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CATCHING UP: DEVELOPING COUNTRIES IN PURSUIT OF GROWTH

Vladimir Popov¹

ABSTRACT

This paper examines the trajectory of growth in the Global South. Before the 1500s all countries were roughly at the same level of development, but from the 1500s Western countries started to grow faster than the rest of the world and PPP GDP per capita by 1950 in the US, the richest Western nation, was nearly 5 times higher than the world average. Since 1950 this ratio stabilized – not only Western Europe and Japan improved their relative standing in per capita income versus the US, but also East Asia, South Asia and some developing countries in other regions started to bridge the gap with the West. After nearly half of millennium of growing economic divergence, the world seems to have entered the era of convergence. The factors behind these trends are analyzed; implications for the future and scenarios are considered.

JEL classification: N00, O1, O40, O47, O43

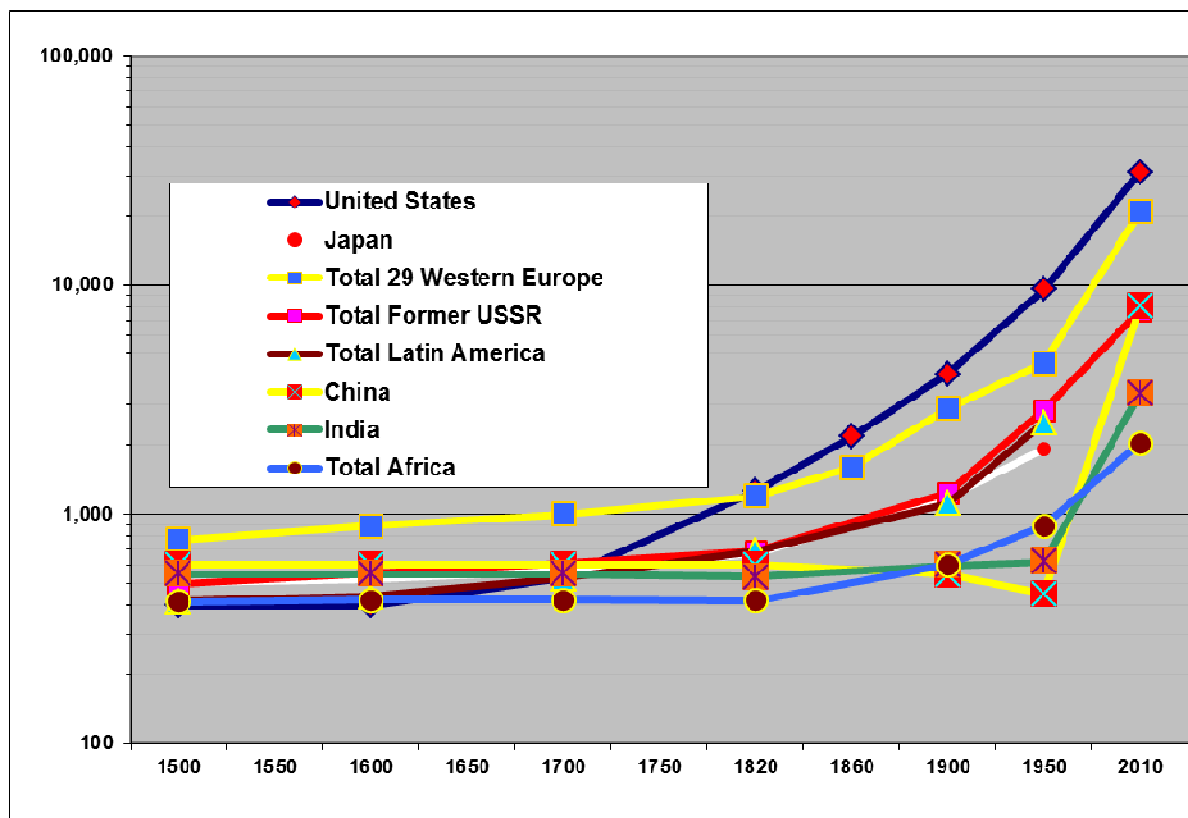
Keywords: convergence, divergence, gap in per capita income between the West and the South, economic growth, institutional capacity of the state

¹The views expressed are those of the author and are not necessarily those of the United Nations.

CATCHING UP: DEVELOPING COUNTRIES IN PURSUIT OF GROWTH

In 1500 the ratio of average per capita income in the West (Western Europe and “off-springs” – USA, Canada, Australia, New Zealand) and the South (all other countries) was approximately 1:1, by 1900 it increased to 6:1 and remained at this level for the next 100 years (if China is excluded, the ratio actually increased, but not as fast as in the past - fig. 1, 2).

Figure 1. PPP GDP per capita in major countries and regions since 1500 (1990 international Geary-Khamis dollars, log scale)

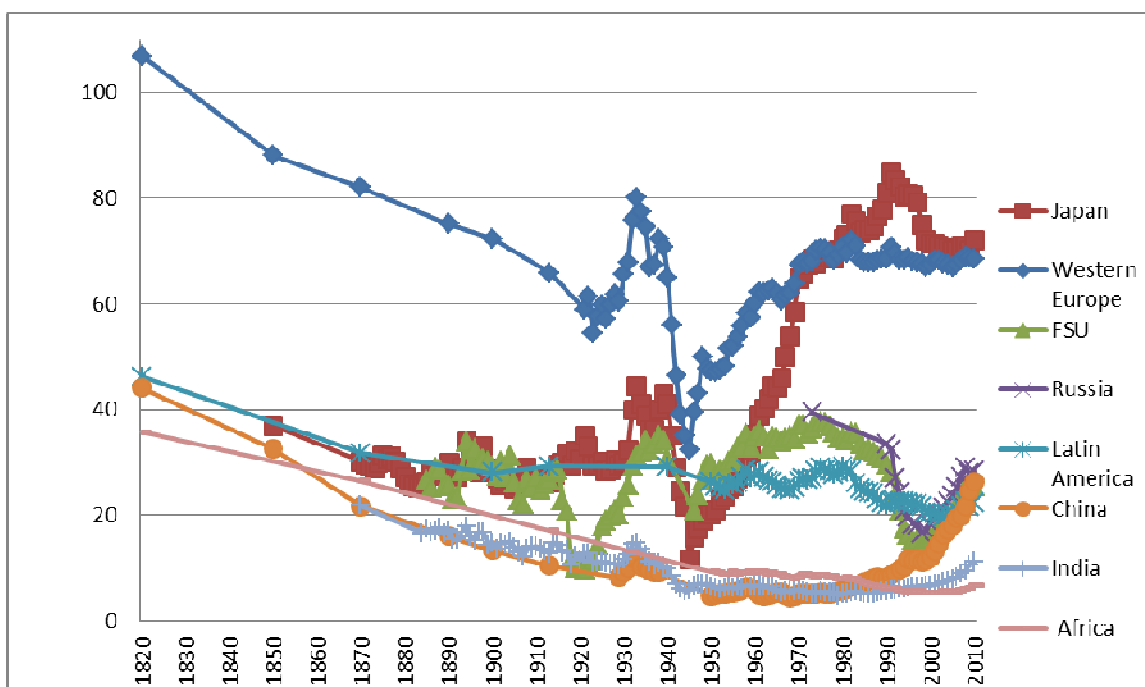


Source: Maddison, 2013.

In the second half of the 20th century, however, we witnessed, for the first time in half a millennium, examples of successful catch-up development. Japan, Hong Kong, Singapore, Taiwan, South Korea (in chronological order) in the 1950-80s were the only states/territories

that successfully caught up with the West and became developed countries. In recent decades a similar process is underway in Southeast Asia and in China. Together with the recent acceleration of growth of India and some other developing countries it could signify the reaching of a tipping point in the Great Divergence (Nayyar, 2013; WESS, 2010). It may well be that in future the world will experience a gradual global convergence in levels of income, so that in the 21st century the gap between the West and the South will narrow and perhaps will mostly disappear (fig. 1, 2).

Figure 2. PPP GDP per capita (in 1990 International Geary-Khamis dollars) as a % of the US level

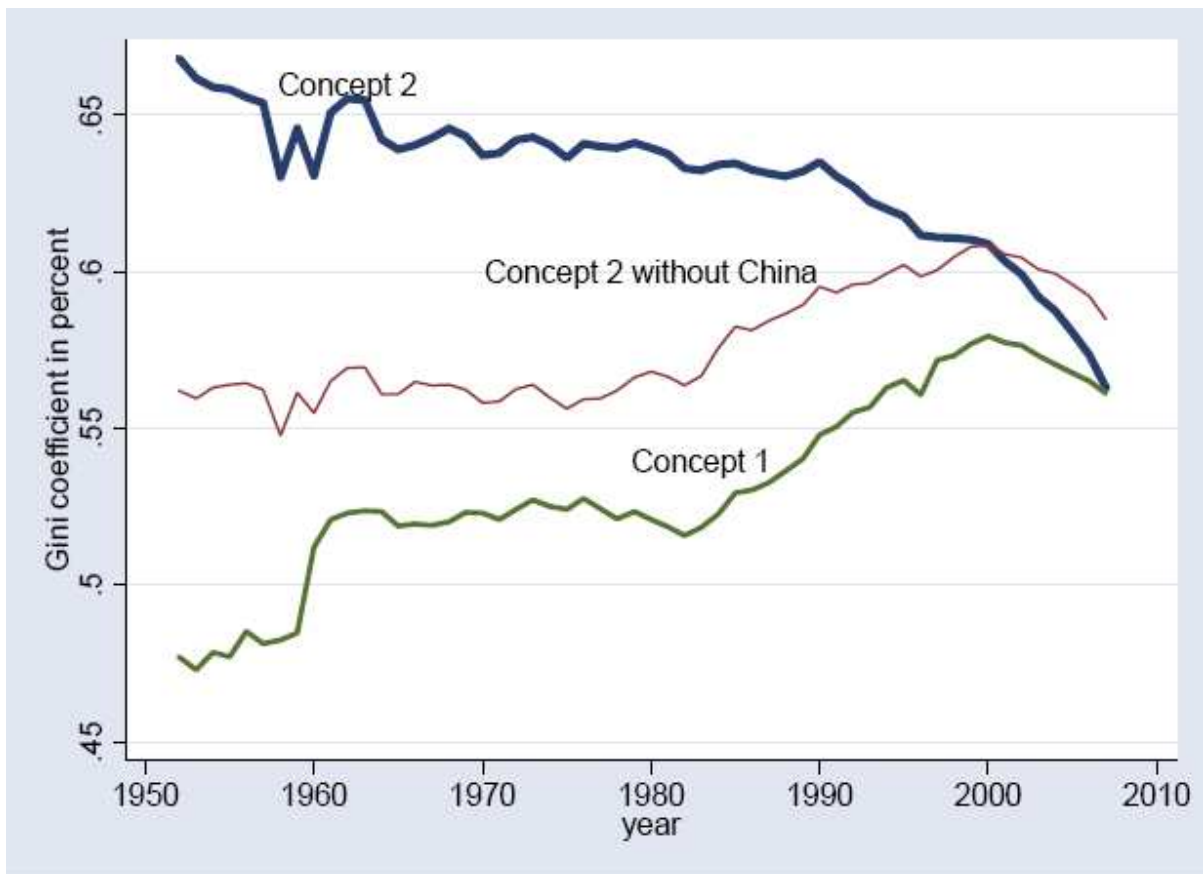


Source: Maddison, 2013.

True, other regions of the global South (Sub-Sahara Africa, East Europe and former Soviet Union) have not been catching up and some have even been falling behind, especially in the 1980s-90s, during the heydays of Washington consensus (O'Campo et al., 2007). But, for the first time in 500 years the *average* gap in per capita GDP has stopped widening and started to close for some major economies.

Measures of global income inequality also point to the slowing down of economic divergence in the 20th century and, perhaps, the reversal of the trend after the Second World War. Inequalities between countries, if measured by weighting the mean income of individual countries by population size, show a clear tendency of increase in 1820-1950 and fall thereafter. Even if China is excluded, inequalities did not rise considerably after 1950, like they did before. They were stable in 1950-80, increased in 1980-2000 and fell afterwards (fig. 3).

Figure 3. Inequalities between countries with and without weighting average country income by population size, 1952- 2006



Note: Before 1960, there are between 80 and 90 countries included. After 1960, the number varies between 130 and 150. Concept 1 – inequalities between countries' mean income without weighting observations by the population size; concept 2 – weighting countries' mean income by population size.

Source: Milanovic, 2009.

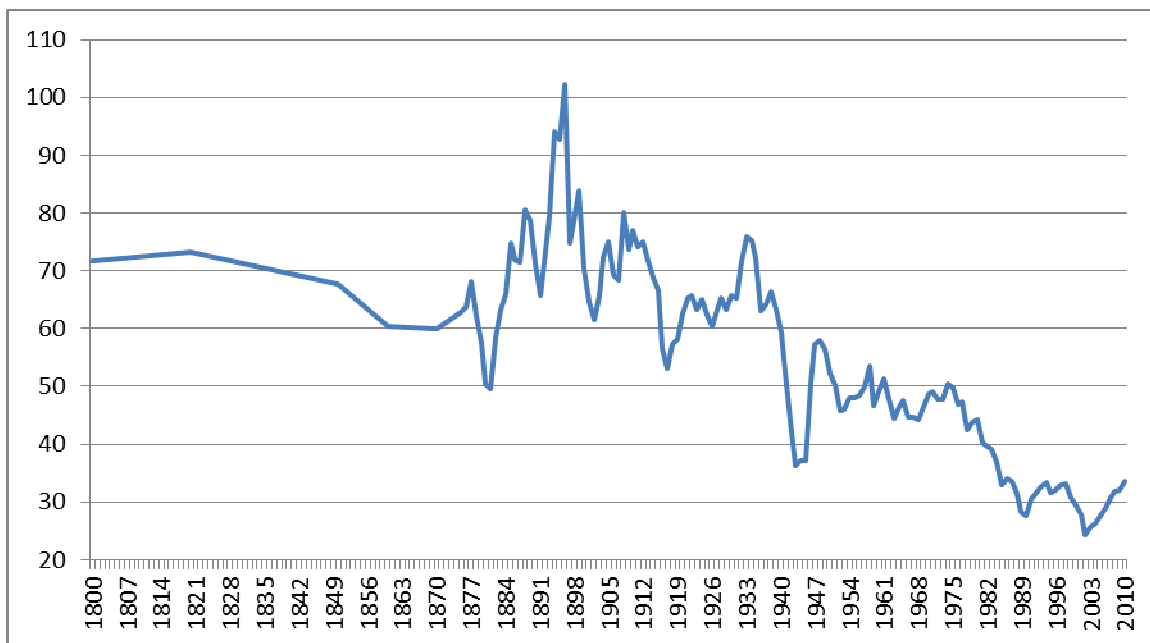
It is observed in the UN World Economic and Social Survey 2014 (WESS, 2014) that between-country inequality has started to decline since 2000 – the reversal of the trend towards divergence in national income levels that prevailed previously.

Why income gap between the West and developing countries that was growing for nearly half of the millennium since 1500 has started to close down? Is it a temporary trend or a permanent one? To answer these questions, we first take a closer look at several major attempts towards catch-up development in the 20th century (Popov, 2014).

XX century catch up attempts

There were cases of falling out of the rich country club – the most prominent one was Argentina in the XX century (Fig. 4), but in most cases countries that became industrialized first in the 18-19th century (the West) stayed rich, whereas the latecomers (the Rest) stayed relatively poor (per capita income of below 50% of the level of the West) until the middle of the 20th century.

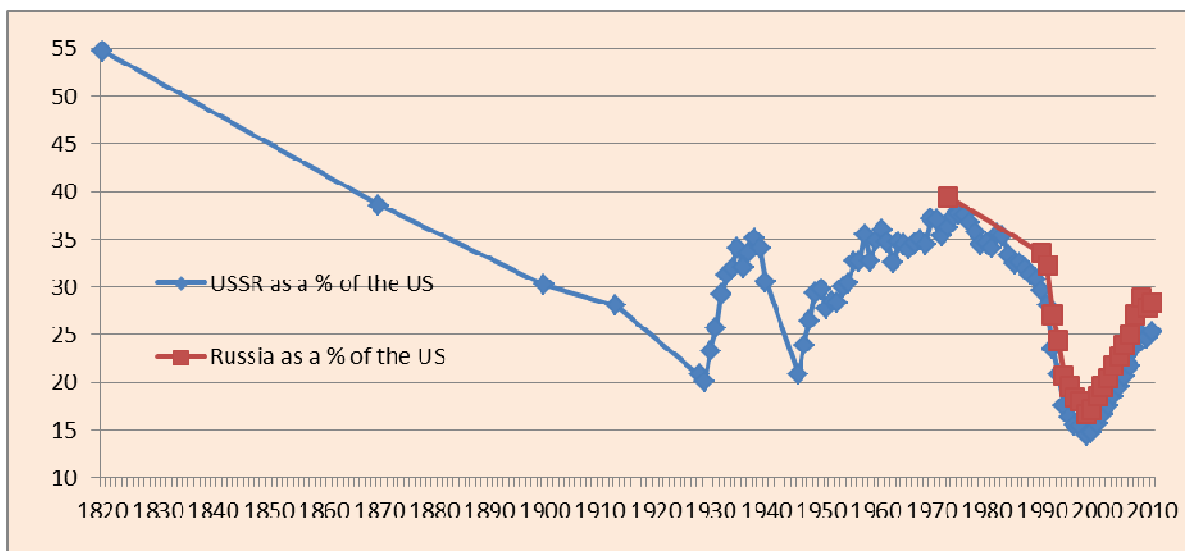
Figure 4. PPP GDP per capita in Argentina as a % of the US in 1800-2010



Source: Maddison, 2013.

The USSR in the 1930s-60s was the first major non-Western country to experience successful catch-up development and to narrow the income gap with the West, although in the 1970-80s the gap ceased to narrow and widened in the 1990s. Soviet catch-up development, however, looked very impressive until the 1970s. Russia was permanently falling behind the West in the 16-19th century – neither reforms of Peter the Great in the early 18th century, nor the elimination of serfdom in 1861 (Emancipation Act), nor Witte’s and Stolypin’s reforms in the early 20th century could have changed the trend. Only in the 1920s-60s Russia (USSR), for the first time in its history, started to catch up with the West (fig. 5). In fact, until the 1960s, the USSR and Japan were the only two major developing countries that successfully bridged the gap with the West (fig. 2).

Figure 5. PPP GDP per capita in the USSR and Russia in 1820-2010, % of the US level



Source: Maddison, 2010, 2013.

Interestingly enough, though, the growth rates of labor productivity in the 1930s, the period of dramatic structural shifts, were high (3% a year), but not exceptional, whereas the highest growth rates were observed in the 1950s (6 %) – fig. 6 (Popov, 2007). The total factor productivity (TFP) growth rates over decades increased from 0.6 percent annually in the 1930s to 2.8 percent in the 1950s and then fell monotonously becoming negative in the 1980s (table 1). The decade of the 1950s was thus the “golden period” of Soviet economic growth

(fig. 6). The patterns of Soviet growth of the 1950s in terms of growth accounting were very similar to the Japanese growth of the 1950s-70s and Korean and Taiwanese growth in the 1960-80s—fast increases in labor productivity counterweighted the decline in capital productivity, so that the TFP increased markedly (Table 1). But high Soviet economic growth lasted only for less than two decades (figs. 5, 6), whereas in East Asia, it continued for three to four decades, propelling Japan, South Korea, and Taiwan to the rank of developed countries.

Figure 6. Annual average labor productivity growth rates in Soviet economy, %



Source: Easterly, Fisher, 1995.

Among many reasons for the decline in growth rate in the USSR in the 1960s-1980s, the most crucial one appears to be the “computation problem” – inability of a centrally planned economy to balance supply and demand of millions of goods and services without losses. This led to inadequate flow of investment into replacement of retired fixed capital stock (Popov, 2007, 2014a): because the task of renovating physical capital contradicted the short-term goal of fulfilling planned targets Soviet planners therefore preferred to invest in building new capacities instead of upgrading old ones. Hence, after the massive investment of the 1930s in the USSR (the Big Push), the highest productivity was achieved after the period equal to the

service life of capital stock (about twenty years) before there emerged a need for massive investment into replacing retired stock. Afterwards, capital stock started to age rapidly, sharply reducing capital productivity and lowering labor productivity and the TFP growth rate.

Table 1. Growth accounting for the USSR and Asian economies, Western data, 1928-87 (annual averages, %)

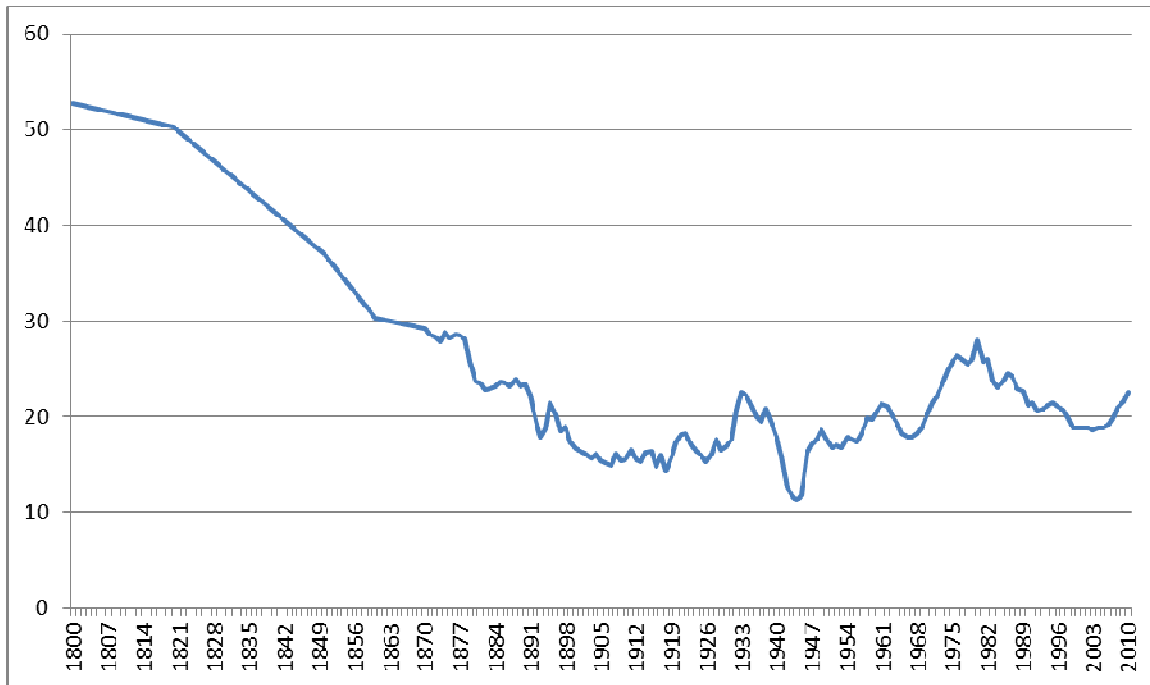
Period/ country	Output per worker	Capital per worker	Capital/output ratio	TPF growth (unit elasticity of substitution)	TPF growth assuming 0.4 elasticity of substitution
USSR (1928-39)	2.9	5.7	2.8	0.6	
USSR (1940-49)	1.9	1.5	-0.4	1.3	
USSR (1950-59)	5.8	7.4	1.6	2.8	1.1
USSR (1960-69)	3.0	5.4	2.4	0.8	1.1
USSR (1970-79)	2.1	5.0	2.9	0.1	1.2
USSR (1980-87)	1.4	4.0	2.6	-0.2	1.1
Japan(1950/57/65/-85/88/90)			2.3 - 3.2	1.7 - 2.5	
Korea (1950/60/65-85/88/90)			2.8 – 3.7	1.7 - 2.8	
Taiwan (1950/53/65-85/88/90)			2.6 – 3.1	1.9-2.4	

Source: Easterly, Fisher, 1995.

If this explanation is correct, a centrally planned economy is doomed to experience a growth slowdown after three decades of high growth following a Big Push. In retrospect, the relatively short Chinese experience with the CPE (1949/59-79) looks superior to the Soviet excessively long experience (1929-91). This is one of the reasons to believe that transition to the market economy in the Soviet Union would have been more successful, if it had started in the 1960s (Popov, 2007).

Some other countries in Latin America, Africa and Middle East were temporarily catching up with the West in the XX century, but their success normally did not last. In the 1950s-1970s many developing countries experienced relatively fast growth and the narrowing of the gap, but lost momentum after the debt crisis of the early 1980s. Economists started to talk about the “lost decade” in Latin America (1980s) and in Africa (1990s). The trajectory of Brazil (Fig. 7) is a rather typical in this respect.

Figure. 7. PPP GDP per capita in Brazil as a % of the US in 1800-2010



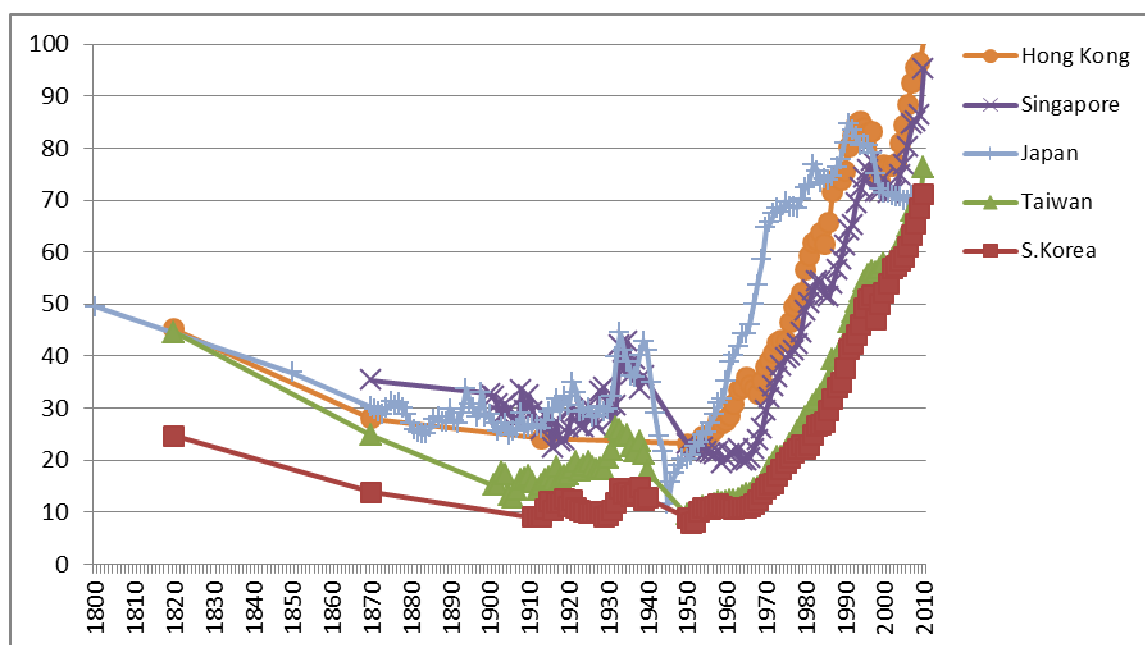
Source: Maddison, 2013.

The first really successful catch up occurred in East Asia after the Second World War – five countries/territories that belonged to developing world (with per capita GDP of 10 to 40% of the US level before the World War II), joined the rich countries club during several postwar decades – Japan, Hong Kong, Singapore Taiwan, South Korea – in chronological order (fig. 8). Hong Kong and Singapore cases can be easily dismissed because these are cities with population of several million people, but the other three cases are indisputable and still unique stories of successful catch up development.

Wallerstein (1979) referred to the rapid postwar growth of Japan, South Korea and Taiwan as “development by invitation” implying that US had a vital interest in preventing the spread of communism in Asia and provided unprecedented aid to these countries that played a crucial role in engineering economic miracle. However, in the 1960s a similar growth started in Malaysia, Thailand and Indonesia, in the 1980s – in China, and in the 1990s – in Vietnam (fig.

9). At the very least, the growth of communist China cannot be called “development by invitation”. It was also argued that large US aid to South Vietnam did not lead to the same results as in South Korea and Taiwan (Gray, 2013); the acceleration of growth occurred after the unification of the country in 1975 and *doi moi* gradual liberalization (Chinese style market oriented reforms) of 1986.

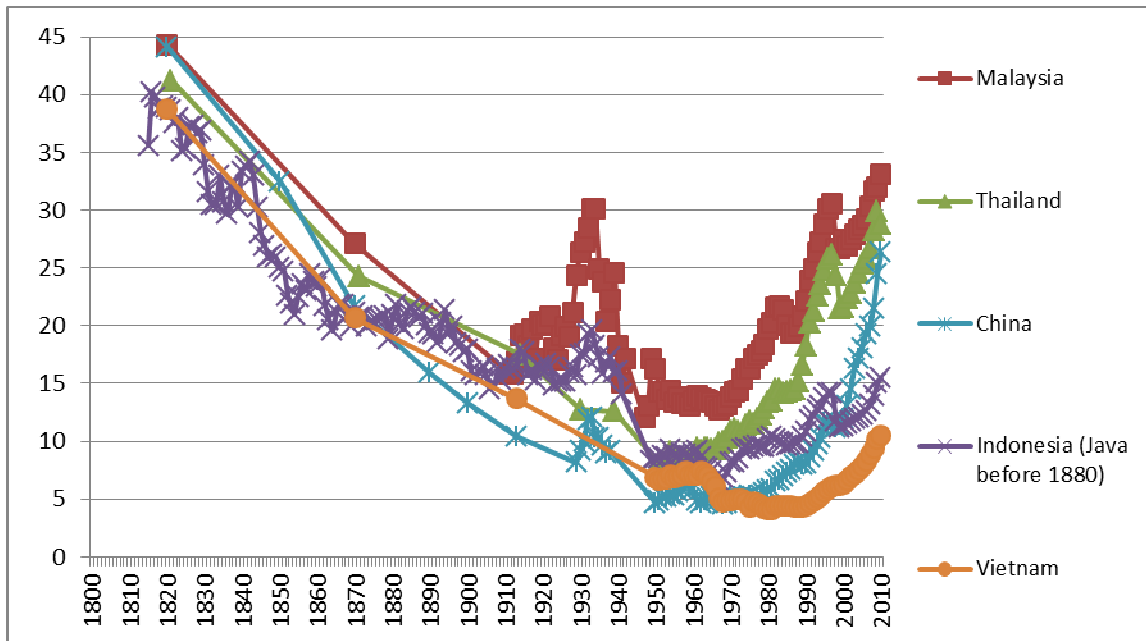
Figure 8. PPP GDP per capita in countries that took off after the Second World War (Japan, Taiwan, Hong Kong Singapore, S. Korea)



Source: Maddison, 2013.

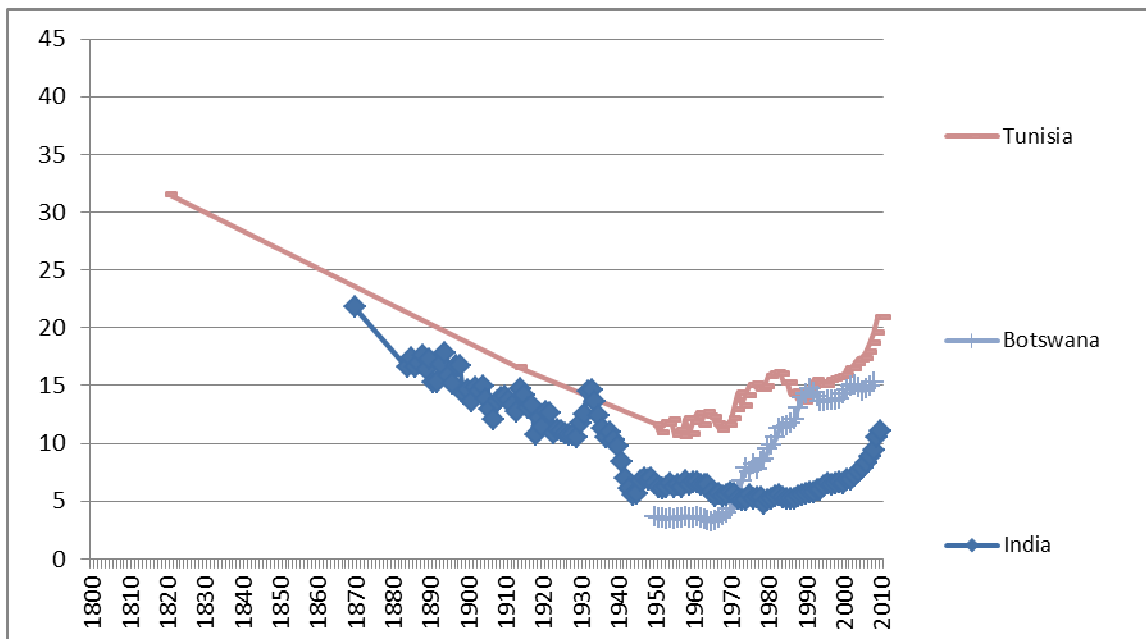
To make the story more complicated, it is not only East Asian countries that experienced successful catch up development. Rapid growth stories in the Global South in the postwar period range from Botswana and Lesotho in Sub Sahara Africa (SSA), to India and Sri Lanka in South Asia (SA) to Israel, Oman and Tunisia in MENA (Middle East and North Africa). In Europe rapid growth was observed in Greece, Ireland, Montenegro, Portugal, Spain (Table 2). Besides, since 1950, even though there were no major breakthroughs in catch up development of the whole regions of LA (Latin America), SSA, SA and MENA, the gap in levels of economic development between these regions and the West stopped widening.

Figure 9. PPP GDP per capita in countries that took off in the 1960s and later (SEA and China)



Source: Maddison, 2013.

Figure 10. PPP GDP per capita in some countries outside East Asia that took off in the 1960s and later (India, Tunisia, Botswana)



Source: Maddison, 2013.

Table 2. Fastest growing countries – average annual per capita real GDP growth rates in 1950-2013, %

Country / Period	Growth rate in 1950-2010 (Maddison)	Growth rate in 1960-2010 (Maddison)	Growth rate in 1960-2013 (WDI)
Taiwan	5.54	5.86	
S. Korea	5.54	5.91	5.97
China	4.93	5.12	6.60
Oman	4.70	4.82	6.48
Hong Kong SAR, China	4.48	4.67	4.17
Botswana (Maddison data – until 2008)	4.46	5.07	5.66
Singapore	4.38	5.19	5.19
Thailand	4.15	4.42	4.39
Japan	4.14	3.47	3.20
Burma (Myanmar)	3.80	3.84	2.77 (1960-2004)
Spain	3.45	3.46	2.69
Greece	3.45	3.13	2.34
Portugal	3.26	3.20	3.04
Israel	3.25	2.87	2.98
Austria	3.17	2.65	2.55
Malaysia	3.16	3.84	3.77
Ireland	3.14	3.33	3.14 (1971-2013)
India	2.87	3.04	3.12
Indonesia	2.97	3.12	3.54
Tunisia	2.95	3.16	2.94
Montenegro	3.18 (1952-2010)	3.18	
Lesotho (Maddison data – until 2008)	2.88	2.94	3.06
Sri Lanka	2.45	2.88	3.42

Source: Maddison, 2013; World Development Indicators database.

Growth, policies and institutions

The question why some countries are growing faster than the others is the central one in economics. It is in fact the old question about the nature and the causes of the wealth of nations (Smith, 1776). In retrospective view of economic growth this question is often formulated as “why the West got rich before the Rest?” and “why some developing countries are catching up with the West, but others do not?” Unfortunately, there is no consensus among economists what exact policies are needed for engineering high growth (Popov, 2011a).

It is said that failure is always an orphan, whereas success has many parents. No wonder, both neo-classical and structuralist economists claim that economic success stories in the Global South prove what they were saying all along. It is not difficult to find many contradictory statements in the literature about the reasons of economic success: economic liberalization and free trade are said to be the foundations of rapid growth in some countries, whereas successes of other countries are credited to industrial policy and protectionism; foreign direct investment are normally considered as a factor contributing to growth, but it is pointed out that it did not play any significant role in the developmental success of Japan, South Korea and pre-1990s China. Privatization of state enterprises, free trade, liberalization of the financial system, democratic political institutions – all these factors, just to name a few, are usually believed to be pre-requisites of successful development, but it is easy to point out to success stories, not associated with these factors². It is debated whether foreign aid boosts growth or merely crowds out domestic savings and investment (United Nations, 2003; Channing, Jones, Tarp, 2010).

In the 1970s the breathtaking economic success of Japan that transformed itself into a developed country just in two postwar decades was explained by “Japan incorporated” structure of the economy – special relations between (a) the government and companies (the omni-powerful Ministry of International Trade and Industry – MITI), (b) between banks and

² Often the same international organizations issued reports, which advocated different policies for growth. For instance, “East Asian miracle” report of the World Bank (World Bank, 1993) acknowledged the role of the state and industrial policies in rapid growth, but it was argued in the World Development Report of 1996 (WDR, 1996, p. 142) that “consistent policies, combining liberalization of markets, trade, and new business entry with reasonable price stability, can achieve a great deal even in countries lacking clear property rights and strong market institutions”. The next World Development Report (WDR, 1997) was entitled “The State in the Changing World” and emphasized the crucial importance of state institutions for growth.

non-financial companies (bank-based financial system), (c) between companies and workers (life time employment). After the stagnation of the 1990s, and especially after 1997 Asian financial crisis that affected Japan as well, these same factors were largely labeled as clear manifestations of “crony capitalism” that should be held responsible for the stagnation (Popov, 2008).

The analysis of policies that contributed most to poverty reduction and the achievement of other Millennium Development Goals in 2000-15 also suggests that there is no single strategy that leads to success under all conditions and at all development stages (WESS, 2015).

Reforms that are needed to achieve success are different for countries with different backgrounds and at different stages of development (Polterovich, Popov, 2005; 2006). Manufacturing growth is like cooking a good dish—all needed ingredients should be in the right proportion; if only one is under- or overrepresented, the ‘chemistry of growth’ will not happen. Fast economic growth can materialize in practice only if several necessary conditions are met at the same time. Rapid growth is a complicated process that requires a number of crucial inputs— infrastructure, human capital, even land distribution in agrarian countries, strong state institutions, economic stimuli, among other things. Once one of these crucial necessary ingredients is missing, the growth just does not take off. Rodrik, Hausmann and Velasco (2005) talk about ‘binding constraints’ that hold back economic growth; finding these constraints is the task of ‘growth diagnostics’. In some cases, these constraints are associated with the lack of market liberalization, in others, with the lack of state capacity or human capital or infrastructure. Why economic liberalization worked in Central Europe, but did not work in SSA and LA? The answer, according to the outlined approach, would be that in Central Europe the missing ingredient was economic liberalization, whereas in SSA and LA there was a lack of state capacity, not the lack of market liberalization. Why liberalization worked in China and central Europe and did not work in CIS? Because in the CIS it was carried out in such a way as to undermine the state capacity—the precious heritage of socialist past—whereas in Central Europe, and even more so in China, the state capacity did not decline substantially during transition (Popov, 2014).

It is difficult therefore, if not impossible, to find universal recipes for rapid growth. However, there is a different way to approach the question – to look not at policies enacted in fast growing countries (“good” policies vary depending on initial conditions and stages of development), but at the institutions that were conducive to adopting these policies or at least made them possible. Here we consider only state institutions, or to be more precise – state institutional capacity defined as the ability of the state to enforce rules and regulations. Subjective measures of the state capacity – indices of government effectiveness, rule of law, corruptions, etc. – have a number of shortcomings (Popov, 2011b), so we suggest objective indicators, such as crime rate, murder rate, the share of shadow economy – the ability of the state to enforce its monopoly on violence and monopoly on taxation.

The general rule is that developed countries, East Asia, South Asia and MENA countries have murder rates of 1-10 murders per 100,000 inhabitants and shadow economy of less than 30% of GDP, whereas in SSA, Latin America and some former Soviet Union republics (Baltics, Belarus, Kazakhstan, Moldova, Russia, Ukraine) the murder rate is higher by the order of magnitude (10-100 murders per 100,000) and the shadow economy is way over 30% of GDP. Economic growth in large regions of the Global South correlates strongly with the murder rate and shadow economy (negative correlation – the higher the murder rate and the shadow economy, the lower is growth). East Asia is ahead of everyone in terms of growth, followed by South Asia and MENA, while Latin America, SSA and FSU are falling behind.

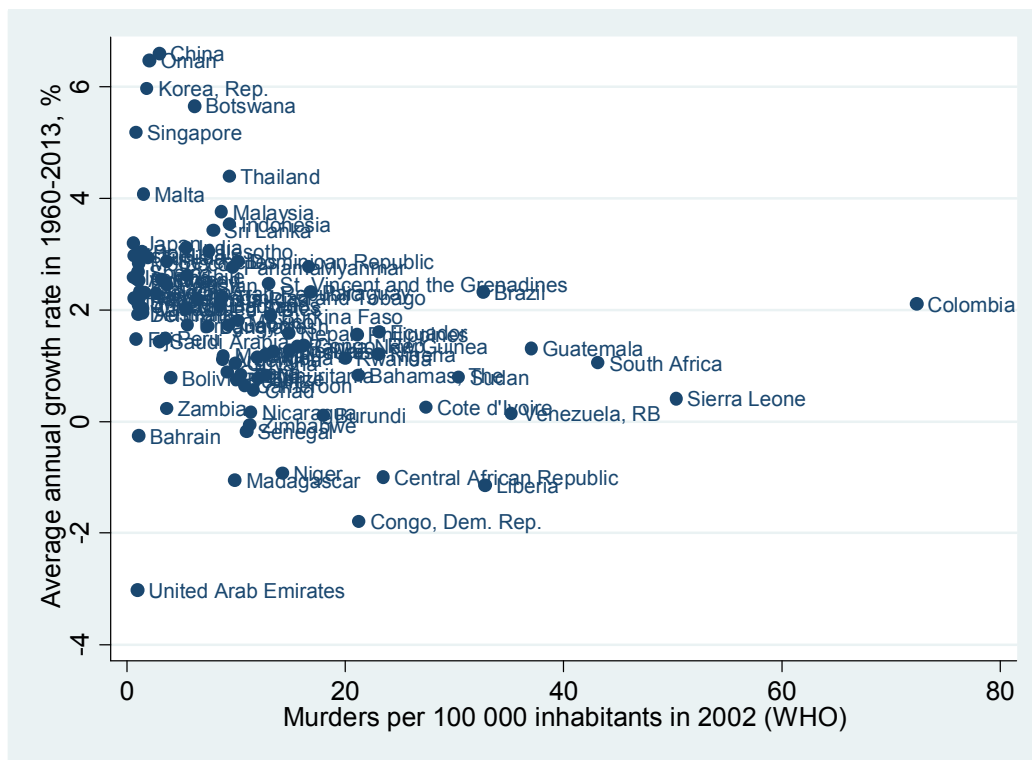
In fact, the murder rate and the share of the shadow economy – the objective indicators of the institutional capacity of the state – turn out to be the best institutional predictors of the long term growth rates of GDP per capita. In regressions for over 50 years (1960-2013) for 80 countries for which data are available, up to 40% of variations in GDP per capita growth are explained by the level of development (GDP per capita) and institutional indicators (murder rate and share of shadow economy)³. These regressions are quite robust and hold for different sub-

³ $y = -0.0003*** \text{Ycap75} - 0.03* \text{MURDERS} - 0.14*** \text{SHADOW} + 5.32***$
 (-4.95) (1.67) (-4.82) (8.55)
 N=80, R² = 0.38, robust standard errors, T-statistics in brackets below;

$y = 0.003*** \text{POPDENS} - 0.0002*** \text{Ycap75} - 0.023 \text{MURDERS} - 0.067*** \text{SHADOW} + 5.04***$
 (4.08) (-4.33) (-1.62) (-4.40) (7.67)

periods (1960-75, 1975-2000, 2000-13). Among variables that are not directly related to growth, such as investment rate, population growth rates, etc., state institutional capacity turns out to be the single most important predictor of growth. The negative relationship between growth rate and state institutional capacity as measured by the murder rate and the share of shadow economy can be observed with a naked eye at figs. 11 and 12.

Figure 11. Murder rate in 2002 per 100,000 inhabitants and average annual per capita GDP growth rates in 1960-2013, %



Source: WDI; WHO.

$N=80$, $R^2 = 0.40$, robust standard errors, T-statistics in brackets below, where

y – annual average growth rates of per capita GDP in 1960-2013, %,

POPDENS – number of residents per 1 square km in 2000,

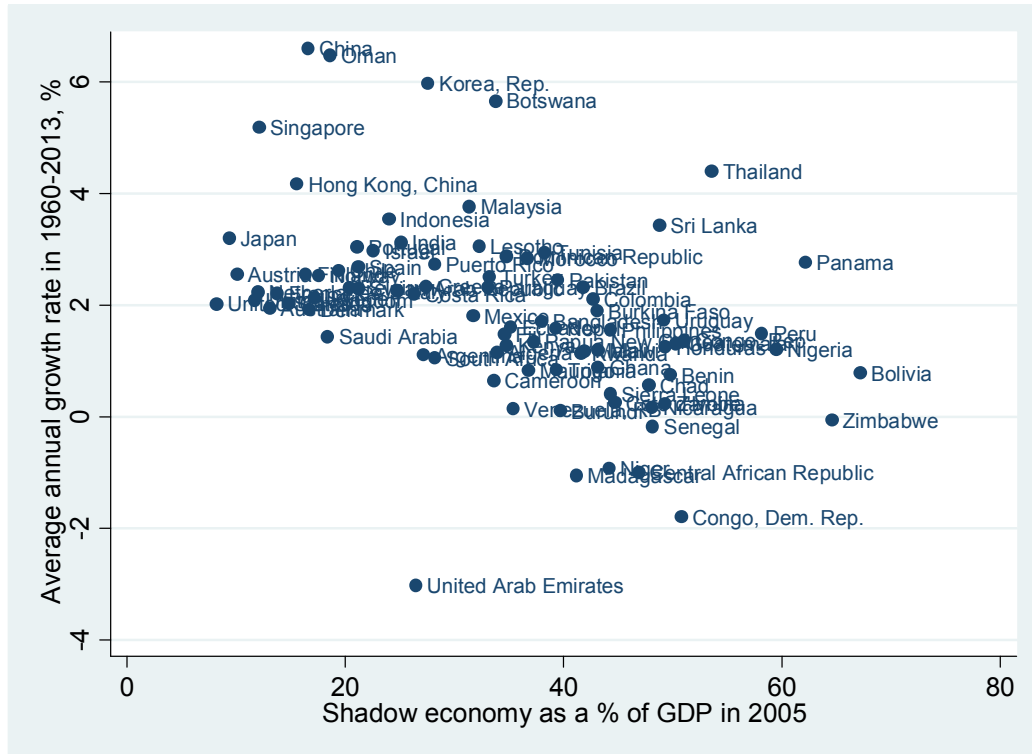
Ycap75 – per capita PPP GDP in 1975 in dollars,

MURDERS – number of murders per 100,000 inhabitants in 2002,

SHADOW – share of shadow economy in GDP in 2005, %.

Data on growth, population density and PPP GDP per capita are from WDI, data on murders are from WHO, data on shadow economy are from Schneider, 2007 (measures of the shadow economy are derived from divergence between output dynamics and electricity consumption, demand for real cash balances, etc.).

Figure 12. Shadow economy in 2005 and annual average growth rates of per capita GDP in 1960-2013, %



Source: WDI; Schneider, 2007.

The usual objection to these regressions is that institutional capacity variables are endogenous, i.e. not only they influence growth, but are influenced by growth themselves. The data for the murder rate and for the shadow economy are for the years of 2002 and 2005 respectively – the very end of the investigated period of economic growth (1960-2013), which may be a problem since the cause should of course precede the effect in time. However, the data on murders and shadow economy for the earlier period are largely missing⁴ and it is possible to run reasonable cross-country regressions (40 observations) only for the very recent short period. The results for

⁴ For 20-30 observation, these regressions hold for 1975-2013 period with data on shadow economy and murders for the middle of the growth period – the 1990s.

growth in 2000-13 period with data on shadow economy and murders for the 1990s are very strong⁵, but the period is too short to proxy long term growth.

The standard way to deal with the endogeneity is to look for the instrumental variables, but it is virtually impossible to find such variables for institutions that are not correlated with growth. It is possible though to argue that murder rates did not change much in recent half century, and in this case the endogeneity argument does not hold: the murder rate is not influenced by economic growth or is influenced so little that changes during half a century are not significant. Partial support for this argument is provided by data at fig. 13 – in most countries the murder rate did not change much in 1960-2013. Exceptions are countries/territories affected by turmoil, wars and/or transition from communism to capitalism (Northern Ireland in the 1960s, Cyprus in the 1970s, Russia and former Soviet republics in the 1990s – neither of these experienced fast growth).

The crucial question then is what determines institutional capacity of the state, if not economic growth. Why some countries have strong institutional capacity for many decades and enjoy rapid growth, whereas others are locked in a trap with poor institutions and low growth?

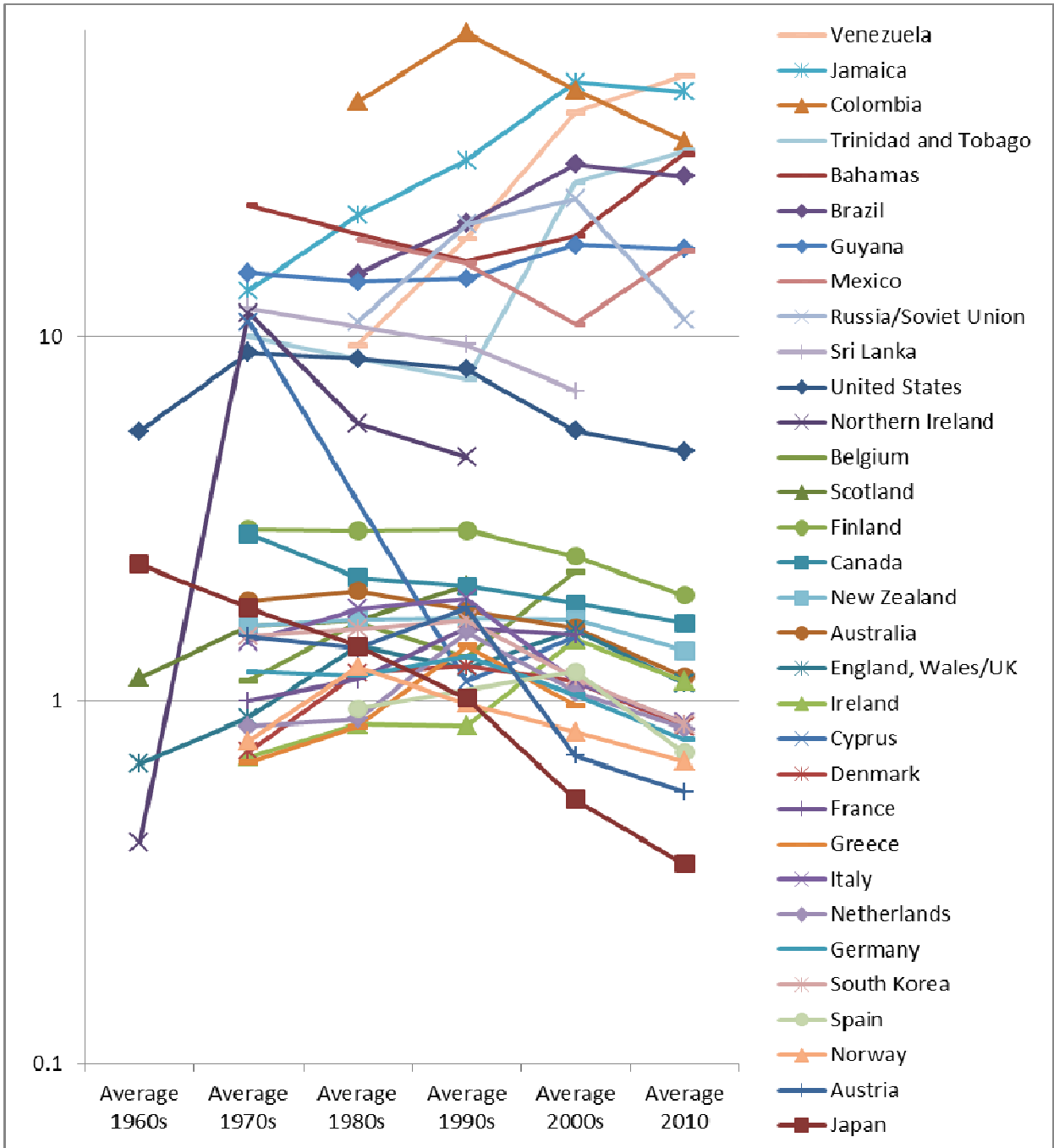
$$y = 6.58^{***} \log Y_{cap1999} - 0.040^{**} MURDERS - 0.042^{***} SHADOW + 30.71^{***}$$

(5.26) (-1.99) (-2.03) (5.48)

N=43, R² = 0.64, robust standard errors, T-statistics in brackets below.

y –annual average growth rates of per capita GDP in 2000-2013, %, and murders and shadow economy estimates are for 1990s (murders – WHO, shadow economy – Friedman, Johnson, Kaufmann, and Zoido-Lobaton, 2000).

Fig. 13. Average murder rates in 1960-2013 by decades, per 100,000 inhabitants, log scale (countries for which data are available for 3 and more decades)



Source: List of countries by intentional homicide rate (http://en.wikipedia.org/wiki/List_of_countries_by_intentional_homicide_rate). Data are taken from different sources (mostly national data provided to WHO) and sometimes are not strictly comparable.

Genesis of institutions

Most of the participants of the recent debate about the major factors of economic growth (geography versus institutions versus international trade) seem to have concluded that institutions trump all other factors (Rodrik, Subramanian, and Trebbi, 2002). In an article with the self-explanatory title “Institutions Rule” the authors examine the impact of three basic factors on growth —geography (proxied by the distance to the equator and regional dummies), trade openness (the share of trade in GDP), and institutions. The difficulty, of course, is that all three factors are interlinked and that institutions and trade openness not only influence growth, but also depend on growth themselves. To properly estimate the contribution of each factor, the authors instrument institutions using the settlers’ mortality rate, like Acemoglu, Johnson, and Robinson (2001), and instrument the share of trade in GDP with the predicted share of trade (from gravity models). Then, after giving a “fair chance” to geographical variables to compete with the instrumented variables of institutions and trade openness, they conclude that “institutions rule,” that is, the impact of institutions is most crucial. Institutions are largely, but not totally, determined by geography, and in turn they determine trade openness and growth. The direct impact of geography on growth (apart from the impact through institutions) turns out to be insignificant. In short, it turns out that that institutions trump geography and that institutional capacity is not always determined by geography.

The difference from the straightforward geographical determinism approach is thus obvious, but there is an important difference from the Acemoglu, Johnson, and Robinson (2001) approach as well. Rodrik, Subramanian, and Trebbi (2002) believe that geography, particularly settlers’ mortality rates, is a good predictor of institutional quality, but not the major cause of it. The genesis of institutions is a complex process with many determinants, and finding an appropriate econometric instrument is not the same as finding the proper explanation. Rodrik (2004) explains the difference using the following example: the variation in GDP per capita in countries that were never colonies is no less substantial than among colonized countries — here, Ethiopia and Afghanistan are at the one end of the spectrum and Japan is at the other end with Turkey and Thailand lying somewhere in between. What accounts for the different quality of institutions in this non-colonized part of the world?

There are two major schools of thought that offer different answers to these questions (see Popov, 2014, for description and references), one recognizes key role of institutions, the other – does not. One (evolutionary or Western) school hypothesizes states that countries that we now call developed, or the West, acquired in the 16th century and afterwards some features and institutions that were absent in more traditional societies (Landes, 1998; Mokyr, 2002—to name just a couple of contemporary authors). The list of these features ranges from abolition of serfdom and protestant ethics to protection of property rights and free universities.

Another school (Oriental) questions the logic of evolution triggered by social forces themselves (Diamond, 1997; Pomerantz, 2000; Wong, 1997 – once again, just to give several contemporary examples) and pays special attention to seemingly minor historical events—fortunate and unfortunate, but mostly accidental – that pre-determined the development of countries and continents for centuries to come. “In this view, – explain the editors of the book that examines important unrealized counterfactuals in human history, – Western dominance was the by-product of natural forces that reflect no credit on Western civilization: geographical accidents such as location of mountains and coastlines, geological accidents such as the ready availability of coal or gold or arable land, climatological accidents such as the timing of the ice ages or the direction of the ocean currents, and biological accidents (not always so accidental) that affect the susceptibility of various population groups to lethal diseases” (Tetlock, Lebow, Parker, 2009, p. 9).

In recent decades the rise of Asia gave additional credibility to theories that reject the superiority of Western economic model and the inevitability of the Western success. “As Japan, the Asian Tigers and China developed into major economic powers, - writes Ian Morris, – more and more scholars concluded that theories explaining West’s success through long-term cultural, environmental, or racial causes simply could not be right. The big story in the world history, they began suggesting, was not the long-term inexorable rise of the West; it was the tale of multipolar world, which the West had only recently, temporarily, and perhaps even accidentally come to dominate” (Morris, 2013, p. 2).

The problem with these explanations is that there were many countries before the 16th century with social structures that possessed or were conducive to many of the same features that are credited for the growth acceleration by the Western school and with many minor accidental events that are said to promote growth by the supporters of the Oriental school. But these countries never experienced productivity growth comparable to the one that started in Britain and the Netherlands in the 16th century and later – in the rest of Europe (0.2-0.3% a year in 1500-1800 and 1% and more a year afterwards).

A different interpretation accepted in this paper is that dismantling traditional collectivist institutions in Western countries was associated with increased income inequality and even decrease in life expectancy, but allowed the redistribution of income in favor of savings and investment at the expense of consumption (Popov, 2014). The elimination of collectivist (community) institutions was a risky experiment that put masses of population below the subsistence minimum and caused a reduction or slowdown of growth of the population – the foundation of the military might (number of people – number of soldiers) in the Malthusian growth regime.

Early attempts to ensure the priority of the rights of individual over the rights of the community at the expense of collective interests and low inequality (Greece, Rome, Byzantine) led to the impoverishment of the masses, higher mortality and foreign conquest. Only in Northwest Europe in the 16-18th centuries this policy somehow succeeded for the first time in history.

It is not the abundance of competition or entrepreneurship or ideas for technological innovations that allowed the West to accelerate the growth rates of productivity by the order of magnitude, it is first and foremost the abundance of savings and investment that resulted from growing income inequalities and allowed to increase the capital/labor ratio and to cast in metal the ideas for new products and technologies. To put it differently, the West became rich not due to its inventiveness and entrepreneurial spirit, but due to cruel and merciless dismantling of community that previously provided social guarantees to the poorest.

When the same pattern was applied to developing countries (through colonialism — Latin America, Sub-Sahara Africa, or voluntary Westernization in an attempt to catch up – Russian

Empire), it resulted in the destruction of traditional institutions, increase in income inequality, and worsening of starting positions for catch-up development. This group of countries replicated the Western exit from the Malthusian trap – they experienced immediate increase in income differentiation, the rise in savings and investment and in the growth of productivity, but at a price of rising social inequality and deterioration of institutional capacities.

Other developing countries (East Asia, South Asia, and Middle East and North Africa – MENA) were less affected by colonialism and managed to retain their traditional institutions. This delayed the transition to modern economic growth (Kuznets, 1966) until mid-20th century, but allowed to preserve good starting position for economic growth – low inequality and strong institutions. Eventually slow technical progress allowed them to find another (and less painful) exit from the Malthusian trap—increased income permitted to raise the share of investment in GDP without major increase in income inequality, without worsening of institutional capacity and decrease in life expectancy.

More Westernized countries of the Global South (LA and Russian Empire) raised their savings-investment rate and exited Malthusian trap earlier than the others, in the 18th century, but at a price of undermining necessary conditions for future growth – low inequalities and strong institutions. So LA and Russia experienced some acceleration of growth afterwards, but it was not enough to catch up with the West. Colonization of SSA (except for South Africa), unlike colonization of LA and Westernization of Russia, did not result in any considerable transfer of technology and human capital, but only increased inequalities and undermined institutions. So SSA countries were disadvantaged on all counts and had the worst growth record in the world. On the contrary, most of less Westernized countries of East and South Asia and MENA managed to preserve low inequality and efficient collectivist institutions. Their savings-investment ratios stayed at a level below 10% until mid-20th century, so they did not grow before that, but once saving started to increase gradually, it turned out they have all preconditions for fast growth. Some of them became economic miracles, rapidly catching up with the West (East Asia), others were speeding up their development in recent decades (South Asia), while others (MENA countries) are probably best positioned to accelerate their economic growth in the future.

The general model of global divergence is presented at the scheme below (Popov, 2014). Like all schemes this one is a simplification: it does not allow capturing all the diversity of circumstances, but allows tracing the main factors responsible for changes. The fact is that today there are two major groups of developing countries: one (East and South Asia, MENA) has relatively low inequalities, strong state institutions (low murder rate and share of shadow economy) and high savings and investment rate, the other (Latin America, Sub Sahara Africa, Russia and some former Soviet republics) has high inequalities, weak state institutions (high murder rate and shadow economy) and low savings and investment rate. Quite predictably the first group grows faster than the second. The data on inequalities, shadow economy and murder rates for these two groups of countries are shown at figs. 14 and 15. There are some exceptions, but generally the match is very good.

Scheme. Explanation of the global divergence in growth since the 1500s

Three ways out of Malthusian regime

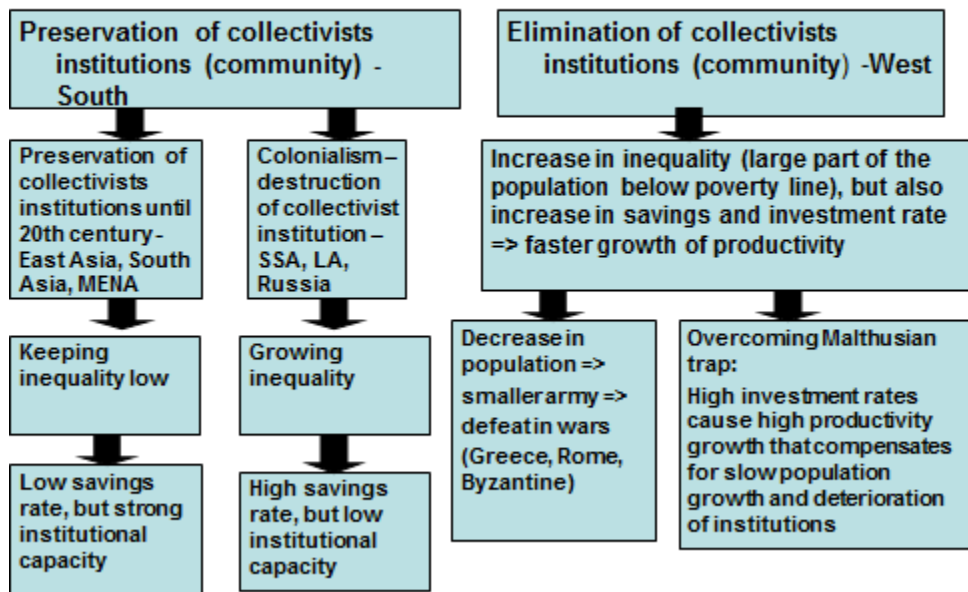


Figure 14. Shadow economy and Gini coefficient of income inequalities in 1990-2005

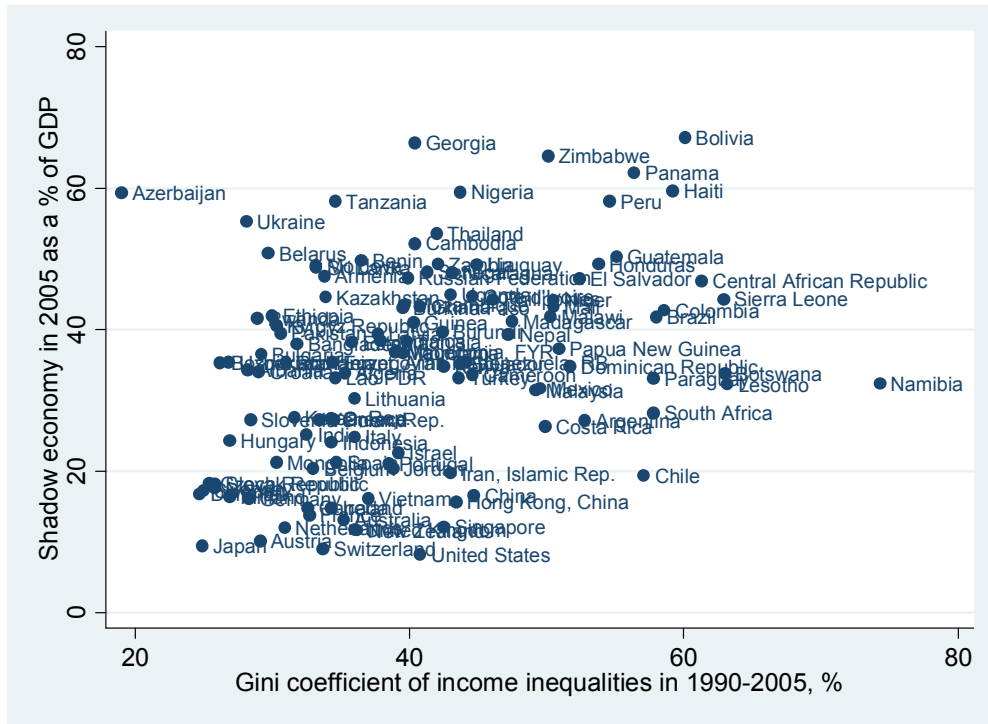
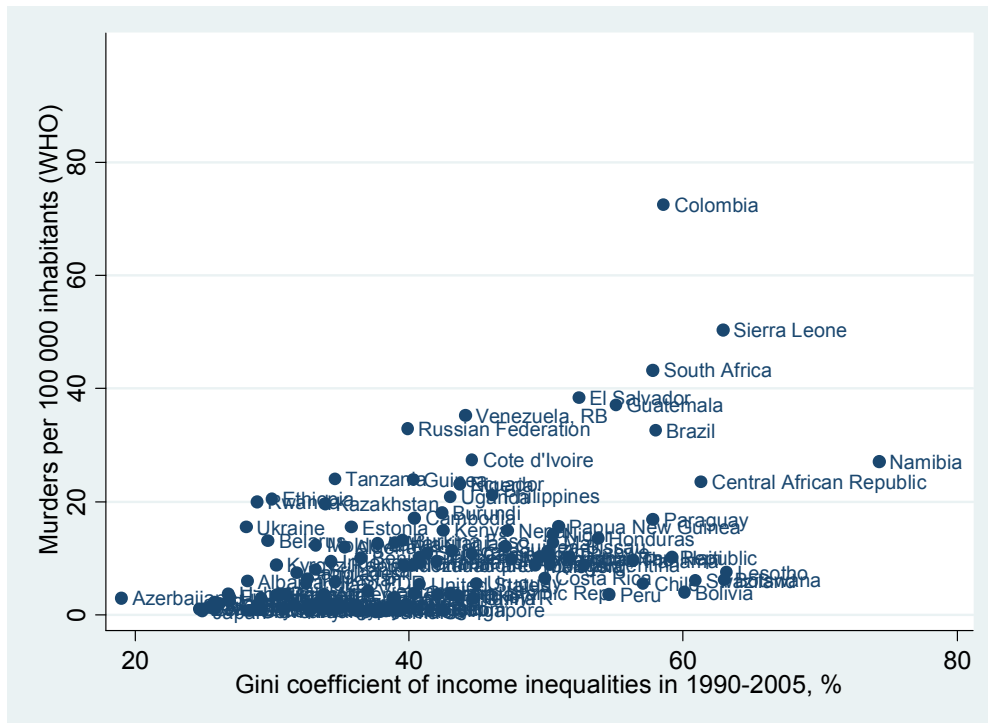


Figure 15. Murder rate and Gini coefficient of income inequalities in 1990-2005



Source: WHO; Schneider, 2007; WDI.

The South and the West in 2060

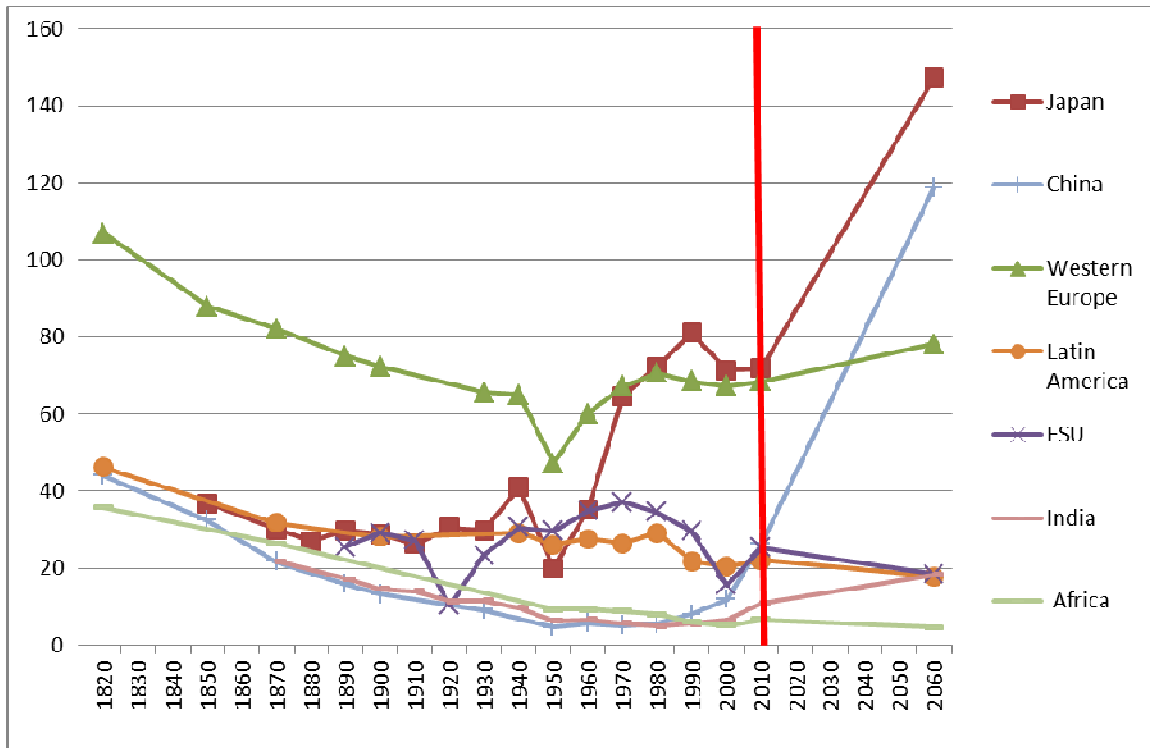
There are predictions that due to poor governance, corruptions, and the lack of structural reforms growth in emerging economies will slow down as compared to 2000-12 period when their growth was untypically high (Åslund, 2013). But usually predictions are based on assumptions that particular growth oriented policies will or will not be enacted. In 1960 Rosentein-Rodan, widely regarded as the author of the Big Push theory, favored India, Burma, Argentina and Hong Kong as nations expected to achieve 3% annual growth per capita for a 5 year period. India, Burma and Argentina all achieved about 1.5% growth, whereas Hong Kong did much better. Chile, Egypt, Ghana and Jordan were also named for their unusually good growth prospects. But no one seems to have selected South Korea or Taiwan (Toye, 1987).

Today, the conventional wisdom seems to point out to democratic countries encouraging individual freedoms and entrepreneurship, like Mexico and Brazil, Turkey and India, as future growth miracles, whereas rapidly growing currently authoritarian regimes, like China and Vietnam or Iran, are thought to be doomed to experience a growth slowdown, if not a recession, in the future.

But imagine for a moment that a debate about future economic miracles is happening in 1960: some are betting on more free, democratic and entrepreneurial India and Latin America, whereas others predict the success of authoritarian (even sometimes communist), centralized and heavy handed government interventionist East Asia...

If only the growth rates of the recent half century (1960-2010) would continue for another 50 years (2010-60), the world would certainly look very different (Fig. 16) – China and Japan would have a higher per capita GDP than the US (and with a population 5 times larger would have a 6 times larger total GDP). If other countries, like India would be catching up with the West, Europe, Japan and US together could account for less than about 20% of the world output.

Figure 16. PPP GDP per capita as a % of the US level (2060 scenario - assuming continuation of 1960-2010 growth in 2010-2060)



Source: Maddison, 2013.

The rise of Asia, especially China, is usually discussed in geopolitical terms – new superpowers, multi-polar versus uni-polar world, change in global leadership – or in terms of increasing demand for global resources and contribution to global pollution. But there are other no less important, albeit less expected and less visible, consequences of East and South Asia’s rise.

First, the rise of China, if continues, would become the turning point for the world economy because for the first time in history the successful economic development on a major scale is based on indigenous, not Western-type economic model. Because Chinese growth model became so successful in ensuring catch-up development, there is no surprise it becomes extremely appealing in developing world. The attractiveness of the Chinese model of economic growth today could be compared with the popularity of the Soviet model of catch up

development in the “third world” in the 1960s. Even though the Soviet model collapsed, the Chinese model became the logical and natural heir of the Soviet model – it is no longer a centrally planned economy, but it is by no means a model of a liberalized market economy that is recommended by the advocates of Washington and even post-Washington consensus.

Now, in the XXI century, the rise of China could make the dirigisme-based model of catch up development not only attractive, but also legitimate, and will create new international economic climate favoring such a catch up. We may well witness “the triumphal march” of the Chinese model in the South. Not all developing countries have the same institutional capacity as China – the necessary component of the successful non-Western growth model, but many do and those who do not would be eventually compelled to move in the direction of limiting inequality and strengthening institutional capacity.

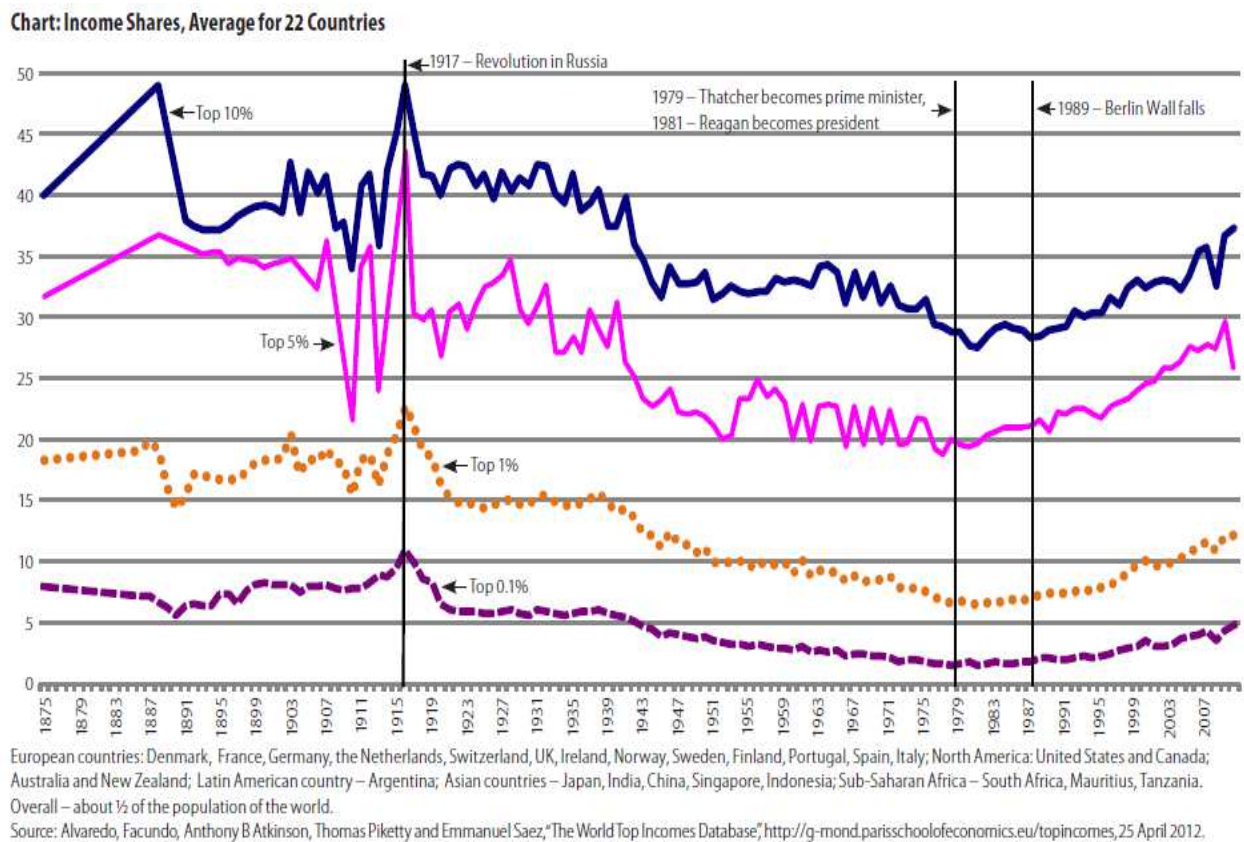
It may well be that the recent trend of growing income inequalities within countries that is observed since the 1980s (fig. 17, see Jomo, Popov, 2015 for details) would be halted due to the proliferation of the Chinese model. So far, despite the considerable increase in inequalities in China after 1985 (Gini of 47-49% in 2002-13)⁶, the level of these inequalities seems to be rather low given the size of the country (Popov, 2014). In the 20th century the growth of income differentiation within countries was held back by such checks and balances as socialist countries, popular movements, and resulting proliferation of welfare programs. In the 21st century the rise of competitive low inequalities collectivist economic models in the Global South may reverse the trend towards rising inequalities that emerged in the 1980s, after the Soviet system lost its dynamism.

Second, the rise of China can lead to the profound reform of world economic order and international relations. Trade protectionism, industrial policy, undervaluation of the exchange rate via accumulation of foreign exchange reserves (also a variety of export-oriented industrial

⁶ Previously Chinese National Bureau of Statistics (NBS) had separate household surveys for rural and urban areas, so Ginis for the whole country were computed by researchers based on certain assumptions on rural-urban income disparities. By December 2012 the NBS had collected samples of 140,000 urban and rural households from 31 provinces, autonomous regions and municipalities. The NBS set up a new sample system and began to collect samples from 400,000 households starting from December 1, 2012. (Zhao Qian. NBS reveals Gini coefficient methods. - [Global Times](#), February 04, 2013).

policy), control over the international capital flows (not only short-term, but FDI as well) can become legitimate tools of the catch up development. There may be new regime of protection of intellectual property rights and technology transfers, new regulations for international trade in energy and resources, new rules for international migration, new monetary system, new agreements about cutting emissions of pollutants (reconsideration of Kyoto protocol), etc. (Montes, Popov, 2011).

Figure 17. Income shares of top 10, 5, 1, 0.5 and 0.1 per cent, un-weighted average for 22 countries,



As the economic strength of the South increases in recent decades (fig. 16), it can and will push for changes in international economic relations that are more conducive to its catch-up development (Arrighi, 2007). The result may be the creation of more favorable conditions for catch-up development of all countries of the South and finally, the bridging of the gap between the world's 'rich' and 'poor'.

A new world economic order, a popular demand of the South in the 1970s- 80s, after the first and the second oil price shocks, may be back on the agenda of West-South negotiations with the rise of new institutions of developing countries (BRICS and the New Development Bank, Asian Infrastructure Investment Bank). Democratization of international economic relations – that is, the adoption of rules-of-the-game giving greater voice and weight to the position of the South – together with the promotion of the new Chinese growth model in the developing world, has the potential of making globalization “good for the poor”.

Besides, the principles of international relations can change radically as well. “Beijing consensus” may not be a rigorous term (Ramo, 2004), but it is clear that the Chinese approach to international politics (no interference into domestic affairs, no military interventions, no trade embargoes) provides the developing world with the real alternative of building relations with other countries. China rejects the use of force, embargoes and sanctions in international politics nearly as a matter of principle. Even in its relations with Taiwan China was always pushing for wider economic and cultural exchanges, whereas Taiwan authorities resisted. The new rules of the international relations may (1) explicitly limit the use of force only to cases of severe violations of non-political rights (i.e. mass repressions, hunger, ethnic violence, etc.) and prohibit the use of force against liberal authoritarian regime (just for the sake of “establishing democracy”) and (2) prohibit unilateral military interventions (without the consent of the UN).

These “less expected” consequences of China’s rise are probably creating already more favorable conditions for the catch up development of the South. The result may be the bridging of the gap between the world rich and the world poor, the West and developing countries.

If this interpretation of development experience is correct, the next large regions of successful catch up development would be MENA Islamic countries and South Asia – these regions seem to be most prepared to accept the Chinese model. But eventually Latin America, Sub-Sahara Africa and Russia would be catching up as well, so the Global South would finally come close to the West in productivity and per capita income.

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