

The New Normal in Russia and China: Between Past Embedded Structures and Future Global Dominance⁺

Solomon I. **Cohen***

Erasmus School of Economics, Erasmus University Rotterdam

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. The alternative is to actively plan towards changing the underlying benchmark. Focusing on Russia and China, the paper draws on results from two studies that reflect on underlying weak and strong links in the two benchmark economies. One study examines the tendency and causes for slow growth and sticky distribution in Russia, when compared to China, making use of social accounting matrix multipliers. The Russian weak tendencies are partly due to structural imbalances inherited from the past economy with its state-led and parallel shadow counterparts. The other study looks forward into the future and examines Russian and Chinese prospects for leading roles and their relative 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 substantially integrate with other world blocs.

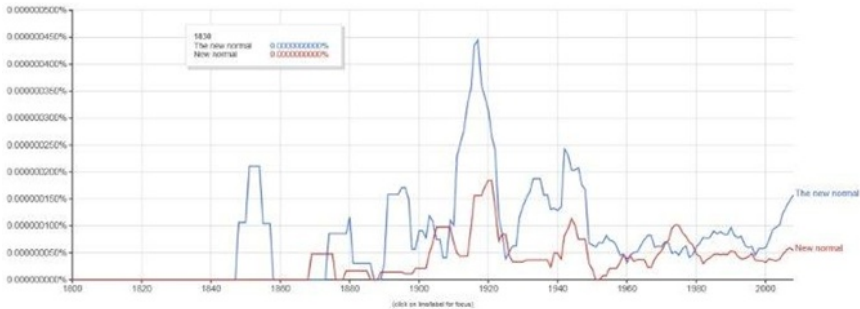
Keywords: *new normal, global dominance, social accounting, growth and inequality, comparative performance*

1. Introduction

Use of the term “new normal” dates back to hundreds of years ago. A Google search in Figure 1 shows peaks in its use in the 1920s and 1940s, and a rising use since 2000. The term comes forth in many disciplines and contexts.

The recent use of the term in economics is due to 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 in spite of significant doses of monetary stimulus. 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 matter, and outlooks differ. For example, the new normal most quoted growth rate for the United States economy is 2 to 3 per cent per annum (pcpa), depending on growth in other major economies, especially China and the European Union. In Russia, the new normal is influenced by the dip in world oil prices, and to a much lesser extent by trade and investment boycotts by the Western alliance. Most outlooks quote growth rates between 1 and 2 pcpa. The new normal for China is between 6 and 7 pcpa.¹

Figure 1 Documented Use of the Term “New Normal” from Google Search



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 with relevance for this paper. 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 the North Atlantic Treaty Organization (NATO) holds the potential for escalation, and Russia is inclined to increasingly define its role within the international system through autonomy and separation. 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 bloc, in which Russia plays a central role.

Whatever scenario is assigned to a new normal, acceptance of or confrontation with the new normal has significant consequences for the economy and polity. Acceptance of new normal justifies adaptations and lowered future expectations that fit with the current state of affairs and performances. Confrontation with the new normal calls for outlining what the past-based and the future-projected problems are, and coming up with solutions. The paper discusses several problems along the confrontation lines, based on results from studies conducted at the national and international fronts. Focusing on Russia, as compared to China, the paper draws on results from two studies that reflect on underlying weak links in the benchmark economy. One study examines the tendency and causes for slow growth and sticky distribution in Russia (when compared to China and 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, when compared with China and other leading countries. The study makes use of a dominance index composed of the relative sizes of transforming agents (i.e. population) and transformed value (i.e. gross domestic product). 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 focus on opposite ends. The first study relates to crucial features of the national economy that are inherited from the past state-controlled regime and the past parallel shadow economy which oiled the regime. The second issue of global influence relates to the international economy in the long run. Both issues compliment each

other. The paper contains two sections highlighting the findings of the two studies and a section with concluding remarks.

2. Echos from the Past: Underperformance Partly due to Inherited Imbalances from 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 practically 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 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. 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 enduring.

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 to generate growth and distribution multipliers. This can be demonstrated from a very 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, $v = A_L v + e = (I - A_L) v = M_L e$, 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 coefficient matrix is obtained that relates variables to each other, call it A_S . This compares with 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 basically 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 are pretty 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 leading 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 relatively 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 relatively 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 generally 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 in China. As a result, the SAM multiplier should be expected to be lower in Russia than in 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 the 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 and parcel 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 per cent, (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.

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

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 almost 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 substantially 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. Substandard 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.

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 gainer and loser index, *GLI*. There are four gainer and loser indices, 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 that 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 gainer and loser 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 grand total 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 in eqs. 2 to 5.

Gainer and loser Index, *GLI*.

$$GLI_{jj'} = [(M_{s,jj'} - \delta_{jj'}) / (\sum_j M_{s,jj'} - 1)] / [Output_{j,o} / \sum_j Output_{j,o}] \quad (2)$$

$$GLI_{hj'} = [(M_{s,hj'}) / (\sum_h M_{s,hj'})] / [Income_{h,o} / \sum_h Income_{h,o}] \quad (3)$$

$$GLI_{jh'} = [(M_{s,jh'} - \delta_{jh'}) / (\sum_h M_{s,jh'} - 1)] / [Income_{h,o} / \sum_h Income_{h,o}] \quad (4)$$

$$GLI_{hh'} = [(M_{s,jh'}) / (\sum_j M_{s,jh'})] / [Output_{j,o} / \sum_j Output_{j,o}] \quad (5)$$

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 gainer and loser 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 appears to be 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-redistribution biases characterizing Russia and China respectively during the communist era shows continuation in the post-communist period. A comparison 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 in spite of a higher economic growth in China than in 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 distribution 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

Table 3 GDP Rank of the Top Ten Leading Countries. GDP measured at PPP USD of 2014 (billion)

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

Table 3 (Continued)

Source: PwC (2013). 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 on the basis of 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.

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, discussions and political actions relating to global influence rank countries according to their size of the GDP and see a ranking equation as the measure of the phenomenon. Starting a new series of equations specific for the current section 3 of the paper, the ranking equation can be formally written for country i as in eq. (1):

$$\text{GDP Rank } i = 1, 2, 3 \dots \text{ etc.} \quad (1)$$

with countries ranked in terms of the GDP as first highest, second highest, third highest, ... etc. We have reservations towards this GDP-country approach that we shall address, replace by better alternatives, apply and analyze. Before doing that we review some latest results of the GDP approach in Table 3, as found in PwC (2013).

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, Saudi 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 very 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 macroeconomics 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 contributing 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 (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.²

Interactive influence emerges from interacting agents and the transactions they generate. We formulate an index of interactive influence, call it dominance index DI that 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 (Ay / Ay') ; and the relative share of value added transformations, V , in y among all y' , that is Vy / Vy' . 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.

$$DI(y/y') = \pi_1 (Ay / Ay') + \pi_2 (Vy / Vy') \quad (2)$$

The value of DI for an entity y is a proportion, whereby $DI(y/y') = I$. An entity that scores a very 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 practically 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, that 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.

$$DI(c/w) = \pi_1 (A_c / A_w) + \pi_2 (V_c / V_w) \quad (3)$$

Applying equal weights to population and GDP is disputable. It is true that the interactive influence of populations depend 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/over-estimate 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 complications 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 viewed 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 realistic 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 regional 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, that is the world *w*.

$$DI(r/w) = \pi_1(A_r/A_w) + \pi_2(V_r/V_w) \quad (4)$$

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, region *r*.

$$DI(c/r) = \pi_1(A_c/A_r) + \pi_2(V_c/V_r) \quad (5)$$

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)*. Decomposition is laid down in eq. 6.

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

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. Some regional classification, see annex, should form the basis for composing a constitutionally acceptable platform of a representative world government. The annex 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 developing 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. 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.

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 (2013), see Table 3. Aggregation of Y_c to give V_r , that is GDP regional shares, makes use of an additional assumption.³

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 2, which indicates that the future 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 relatively 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 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 look into 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 very 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 to other countries in the same region. Avoiding unnecessary detail we limited the presentation to the two most leading countries in each region, with the exception of the Western region which shows the DI of the leading five countries that account together for 70% of the whole region; and the Russian group which suffices with showing the DI of Russia only that accounts for 81% of the whole. We discuss below the significance of 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 appear to be 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 from 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 to 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 very 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 bloc.

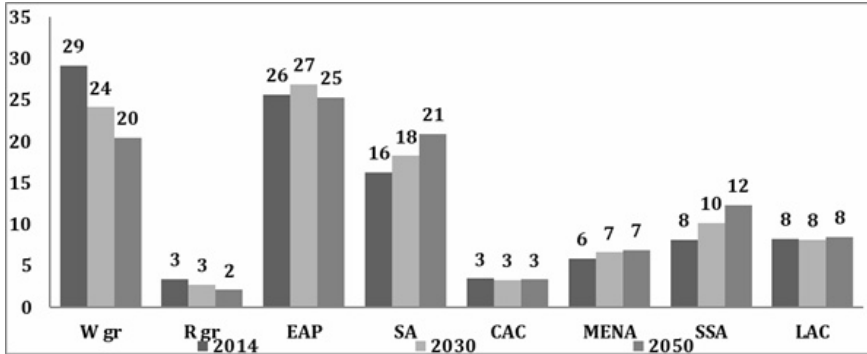
Table 4 Population Shares, GDP Shares and Dominance Index of World Regions and Leading Countries: 2014, 2030, 2050 (%)

Region	2014			2030	2050
Country	Population/ World	GDP/ World	$DI(r/w)$ $DI(c/w)$	$DI(r/w)$ $DI(c/w)$	$DI(r/w)$ $DI(c/w)$
<i>Western group</i>	15.4	43.0	29.2	24.1	20.5
US	4.5	16.6	10.5	9.1	8.4
Japan	1.8	4.5	3.1	2.4	1.8
Germany	1.1	3.4	2.3	1.7	1.3
France	0.9	2.4	1.7	1.3	1.1
UK	0.9	2.3	1.6	1.4	1.2
Italy	0.9	1.9	1.4	1.1	0.8
<i>Russian group</i>	2.9	3.8	3.3	2.7	2.1
Russia	2.0	3.3	2.7	2.2	1.7
<i>EAP</i>	28.5	22.7	25.6	26.9	25.3
China	19.1	16.4	17.7	18.3	16.9
Indonesia	3.6	2.4	3.0	3.2	3.5
<i>SA</i>	23.6	8.9	16.2	18.2	20.9
India	17.4	6.8	12.1	13.5	14.7
Pakistan	2.8	0.8	1.8	1.9	2.5
<i>CAC</i>	3.3	3.5	3.4	3.3	3.3
Turkey	1.1	1.4	1.3	1.2	1.4
Iran	1.1	1.2	1.2	1.1	1.0
<i>MENA</i>	4.5	7.2	5.9	6.6	6.9
S Arabia	0.4	1.6	1.0	1.1	1.1
Egypt	1.2	0.9	1.0	1.2	1.2
<i>SSA</i>	13.1	3.1	8.1	10.1	12.3
Nigeria	2.5	1.0	1.7	2.2	2.6
S Africa	0.7	0.6	0.7	0.7	0.7
<i>LAC</i>	8.6	7.8	8.2	8.1	8.4
Brazil	2.8	2.9	2.8	2.7	2.7
Mexico	1.7	2.0	1.9	1.9	2.0

Table 4 (Continued)

Region	2014	2030	2050	Change 2014-2050		Intraregional DI in 2014
Country	DI Rank	DI Rank	DI Rank	DI points	DI %	DI(c/r) %
<i>Western group</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>-8.7</i>	<i>-30%</i>	<i>100.0</i>
US	3	3	3	-2.1	-20%	36.1
Japan	4	6	9	-1.4	-44%	10.8
Germany	8	11	12	-0.9	-40%	7.7
France	11	13	15	-0.5	-33%	5.7
UK	13	12	14	-0.4	-28%	5.5
Italy	14	17	18	-0.6	-41%	4.9
<i>Russian group</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>-1.3</i>	<i>-38%</i>	<i>100.0</i>
Russia	7	8	10	-1.0	-37%	80.9
<i>EAP</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>-0.3</i>	<i>-1%</i>	<i>100.0</i>
China	1	1	1	-0.8	-5%	69.3
Indonesia	5	4	4	0.5	15%	11.7
<i>SA</i>	<i>3</i>	<i>3</i>	<i>2</i>	<i>4.7</i>	<i>29%</i>	<i>100.0</i>
India	2	2	2	2.6	21%	74.8
Pakistan	10	9	7	0.7	37%	11.2
<i>CAC</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>-0.1</i>	<i>-3%</i>	<i>100.0</i>
Turkey	15	14	11	0.1	12%	37.1
Iran	16	18	17	-0.1	-11%	33.9
<i>MENA</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>1.0</i>	<i>17%</i>	<i>100.0</i>
S Arabia	18	16	16	0.1	14%	16.5
Egypt	17	15	13	0.2	18%	17.7
<i>SSA</i>	<i>5</i>	<i>4</i>	<i>4</i>	<i>4.2</i>	<i>52%</i>	<i>100.0</i>
Nigeria	12	7	6	0.8	48%	21.6
S Africa	19	19	19	0.0	4%	8.3
<i>LAC</i>	<i>4</i>	<i>5</i>	<i>5</i>	<i>0.2</i>	<i>3%</i>	<i>100.0</i>
Brazil	6	5	5	-0.1	-5%	34.7
Mexico	9	10	8	0.1	7%	22.6

Figure 2 Projected Distribution of the Dominance Index in Percentages by World Region: 2014, 2030 and 2050



For Russia, the future prospects of global influence, defined in terms of demographic and economic interactions, are dire. This is directly evident from Table 4 and Figure 2, and from the above discussion on the relativity of intraregional dominance. Of course, what would 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 future 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 into 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 bloc 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. It seems that the choice between going west or east, which some see as a pending and recurring issue in past history, cannot be postponed anymore without incurring a high probability of being globally marginalised. The calculus of *DI* would show that incorporation of Russia into 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.

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

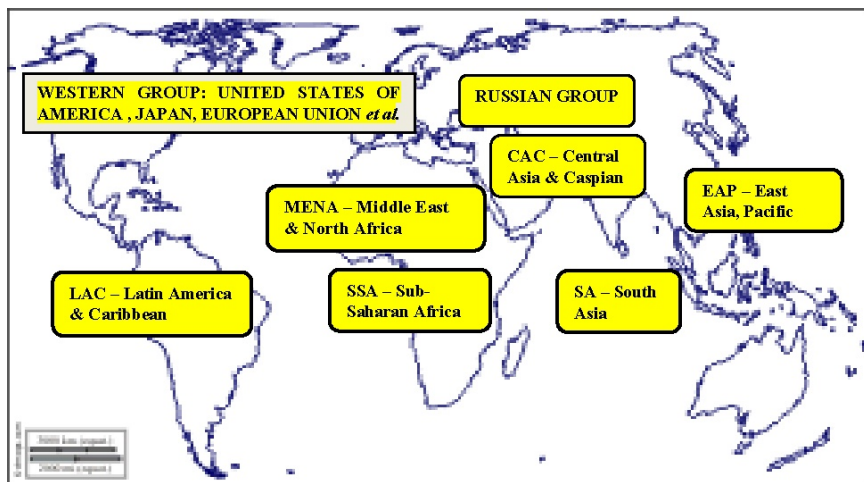
4. Concluding Remarks

Shleifer and Treisman (2005) formulated and answered the following question: “Is Russia a normal country?” They cross-compared Russia with many developing countries on several indicators and concluded that Russia is a normal country and it is not different from other countries at the same level of economic development. Their conclusion is not shared in this paper. The Russian economy and its development is a very special case. The past communist regime has left economic structures and behavioural mechanisms with negative effects that are still echoing. The future outlook at the global level points to eminent marginalization of an otherwise the most endowed country in natural resources. There are also the two paradoxes mentioned earlier that are loaded with uncertainties and risk. 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 underestimation that figuratively falls in the same basket as perceiving the challenges of the past and future as nothing more than the present new normal.

We touched in this paper on a few aspects of the highly complex economy and polity of the Russian Federation. 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 seem to be embedded in the Russian economy and polity,

they are nevertheless comprehensible problems and are solvable by appropriate structural reforms; but the future challenge of a forecasted marginalization of Russia at the global level is fundamental, appears to be unescapable, and carries high risks of conflicts and confrontations. Tackling the challenge involves foundational choices for Russia. This is not the case with China, which is in much more comfortable internal and external positions.

Appendix: The World Regions



Distinguished regions/countries	Specification of countries included	Modifications to WB databank
<i>Western group</i>		
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

Appendix (Continued)

Distinguished regions/countries	Specification of countries included	Modifications to WB databank
<i>Russian group</i>	Russia, Armenia, Belarus, Georgia, Moldova, Ukraine. Total 6 countries.	Newly defined
<i>East Asia & Pacific (EAP)</i>	All income levels excluding EAP-high income: China, Indonesia, etc. Total 26 countries.	None
<i>South Asia (SA)</i>	All income levels: India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, Sri Lanka. Total 8 countries.	None
<i>Central Asia & Caspian (CAC)</i>	Turkey, Iran, Azerbaijan, Kazakhstan, Kyrgyz R, Tajikistan, Turkmenistan, Uzbekistan. Total 8 countries.	Newly introduced region
<i>Middle East & North Africa (MENA)</i>	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
<i>Sub-Saharan Africa (SSA)</i>	All income levels in Africa except Algeria, Egypt, Libya, Morocco and Tunisia, which are included in MENA. Total 48 countries.	None
<i>Latin America & Caribbean (LAC)</i>	All income levels in Latin American and the Caribbean: Brazil, Mexico, etc. Total 41 countries.	None

Source: Cohen (2015).

Notes

- ⁺ This article is a revised version of an earlier paper presented at the Third International Forum of the Financial University, Moscow, 22-24 November 2016.

* Dr Solomon I. Cohen is Emeritus Professor at the Erasmus School of Economics, Erasmus University Rotterdam, Netherlands; and is currently visiting professor at Financial University Moscow, Surinam University Paramaribo, and University of Dubai. His BSc is from University of Khartoum, and MS and PhD from the Netherlands School of Economics, Rotterdam. He founded and directed the Foundation for Economic Research at Rotterdam, and held advisor positions at the United Nations, European Union, World Bank and at various governmental and international organizations. Next to refereed articles in international journals, Professor Cohen published some 14 books, including among others *The modeling of socio-economic processes*, Gower, 1984; *Microeconomic policy*, Routledge, 2001; *Social accounting and economic modeling for developing countries*, Ashgate, 2002; *Social accounting for industrial and transition economies*, Ashgate, 2002; *Economic system analysis and policies*, Palgrave Macmillan, 2009; *Economic models for policy making*, Routledge, 2013; *World development and economic systems: Theory and applications*, World Scientific Publishers, 2015. Several of these books were translated into Russian, Chinese and Japanese. <Email: cohen@ese.eur.nl>

1. See Nie (2016).
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 other 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.

3. GDP forecasts of PwC (2013) are limited to the top 32 countries. Together they formed 85% of the world GDP in 2014, in MER terms.

References

- Cohen, S.I. (2013). *Economic models for policy making*. London: Routledge.
- Cohen, S.I. (2015). *World development and economic systems: Theory and applications*. Singapore, London, New York: World Scientific Publishers.
- Dejevsky, M. (2016). Valdai Club report: In search of a new world order. (Published at website of Valdai Discussion Club.) 10th February 2016. <<http://valdaiclub.com/a/highlights/valdai-club-report-in-search-of-a-new-world-order/>>
- El-Erian, M.A. (2010). Navigating the new normal in industrial countries. (Per Jacobsson Foundation Lecture.) IMF External Relations Department, International Monetary Fund, 10th October 2010. <<https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp101010>>
- Korber FIA (2016). Russia and the EU: Defining the new normal. (Presented in German-Russian International Dialogue, 16th April 2016.) Berlin: Körber Foundation International Affairs.
- Nie, W. (2016). China's new normal. *Fortune*, February 2016.
- PwC Macroeconomics (2013). World in 2050 – the BRICS and beyond: Prospects, challenges and opportunities (by John Hawksworth and Danny Chan of PwC's Macroeconomics team (UK) with additional inputs from Patrick Tay (PwC Malaysia) and Mateusz Walewski (PwC Poland)). PricewaterhouseCoopers LLP, January 2013. <https://www.pwc.kz/en/publications/new_publication_assets/world_in_2050_2013.pdf>
- Simon, H.A. (1993). Altruism and economics. *Papers and Proceedings* (symposium), American Economic Association, May 1993.

- Shleifer, A. and D. Treisman (2005). A normal country: Russia after communism. *Journal of Economic Perspectives*, Vol. 19, No. 1, pp. 151-174.
- Wilson, D. and R. Purushothaman (2003). Dreaming with BRICS: The path to 2050. *Global Economics Working Paper* No. 99. *GS Global Economics Website*. Goldman Sachs. October 2003. <<http://www.goldmansachs.com/our-thinking/archive/archive-pdfs/brics-dream.pdf>>