

Russian Drama: Inherited Development Underperformance and Eroding Global Dominance

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Received: April 24, 2023

Accepted: May 26, 2023

Online Published: June 2, 2023

doi:10.5539/ijef.v15n7p10

URL: <https://doi.org/10.5539/ijef.v15n7p10>

Abstract

The new normal is a conceptual situation where economic and political agents are economically convinced and politically motivated to adapt to temporary austerity in economic growth and political participation. The concept entails a remarkable and rare mix of economics and politics. Focusing on Russia, the paper draws on results from two studies that reflect on underlying weak links in the benchmark economy that support expectations of moderation in economic growth and political participation. One study examines the tendency and causes for the Russian development underperformance (slow growth and sticky distribution when compared to other leading countries). The study makes use of social accounting matrix multipliers. The tendencies are partly due to structural imbalances inherited from the past economy with its state-led shadow agents, and its ethnic regional disparities. The other study looks forward into the future and examines Russian prospects for leadership and influence at the global level. This study makes use of a dominance index composed of the relative sizes of transforming agents (i.e., population) and transformed value (i.e., GDP). Results for Russia suggest that global dominance is eroding, and global marginalization is imminent. Both studies point to difficult choices that Russian leadership have been increasingly facing and continue to face in a drama-like sequence. We briefly comment on likely responses.

Keywords: Russia, China, growth, distribution, global dominance, international development

1. Introduction

Use of the term “new normal” dates to hundreds of years ago. A Google search shows peaks in its use in the 1920’s and 1940’s, and a rising use since 2000. The term comes forth in many disciplines and contexts. A recent and revived use of the term new normal in economics associates with M. E. El-Erian (2010) in the context of cautioning advanced countries that the financial crisis of 2007-2008 was a breaking point, that they should get accustomed to lower rates of economic growth despite significant doses of monetary stimulus. The Covid epidemic, Ukraine invasion, shrinking supply chains and deglobalization since 2020 gave further popularity and meaning to the term new normal. In general terms, the term denotes austerity and/or lowered economic growth expectations in the medium run. When applied to express moderated expectations in specific countries, specific matters, and outlooks differ. For example, the new normal’s most quoted growth rate for the US GDP is 1.6 to 1.0 per cent per annum (pcpa) in 2022 and 2023, depending on the pace of combating inflation, and growth in other major economies, especially China and EU. In Russia, the new normal is influenced by the level of oil world prices, and to an increasing extent by trade and investment boycotts by the western alliance after the invasion of Ukraine. Most outlooks quote GDP growth rates between -3.4 and -2.3 pcpa for 2022 and 2023 (Note 1). By usual standards, negative growth is unacceptable. But when the negative growth is viewed as the new normal it becomes tolerable under austere circumstances.

In several circles of social science, the new normal is seen as a conceptual situation where economic agents (consumers, and producers), and political agents (the voting population at large and their representatives), are economically convinced and politically motivated to adapt to temporary austerity and to moderate levels of economic growth and political participation. The concept entails a remarkable and rare mix of economics and politics. Mention can be made of examples of this mix of economics and politics in the context of Russia and its external relations. For instance, the new normal, as officially declared in Korber FIA (2016), states that although the EU remains a preferential partner for Russia, it is no longer considered as the main partner. The lack of trust

and understanding between Russia and NATO holds the potential for escalation, and Russia is inclined to increasingly defining its role within the international system through autonomy and separation. Sensing that Russia is being reupdated by the Western alliance, Russia is inclined to seek leadership in a non-Western alliance. In particular, Dejevsky (2016), states that the official Russian viewpoint of the new normal is the accommodation to and activation of a Eurasian economic and political power block in which Russia plays a leading role. The block would eventually contain developing countries whose leaders are equally uncomfortable with the western alliance.

Acceptance of the new normal has significant consequences for the economy and polity: Acceptance of the new normal justifies adaptations of the current state of affairs and performances so as to fit with future expectations. Acceptance of the new normal calls for justifications in terms of (a) past and current structures and performances, and in terms of (b) future patterns and expectations. The paper examines (a) the past and (b) the future, based on results from studies conducted at the national and international fronts, respectively.

With focus on Russia, the paper draws on results from two studies that reflect on underlying weak links in the benchmark economy. One study examines the structural causes for slow growth and sticky distribution in Russia (when compared to other leading countries). This is done via the use of comparative social accounting matrices and multipliers. The tendencies are partly, or mostly, due to several structural imbalances inherited from the past state-led economy and its parallel shadow economy. The other study looks forward into the future and examines Russian prospects for a leading role and influence potential in the global economy. The study makes use of a dominance index composed of the relative sizes of transforming agents (i.e., population) and transformed value (i.e., GDP). Results for Russia suggest that in a few decades global marginalization is imminent unless agents and production change course and actively link and substantively integrate with other world blocs.

The two studies complement each other. The first study highlights crucial features of the Russian economy that are inherited from the past state-controlled regime and the past parallel shadow economy which oiled the regime. The second study focuses on the shrinking influence of the Russian economy in global influence in the future. A weak economy nationally becomes reflected in a diminished role internationally. Accordingly, the paper falls further in sections 2 and 3 which explain and summarize the results and challenges of the above mentioned two studies respectively, and section 4 which discusses responses of Russian leadership to the results and challenges.

2. Echos from the Past: Underperformance Partly Due to Inherited Imbalances from the Communist Regime

Compared to other countries undergoing the transition from the communist system to a more transparent market economy Russia is known to have been performing below the average. Russia's GDP, measured in constant prices of 2000 in USD, grew between 1979 and 1989 by 43 pc, decreased between 1989 and 1997 during the transition by 46pc, then gradually recovered to reach a level in 2006 that is roughly twice the level of 1979, Cohen (2015). The growth was interrupted by the global recession in 2008-9 when GDP fell by -6.5 pcpa, recovered in 2010-11 with GDP growing by 4.4 pcpa, continued the trend for a couple of years but gradually lost steam and with falling oil revenues in 2015, growth was 0,5 pcpa, with a forecast for 2016 of -0.5 pcpa. In all these ups and downs, most of the other countries in transition performed better. The contrast in performance is most striking between Russia and China, as the latter did not go through neither a transitional recession nor a financial recession and has scored highest rates of economic growth in the world. How much of the typical Russian sub-performance summarized above, can be described as chronically Russian, and that can be traced back to the inherited communist regime in Russia? What are the remnant structures that are still surviving and are influencing the sub-performance? Answers to these questions would require implementing a vast research program. A simpler but nonetheless meaningful approach is to apply standardized assessments of the economic performances of Russia, as compared to China, towards the end of the communist era; and underline the differences which presumably did not fade away but were inherited and are still active in the contemporary performances. This paper will report on such a shortcut that applies a multiplier analysis of comparable Social Accounting Matrices (SAM) for Russia and China. For elaborate presentation and applications of the SAM methodology see Cohen (2002).

The benchmark is around 1990, which constitutes a crucial year in the transition of the two countries to mixed market-state economies. Even though the analysis is static, based on the SAM benchmark for 1989-90, the obtained results show consistency and durability that are supported by contrasting trends in the two countries over some earlier decades and during transition and after. The contrast in the economic performance between the two major countries has been persistent for a long time and shows constancy even in the periods of reform suggesting that the differences in the structures and mechanisms behind these trends are endurable.

To start with we give a brief note on the SAM. National accounts supplemented by industry, household and government statistics can be conveniently integrated in the form of a social accounting matrix. The aggregate SAM for Russia is constructed from the national accounts for 1990. These accounts are disaggregated into 5 production factors, 5 household groups classified by income ranges, firms, government, aggregate capital account, 4 commodities, 3 production activities and rest of world, together resulting in a SAM of 21 rows by 21 columns, see Cohen (2013). Furthermore, the SAM makes use of the household budget survey which provided distributional structures of receipts and expenditures by household groups, the input-output table and a converter table for transforming products into sectors. The whole is subjected to several adjustments to assure consistency between the grand totals of the rows and columns by applying the RAS method. As for China, we have constructed a comparable SAM for 1989 containing 19 rows x 19 columns.

Because the form of the SAM is that of a general economy wide system, it is therefore very well suited generate growth and distribution multipliers. This can be demonstrated from a quite simple example. Take the simplest Keynesian model, which contains an equation relating consumption to income via a propensity to consume, and an equation defining income as consumption plus an exogenous investment. This is thus a model of two equations in two endogenous variables of consumption and income. The model can be written as a square matrix that is then inverted to give a Keynesian multiplier showing the impact of a change in investment on income. Similarly, in an input-output analysis, an endogenous vector of economic activities, v , can be predicted from a Leontief matrix of input-output coefficients, A_L , and a vector of exogenous final demand, e . That is, $v = A_L v + e = (I - A_L)^{-1} e = M_L e$, where M_L is the Leontief multiplier matrix. The SAM is also a square matrix, but it is larger in content as it covers the whole circular flow economy wide. Being a square matrix, the SAM can be operated as a model of the economy. By appropriate manipulations of this square matrix, it is possible to derive SAM-multipliers that are more comprehensive than those of Keynes and Leontief together. To transform the social accounting matrix into an economy-wide model requires performing several steps. Assuming proportional relationships for the cells in terms of their column totals, a SAM we obtain a coefficient matrix that relates variables to each other, call it A_S . This is like A_L but is more comprehensive in coverage. By separating the variables in the SAM into an endogenous vector v and an exogenous vector e the SAM model can be written as $v = A_S v + e$. We follow here an established convention for centrally planned economic systems that assumes the expenditure accounts of capital, government, and rest of world as exogenous. Finally, inversion of the SAM coefficient matrix would give eq. 1, where M_S is the SAM multiplier matrix. The SAM multipliers M_S , show how the 18 endogenous variables will respond to a unit change in the exogenous variables.

$$v = (I - A_S)^{-1} e = M_S e \quad (1)$$

Given the size of the SAMs the size of the multiplier matrices is large and for analytical purposes a selection of multipliers is necessary. We comment here on the aggregate multiplier effects of exogenous spending injections in sector activity j' on the output of sector activity j and on the income of household group h , giving thus two multipliers: an output multiplier and an income multiplier. Table 1 shows these multipliers. The results show for Russia that a spending injection in the sectors, on average, of say one billion roubles (br) has an output multiplier effect of 2.81 br, and an income multiplier effect of 0.62 br. The corresponding results for China show spending injections lead to output and income multipliers of 3.26 and 1.20. Not shown in the table is another couple of multiplier effects resulting from an exogenous transfer to household groups. In Russia, an income transfer to household groups of 1.0 leads to a combination of an output multiplier of 2.09 with an income multiplier of 1.40. In China, income transfers lead to output and income multipliers of 2.84 and 1.66. Russia's multiplier performance is thus lower than China's with respect to all the four multipliers.

Analysis of the performance gap draws attention to some four special features of the Russian and China economy as they used to be features that are likely to have prolonged up to the present and continue to be relevant in explaining the enduring performance gap.

First, in general, the size of the multipliers of an inverted matrix is larger if the inverted SAM coefficient matrix is also proportionately larger i.e., this is the endogenous part that represents the circular flow of the economy. Correspondingly, the exogenous part will be proportionately smaller. Multipliers are low if the endogenous share is small and the exogenous share is large, as this exogenous share is not ploughed back in the economy. The exogenous share in the SAM, consisting of investment, government, and rest of the world, will depend on the economic system, the development level, and the size of the country. The share of investment and government is expected to be greater in planning-oriented economies, especially among those with a larger defence budget. Knowing the above, it is not surprising that the exogenous share as defined here is higher in Russia than in China. This is also apparent in the two SAMs, showing a higher exogenous share in Russia than in China, respectively 19.6 and 14.7 per cent. The endogenous shares are 80.4 and 85.3 per cent in Russia and China, implying a lesser

circular flow in Russia than China. As a result, the SAM multiplier should be expected to be lower in Russia than China, as shown in table 1. Since the extent of the circular flow is almost identical with the extent of the transparent market economy and the quantity of voluntary exchange transactions and since this market (exchange) feature was marginalized in past communist Russia, the low performance of the SAM multipliers is attributable to the past communist Russia. The size of an exchange economy is limited when resource allocation is determined by *ad hoc* pull and push actions by state agents in the *Gosplan* economy and monopolistic practices by hidden agents in the shadow economy, which are part of a *Gosplan* economy. Absent and limited markets form a first problematic feature of the past communist Russia that has long run consequences for the prospective restructuring of the circular flow. Formulating and implementing policies to resolve this problematic feature is a book by itself.

Second, there is the issue of effectiveness of the circular flow. How do countries perform with respect to generating more output, and more income, per one percentage point of the endogenous share? It can be calculated, on average, that in the case of Russia a spending injection gives an output multiplier of 2.81 for an endogenous share of 80.4 per cent, implying an effectiveness ratio of 0.035 (output multiplier units per one endogenous percentage point). China's performance is higher in this respect, i.e. $3.26/85.3=0.038$. The difference amounts to a positive edge of about 10 percent, (i.e. $0.038 / 0.035$). This edge can be interpreted as a more effective use of the circular flow of the economy. Why was Russia unable to generate greater returns from one unit of the circular flow? A more dynamic economy manifests a large variety of industrial production functions, new technologies, dedicated managers, outward openness, and higher factor productivity. Past Russian governance was inclined to opt for the opposite, and tended to emphasize autonomy, minimize linkages, limit variety, promote protection, and avoid competition, etc. Focusing on the SAM, the more that the SAM cells are filled with significant numbers, the greater is the range of extensive and intensive linkages, and the greater is the multiplier effect per endogenous point. The extreme situation of an autonomous sector that produces and supplies exclusively for its own employed labour households, and who buy exclusively from this sector, will show very low multipliers per endogenous point. Although the industrial, technological and trade structure of the Russian economy today is remarkably different from what it was in 1990, scattered sectoral and regional pockets with archaic structures are survivals from the past. These surviving pockets form another problematic feature that calls for surgical elevations of weak spots to higher levels of effective operation.

Third, there is the issue of efficiency of transformation. The income multiplier is a more relevant concept than the output multiplier as the earned income represents value added, while output represents gross production. Besides, earned income by household groups is a better indicator of economic welfare than gross production. SAM results show that the average income multiplier of a spending injection in Russia is 0.62, which is achieved at an endogenous share of 80.4 percent, implying an income multiplier effectiveness of 0.0077 for each endogenous percentage point. Applying this Russian norm to China should result in normalised income multiplier of 0.66, though the SAM of China shows an income multiplier of 1.20, which is twice as much. A similar calculation for Russia based on the China norm would give a normalised income multiplier for Russia of 1.3 as compared to the SAM income multiplier of only 0.62. The conclusion is that both the output and income multiplier effects are less effective in Russia than in China. Furthermore, and this the third point, the ratio of income to output multipliers in Russia is 0.22, which is lower than that of China at 0.37. This demonstrates the fact that there are greater leakages of value added and/or a lower efficiency in factor use in Russia as compared to China. Sub standard low efficiency in factor use is thus another problematic feature from the past that is still active in contemporary Russia, which needs to be confronted.

Table 1. SAM multipliers of a demand injection in sectors, average of all sectors: Russia, China

	Russia	China
Output multiplier (OM)	2.81	3.26
Income multiplier (IM)	0.62	1.20
Endogenous share in SAM in %	80.4%	85.3%
OM per 1% endogenous share	0.035	0.038
IM per 1% endogenous share	0.0077	0.0141
OM/IM	0.22	0.37
IM sector spread= highest/lowest	1.46	1.87

Fourth, the study of the dispersion of the multiplier effects on the respective sectors and households and specification of the underlying structural bias would indicate gainers and losers among receiving sectors and

household groups and highlight problematic features relating to distributional bias. To do this we have developed the gainers and losers index, *GLI*. There are four gainers and losers indexes, corresponding with the four multiplier effects. The dispersion impact of a spending injection in sector j' on the output of each activity sector j , is denoted by $GLI_{jj'}$, and on the income of each household group h is denoted by GLI_{hj} . In correspondence with these, there are two types of *GLI* following an income transfer to household group h . These are gainers and losers indices among impacted activity sectors, GLI_{jh} , and gainers and losers among impacted household groups GLI_{hh} . The formulas divide the multiplier of the affected entity by the actual share of the affected entity in the related sum as observed in the SAM, Values of 1 are neutral, in the sense that the multiplier effect reproduces the same share of the impacted entity in the base year. Values above 1 identify gainers, and below 1 identify losers. The four indices are briefly displayed in the box below.

$$\begin{aligned}
 GLI_{jj'} &= [(M_{s,jj'} - j_{j'}) / (\sum_j M_{s,jj'} - 1)] / [Output_{j,o} / \sum_j Output_{j,o}] \\
 GLI_{hj'} &= [(M_{s,hj'}) / (\sum_h M_{s,hj'})] / [Income_{h,o} / \sum_h Income_{h,o}] \\
 GLI_{hh'} &= [(M_{s,hh'} - \delta_{hh'}) / (\sum_h M_{s,hh'} - 1)] / [Income_{h,o} / \sum_h Income_{h,o}] \\
 GLI_{jh'} &= [(M_{s,jh'}) / (\sum_j M_{s,jh'})] / [Output_{j,o} / \sum_j Output_{j,o}]
 \end{aligned}$$

Note. Gainers and losers Index, *GLI*.

Table 2 shows for Russia that the exogenous spending in sectors rewards the agricultural sector more positively, the value of *GLI* being at 1.42, than industry with *GLI* at 1.09. In China, spending injections favour industry more than agriculture, with *GLI* at 1.2 and 1.06, respectively. Both countries show a negative growth bias for the services sectors, *GLI* at 0.72 and 0.71.

Considering the effects of the same exogenous spending in sectors on income distribution among receiving household groups, the results show injections in the various sectors to have regressive effects on income distribution. The poorest household group comes badly off with *GLI* around 0.78. Most benefits go to the richest groups, which are calculated to score *GLI* of 1.05. In China spending injections favour rural households *GLI* = 1.1, and disfavour urban households *GLI* = 0.98, and to the extent that the poorest population lives in rural areas the multiplier effects can be interpreted to promote more income equality.

Next, we may consider the gainers and losers index of exogenous income transfers to household groups, which is not shown in the table. The pattern is the same as found for spending injections. In Russia, the transfers will make agriculture better off than industry, and make services worse off. Among the household groups the poorest are disfavoured, *GLI* = 0.7, while the richest are favoured with *GLI* = 1.05. That, nevertheless, the actual income distribution in Russia shows more equality than what the SAM multipliers demonstrate, is due to the positive effect of annually repeated initial injections to the poorest household groups. In China, transfers favour industry more than agriculture, and disfavour services. In China transfers result in poorer households retaining greater shares of the transfers than richer households, resulting in a more a progressive income distribution.

Table 2. Gainers and losers following a demand injection in sectors, average of all sectors: Russia, China. Gainers (>1.0) and losers (<1.0)

Gainers and losers	Russia	Gainers and losers	China
Recipients by sectors		Recipients by sectors	
Agriculture	1.42	Agriculture	1.06
Industry	1.09	Industry	1.12
Services	0.72	Services	0.71
Recipients by household groups		Recipients by household groups	
<250 roubles per month	0.78	Rural farm	1.01
250-300 rpm	0.92	Rural non-farm	1.01
300-350 rpm	0.99	Urban employees	0.98
350-400 rpm	1.01	Urban self-employed	
> 400 rpm	1.05	and employers	1.00

Rounding up the results on gainers and losers, the past Russia contained structural patterns and exchange mechanisms that favoured the primary over the secondary sector, whilst in China a more normal pattern can be

depicted that favoured industry over agriculture. This means that the drivers for industrial growth were less present in Russia than in China during the communist era; and this is continuing for years later in the form of lower industrial growth and industrial trade in Russia compared to China. The same structural and exchange mechanisms redistribute income towards the richer groups in Russia as opposed to a redistribution towards poorer groups in China. It is interesting to note that what the SAM multiplier analysis shows as contra- and pro-redistributionary biases characterizing Russia and China respectively during the communist era, shows continuation in the post-communist period. A comparisons of Gini ratios for Russia and China between 1996 and 2014 would show that the relative increase in income concentration is higher for Russia than for China despite a higher economic growth in China than Russia. The continuation of the structural bias in income distribution that characterized past Communist Russia is another example of stretched imbalances from the past to the present. Confrontation of the problematic feature of built-in regressive distributionary structures and mechanisms is an alternative path to going along with the new normal.

3. Dwindling Global Influence in the Future

The other issue raised in this paper is on the country's future perspective regarding global influence. Greater influence at the global level allows state, business, and citizens to negotiate better deals and trade, get better access to markets and technology, and escape from the new normal to challenging horizons and higher satisfaction. As global dominance in terms of political, military, and technological levels tend to associate with economic power as well, there is a tendency for the most dominant economy to become the core of the global system, giving its national representatives more leverage in the determination of world governance and the management of world affairs. Dominating countries drive, carry, transport, and transplant their own economic system baggage to other countries elsewhere. Besides, knowledge of the potential global influence of a country is also basic for posturing realistic positions of that country in the coordination of world affairs, and thus avoiding errors of underrating or overrating. Hence, it is relevant to explore and forecast the global influence of leading countries, and in particular the Russian Federation, for the few coming decades.

Studies and discussions on global influence usually rank countries according to their size of the GDP. This can be formally written as GDP Rank = 1, 2, 3, etc., for the country with first highest GDP, second highest, third highest, etc.

We have reservations towards this GDP- approach of ranking countries. We shall replace the GDP-approach by a more comprehensive alternative. Before doing that, we review some latest results of the GDP-approach in Table 3, as found in PWC (2015).

Table 3. GDP rank of the top ten leading countries (GDP measured at PPP USD of 2014, billion)

Rank	2014		2030		2050		Rank	2014		2030		2050	
	Country	GDP	Country	GDP	Country	GDP		Country	GDP	Country	GDP	Country	GDP
1	China	17632	China	36112	China	61079	11	Mexico	2143	France	3418	UK	5744
2	US	17416	US	25451	India	42205	12	Italy	2066	S Arabia	3212	S Arabia	5488
3	India	7277	India	17138	US	41384	13	S Korea	1790	S Korea	2818	France	5207
4	Japan	4788	Japan	6006	Indonesia	12210	14	S Arabia	1652	Turkey	2714	Turkey	5102
5	Germany	3621	Indonesia	5486	Brazil	9164	15	Canada	1579	Italy	2591	Pakistan	4253
6	Russia	3559	Brazil	4996	Mexico	8014	16	Spain	1534	Nigeria	2566	Egypt	4239
7	Brazil	3073	Russia	4854	Japan	7914	17	Turkey	1512	Canada	2219	S Korea	4142
8	France	2587	Germany	4590	Russia	7575	18	Iran	1284	Spain	2175	Italy	3617
9	Indonesia	2554	Mexico	3985	Nigeria	7345	19	Australia	1100	Iran	1914	Canada	3583
10	UK	2435	UK	3586	Germany	6338	20	Nigeria	1058	Egypt	1854	Philippines	3518

Source: PWC(2015). The country models used by PWC, which correspond closely with the BRICS approach in Wilson and Purushothaman (2003), consist of five equations each. The first equation is a Cobb-Douglas production function $Y = AK^\alpha L^{1-\alpha}$ where Y is GDP, K is capital stock, L is working age labour and A is technical progress. The second, third and fourth equations lay out projections of L, K, and A. L is exogenously taken over. K grows based on assumed depreciation and investment rates. A is positively related to the catch-up achieved in GDP per capita, reflecting benefits of the developing country from positive externalities. The fifth equation converts the obtained results that are in market exchange rates (MER) into purchasing power parity rates (PPP). The assumption is that MER is determined by the differential in labour productivity with US, thus, $\Delta \ln(E) = \Delta \ln(Y/L) - (\text{growth of } Y/L \text{ in US})$. Currencies tend to approach their PPR as higher productivities are achieved.

Two main results from Table 3 are of particular interest for this paper. (a) The falling ranks of contemporary

world leading countries such as US, Japan, and EU. Also in this category, Russia finds itself slipping from the 6th to the 7th and to the 8th rank in the years 2014, 2030, and 2050, respectively. (b) In contrast, the rising ranks of China, India, Indonesia, and Brazil are noted; but also, of many newcomers such as Mexico, Nigeria, S Arabia, Turkey, Pakistan, Egypt, and others. The picture of the newly emerging leaders that has been painted by BRICS a decade ago is completely out of date, with Brazil overpowered by Indonesia, Russia falling in rank, and South Africa written off the list of top twenty.

The way global influence is measured, broadcasted, and acted upon worldwide has significant consequences for international platforms, membership therein, reached decisions and coordinated actions. Equalizing global influence with a country's GDP, as in Table 3, suffers from two biases. First, the obsession with the size of the GDP as the measure of economic and political influence potential gives no attention to the population factor that is truly relevant in understanding global influence and the management of world governance. Two: there is the obsession of focusing on individual countries as the unit of analysis in global issues, whereas world regions are more relevant for a better understanding of the extent of global influence and policy making. The world cannot be seen as a loose collection of individual countries. Any individual country is allied to other countries in a regional formation and is as such a member of a regional interest group that has common interests.

The remedy to both forms of bias is to develop a more theoretically founded measure of global influence. Social system theory emphasizes the pivotal roles that interacting agents (the population at large in the workplace and outside the workplace) and their transformed products play in the circular flow and in acquiring and exercising global influence over the whole system. The proxies for agents and their value-added transformations are the population at large and the GDP, respectively. While macro economics is more concerned with the size of the transformed value added, i.e., the GDP, than the numbers and types of agents who are engaged in the value added transformation, microeconomics focuses on the agents (that is the population at large) who activate the value added transformations, consumption, investment and interactions that eventually result in outcomes and influential patterns. In representing global dominance population matters at least as much as the GDP. The spectacular rise in the GDP of China and India, which has prepared them to become leading countries, is due for the largest part to the magnitude and growth of labour inputs, cf. Cohen (2015). Each of the two countries has populations of around one billion or more. In a globalizing world with an increasingly free movement of people and communication, population numbers carry influential power and are contribute to global dominance. The influence potential of a unit in the whole is a complex matter and cannot be fruitfully assessed without a systematization of concepts of influence potential. In the study of economic systems, in Cohen (2009 and 2015), a distinction is made between two types of influence potential: interactive influence, and regulative influence. The focus in this paper is on interactive influence (Note 2).

Interactive influence emerges from interacting agents and the transactions they generate. We formulate an index of interactive influence, call it Dominance index DI , which expresses the interactive influence potential of an entity y among all the entities of the same kind y' . The dominance index is denoted by $DI(y/y')$. An entity can be a firm, town, a country, or a world region. In this paper we apply the index to the contexts of countries and regions. The index has two arguments as shown in eq. 2: the relative share of agents, A , in y among all y' , that is $(A_y / \sum A y')$; and the relative share of value added transformations, V , in y among all y' , that is $V_y / \sum V y'$. In this equation, π_1 and π_2 are equal weighting rates applying to these two shares, whereby $\pi_1 + \pi_2 = 1$, and $\pi_1 = \pi_2$. Other weighting rates can be used.

$$DI(y/y') = \pi_1 (A_y / \sum A y') + \pi_2 (V_y / \sum V y') \quad (2)$$

The value of DI for an entity y is a proportion, whereby $\sum DI(y/y') = 1$. An entity that scores an exceedingly high value of the index tends to dominate the other entities of the same kind. Once the index for an entity reaches a critical mass the influence potential of that entity can be expected to benefit from network externalities and to become the dominant player among all member entities of the same set. There are different views on the height of the critical mass for becoming the sole dominant player. A value of 3/4th is among the most quoted in the literature on a critical mass, cf. Simon (1993).

To compute the dominance index of a country c in all countries, that is, the world total, denoted by w , eq. 2 is rephrased to give eq. 3. Entity y is re-specified as country c in eq. 3, and the sum of all entities y' is re-specified as the world, w . Eq. 3 combines two share parameters to give the influence potential of a particular country in an interactive world of all countries. One parameter is the share of the population in a country A_c with respect to all populations in all countries in the world, A_w . The other parameter is the share of commodities transformed in a country V_c with respect to all transformed commodities in all countries in the world, which is V_w or the world GDP. While the dominance index of a country in the world context cannot pretend to cover all types of

influences in the economic domain, not to mention influences in the non-economic domains that have bearings on the economic sphere, it gives a meaningful representation of the generally valid and widely recognized facts that the larger the number of agents and the larger the size of the economic transformation in one subsystem the greater the influence will be of that subsystem in its interactions with other subsystems.

$$DI(c/w) = \pi_1 (Ac / Aw) + \pi_2 (Vc / Vw) \quad (3)$$

Applying equal weights to population and GDP is disputable. It is true that the interactive influence of populations depends not only on their numbers but also on their literacy levels, communication networks, human mobility, and active participation. These features are currently more present in advanced than in developing countries. As a result, it can be argued that the equal weights to population and GDP tend to under/overestimate the global influence of advanced/developing countries, respectively. The argument can be correct in the short run but loses ground when one considers the formidable increases that were realised over the last decade in terms of globalization, communication, and mobility across all countries. A similar objection can be raised on GDP transformations: the global influence of transformed products is not uniform over all products. Some weigh more than others. These disaggregate complications of a disaggregate nature are avoided by keeping to equal weights for A and V , and that shows up in neutral indications of global influence.

We want to correct for the second bias in the GDP- country approach. The world cannot be seen as a loose collection of individual countries. Any individual country is allied to other countries in a regional formation and is as such a member of a regional interest group that has common interests. For instance, the US conducts its world affairs, and is viewed by others, as part of the western advanced economies. The option is to study global dominance in an analytical framework that gives attention to interregional and intraregional next to country dominance. It is both logical and realism that in comprehending global influence the starting point should be the influence potential at the world regions and not individual countries. Once that starting point is assessed, the next step is to descend from the region level to the constituent countries. There is thus global influence at the interregional level and at the intraregional level, and both need to be specified.

Adapting DI to show interregional dominance gives eq. 4 where entity y is specified as region r and all entities y' as all regions, which is the world w .

$$DI(r/w) = \pi_1 (Ar / Aw) + \pi_2 (Vr / Vw) \quad (4)$$

Similarly, adapting DI to show intraregional dominance gives eq. 5 where entity y is specified as country c and all entities y' are specified as all relating countries in the same region r .

$$DI(c/r) = \pi_1 (Ac / Ar) + \pi_2 (Vc / Vr) \quad (5)$$

While $DI(c/w)$ measures country dominance, $DI(r/w)$ can be described to represent interregional dominance, and $DI(c/r)$ represents intraregional dominance. How do the three dominance indexes relate to each other? How do equations 3, 4 and 5 combine? The dominance index of a country in the world, $DI(c/w)$, is decomposable into two parts: the DI of leading regions r at the world level w , or $DI(r/w)$; and the DI for leading countries, c , at the regional level, r , or $DI(c/r)$; as laid down in eq. 6.

$$DI(c/w) = DI(r/w) + DI(c/r) \quad (6)$$

It follows also that DI of a particular region in the world is the sum of DI of constituent countries in that region, thus $DI(r/w) = \sum_{c,r} DI(c/w)$.

Application of eqs. 3 to 6 would require a relevant and meaningful division of the world, w , into regions r and the classification of countries c in these regions. In Cohen (2015) the world economy is divided into eight regional groups based on their shared type of economic system, common features, and regional vicinity. This is shown in the appendix which distinguishes between two developed regions (the Western group consisting of firm centred western economies and the Russian group consisting of state centred economies such as Russia and some former ex-Soviet Union countries), and six development regions specified as East Asia and Pacific (EAP), South Asia (SA), Central Asia and Caspian (CAC), Middle East and North Africa (MENA), Sub Saharan Africa (SSA), and Latin America and Caribbean (LAC). The classification corresponds closely with those operational at the World Bank and United Nations (Note 3).

In what follows we apply eqs. 3 to 6 to give the three types of DI for c/w , r/w , and c/r . This is done for the observed year 2014 and the projected years of 2030 and 2050, see Table 4. Data on population shares by country A_c and by region A_r , are from United Nations Demographic Division, while data on GDP shares by country, V_c , are at PPP (2014 US\$), and the source is PWC (2015), see Table 3. Aggregation of Y_c to give V_r , that is GDP regional shares, makes use of an additional assumption (Note 4).

The following results are worth emphasizing. The leadership replacement of the most advanced region, the Western group, by developing regions occurs at a more accelerated rate when global influence is measured in terms of relative shares of population and GDP, as in DI, than in ranking procedure based solely on GDP. $DI(r/w)$ for the western group ranks first in 2014, second in 2030 and third in 2050, being overtaken by China and India, respectively. The acceleration is due to the greater concentration of population in the developing regions and their higher demographic growth over the coming decades. Of the eight regional groups, the Russian group ranks as the 8th, and has the smallest DI in 2014 at 3.3%, with diminishing values in 2030 at 2.7%, and 2.1% in 2050. The forecasted tendencies are depicted graphically in Figure 1, which indicates that the outlook for the global influence of the Russian group is highly precarious.

More significant than the regional rank is the size of the regional fall in DI between 2014 and 2050. This is shown in columns 10 and 11. DI of the Western group falls by -8.7 percentage points (pp), which is equivalent to a depreciation of -30%. The fall in the DI of the Russian group amounts to -1.3 pp and the downfall is greater at -38%. The combined reduction in the DI of the Western and Russian groups is balanced by increases in the DI of the developing regions, with the highest increases going to South Asia and Sub Sahara Africa.

Descending from the regional/world level to global influence at the country/world level, $DI(c/w)$ results show the highest scores going to China, India, and US in that order. The projections show that these countries are followed in mid-century by Indonesia, Brazil, Nigeria, Pakistan, Japan, Mexico, and Russia as the tenth country. The projections are radically different than those inherent in the BRICS hypothesis.

Here too, it is more meaningful to investigate the relative changes in the Dominance Index than changes in country rank. The following four countries are projected to lose most with an average reduction of -40%: Japan, Germany, Italy, and Russia. It is noted that the US is projected to be able to constrain the reduction to only half as much at -20% and shows thus the lowest loss in global influence among the advanced countries. It is interesting to note also that the projections show China to consolidate the highest DI at a stable level between 17% and 18%, with little variation between the three periods. The main gainers are India with a rise in DI of +20%, Pakistan +37%, and Nigeria +48%.

The Dominance Index is also computable for individual countries within each region, giving $DI(c/r)$. The results are shown in the last column of Table 4. The higher the index of a leading country the greater is its influence in passing its behavioural features and regulatory influence on other countries in the same region. In order not to enter into unnecessary details we limit the presentation to the two most leading countries in each region, with the exceptions of the Western group which shows the DI of the leading five countries that account together for 70% of the Western group; and the Russian group which shows the DI of Russia that accounts for 81% of the Russian group. We discuss below the significance of the intraregional dominance.

In the EAP region, China commands 69% of the global influence of the EAP region. In the SA region, India's dominance is at 75%. As was just stated, in the Russian region, Russia's dominance is at 81%. The three countries are the uncontested dominant players in their respective regions which gives each of the three countries, being the prominent leader of the regional group, an additional flare of global influence. This stands in contrast with the US within the Western group where the US commands no more than 36% dominance in the whole Western group. Other examples: Brazil commands only 34% dominance in the LAC region, Turkey is at 37% dominance within the CAC region. Country dominance in the MENA and SSA regions is very weak with the largest leading countries scoring a $DI(c/r)$ between 16% and 22%

As China, India and Russia have special positions in their regional groups as the over majority dominant leading countries, this intraregional dominance may give the three countries additional representative regional power, and thus may furthermore increase their global influence, *or it may not*. The cases of the EAP and SA regions are different than the case of the Russian region. The forecasts for 2050 place the EAP region as the most global influential number one, and this bestows mutual additional global influence on the member countries of the region as well as to its dominant leader China. Strategic considerations would tend to solidify the EAP region and increase the global influence of its member countries and its dominant leader China. This applies also generally to the SA region and India, which are positioned as number two, but likely to a lesser extent due to political enmity within the region. The case of the Russian group is vastly different. Placed as the weakest region in global influence, member countries of the region get little benefit from membership, may like to shift alignment to neighbouring regional groups, resulting in the further weakening of Russia as an intraregional leader, of the already least globally influential block.

Table 4. Population shares, GDP shares and Dominance Index of world regions and leading countries: 2014, 2030, 2050. %

Region Country	2014		2030			2050			Change 2014-2050		Intraregional DI in 2014 DI(c/r) %
	Population/ World	GDP/ World	DI(r/w) DI(c/w)	DI(r/w) DI(c/w)	DI(r/w) DI(c/w)	DI Rank	DI Rank	DI Rank	DI points	DI %	
Western group	15.4	43.0	29.2	24.1	20.5	1	2	3	-8.7	-30%	100.0
US	4.5	16.6	10.5	9.1	8.4	3	3	3	-2.1	-20%	36.1
Japan	1.8	4.5	3.1	2.4	1.8	4	6	9	-1.4	-44%	10.8
Germany	1.1	3.4	2.3	1.7	1.3	8	11	12	-0.9	-40%	7.7
France	0.9	2.4	1.7	1.3	1.1	11	13	15	-0.5	-33%	5.7
UK	0.9	2.3	1.6	1.4	1.2	13	12	14	-0.4	-28%	5.5
Italy	0.9	1.9	1.4	1.1	0.8	14	17	18	-0.6	-41%	4.9
Russian group	2.9	3.8	3.3	2.7	2.1	8	8	8	-1.3	-38%	100.0
Russia	2.0	3.3	2.7	2.2	1.7	7	8	10	-1.0	-37%	80.9
EAP	28.5	22.7	25.6	26.9	25.3	2	1	1	-0.3	-1%	100.0
China	19.1	16.4	17.7	18.3	16.9	1	1	1	-0.8	-5%	69.3
Indonesia	3.6	2.4	3.0	3.2	3.5	5	4	4	0.5	15%	11.7
SA	23.6	8.9	16.2	18.2	20.9	3	3	2	4.7	29%	100.0
India	17.4	6.8	12.1	13.5	14.7	2	2	2	2.6	21%	74.8
Pakistan	2.8	0.8	1.8	1.9	2.5	10	9	7	0.7	37%	11.2
CAC	3.3	3.5	3.4	3.3	3.3	7	7	7	-0.1	-3%	100.0
Turkey	1.1	1.4	1.3	1.2	1.4	15	14	11	0.1	12%	37.1
Iran	1.1	1.2	1.2	1.1	1.0	16	18	17	-0.1	-11%	33.9
MENA	4.5	7.2	5.9	6.6	6.9	6	6	6	1.0	17%	100.0
S Arabia	0.4	1.6	1.0	1.1	1.1	18	16	16	0.1	14%	16.5
Egypt	1.2	0.9	1.0	1.2	1.2	17	15	13	0.2	18%	17.7
SSA	13.1	3.1	8.1	10.1	12.3	5	4	4	4.2	52%	100.0
Nigeria	2.5	1.0	1.7	2.2	2.6	12	7	6	0.8	48%	21.6
S Africa	0.7	0.6	0.7	0.7	0.7	19	19	19	0.0	4%	8.3
LAC	8.6	7.8	8.2	8.1	8.4	4	5	5	0.2	3%	100.0
Brazil	2.8	2.9	2.8	2.7	2.7	6	5	5	-0.1	-5%	34.7
Mexico	1.7	2.0	1.9	1.9	2.0	9	10	8	0.1	7%	22.6

For Russia, the prospects of global influence, defined in terms of demographic and economic interactions, are dire. This is directly evident from table 4 and Figure 1, and from the above discussion on the relativity of intraregional dominance. Of course, what will happen three or four decades from today no one knows. There are also what can be called *Russian paradoxes* that add to the complexity of the outlook. These paradoxes can be only vaguely stated. One paradox relates to the fact that currently the military and political interactive global influence is much more superior than the demographic and economic interactive global influence. How to assess this incoherence and its survival prospects? Another paradox, even more intriguing, is the fact that while Russia is the richest country in the world in terms of any natural resource per inhabitant, it controls only 3% of the world GDP (or only 2% of the extended world Dominance Index). The lacuna puts the country at risks of predation from unsolicited competing regional groups and their dominant leading countries.

The low and dwindling global influence are the dire prospects of the future. Uncertainties and risks are doubled when what we call Russian paradoxes are brought in the picture. Obviously, accommodating for these future global prospects, risks and uncertainties is more challenging than coping with the new normal or correcting for the past abnormal. Options for avoiding eminent marginalisation at the global level are not many. For instance, it is numerically and realistically impossible to double DI from 2% to 4%, and that will anyhow mean little since 4% is still at the end of the tail. The popularly pronounced option of a Eurasian block centred around Russia can be replicated by summing the DI (r/w) of the Russian group and the CAC region which consists among others of republics of the ex-Soviet Union. The result is a combined DI of only 5.4%, from table 4, column 7, which is again the combination with the lowest DI. If the objective is to secure a significant and meaningful global influence, the DI calculations show that the Eurasian idea does not work. Besides, the bleak prospects may discourage neighbouring countries to join.

The alternative to continuation as an autonomous region is to close ranks and ally with one of the top regional

groups. The choice between going west or east, which some see as a pending and recurring issue in history, cannot be postponed anymore without incurring a high probability of being globally marginalised. The calculus of DI would show that incorporation of Russia in either the EAP, SA or Western group would indirectly enhance the global influence of Russia, if it becomes part of regional groups numbers one, two, or three. Furthermore, because of the low intraregional dominance of US, Japan and EU in the Western group, Russia joining the Western group would bring about four leaders in the Western group with degrees of intraregional dominance, DI (c/r), which are close to each other. This can be readily calculated from data in Table 4. In contrast, Russia integrating with EAP or SA gives Russia a minority share in intraregional dominance.

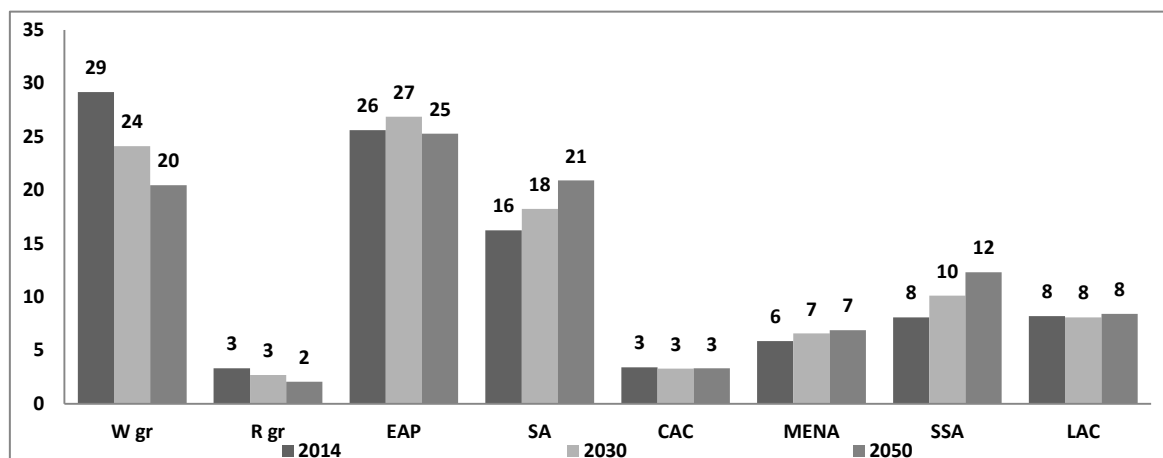


Figure 1. Projected distribution of the Dominance Index in percentages by world region: 2014, 2030, and 2050

Of course, the discussion on which course to choose is a question of foundational choice. This is a question that transcends and supersedes economic analyses.

4. Concluding Remarks

Shleifer and Treisman (2005) formulated and answered the following question: “Is Russia a normal country?”. They cross-compared Russia with a large number of developing countries on several indicators and concluded that Russia is a normal country, and it is like other countries in the same level of economic development.

Their conclusion is not shared in this paper. Russia is not a normal country. The Russian economy, and its development, is a very special case. In the first place, Russia is the largest country in the world in terms of territory and is richest in natural resources, with only 148 million inhabitants (80% ethnic Russian, 20% ethnic minorities). Such vast territorial endowments per capita are scarce elsewhere and subject to envy by many countries, and not least by neighbouring countries. Leaving the size and endowments of the country for what they are, what makes Russia unique is that the Russian Federation of aligned republics has inherited from the past communist regime some economic structures and behavioural mechanisms with negative developmental effects that are still echoing. Moreover, the future outlook points to eminent economic marginalization at the global level, despite being the largest and most endowed country in natural resources, and by some measures the most advanced nuclear power. Many of these elements are unique and are not encountered in other countries. Studying the Russian economy in cross-country comparisons as one in so many developing or emerging countries is an underrating of the challenges the country is facing.

We touched in this paper on a few aspects of a highly complex economy and polity. The inherited imbalances from the past point to four problematic features and policy areas: (a) absent, limited and non-transparent markets, (b) low effectiveness of the circular flow, (c) low efficiencies in some neglected sectoral and regional pockets, and (d) regressive distribution. While these four problem areas are comprehensible and solvable by conventional policies, the future challenge of a forecasted marginalization at the global level carries high risks and its confrontation involves foundational choices,

The choices are between (a) the country downsized to a governable and homogenous mainland Russia that passes the tests of a normal country, which would imply a breakup of the Russian Federation; (b) the Russian Federation holding as much as possible to its current territory and accepting a secondary and downgraded role in world politics; (c) Challenge the forecasted marginalization and go for pursuing and recovering a leadership role in the world at large.

All three options are not bright. Recent expansionary moves by the Russia leadership in Ukraine, Georgia, Syria, and some African countries suggests a preference for the third option, which is consistent with the previously mentioned view of Dejevsky (2016). This third path is most risky given this paper's poor forecasts of the relative strength of Russia worldwide. Failure in achieving path (c) may backfire in a breakup of the country, making the stepping down to path (b) unattainable, and a realisation of path (a) more likely.

This paper has as title words Russian Drama. The title words associate with and are borrowed from G. Myrdal's Asian Drama (1968), where he mapped out socio-political barriers that stood in the way of the economic development of India at the time. Since then, the socio-political structure of the Indian society has significantly changed, and India is currently a leading country in world development. The same reasoning would apply to Russia. More genuine leadership, participatory governance, and proportioned realism in the management and integration of Russian society and development in the world at large could turn the Russian drama into a Russian success of much greater magnitudes, given the vast amount of natural resources and human capabilities available which Russia possesses.

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Notes

Note 1. Source: Knoema.com.

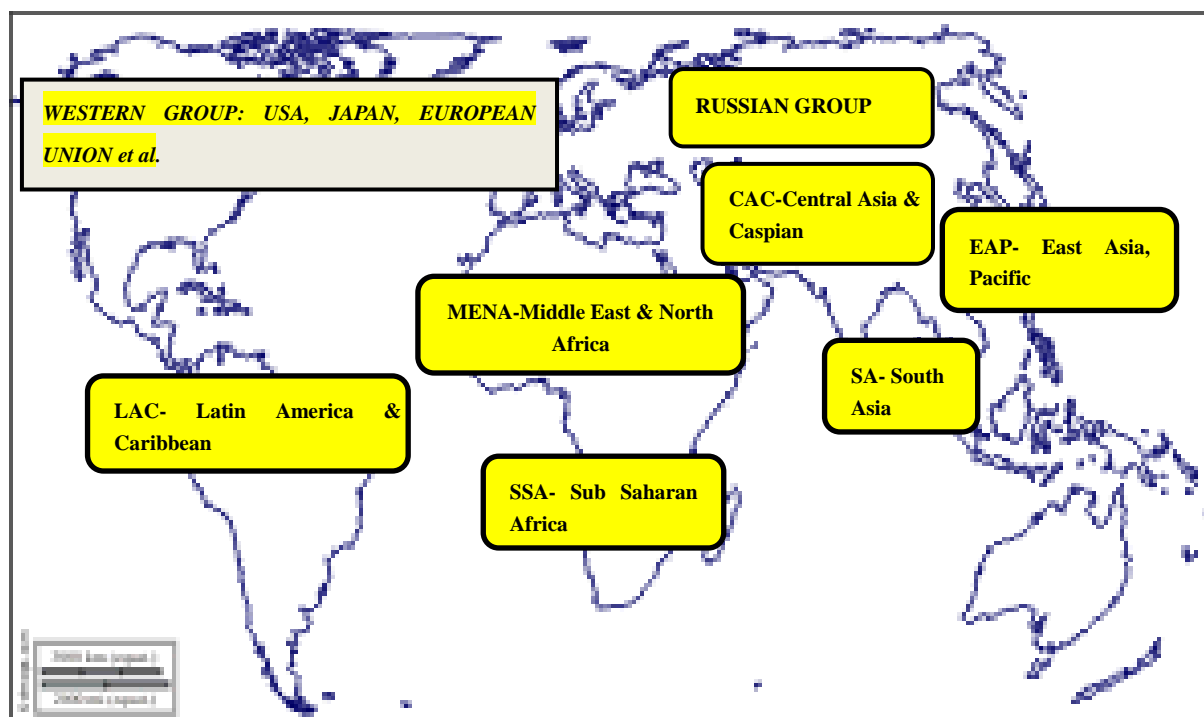
Note 2. Regulative influence refers to a situation in which an entity y , happens to stand hierarchy-wise higher in relation to other y' ; allowing y to set behavioural rules typical of y that another y' would abide with. In this way, the behavioural type of y overrides y' , allowing the further spread of behavioural norms of y at the cost of those of y' . It is not feasible to quantify measures of regulative influence along the lines of interactive influence due to mounting difficulties in standardizing diversified measures of regulation. It is likely that there is a positive association between the two notions of influence potential, in the sense that a country powerful in interactive influence would in the long run become generally powerful in regulative influence. This will add to the importance of the dominance index.

Note 3. Comparative indicators on economic structures, conduct and performances of the eight regions and their constituent countries are reported in Cohen (2015). The indicators relate to attitudes towards business and the state, liberalized and discretionary conduct, inward and outward orientations, growth, and distribution patterns. These indicators support the proposed classification as they display large differentiations at the interregional level and low differentiations at the intraregional levels. Furthermore, in each of the eight regions there is evidence over the last two decades of a convergence in indicator values among member countries of a region towards the average values that hold for their specific region.

Note 4. GDP forecasts of PWC (2015) are limited to the top 32 countries. Together they formed 85% of the world GDP in 2014, in MER terms.

Appendix

The world regions



Distinguished regions/countries	Specification of countries included	Modifications to WB databank
Western group		
America	USA, Canada. Total 2 countries	none
Europe	EU plus other related European countries, Total 44 countries and/territories	extended
Asia, Oceania, and Pacific	Japan, Korea, Singapore, Brunei Darussalam, Australia, New Zealand, French Polynesia, New Caledonia, and Singapore. Total 8 countries	none
Russian group	Russia, Armenia, Belarus, Georgia, Moldova, Ukraine. Total 6 countries	Newly defined
East Asia & Pacific (EAP)	All income levels excluding EAP-high income: China, Indonesia, etc. Total 26 countries	none
South Asia (SA)	All income levels: India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, Sri Lanka. Total 8 countries	none
Central Asia & Caspian (CAC)	Turkey, Iran, Azerbaijan, Kazakhstan, Kyrgyz R, Tajikistan, Turkmenistan, Uzbekistan. Total 8 countries	Newly introduced region
Middle East & North Africa (MENA)	All income levels: Egypt, Algeria, Bahrain, Djibouti, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, UA Emirates, Yemen. Total 19 countries	Malta and Iran deleted, and assigned to EU and CAC, respectively
Sub Saharan Africa (SSA)	All income levels in Africa except Algeria, Egypt, Libya, Morocco, and Tunisia, which are included in MENA. Total 48 countries	none
Latin America & Caribbean (LAC)	All income levels in Latin American and the Caribbean: Brazil, Mexico, etc. Total 41 countries	none

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