddison dataset update ([Bolt and Zanden 2013](#)). For Bulgaria we find data point only for 1911, which can be explained by the heavy involvement of this country in the Balkan wars of 1912–1913. However, this is only a minor irregularity in comparison to the most serious drawback of Maddison dataset: the absence of data about the Baltic States during interwar time.

To expand the population of cases and to make the inter-temporal comparisons more illuminating, I am extending Maddison update data with the estimates of the

GDP of the interwar Baltic States, drawing from older and recent research which remains accessible only in the vernacular languages by now (Kālņiņš and Pinke 2012; Klesment 2008; Kööri 1961: 15–16; Meškauskas et. al. 1976: 408–411, 278; Norkus 2014: 101–114; Valge 2003; 2006; 2008; Vaskela 1998: 278; Vaskela 2014: 71–74, 115–116). Most of these authors are using or elaborating the pioneering research on the national income at PPP by Colin Clark (1938).

To provide broader background for my central cases—Eastern European countries, I will apply the “American standard” to measure the catch-up performance of almost all internationally recognized post-communist countries in 1990–2010. Few exceptions are former Yugoslavia republics with transitional political identities during first post-communist decade<sup>3</sup> and Mongolia, because its data series in the Maddison dataset update end in 2008. However, for the pre-communist period, the data are available only for Bulgaria, Czechoslovakia, Hungary, Poland, Poland, Romania, and Yugoslavia.

To provide contrast or background, communist USSR and pre-communist China are also included. For convenience of those readers who remain unpersuaded by my plea for “American standard,” I am also providing data about the other prospective “benchmark countries”—Finland, Germany, U.K., Sweden. For analytic purposes (the further discussion of findings) I am also presenting the data on the catching up performance of some Latin American countries which were even more advanced economically than Eastern European countries by 1913, and were spared of the destructions of two world wars as well of the communist revolution.

### Findings, Comparisons, and Discussion

Fig. 1–4 visually display patterns in the excerpt from the Maddison dataset (tab. 1). First figure provides the overall view of the dynamics in the wealth ranking of selected countries during last century by juxtaposing the sizes of their GDP per capita in % of U.S. GDP in 1913, 1938, 1990, and 2010. The most important finding transpiring from these data is that very few countries were successful in decreasing noticeably GDP gap (at least by 10%) or advancing by “American standard” during past century.

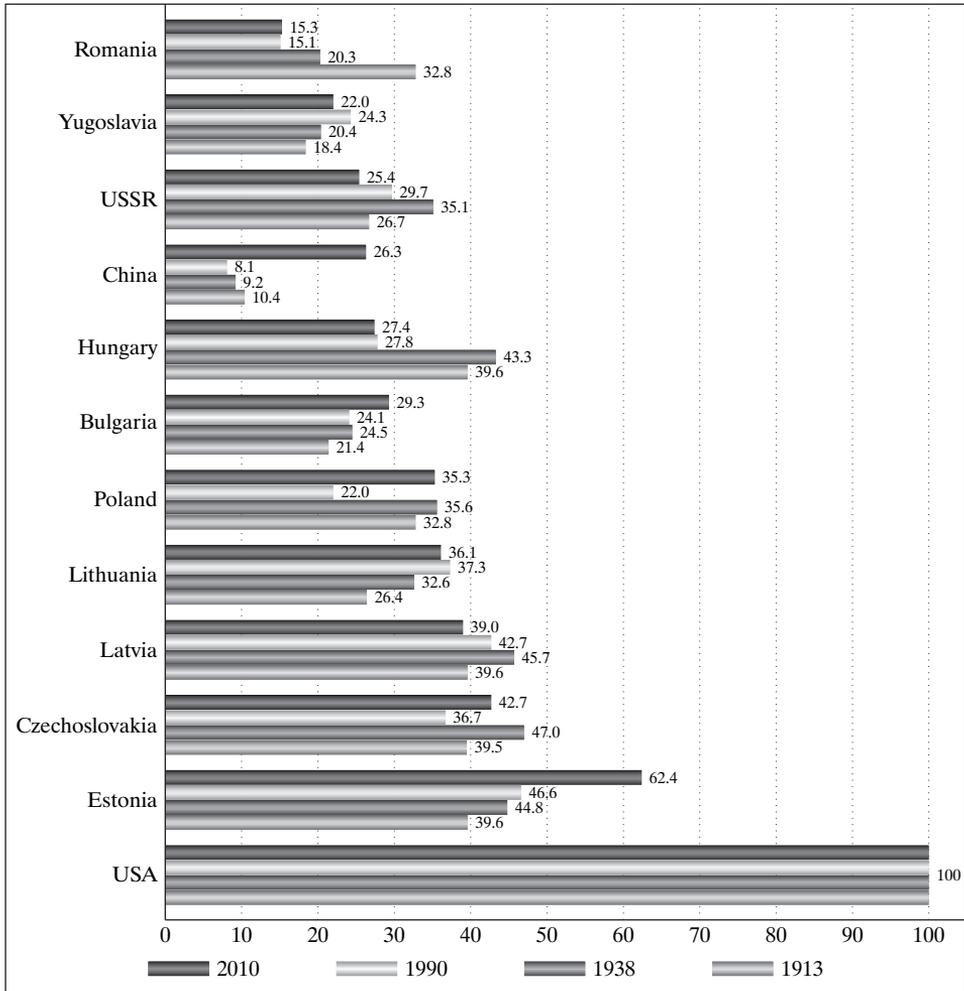
By this criterion, only China and Estonia are “success stories,” decreasing in 1913–2010 the lag by 15.9 and 22.8 percentual points correspondingly. Estonia looks also like an absolute leader, separated from the Champion by the smallest remaining distance. However, we should be cautious about this impression, because we must then accept the implication that in 2010 Estonia was already on a par with Germany and (almost) with Finland (cp. table 1). I will come back to this outlier in the concluding section, where I will control Maddison data about post-communist period by data using other sources.

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<sup>3</sup> To recall, Bosnia and Herzegovina split into three parts during civil war (1992–1995), being no fully integral state even now. Kosovo was under Serbian sovereignty at this time, and Montenegro together with Serbia still was a part of rump Yugoslavia Federation.

Figure 1

**GDP per capita at PPP of selected post-communist countries in 1913–2010  
in comparison with the U.S. GDP per capita (U.S. = 100%)**



Author’s calculation. Primary data source: Bolt and van Zanden 2013.

In the meantime, it should be noted that despite the more than fourfold increase of its GDP per capita in 1990–2010, China (still notionally communist) only barely managed to catch up with the least advanced post-communist countries in Eastern Europe. There is no paradox here. Instead, we should take notice that “American standard” works the best in measuring progress not at the CWS utmost periphery (in low and very low income countries), but rather at the semi-periphery (in the middle income countries), where the accession to the CWS core is already quite a real promise and hope. Therefore, the doubling of GDP in a country whose national income per capita already amounts to 50% of “American standard,” suffices to close the GDP gap

(provided there is no change in the Champion's running position), while even triple growth of the GDP per capita which made up only 10% of the Leader's size would decrease the GDP gap only by 20%.

Sadly, the distance separating almost all Eastern European countries from the U.S. did not decrease between 1913 and 2010. Furthermore, for some countries (Hungary, Romania), this lag may have increased. In this respect, their long-time catching up performance was reminiscent of some Latin American countries (cp. [Kofman 1997 \(1992\)](#); [Szljajfer 1990](#)). The GDP per capita of Argentina was 71.6% of U.S. in 1913, dropping to 33.6% in 2010. For Uruguay, the "American standard" value dropped from 62.4% to 37.8%, and for Chile from 56.3% to 45.5% in 1913–2010 (cp. [Table 1](#)). Importantly, all these countries neither suffered from the destructions of world wars (quite the opposite, these were the periods of high economic conjuncture), nor had to survive the Communist experiment with the abolition of private property over means of production. This observation may invite us Eastern Europeans to think more before the laying all the blame on Russians and local Communists for staying now in the same running order position we took one hundred years ago.

Next important observation is that with the sole exception for Estonia (pending more close examination of this outlier case), there was no even progress in the course of last hundred years. According to Maddison dataset update, Estonia is exceptional in decreasing the GDP lag during all three periods (1913–1938, 1938–1990, and 1990–2010): under both (capitalist and state socialist) economic systems. For all other countries encompassed by my long-time comparison, the periods of catching up alternated with those of falling behind.

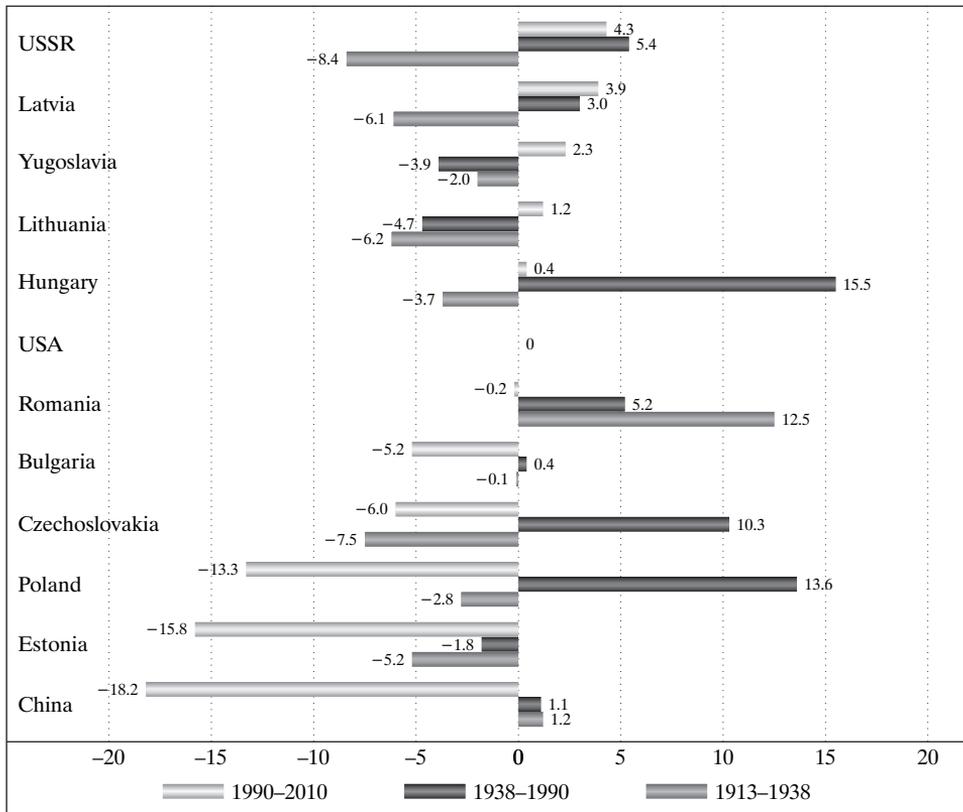
This is the main message of the data summarily displayed in the [Fig. 2](#). Most importantly for my research question, the interwar period emerges almost unambiguously as the time of the almost universal catching up with the Champion. The sole exception in the Eastern Europe is Romania, with its GDP gap increasing by 12.5 percentage points according to the Maddison data. This is another outlier, with a deviation from general trend so large that it invokes doubts about the reliability of data. Unfortunately, for interwar Romania Maddison project dataset is the only source of strictly comparable data. However, we can draw on the available monographic research on Romania's economic history ([Aldcroft 2006: 85–93](#); [Aldcroft and Morewood 1995: 84](#); [Axenciuc 2000, 2006](#); [Bairoch 1976: 297](#); [Kaser and Radice 1985: 590–596](#); [Murgescu 2006; 2010: 214–221](#); [Turnock 1986; 2004: 17–30](#)).<sup>4</sup>

According to this research, Romanian economy in 1913–1938 did not contract, but stagnated or expanded at the rate which barely outpaced the population increase. So this research do not confirm the bleak picture of Romania falling behind U.S. after becoming the Great Romania (*Romania Mare*) in 1918. However, it does not contradict more cautious statement, that in 1938 this country remained at the same running distance behind the U.S., where it was in 1913. Experts agree in describing the interwar period as the time of stagnation, explaining Romanian economic predicament by the economically disastrous agrarian reforms, difficulties of economic integration

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<sup>4</sup> Unfortunately, Bairoch does not provide data on Romania's GDP per capita in 1913.

Figure 2  
 Catching up and/or falling behind the U.S. in 1913–1938, 1938–1990, and 1990–2010  
 (U.S. GDP per capita = 100%)



Author's calculation. Primary data source: Bolt and van Zanden 2013.

Left hand (negative numbers) bars represent the decrease, right hand columns (positive numbers) the decrease of the GDP gap with U.S.

of the territories acquired after WW I with those of pre-war Romania, and by the failures of the state-led industrialization.

These descriptions and explanations of Romania's interwar underperformance are rather similar in tenor to what I could read on the economic development of the *Rzeczpospolita II*, which does not arise as a star performer from Maddison data (Kaser and Radice 1985: 565–573; Knakiewicz 1967; Landau 1968; 1973a; 1973b; Landau and Tomaszewski 1984; 1984). However, there are two major differences. Firstly, experts of interwar Polish economic history positively assess the effects of the state-financed industrialization programme in the late 1930s. Secondly, they consider intransigent deflationist monetary policies during great world economic crisis 1929–1933 as the main cause of the relative stagnation of Poland's interwar economy. Nevertheless, by 1938 there was small advance over 1913 by "American standard."

Notionally, USSR was the best performer in 1913–1938. As a matter of fact, real accomplishments of Soviet economy were greatly exaggerated by the Communist propaganda, and the bulk of them should be attributed to the massive build-up of military industry. According to GDP calculation conventions, the output of military industry is part of GDP, along with consumables and services produced by other sectors of economy. Thus heavy armament spending can increase GDP in the short run. However, in the long run, military spending and other costs of imperial expansion undermined Soviet economy. Importantly, USSR was not alone in this failure of the state socialist catching up development: the performance of Hungary, Poland, Czechoslovakia in 1938–1990 was even worse. By 1990, they lagged behind U.S. more than in 1913 and in 1938.<sup>5</sup>

The causes of the ultimate failure of the Soviet model of the catching-up are discussed a lot in the of the sovietology and then transition studies literature. So let us come back to the central research question: was the catching-up performance of the restored capitalism in 1990–2010 better or worse in comparison with the pre-communist 1913–1938 period?

Data about first two decades of post-communist transformation make much less uniform picture in comparison with 1913–1938 period. In this time, Romania was the only Eastern European country which failed by “American standard.” By contrast, the list of failures includes two Baltic States (Latvia and Lithuania), probably Hungary and almost all Yugoslavia successor states, while the only achievement of Romania was to keep its former running position. While Poland is justly considered as a post-communist “growth miracle,” doubling its GDP per capita during first 20 years of post-communist period, this remarkable achievement was only sufficient to compensate for the falling behind during communist period. As a result, in 2010 Poland come back into running position behind the Champion where the country was in 1938.<sup>6</sup>

The inter-temporal comparison helps to gauge the real extent of the post-communist catching-up achievements of the successor states of Czechoslovakia: the GDP per capita on the territory of its two successor states in the 2010 makes 42.7%, while in 1913 it was 39.5% of U.S. GDP per capita. However, these numbers conceal the differences in the performance of these states: by 2010, Slovakia (almost) managed to catch up with Czech Republic, which was a much more developed part of Czechoslovakia in 1990, 1938 and 1913. Thus, to finish answering my research question, I will expand my case population in 1990–2010, taking into account the dissolution of three composite polities at the beginning of post-communist transformation (see Fig. 3–4). These figures disclose significant disparities in the catching up performance not only between Czech Republic and Slovakia, but also among successor states of USSR and Yugoslavia, which remain concealed by the aggregate data visualized in the Fig. 1–2.

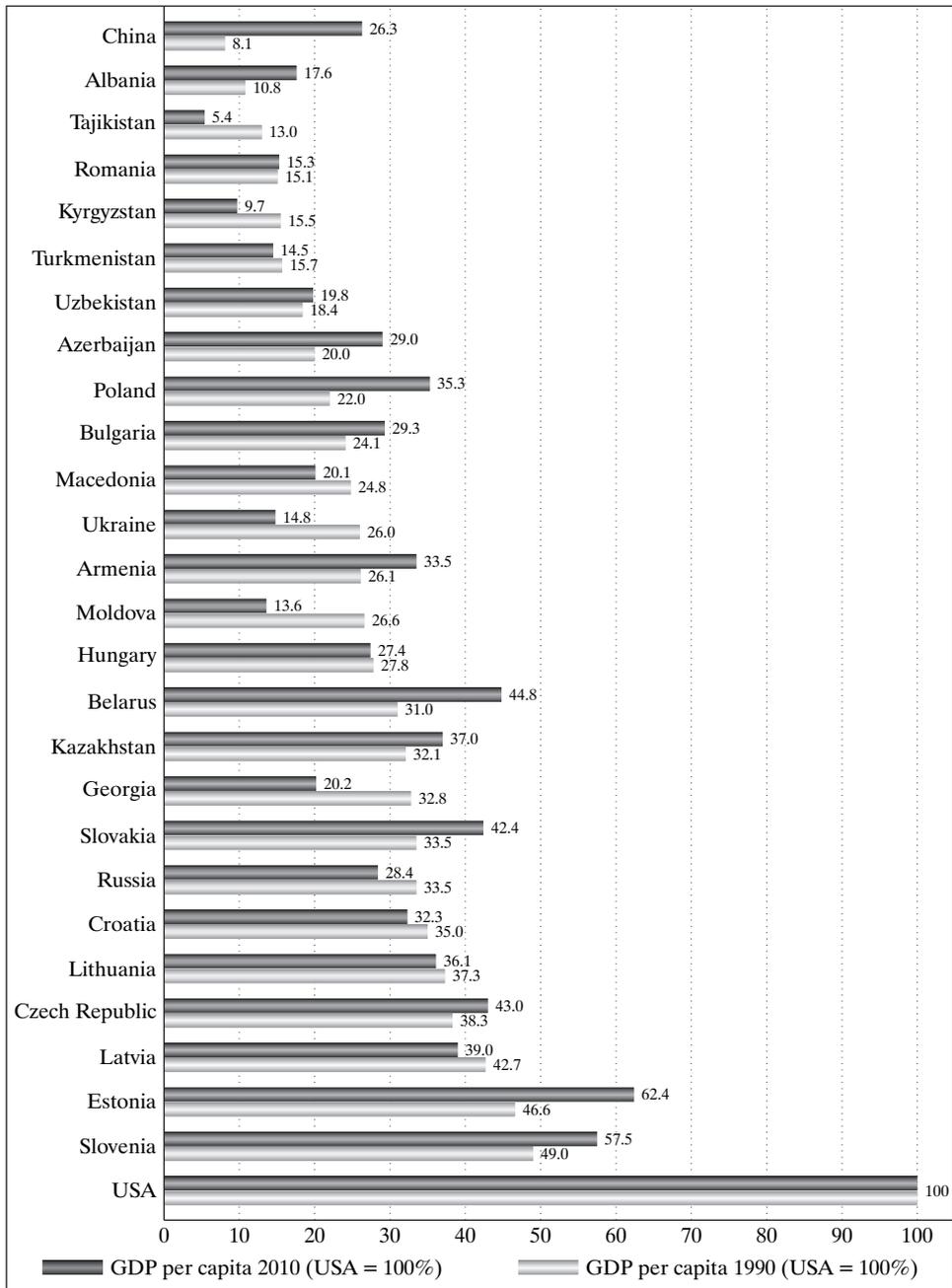
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<sup>5</sup> World Bank WDI data provide a bit brighter ranking of Hungary and Czech Republic.

<sup>6</sup> As well as in 1978, when Poland’s GDP per capita (6,111 1990 GK\$) was 33.3% of U.S. Then it did fall down to 5,228,1990 GK\$ by 1982 and did not recover to the 1978 level until the end of Communism. Other East European countries displayed some (even if very modest growth) during their last Communist decade.

Figure 3

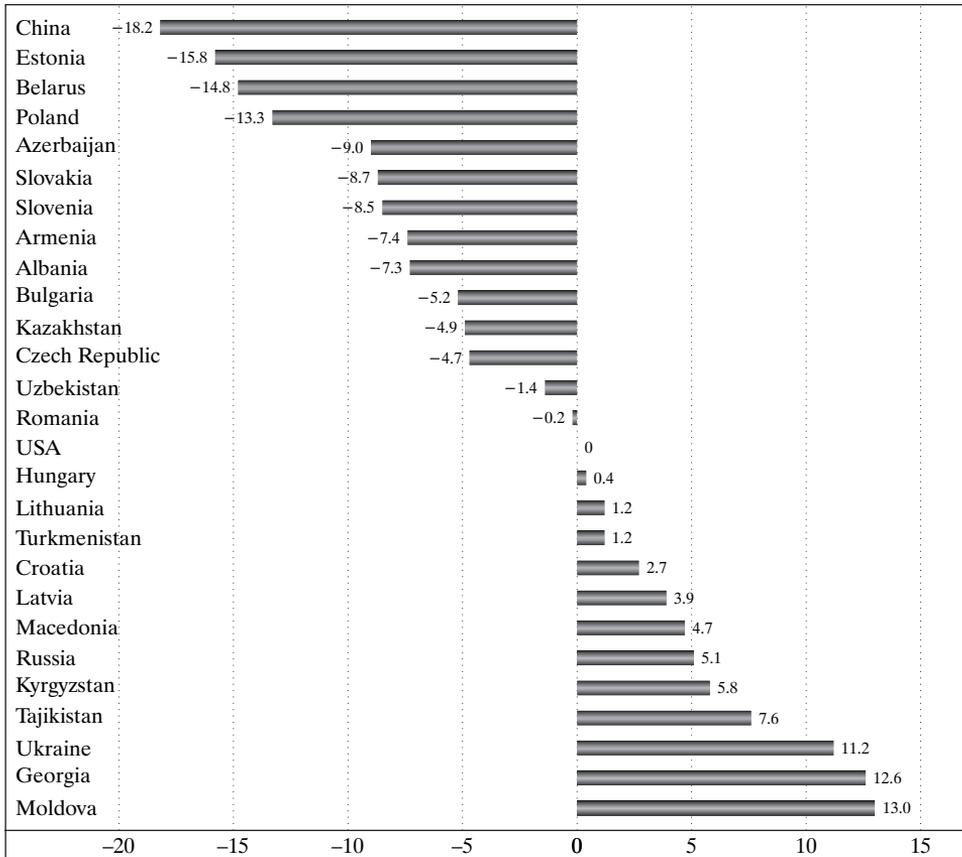
**GDP per capita of post-communist countries in 1990–2010 in comparison with the U.S. GDP per capita (U.S. = 100%)**



Author's calculation. Primary data source: Bolt and van Zanden 2013.

Figure 4

Catching up and/or falling behind the U.S. in 1990–2010 (U.S. GDP per capita = 100%)



Bars with negative numbers represent the decrease, bars with positive numbers the increase of the GDP gap with U.S.

Author's calculation. Primary data source: [Bolt and van Zanden 2013](#).

Disaggregate data confirm the preliminary answer to my research question. In fact, there is much more cross-country variation in the catching-up performance during first twenty years of post-communist capitalism era than in the 1913–1938 period. In 1990–2010, total case population divides in two nearly equal parts. One of them includes states which moved up by decreasing the disparity with the U.S., while another comprehends countries which moved down or stayed where they were at the end of communist era.

Actually, the set of failures would be even greater, if the population would be expanded by Yugoslavia successor states Bosnia, Kosovo, Montenegro, Serbia, which were not included because of state identity or data problems. In contrast, for the 1913–1938 period Maddison project database and historical literature I was able to consult, allow to classify only Romania as not moving up. Remembering the hopes and

promises at the times of “extraordinary politics” in 1989–1991, not only increases in the disparity, but also absence of marked convergence progress should be considered as a relative failure of the post-communist transformation.

The overall conclusion would be that catching up performance of post-communist states during two first post-communist decades was not better than that of their predecessors in 1913–1938. Important finding is that the best performers during post-communist time performed better than the best performers in the 1913–1938 period, while the worst failures under post-communism performed worse than the worst performers in 1913–1938. Remarkably, Poland is one of the star performers of the post-communist period, while its catching-up record during pre-communist period was rather bleak. For two of three Baltic states, we see the opposite picture.

### Concluding Cross-Checks and Final Statements

Of course, these findings stand and fall within the data that validates them. For the intertemporally valid diachronic cross-country GDP comparisons, which involve both post-communist and pre-communist periods, Maddison data remain the only available source. However, some limited controls for the patterns of GDP dynamics emerging out of Maddison project data are possible for even 1913–1938 period. This applies to countries with well-researched economic history: where calculations of national income dynamics in national currency at constant prices or at exchange parity at constant prices are available. I have used this possibility to control Maddison data for Romania’s case.

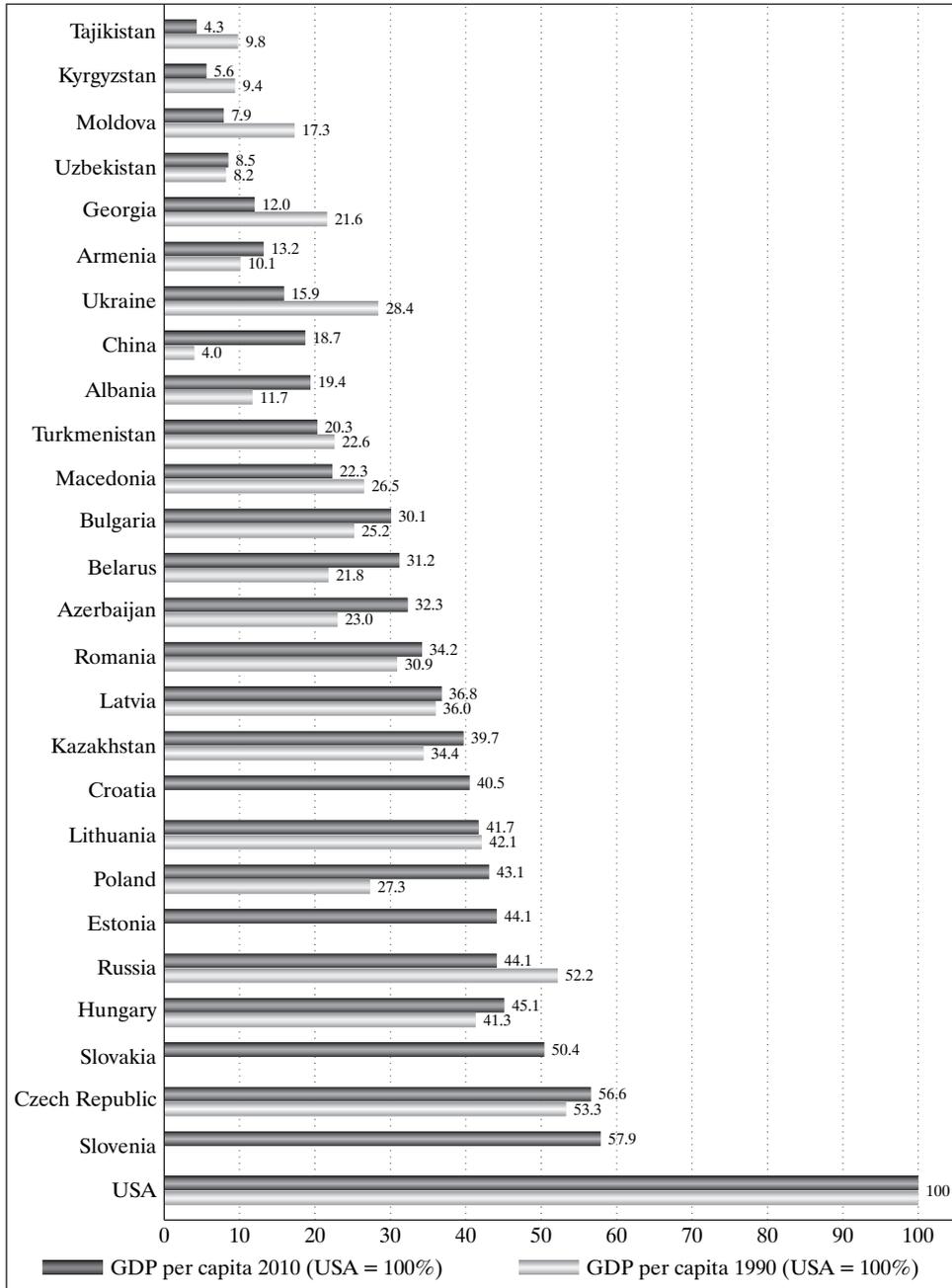
For the post-communist period, the most encompassing and authoritative alternative source is WDI, introduced in the second section. Fig. 5 provides the picture of the running order of post-communist countries behind U.S. in 1990 and 2010, while Fig. 6 supplements this picture with information about their catching up performance in 1990–2010.

Comparing Fig. 5 with Fig. 3 and Fig. 6 with Fig. 4, we can see basically similar picture. Poland emerges as a star performer according to both sources. Intriguingly, according to WDI data it even overshadows China. To recall (see previous section), there is no mistake or paradox: this is because Poland’s GDP per capita in 1990 was more than two times larger in comparison with China’s GDP. Therefore, Poland’s doubling of GDP per capita in 1990–2010 was more formidable achievement in terms of the catching up with U.S. than China’s fourfold growth. This apparent paradox helps to apprehend that the convergence with CWS core countries is much more daunting challenge to the Asian giant than for the already middle-income level post-communist countries of Eastern Europe.

WDI provides somewhat brighter picture about the catching up performance of Hungary and Latvia. However, the Latvia’s success according WDI is so small, that it can be classified with Lithuania as a relative failure case. In Hungarian data series there is a gap in 1990, so I used 1991 as starting year. However, in 1991 the economy of this country already suffered from transformational recession. So disagreement

Figure 5

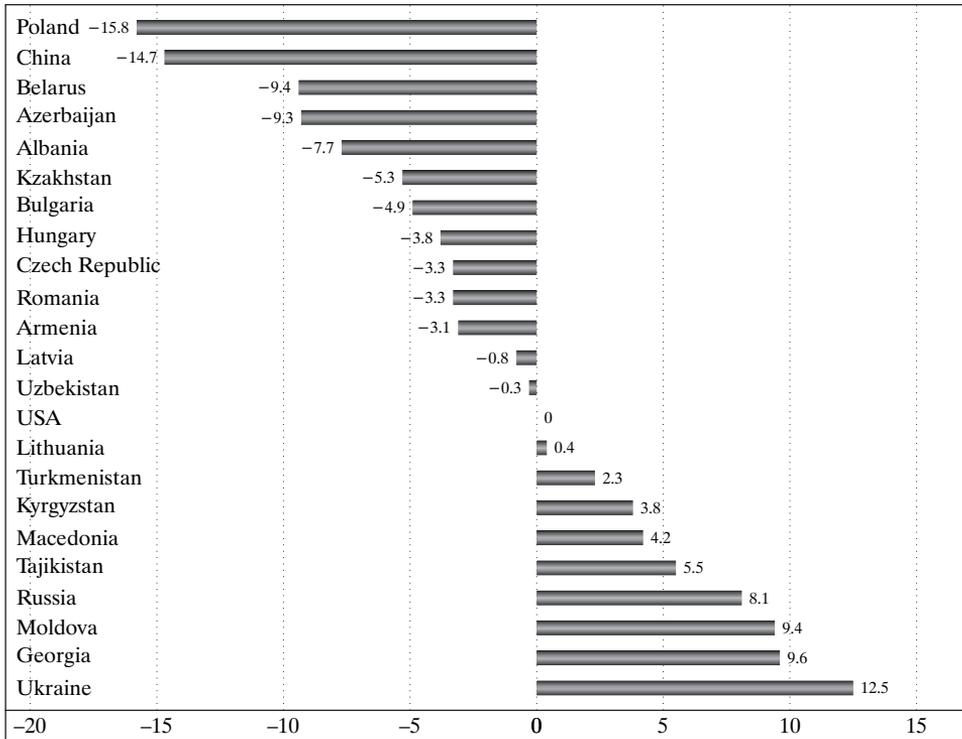
**GDP per capita at PPP of post-communist countries in 1990–2010  
in comparison with the U.S. GDP per capita (U.S. = 100%)**



Author's calculation. Primary data source: [World Development Indicators 2014](#). For Hungary, 1991 is first period year.

Figure 6

Catching up and/or falling behind the U.S. in 1990–2010 (U.S. GDP per capita = 100%)



Bars with negative numbers represent the decrease, bars with positive numbers the increase of the GDP gap with U.S.

Own calculation. Primary data source: [World Development Indicators 2014](#). For Hungary, 1991 is first period year.

about Hungary's catching up between two sources may be explained by differences in the reference year.

Disappointingly, present version of WDI dataset does not allow for control of the Maddison dataset's depiction of Estonia as second best (after China) catching-up performer, because WDI GDP series for Estonia start only since 1995.<sup>7</sup> Because of the same reason, in the [Fig. 6](#) there are no columns for Croatia, Slovakia,<sup>8</sup> and Slovenia. However, WDI's picture of Estonia's relative wealth ranking in 2010 sharply deviates from Maddison database (cp. [Fig. 4](#) and [5](#)), placing it only slightly ahead of Poland and Lithuania. The WDI view seems to be more close to reality, because even a superficial first-hand tourist's experience discloses the greater proximity of life standard in Estonia to other Baltic States than to Germany or Finland (this is what

<sup>7</sup> There were no such gaps in the earlier editions of WDI (e.g. WDI 2011), where Estonia's GDP per capita in 1990 was even slightly smaller than that of Lithuania.

<sup>8</sup> The post-communist period data series for this country starts in 1992, which was the time of transformation crisis in this country. So its inclusion would greatly exaggerate its catching up performance.

Maddison data claim; cp. Tab. 1). However, despite all these uncertainties, I have no doubts that the post-communist Estonia should be classified with “moving up” or “catching up” countries. Therefore, my description of Estonia as uniquely catching up with U.S. during all three periods (pre-communist, communist, and post-communist) remains in force.

Observations of the continuities and discontinuities in the catching up performance during post-communist and pre-communist periods invites to expand the received agenda of the post-communist transformation studies by new questions, expanding common ground for historical and sociological research. E.g. why *Rzeczpospolita III* performs much better in closing the GDP gap in comparison with *Rzeczpospolita II*? Why disparities in the post-communist performance between the Baltic states are larger during the post-communist than during the interwar period? How to explain the continuity in the Romania’s record of weak catching up performance during both periods (even if pre-communism failures may be exaggerated in Maddison’s data)? These questions refer to problems for further research.

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