

Economic Policy and Social Affairs in the BRICS

Helmut Reisen



Contents

1	A recalibrated world economy	2
2	When do the SGI matter for sustainable growth? Evidence from theory and practice	6
3	Sustainable governance in the BRICS: The five country reports.....	13
4	Overcoming barriers to sustainable development in the BRICS.....	27
	4.1 General policy and strategy insights from modern growth diagnostics	28
	4.2 Three common policy challenges for sustainable governance in the BRICS	31
5	References.....	38

This report focuses on sustainable governance in the policy areas of economic and labor governance, as well as social affairs governance. For the first time, this study evaluates the five BRICS countries – Brazil, Russia, India, China and South Africa – on the basis of Sustainable Governance Indicators (SGI) previously quantified only for OECD countries. These indicators assess governance in a variety of economic and social areas, including:

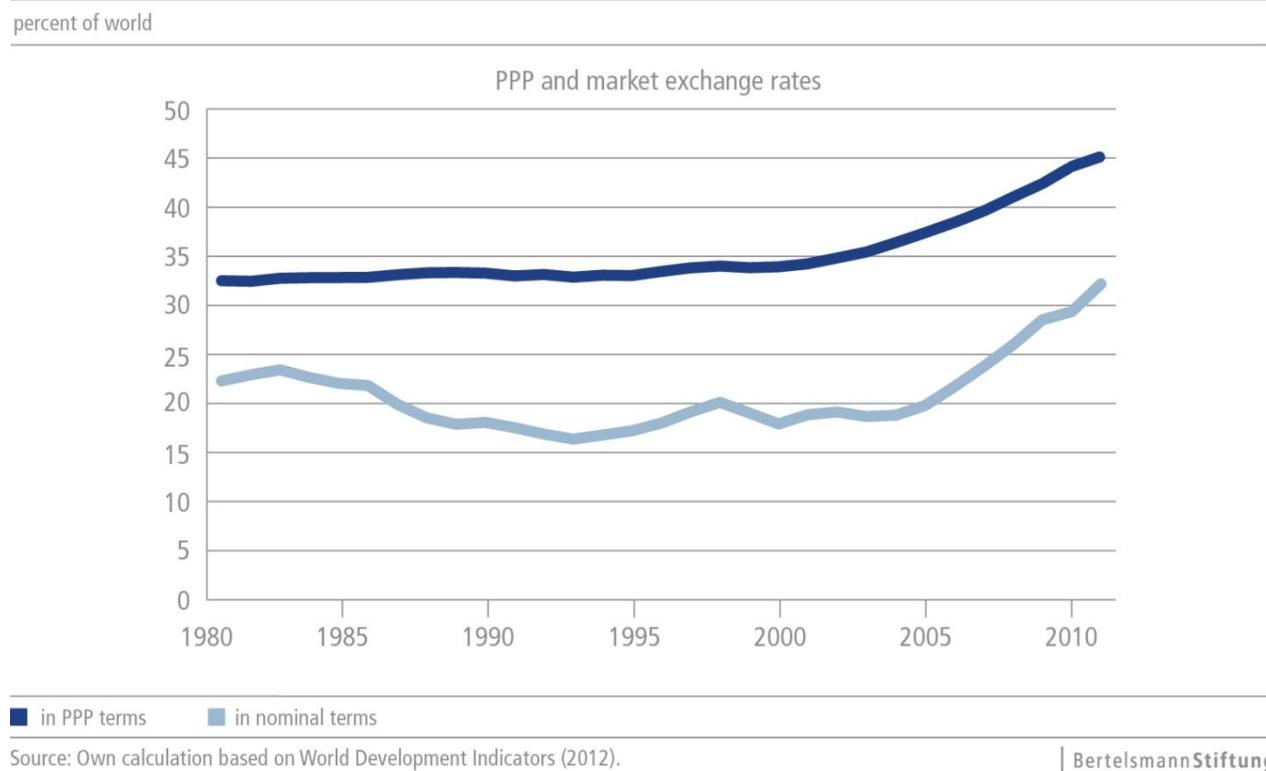
- An economy and employment cluster, with criteria measuring performance in the areas of the economy, the labor market, enterprises, taxes and budgets; and
- A social affairs cluster, with criteria measuring performance in the areas of health care, social inclusion, families, pensions and integration.

Before summarizing economic and social findings drawn from the five individual BRICS country studies (as will be done in section 3), it is necessary to put these governance indicators into perspective. Section 1 will thus focus on the world economy's recent and massive recalibration away from OECD economies and toward the BRICS. Section 2 will discuss the relative importance of the SGI governance indicators for the sustainability of growth, development and social cohesion within countries poorer than their OECD counterparts, as informed by modern development and growth literature. Understanding the complex conditions that enable sustainable development requires analytical humility, empirical rigor and an open mind.

1 A recalibrated world economy

This report is timely. For a decade, some (though not all) BRICS have been the recipients of much admiration (and apprehension) related to extremely high GDP growth rates that, in combination with their large populations, have helped to continuously increase their share in the world economy and even to reduce overall global poverty rates. However, doubts have recently intensified among academic and media authorities as to whether the process of income convergence will continue. “Sustainable governance” in the BRICS, or rather the lack thereof, lies at the heart of these doubts. BRICS authorities are struggling to retain their political legitimacy in the face of declining growth rates, a growing wealth divide and perceived corruption, factors that often result from weak property rights, dysfunctional public finances (particularly on subnational government levels), and fragmented labor markets. The dual-economy setting common to all BRICS – the coexistence of a poor rural and an informal urban sector with a richer, growing urban bourgeoisie – sharpens the authorities' policy dilemmas. On one side are demands to continue past growth strategies in order to satisfy the basic needs of the poor; on the other are claims for more transparency, accountability and democracy, as articulated by the Internet-savvy middle class.

Figure 1: Non-OECD share in world GDP

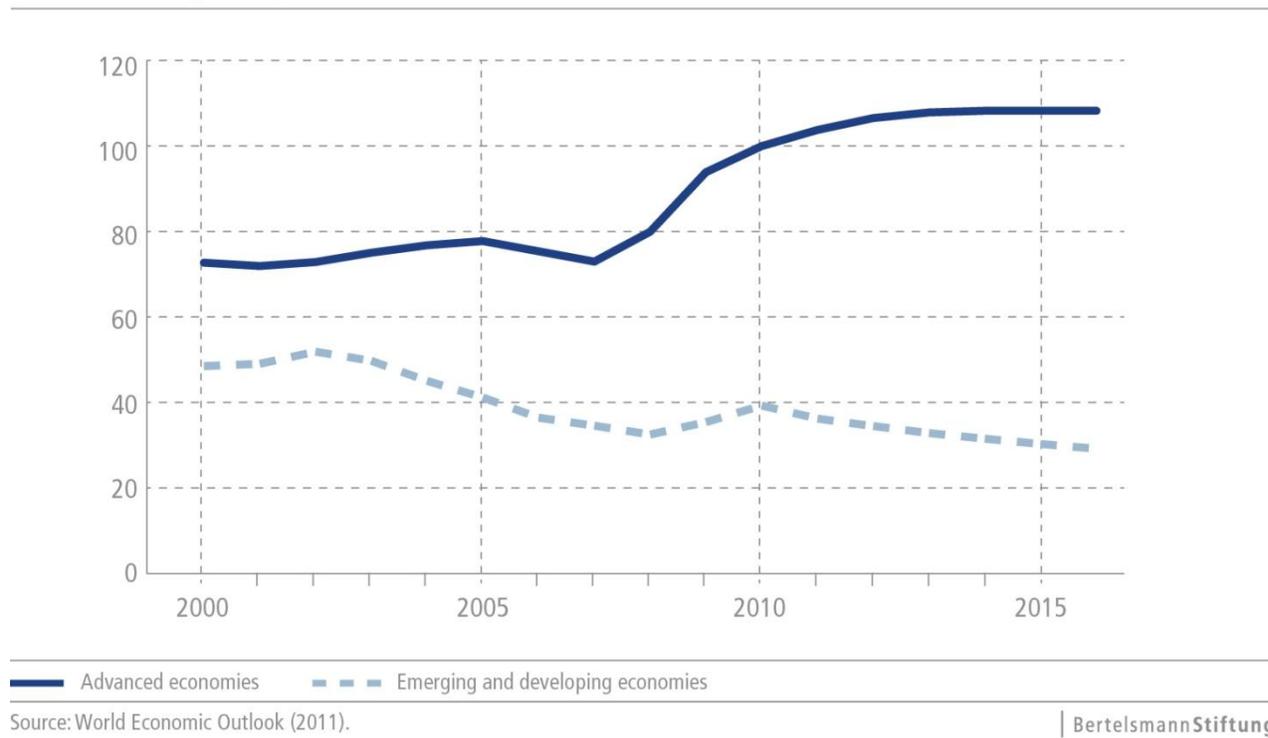


The sustained growth experienced by the large emerging countries over the last decade (and more), particularly by China and India, have led them to growth rates considerably above the OECD average. Indeed, the world has seen a shift in its engines of growth since the late 1990s, with global growth increasingly being driven from outside the OECD area. Combined with the emerging countries' very large populations, these growth differences have translated into a qualitatively new world economy. Since 2003, more than half of world growth has taken place in the non-OECD area. World GDP shares are being rebalanced toward the world population shares held by advanced and poorer countries, regardless of whether this is measured on a purchasing-power parity basis or by market exchange rates (Figure 1).

Indeed, the world has witnessed a recalibration of economic mass toward the East not only in terms of income (and trade) *flows*, but even more so in terms of net asset and debt *stocks*. The global current account imbalances of the past decade – which to a large extent reflected a high external U.S. saving deficit financed increasingly by China and oil exporters – have given rise to a significant shift in wealth distribution. Net foreign claims held by surplus countries have been rising, linked either to fossil-fuel or metals production or to excess savings. Rich OECD countries are now increasingly being financed by countries which until recently played no substantial role as international investors.

Figure 2: Pleasant and unpleasant public debt dynamics

General Government gross debt, as % of GDP



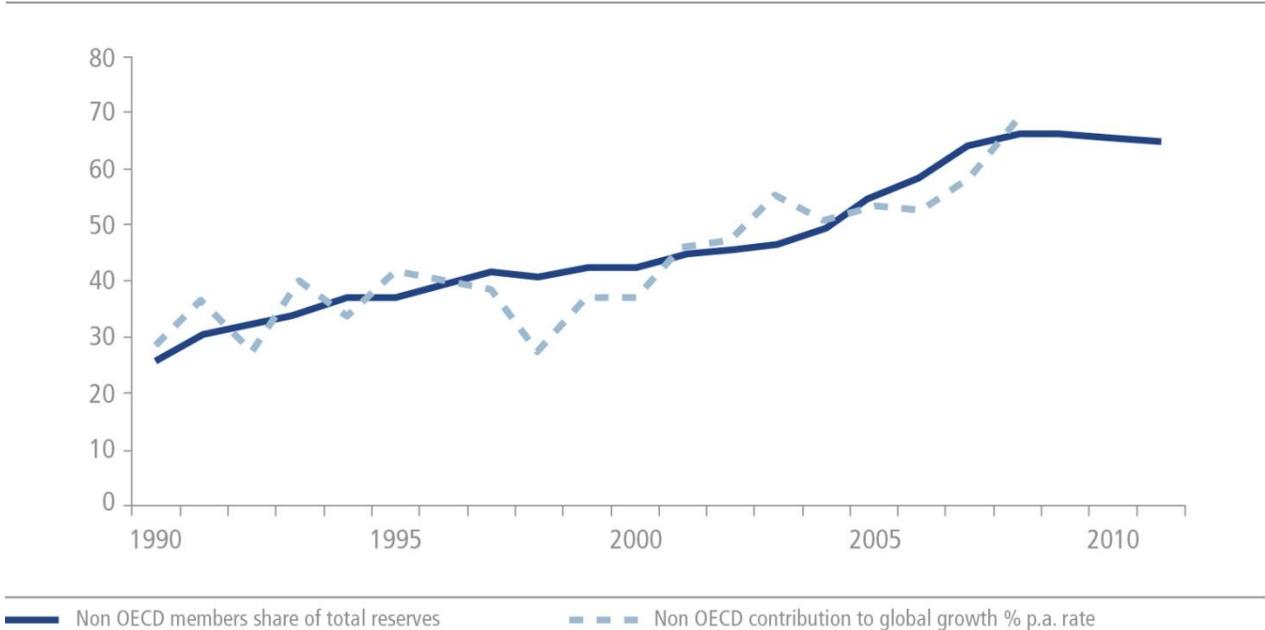
Developing countries are already the source of much of the world's savings. They hold an aggregate \$1.8 trillion in foreign direct investment abroad, with \$0.85 trillion coming from the BRICS countries alone (Kharas and Rogerson 2012). At present, most of these savings (often public, via sovereign wealth funds and official foreign exchange reserves) are flowing into advanced and upper-middle-income countries. However, the balance of opportunities will gradually shift in line with risk-adjusted returns, which over the longer horizon favor faster-growing, more slowly-aging, lower-income countries.

Emerging countries, in particular China – which is the most important single foreign nation in terms of U.S. Treasury security holdings (for recent U.S. data, see www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt) – hold debt claims against OECD countries that find themselves on challenging fiscal trajectories as a result of very unpleasant debt dynamics – mainly due to depressed growth and rising sovereign risk premiums, but also to past fiscal profligacy (Figure 2). The drop in public debt ratios in emerging and developing countries has in turn been a boon, creating fiscal space for more active policy intervention to sustain growth in the face of social and structural impediments. The drop has been largely endogenous to high GDP growth rates, lower sovereign risk premiums and improved non-interest budget balances, as tax receipts have been rising in the wake of better raw material prices and improved tax collection. Therefore, much of the improved state of developing- and emerging-country public finances will depend on growth in these countries being sustained.

The shift from Western to Eastern and Southern sources of finance translates into a higher share of state-sponsored capital as opposed to pure private-sector sources. It is also redefining the global balance of geopolitical power. The reinvigoration of the G-20 (which had been created in the aftermath of the 1990s Asian financial crisis) as the premier global economic policy forum, the strengthening of emerging countries' role, representation and voice in international organizations such as the Bretton Woods institutions, and the increased political power held in particular by the BRICS are all notable features of these countries' shifting geopolitical stance on the global scale. In the area of international monetary governance, proposals to give the renminbi and perhaps other emerging-country currencies reserve-currency functions alongside key OECD currencies have gained momentum (Reisen 2009). In global trade policy, the BRICS' increased importance has increased their retaliation and bargaining power when dealing with major developed nations. Finally, the growing economic, diplomatic and political importance of non-OECD countries may translate into acceptance of a different intellectual paradigm informing cross-border collective arrangements, while also reducing compliance with standards and best practices as defined and scripted by advanced economies.

Figure 3: Shifting global economic power

percentage shares, FX reserves and global GDP growth contribution



Source: Own calculations based on WDI database (2012), Röller and Véron (2008).

BertelsmannStiftung

Poverty reduction is undoubtedly the major benefit commonly associated with China's rise. Over the last 30 years, China has managed to lift half a billion people out of extreme poverty; thanks to its size, growth rates and increasing South-South links, China has in turn contributed to reducing global poverty overall (Sumner 2010). The share of the extremely poor (living on less than \$1.25

per day per capita in PPP-adjusted terms) in the world population dropped from 52 to 22 percent between 1981 and 2008, according to the most recent World Bank data (PovcalNet, World Bank 2012). The mid-2000s shift of the global growth locomotive from the G-7 countries to China has been associated with a marked decline in poverty rates outside China as well.

2 When do the SGI matter for sustainable growth? Evidence from theory and practice

Measures associated with modern social market economies would have offered insufficient predictive help in foretelling the winners and losers in economic development among the five BRICS during the past three decades. Economists basing their judgments on governance indicators such as freedoms necessary for competition (open markets or media pluralism, for example), efficient property rights, economic and ecological sustainability, and social inclusion might have bet on Brazil and South Africa to lead the economic and social performance surge, while failing to forecast the outstanding performances of China and other states following an authoritarian development model. Some, such as Besley and Kudamatsu (2007), have shown that autocracies produce either better sustained growth outcomes (e.g., Singapore, which serves as a reference for China's policy elites) or worse (e.g., Zimbabwe) than democracies. This depends on the accountability of their performance to a "selectorate" able to remove poor performers from office. However, the ability of autocracies to maintain a merit-driven selectorate is questionable, given the predominance of patronage factors. To be sure, past performance is not indicative of future performance; this report examines whether today's economic and labor market policies are fit to meet future challenges.

Without China's contribution, the rise of the non-OECD share in world GDP would have been much smaller over the past three decades. Thanks to China, that share has grown to almost half of world GDP at PPP-adjusted exchange rates (or about 35 percent at market exchange rates). China's share, only 2 percent in 1980 in both PPP and market terms, rose to 15 percent in PPP terms and 10 percent in market terms by 2011. India, which also started at 2 percent of world GDP in 1980 at both exchange rates, rose to 6 percent in PPP terms and 3 percent in market terms during these three decades. Neither Brazil nor Russia nor South Africa achieved a discernible rise in the share they contributed to world GDP during that period, hovering respectively around 2 percent (Brazil, Russia) and 1 percent (South Africa).

Table 1 documents in a nutshell how varied the performances of the five BRICS have been in terms of growth performance, human development and the single most important hard social indicator, life expectancy at birth. During the 2000s, Brazil's growth was anemic, but decisive pro-poor policies managed to reduce poverty. South Africa clearly underperformed in terms of growth and human development, with a further decline in life expectancy at birth (due to widespread HIV/AIDS infection), even though it succeeded in reducing extreme poverty. Russia clearly recovered in the 2000s in terms of growth, poverty reduction and life expectancy, following a very

painful decade in the 1990s. But would we talk about the BRICS if not for the truly impressive performance of the two Asian giants, China and India, during the 2000s? Indeed, it is these countries' performances in terms of growth, increases in health outcomes and poverty reduction (albeit with gaps in social inclusion) that have changed the world economy and polity.

Table 1: BRICS' basic economic and social performance, 2000s

	2011 GDP (PPP)/capita	GDP/capita growth %, p.a. 2001 – 2010 PPP, constant 2005 \$	Human Development, index points gained 2000 - 2011	Life expectancy, years at birth gained 2000 - 2010
Brazil	11,719	2.4	5	4
China	8,466	9.0	10	3
India	3,652	5.9	9	3
Russia	21,248	4.6	8	4
South Africa	11,035	2.1	0	-2

Note: World GDP at PPP per capita, in international dollars.

Sources: World Bank Economic Indicators; UNDP Human Development Indicators.

| BertelsmannStiftung

While there cannot be a simplistic, one-dimensional explanation for the BRICS' complex economic and social development (as encapsulated in Table 1), a remarkable confluence of events marked the beginning of a new era of globalization roughly three or two decades ago:

- From 1978 on, China gradually privatized agriculture and opened up to foreign investment and technology, thus speeding its state-controlled transition toward a market economy, in particular from 1992 onward. Driven by ambitious industrialization goals, China has consistently channeled resources from the rural subsistence sector into activities with higher productivity.
- The collapse of the Soviet Union, beginning with the fall of the Berlin Wall in November 1989 and culminating in the formal dissolution of the Soviet Union in December 1991, dramatically changed the geopolitical calculus. After initially falling into a deep recession, arguably as a result of “shock therapy” in the 1990s that contrasted strongly with China’s gradualist approach (Lee and Reisen, 1994), Russia has experienced significant natural-resource-driven growth rather than diversifying into high-value-added activities.

- Elections in India in 1991 brought a pro-reform government to power, following severe external payments problems. Indian economic governance shifted from that point forward, with its tightly controlled and inward-looking economy being gradually deregulated and opened up, albeit with slowing reform momentum over time. Indian growth was driven primarily by three sectors (IT, pharmaceuticals, and automobiles) that had arguably been brought to the frontier of international competitiveness by previous import-substitution policies.
- The end of apartheid, signaled by the 1990 release of Nelson Mandela, opened South Africa's siege economy to global markets. Like Russia, South Africa has experienced great difficulty in diversifying away from its natural resource base, partially due to China's competitiveness in the unskilled manufactures markets. The fastest growing sectors of the economy have been the financial services industry followed by the wholesale retail trade sector, with relatively little investment or skills transfer taking place in the labor-absorbing manufacturing sector.
- Brazil's most significant reform effort, addressing longstanding macroeconomic weakness, occurred in the 1999–2003 period under the Cardoso administration, followed by pro-poor policies under President Lula. Brazil's hopes for economic growth on a par with the most dynamic emerging markets in Asia have been disappointed, however, as the reform mix included a process of technological downgrading that has manifested in a fragmented production base. As a result, the country today boasts a small group of world-leading firms along with a large number of firms engaging in low-productivity, low-skill activities, with this latter group accounting for 60 percent of the urban workforce.

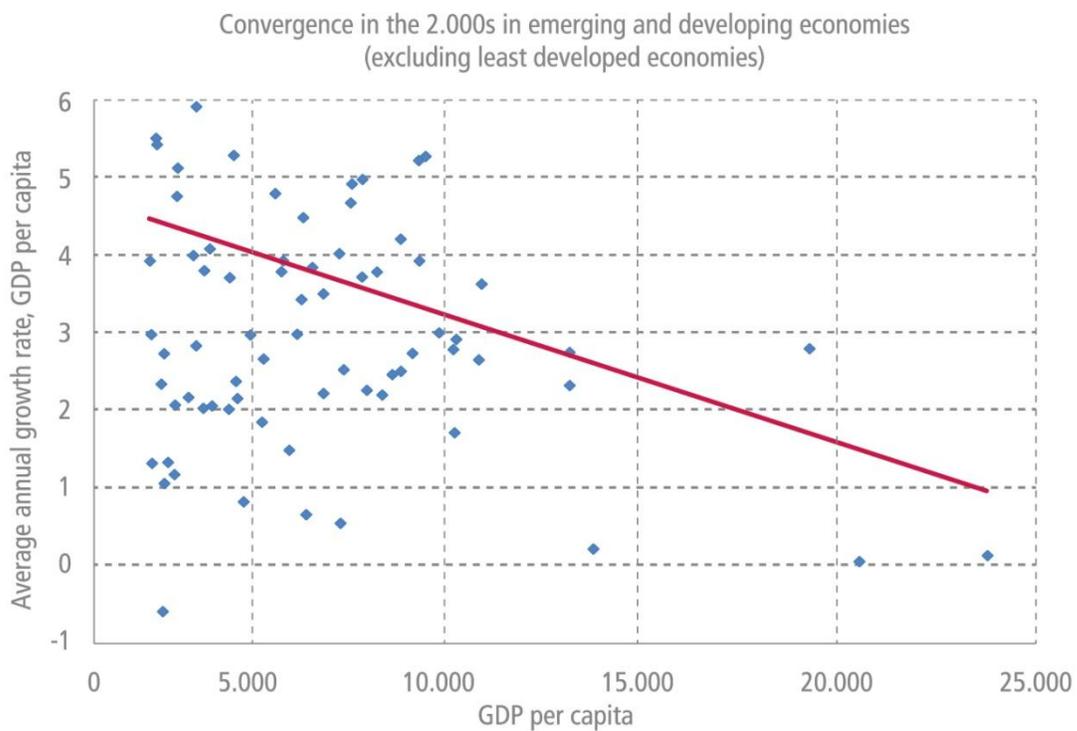
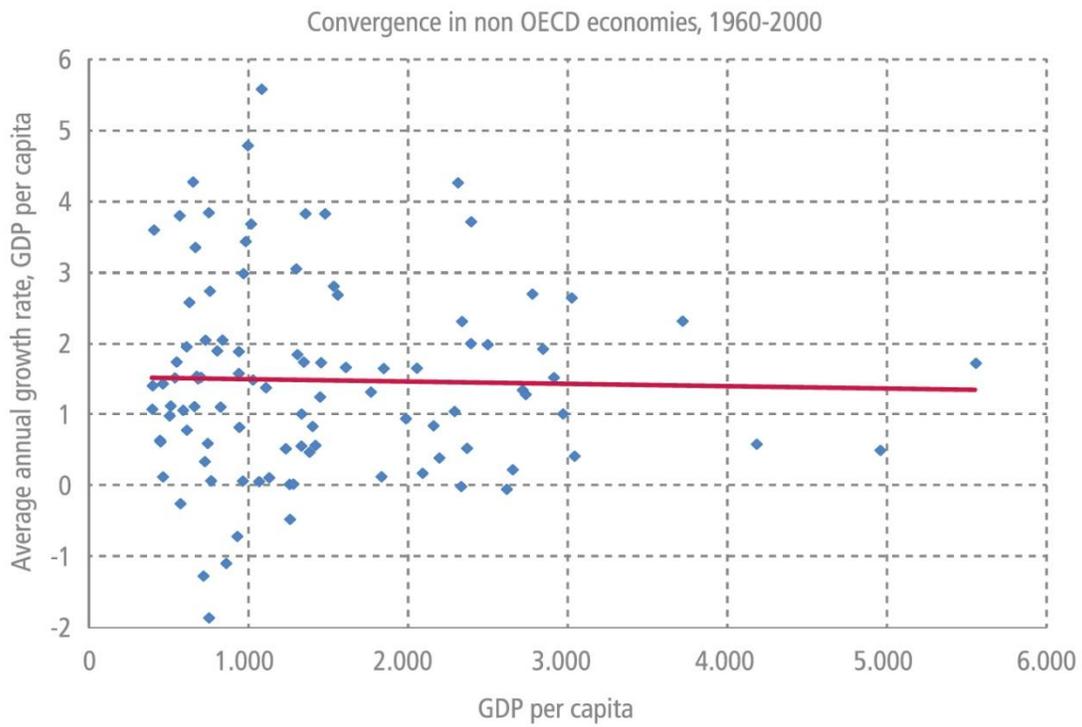
No single variety of policies and institutions can be right for all countries at all moments in time, whether for the BRICS specifically or for emerging countries in general. Development economics and hard empirical evidence has taught this, often at considerable social and economic cost. After widespread failures associated with the first and second generations of policy reform, the so-called Washington Consensus (encompassing fiscal discipline and tax reform, a reduction in subsidies, financial liberalization, unified and flexible exchange rates, trade liberalization, openness to foreign direct investment, privatization, deregulation and secure property rights) is now a “damaged brand name” even according to John Williamson, who coined the term in 1990 (Williamson 1990). After the implementation of this first-generation set of reforms produced uneven results in the areas of growth and poverty reduction, the “augmented consensus” of the early 2000s produced a call for “second-generation reforms”: corporate governance, anti-corruption measures, flexible labor markets, WTO agreements, financial codes and standards, “prudent” capital-account opening, nonintermediate exchange-rate regimes, independent central banks and inflation targeting, social safety nets, and targeted poverty reduction. But even these second-generation reforms produced disappointing results, eventually “morph[ing] into an impossibly broad and ambitious agenda under the general heading of ‘governance reforms’,” according to Dani Rodrik (2011). Many Latin American countries (apart from Brazil) have followed such policy

prescriptions over the last two decades, yet have seen little in the way of economic growth or reduction in inequality.

The *laundry list approach* to (second-generation) reform has proven ineffective, as it assumed that all developing and emerging countries suffered from the same problems, and that all of these problems were equally important. As emphasized by Hausmann, Rodrik and Velasco (2008), the Growth Commission (Commission on Growth and Development 2008) and many growth experts, an unweighted check-off of selected governance elements leads to an undifferentiated reform program that fails to target an economy's most severe growth bottlenecks; indeed, it may even backfire as some elements of reform (such as financial opening or privatization programs) aggravate problems by, say, igniting boom-bust cycles or by reversing the transfer of labor to higher-productivity activities. It ignores a basic insight that the renewal of growth theory and its therapeutic derivative, country-specific growth diagnostics, have produced – notably, that a successful growth strategy requires the identification of country-specific growth bottlenecks and a careful selection of policy priorities under the constraint of scarce political and administrative (human) capital.

It is tempting to cite the most advanced countries as positive examples of institutional and governance reform (though this was typically a decades- or even centuries-long process in those countries). But this proves to be ineffective policy advice. Moreover, the global financial and economic crisis that originated in the United States has led to renewed skepticism toward Western policy paradigms, while the rise of China in particular has prompted searches for alternatives. Indeed, while income convergence from the end of World War II to the end of the 20th century was predicated upon being an OECD member country and broadly following mainstream OECD advice (Bénassy-Quéré et.al 2010), with no income convergence outside the OECD area, convergence patterns have dramatically shifted today (Figure 4). The 21st century has thus far witnessed much stronger income convergence outside than inside the OECD.

Figure 4: Beta convergence outside the OECD



Source: OECD (2013), Perspectives on Global Development 2013.

BertelsmannStiftung

This shift has resulted in new explanations of sustained growth and new thinking in development economics, not least by the former Chinese chief economist of the World Bank, Justin Yifu Lin. This new thinking has several core messages:

- First, as an economy evolves from low-income agrarian conditions to high-income status, this perspective emphasizes the need for a varying mix of hard (transport, energy, water) and soft (governance, institutions) infrastructure in order to facilitate operations and transactions.
- Second, Lin and others argue that developing countries should not necessarily base their industrial upgrade and infrastructure improvement goals on those pursued by high-income countries.
- Third, while effective market mechanisms remain important, the government is viewed as having an active and beneficial role in facilitating industrial upgrades and infrastructure improvements, as this type of upgrade is characterized by large externalities that are not reflected in firms' transaction costs or capital investment returns (see, e.g., Lin 2011).

The new empirical evidence on sustained (as well as aborted) growth performances can be perfectly explained by the renewal of growth theory, which has delivered differentiated recipes for long-term growth with a higher ability to match empirical data than ever before, thanks to the varied growth performances observed in the last two decades. Acemoglu, Aghion and Zilibotti (2006) produced a stochastic growth model in which a country's "distance to the frontier" matters for the selection of appropriate growth strategies. Countries at early stages of development (optimally) pursue an investment-based strategy, which relies on existing firms and managers to maximize investment under the guidance of the government; at this stage, local entrepreneurship and home-made innovation matter relatively less, a condition that carries implications in shaping appropriate institutions. The three authors show that relatively backward economies risk shifting out of the investment-based strategy too soon. Policies that encourage the investment-based strategy, such as limits on product market competition or investment subsidies, may be beneficial for a lengthy period in terms of facilitating economic convergence and poverty reduction. However, these policies may also have significant long-run costs, as they make it more likely that a society will ultimately be trapped in the investment-based strategy, failing to reach the world technology frontier and finding itself devoid of domestic entrepreneurs and innovation capacity.

In his classic *Economic Backwardness in Historical Perspective*, Alexander Gerschenkron (1962) demonstrated that relatively backward economies such as Germany, France and Russia during the 19th century were able to catch up to more advanced economies rapidly by undertaking large investments and adopting – rather than domestically inventing – frontier technologies. DeLong and Summers (1991) subsequently produced data that strongly indicated high levels of equipment investment to be a cause, not a consequence of rapid productivity growth. Countries growing rapidly over the long run were those in which equipment supply curves had shifted outwards. Consequently, during an economic catch-up process, a high government share of investment should not be interpreted as connoting "serious shortcomings that call the sustainabili-

ty of the country's governance system into question" (Country Report China, Executive Summary).

In fact, "most of the economic leaps that laggard countries have made can be credited not to domestic technological innovations but to flows of technology from abroad, which in turn have been financed by export receipts from natural resources and low-wage industries. What's more, authoritarian political institutions, such as China's, can sometimes speed, rather than impede, technological inflows. China has proved itself highly effective at building large and complex infrastructure that complements industrial capital, and this infrastructure has attracted foreign private-sector capital and technology" (Sachs, 2012). The OECD itself conceded in 2010 that its "Going for Growth" policy prescriptions can act to weaken rather than encourage growth below a certain per capita income threshold. These prescriptions include the internal deregulation of product and labor markets and the external liberalization of trade and capital flows. The next section will examine how the BRICS compare on the various related indicators. Such evidence comes as no surprise to development economists. Wölfl and co-authors (2010) find that an improvement of 0.5 index points in the product market regulation index generally translates into a 0.4 percent higher annual average GDP growth per capita, but this result is contingent on the state of development. Conversely, up to average annual income levels of \$22,000 (PPP-adjusted), barriers to trade and investment are even positively related to per capita GDP growth rates; the threshold level below which product market regulation actually stimulates growth independently was estimated at \$10,000 (PPP-adjusted) in the OECD study.

These are striking results that reinforce the point that not all policies are right at all moments in time for all countries. Extending deregulation and liberalization policies that may have worked in rich OECD countries to poorer emerging and developing countries must be done with great care if sustainable growth is not to be impaired. In 2011, GDP per capita in the large Asian emerging countries (PPP-adjusted and in constant 2005 international dollars, as shown in Table 1) was still below the income thresholds at which the Going for Growth prescriptions have been shown to work in the past. By contrast, Brazil and South Africa exceed the per-capita income threshold at which product market regulation begins to do more harm than good to growth. According to the OECD results, Russia would also benefit from opening its economy to foreign trade and finance, given its present per capita income level.

Sustained growth and poverty reduction, especially in poor dual-economy countries, usually requires a shift of resources from low productivity to higher productivity activities, from raw materials to manufactures, and from rural to urban areas. Rodrik (2011: 156) has strikingly summarized this modern history of development experiences: "You become what you produce. That is the inevitable fate of nations." Moving subsistence resources into modern economic sectors is crucial. But there is a downside to the modernization of a dual economy: The transfer of resources inevitably highlights the link between growth and inequality. The duality of labor markets, particularly those of the Asian giants, is a case in point. In both India and China there is substantial inequality in incomes between rural and urban workers. Dual-economy models along the line modeled by Nobel laureate Arthur Lewis have often been used to represent the Chinese labor market (Zhang, Yang and Wang 2011).

Kuznets (1955) posited that inequality increases over time while a country is developing, while inequality begins again to decrease after a certain average income is attained. The mechanics underpinning increasing inequality in Kuznets's hypothesis may be at play in the large converging countries, especially China and India. As structural transformation brings workers from the lower-inequality, lower-productivity agricultural hinterland to the urban manufacturing (or services) sector, aggregate inequality increases as a result of development before eventually falling (McKinley 2009). McKinley points to the rise in inequality *between* the rural and urban sectors as younger workers migrate to the cities and to the rise of inequality *within* the urban sectors as an endogenous outcome of the Kuznets effect.

The Kuznets effect implies that the rise of inequality observed in the BRICS states does not necessarily point to governance unsustainability, even if such a rise always holds governance risks. Some of the rise in inequality instead reflects a temporary phenomenon associated with rural-urban migration into high productivity areas, an ongoing growth process. But it is important, if growth is to be sustained, that a dense industrial tissue be built during that transition (for evidence of more than 500 episodes in which growth rates turned negative, see Hausmann et al. 2006).

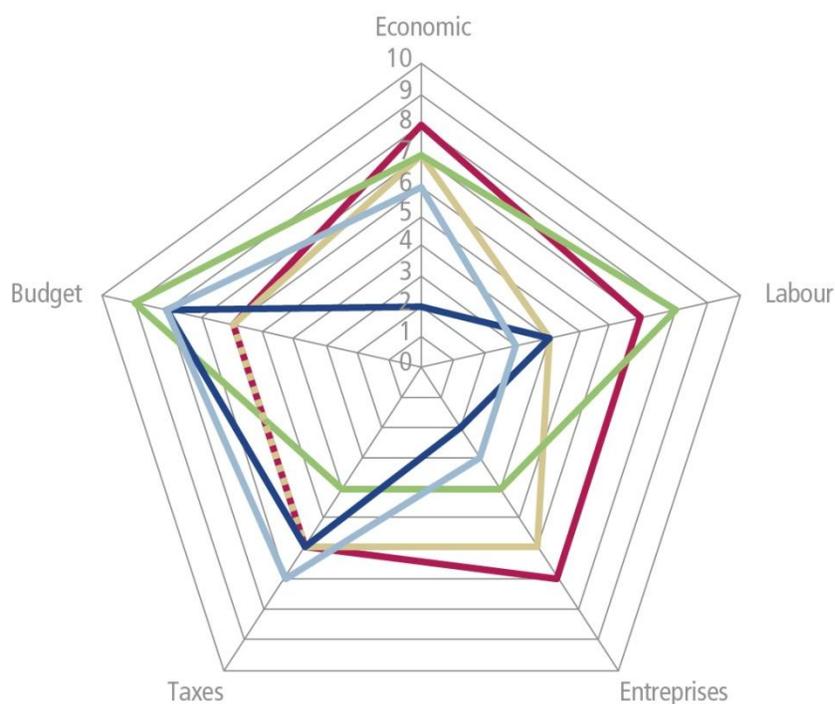
3 Sustainable governance in the BRICS: The five country reports

The preceding section's capsule summary of insights from development economics old and new suggests that the SGI's 10 economic and social policy indicators (i.e., economy, labor market, enterprises, taxes, budgets, health care, social inclusion, families, pensions and integration) will assume a growing importance going forward relative to structural features such as high saving and investment rates or the transfer of low-productivity resources into activities and sectors with higher productivity. It is suggested that the sustainability of growth in emerging countries will increasingly depend on how well they score on the SGI indicators as their per capita GDP rises beyond the \$10,000 threshold, and as their output mix, production procedures and related services approach the world's leading "technology frontiers."

Figure 5 presents a radar graph that summarizes the major results of the five country studies for the five indicators of the SGI's *economy and employment cluster*. The radar graph allows a first direct glimpse at the rich results obtained in the country studies and reduces the complexity of the many policy facets embedded in the country reports. The figure summarizes BRICS scores in each of the policy areas monitored by the SGI indicator. Table 2 summarizes BRICS numerical values in the area of employment and labor, and constitutes a country ranking for the quality of governance based on the five SGI country studies. In terms of overall governance associated with economic and employment policies, China is seen as the relative BRICS leader, closely followed by Brazil. Russia performs significantly worse than its BRICS peers.

Figure 5: SGI economy and employment

Values from 0 (worst possible outcome) to 10



— China — India — Russia — Brazil — South-Africa

Source: SGI country studies, 2012.

| BertelsmannStiftung

China performs fairly well in all five policy areas, with taxes and budgets receiving its lowest grades, the result of a flawed system of fiscal federalism and budget allocation. Compared to the other BRICS, however, China has the strongest overall performance (see Table 2). China is in first or second position within all policy areas except budget, in which China and India share the last position. China also stands out for its lack of significant outliers; its scores in this cluster all range between 6 and 8, a solid albeit improvable performance. A major challenge to sustainability in China is the unsolved problem of fiscal federalism and the associated widespread corruption (as emphasized by former President Hu at the 18th Congress of the Chinese Communist Party in November 2012); an insufficient allocation of public funds to provincial and local administrations has encouraged “land grabs” by the authorities, deepened corruption and endangered social stability.

Table 2: Ranking BRICS' economic and labor governance

Scores Country	Economic S5	Labor S6	Enterprise S7	Tax S8	Budget S9	Average score	Rank
China	8	7	7	6	6	6.8	1
Brazil	7	8	4	4	9	6.4	2
India	7	4	6	6	6	5.8	3
South Africa	6	3	3	7	8	5.6	4
Russia	2	4	2	6	8	4.4	5

Sources: SGI country studies.

| BertelsmannStiftung

Brazil outperforms China in the budget and labor policy areas, where it respectively receives excellent scores of 9 and 8. However, Brazil exhibits a large performance gap between its budget, economic policy and labor market policy assessments on the one hand (where it scores in a range between 7 and 9) and its taxes and enterprise policy scores on the other (where the country gets only a grade of 3). In the SGI country study, this is attributed to the unsolved problem of a small tax base with many exemptions and tax holidays, which undermines the progressivity of income taxation; this in turn imposes high tax rates on the remaining tax base, detracting from corporate competitiveness. Competitiveness in Brazil is further undermined by barriers to private-sector infrastructure investment, monopolistic barriers to market entry and comparatively minimal corporate contestability.

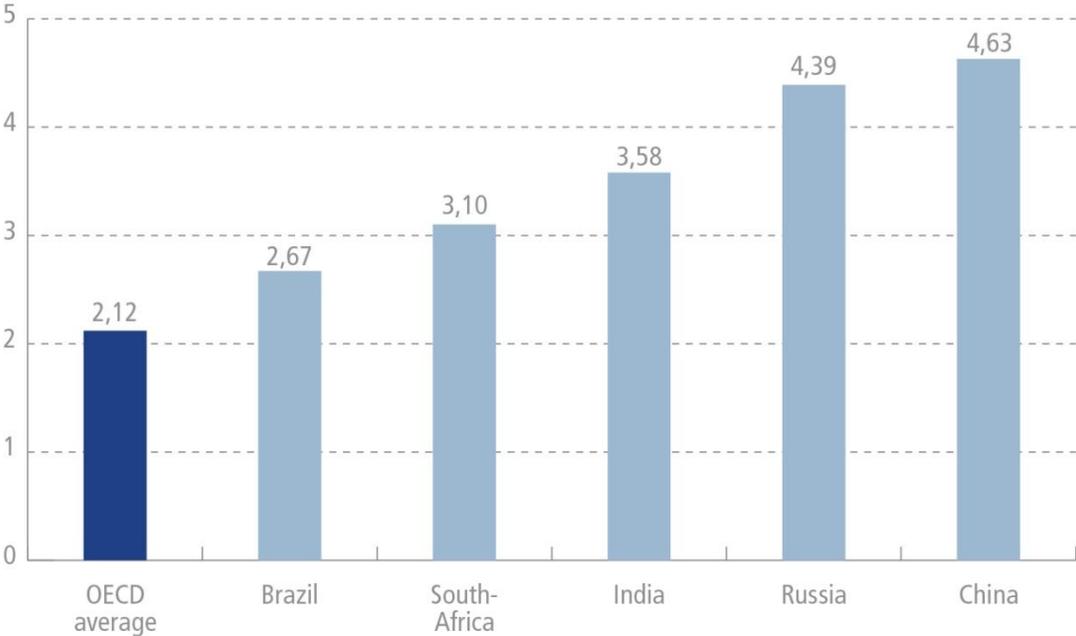
India also shows fairly even performance across the various policy areas, although the combination of a weak tax system with massive subsidies makes it the most fragile of the BRICS states in terms of public finances. Scores range between 6 and 7, with the notable exception of labor market policy, which appears to be the most intractable challenge within the Indian policymaking sphere, as in South Africa. Insufficient labor market absorption, in particular with respect to labor market entrants belonging to young generational cohorts, is a widespread problem in the BRICS countries. Weak labor market performance in the BRICS is often attributed to two factors: complex laws intended to protect jobs in the formal economy, but which work to the detriment of formal labor-market outsiders; and the low quality of public education (not necessarily in terms of budget appropriations), notably in Brazil, India and South Africa. Tunisia's experience as the origin point of the Arab Spring demonstrated how critical education and labor markets can be to governance sustainability.

The economic policy criterion (S5) addresses a government's general strategy in supporting the forward-looking development of its economy. This takes place through regulatory policy, by adhering to a clear-cut assignment of tasks to institutions, by refraining from unnecessary discretionary actions, by establishing frictionless links between institutional spheres (labor market,

enterprise policy, tax policy and budget policy), and through the creation of regimes in areas such as dismissal protection, anti-monopoly institutions and income taxation. Scores in this category are satisfactorily high for four of the BRICS states, but very low in Russia (2 out of 10), reflecting the absence of a coherent long-term development strategy. China tops the list with an 8 (out of 10) score; as the SGI country report on China notes (economic policy indicator): “This has been accomplished through unconventional, oftentimes transitional and even ‘second-best policies’ and institutions, as for instance a strong reliance on national economic planning combined with experiments with implementation styles at the local level. Most of these policies deviate from the Western marketization cum privatization paradigm.”

Figure 6: Degree of direct state control, BRICS 2008

PMR: State control, 2008, index scale of 0-6 from least to most restrictive



Source: OECD Indicators of Product Market Regulation Database.

BertelsmannStiftung

Figure 6 documents the fact that levels of state involvement remain very high in China and Russia. The degree of state involvement in all BRICS in 2008 was higher than in the OECD on average, although some high-growth OECD member countries – notably Poland and Turkey – have levels of state control similar to Brazil, South Africa and India. Note that there is little (Spearman) rank correlation between the degree of state involvement and the SGI indicator assessing the quality of economic policy. A high level of state involvement can apparently go hand in hand with either the worst or the best outcome in terms of an emerging country’s “competitive capabilities and attractiveness as an economic location.”

Figure 7 displays another component of the SGI’s economic policy criterion, in this case an OECD indicator denoting policy-induced barriers to FDI inflows. Two BRICS – South Africa and Brazil – had a more open capital-account regime than the OECD average; three BRICS - Russia, India and China – were more restrictive. Again, there is little rank correlation between the economic policy criterion as a whole (S5) and the degree of restrictiveness toward FDI inflows across the BRICS. Note, however, that there is a strong negative rank correlation between the per capita GDP growth rates that each BRICS state recorded in the 2000s (see Table 1) and the degree of restrictiveness toward FDI inflows. To be sure, this does not imply causality; indeed, causality could well run in the opposite direction, as policymakers feeling comparatively secure due to high growth rates are able to be selective in accepting FDI inflows.

Figure 7: FDI inflow controls, BRICS 2010

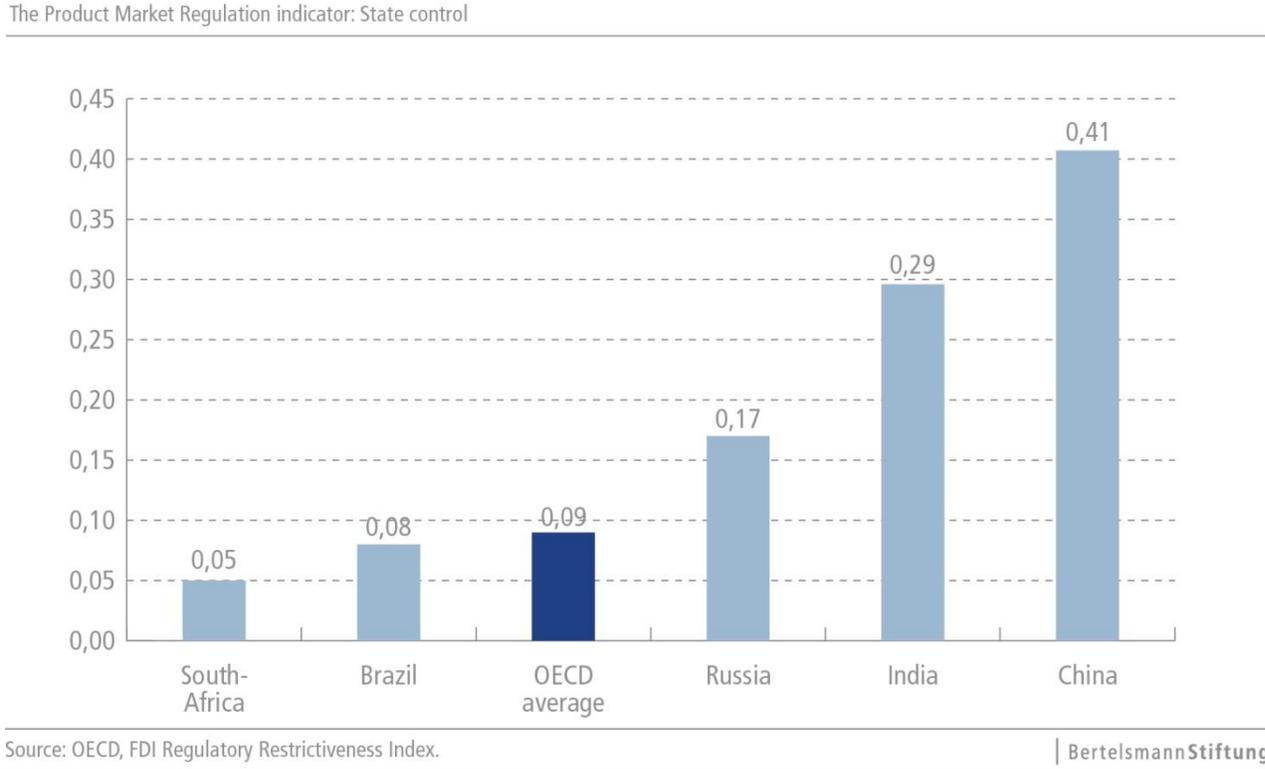


Table 3 presents several Spearman rank correlation coefficients as a non-parametric variable of the association between economic policy quality (SGI “economy” criterion), per capita GDP growth during the 2000s, FDI regime restrictiveness and the degree of state control.¹ The rank

¹ The sign of the Spearman correlation indicates the direction of association between X (the independent variable) and Y (the dependent variable). If Y tends to increase when X increases, the Spearman correlation coefficient is positive. If Y tends to decrease when X increases, the Spearman correlation coefficient is negative. A Spearman correlation of zero indicates that there is no tendency for Y to either increase or decrease when X increases. The Spearman correlation increases in magnitude as X and Y become closer to being perfect monotone functions of each other. When X and Y are perfectly monotonically related, the Spearman correlation coefficient becomes 1. The formula is $\rho = 1 - (6\sum d^2)/n(n^2-1)$, with d denoting the differences in ranks and n the number of observation.

correlation coefficients as defined here can vary between +1 (perfect association) and 0 (no association). The rank correlation between per capita GDP growth and quality of economic policy is in a certain sense a control variable, as the alternative, an average score of the Economy and Employment criteria (S5–S9), does not yield results different from those presented in Table 3. A perfect association (a Spearman correlation coefficient of +1) might indicate a common problem in indicator-driven policy research when the indicators involve considerable judgment. That is, valuation *ex post* of the governance performance in question might be driven by the growth performance known *ex ante*.² It is thus rather reassuring to find that the rank correlation between per capita GDP growth and the SGI's economic policy criterion is only 0.74.

Table 3: Spearman rank correlation coefficients

	GDP growth/cap	S5: economic policy	State control
GDP growth/cap			
S5: economic policy	0.74		
State control	0.81	0.25	
FDI barriers	1.00	0.66	0.88

Sources: own calculation; see text.

| BertelsmannStiftung

Table 3 reveals some very interesting insights:

- A *high degree of state control* in the economy does not stand in the way of a good ranking in past growth performance: rank correlation between the two parameters is 0.81. Nevertheless, state control and *economic policy performance* are weakly (0.25) correlated (which also may reflect a judgment bias).
- A *high degree of FDI restrictiveness* maps perfectly onto past growth performance (the rank correlation coefficient is 1.00). This does not imply causality; high-growth countries may simply feel they have more flexibility to be selective as FDI hosts than do low-growth countries. Control of FDI inflows and the quality of economic policy are positively associated, with a rank correlation coefficient of 0.66.
- A high rank correlation coefficient between the degree of FDI restrictiveness and the degree of state control suggests a political economy explanation: A high level of state

² This is a widespread problem, and is present in research at the World Bank, which has been subject to severe criticism as a result.

involvement strengthens politicians' vested interest in keeping foreign investors out of the country.

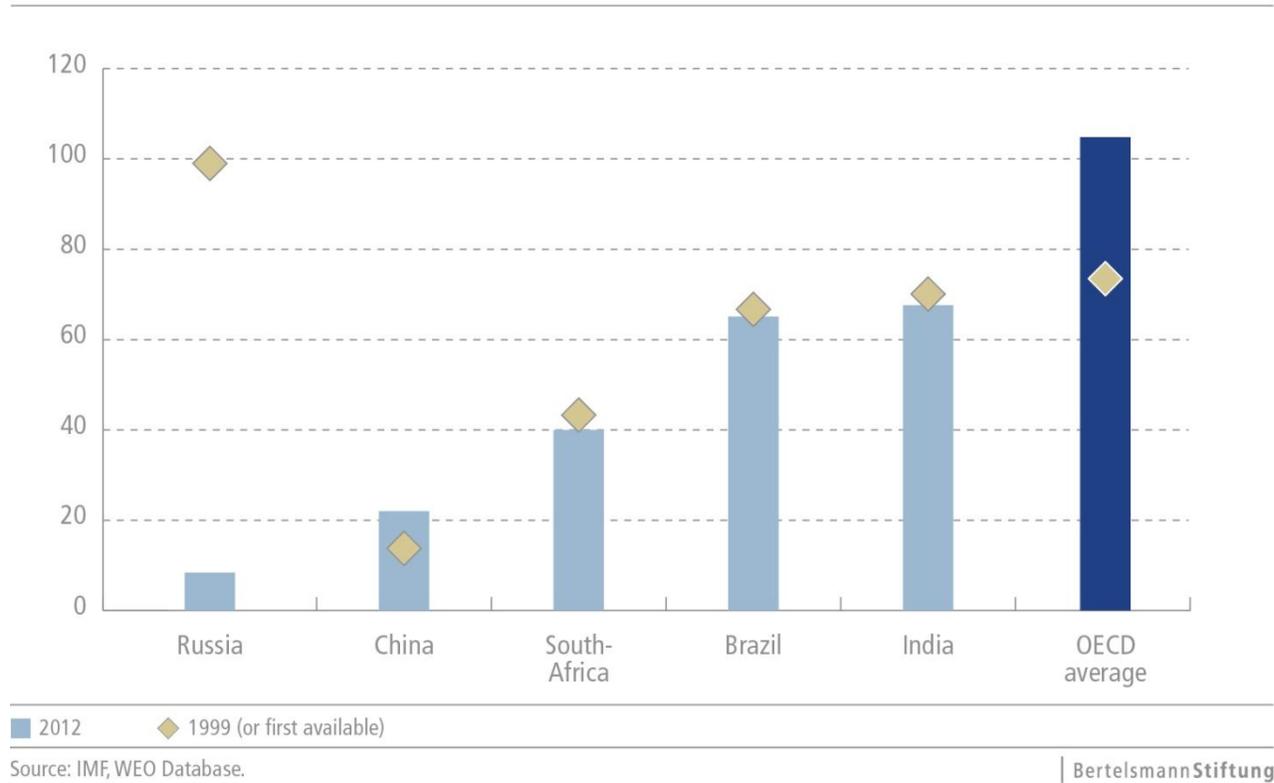
It is notable that the BRICS show relatively high average scores in policy areas that encompass comparatively short-run notions of sustainability (i.e., the ability to withstand crisis and smooth the business cycle). The macroeconomic foundations for sustainable governance have been created (and defended so far) in the BRICS, first and foremost in terms of monetary policy (a topic not covered by the SGI), but also in the areas of improved tax revenues and budget policies. No BRICS country received a score lower than 6 in the area of budget policy; indeed, only Brazil received a low score for its tax policies, as a porous tax base combined with high tax rates produces inequity and undermines competitiveness.

While public debt-GDP ratios (presented in Figure 8) have been exploding in the OECD, all five BRICS have either been able to contain their public debt as a fraction of GDP (Brazil, India) over the past decade, reduce public debt ratios (Russia, South Africa) or simply remain at low indebtedness levels (China). It is worth noting, however, that China has a positive net public asset position that reached 35 percent of GDP in 2012, if debt figures are corrected for gross assets held in official foreign exchange reserves and sovereign wealth funds. Unlike most countries in the euro system, Russia, China and South Africa all would meet the original Maastricht criteria of public debt at or below 60 percent of GDP.

The drop in public debt ratios has been a boon, creating fiscal space for more active policy intervention intended to sustain growth in the face of social and structural challenges. As such, lower debt and more space for fiscal expansion augur well for sustainability in the BRICS. However, we have shown that high levels of growth and high raw material prices (Garroway et al. 2012), both of which have driven improvements in tax revenues, have grown increasingly dependent on Chinese economic activity. It is therefore obvious that improvements in developing- and emerging-country public finances will depend on growth being sustained elsewhere, especially in China, the new global growth locomotive. To be sure, while the drop in public debt ratios has been largely endogenous to high GDP growth rates, improved non-interest budget balances in the wake of improved tax collection and administration systems are shown in the country reports to have helped as well. Finally, lower sovereign risk premiums have materialized as rating agencies and investors have discovered the "new macroeconomic solidity" characterizing most BRICS countries. This in turn has helped to lower debt service costs and has contributed to improved budget policies.

Figure 8: Public debt-GDP ratios, BRICS 2012 versus 1999

Debt as % of GDP



The BRICS do considerably worse on governance indicators in the *social affairs cluster*, which comprises health care (S10), social inclusion (S11), family policy (S12), pension policy (S13) and integration (S14). Social policy reform is urgent in these areas for all BRICS, and failure to implement social policy reforms threatens to lead to social instability arising from extreme social inequality (and widespread corruption).

Figure 9: SGI social affairs

Values from 0 (worst possible outcome) to 10



Source: SGI country studies, 2012.

| BertelsmannStiftung

Figure 9 summarizes the results obtained from the SGI social affairs cluster. It is notable that the scores obtained by the BRICS in this cluster are systematically lower than in the economy and employment cluster, suggesting that maintaining social stability and social cohesion poses more problems for the BRICS than does sustaining their economic expansion and transformation. In this area, none of the BRICS countries systematically achieves the good to very good rankings seen in the economy and employment cluster.

Table 4: Ranking BRICS social affairs governance

Scores	Health Care S10	Social Inclusion S11	Family S12	Pension S13	Integration S14	Average Score	Rank
Brazil	4	6	5	5	9	5.8	1
China	4	5	6	5	4	4.8	2
Russia	4	3	6	6	4	4.6	3
South Africa	4	4	4	5	4	4.2	4.5
India	3	4	4	3	7	4.2	4.5

Sources: SGI country studies.

| Bertelsmann Stiftung

The average BRICS scores in the social affairs cluster (Table 4) are roughly a full point below those noted in the economy and employment cluster (Table 2). Brazil performs best among the BRICS in terms of social affairs, ranking first or second in all social policy areas, with an average score of 5.8. However, this is a full point below China's average economy and employment score of 6.8, the best sustainable governance performance in that cluster. China is the second-best performer in terms of average social affairs score, followed by Russia. South Africa and India display the lowest scores in all policy areas in the social affairs cluster, putting the sustainability of their development most urgently in doubt relative to the others in the BRICS group, at least according to the evidence presented in the five country studies. Even Brazil's results are worrisome, given that its average is skewed upward by an extremely high score of 9 in the area of integration.³ South Africa has very consistent albeit low results (ranging between 4 and 5), pointing to a need for reform and improvement in all social affairs policy areas. Indeed, a series of spontaneous strikes in the minerals sector in the fall of 2012 underscores shortcomings in the Zuma administration's capacity to assume responsibility in social affairs policy (Drechsler 2012). Russia's most urgent area of reform need is social inclusion, followed by health care policy and integration policy. China's most urgent challenges are to be found in the areas of health policy and integration policy.

Whereas adequate pension cover represents a future problem common to all BRICS countries, there are at least two major social affairs problem areas that can be identified from the SGI country studies:

- Health care access remains very fragmented, in two important dimensions. The first dimension is the traditional rural-urban divide, which also reflects the large geographic size of the BRICS. This results in poor-quality health services in rural areas. The second di-

³ If integration scores are left aside, both Brazil and China receive an average score of 5.0.

mension, of more recent origin, is the growing quality difference between the private health care services affordable only by a minority and the public health services accessible to the majority of the population. In 2012, the average public share of health expenditure was much higher within the OECD (72.2%) than in most BRICS, indicating a two-class health system in the latter group.

Table 5: Comparable health data in BRICS and OECD states

	Public Share % Health Spending	Physicians Number/1,000	Nurses Number/1,000	Spending % GDP	Spending US\$ PPP/cap
Brazil	47.0	1.8	0.9	9.0	1.028
China	53.2	1.4	1.4	5.1	379
India	29.2	0.7	1.0	4.1	132
Russia	62.1	4.3	8.1	5.1	998
South Africa	44.1	0.7	2.2	8.9	935
OECD average	72.2	3.1	8.7	9.5	3268

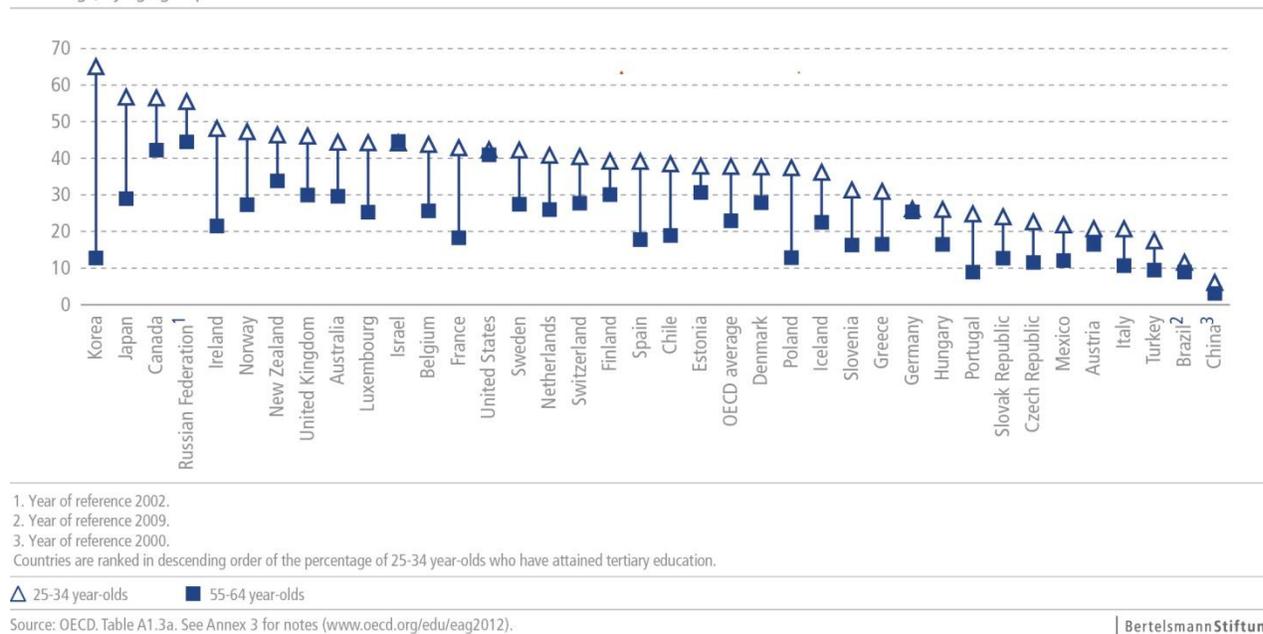
Sources: OECD Health Data 2012–Country Notes.

| BertelsmannStiftung

The comparable OECD health data selected in Table 5 reveal much more variation in health performance than that provided by the SGI scores on health indicators; moreover, they reveal the considerable distance that remains between the BRICS, with the possible exception of Russia, and the OECD average. In Russia, where the public health expenditure share approaches OECD average levels, the population was about as well equipped with doctors (4.3 per 1,000 population) and nurses (8.1 per 1,000) as the average OECD country. By contrast, the worst health-care environments among the BRICS are found in India and South Africa, where the public health expenditure share is quite low (29.2% in India and 44.1% in South Africa), and where there is less than single doctor on average per 1,000 people (0.7 in both counties) and scarcely more nurses (1.0 nurse per 1,000 people in India, and 2.2 in South Africa) The situation is not much better in Brazil and in China. Note that despite the high share of GDP that Brazil devotes to health spending (at 9% of GDP, very close to the average OECD average level), the number of doctors and nurses per 1,000 individuals is extremely low, again indicating very uneven access to health services among the population. The situation is comparable in China, which however has more fiscal space to increase public health spending.

Figure 10: Population share attaining tertiary education (2010)

Percentage, by age group



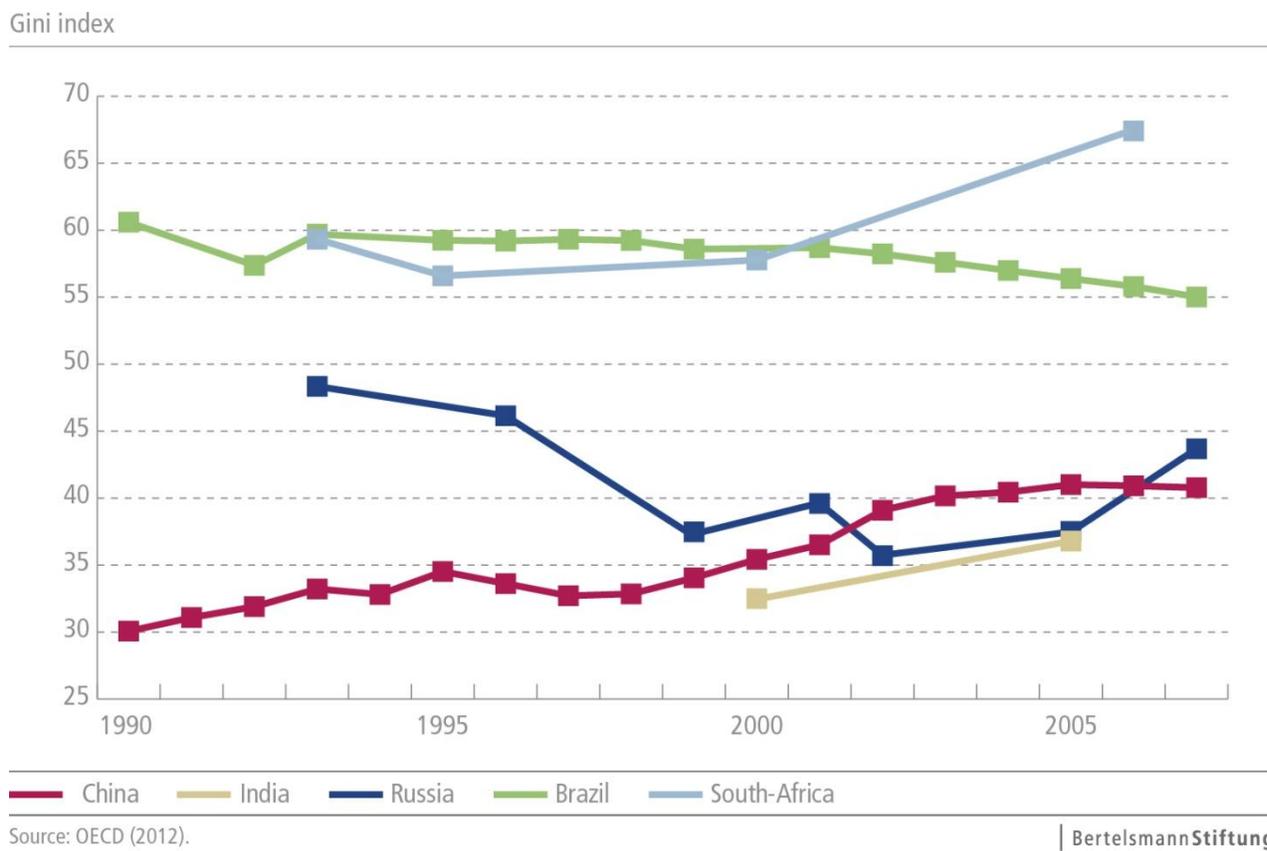
- The achievement of social cohesion remains a distant prospect in the BRICS. Unequal access to quality health service is just one parameter; another – indeed, arguably the most important social parameter for employment performance and competitiveness – is unequal access to *quality education*. Again, the divide between public education and private education affordable only to the comparatively wealthy is a common characteristic across the BRICS countries, undermining ex ante equal opportunities and lifetime earnings potentials. Figure 10 shows that for the three BRICS (Brazil, China and Russia) for which comparable education data were available, only Russia has improved educational attainments in recent years, as measured by the higher proportion of the 25-34 years age cohort as compared to the older age cohort (55-64 years) to have attained tertiary education. In fact, that high level of tertiary attainment reached by Russia’s youth – around 60 percent of the age cohort – was exceeded by only three OECD countries (Korea, Japan and Canada). By contrast, the share of both age groups attaining tertiary education in Brazil and China is at the bottom of the countries compared.

The OECD Education at a Glance 2012 report revealed stark differences between OECD countries in terms of higher educational opportunities for young people, notably for children of poor families or those whose parents themselves had a limited education. This finding, albeit empirically incomplete, is even truer for the BRICS. Supporting the poorest and ensuring equal access is another important pillar in an inclusive education policy strategy. Private funding, mainly from households, represents less than 5 percent of education spending in Denmark, Finland and Norway, the socially most inclusive OECD countries. In emerging OECD countries, the private share of education funding can reach over 70 percent, as in Chile and South Korea. High and increas-

ing costs of entry to higher education for many families, as demonstrated recently in the United States and the United Kingdom, may impede countries' own goals of increasing educational attainment among their populations.

These important social-policy shortcomings are closely correlated with measures of social inequality. The most prominent measure is the Gini coefficient, a measure of statistical dispersion, for which data are available to describe inequality. Expressed in percentages, the Gini coefficient can lie between 0 (total equality, when all incomes are equal) and 100 (total inequality, with one person receiving all the country's income). With few exceptions, the income-based Gini coefficient has been rising worldwide since the 1980s, mostly driven by significant increases in the incomes of top earners (OECD 2011). Few of the BRICS have escaped this worldwide trend of growing inequality (Figure 11); Brazil is an exception, thanks to the resolute pro-poor policy of the Lula administration and the land reform of the previous Cardoso administration. Still, Brazil and even more so South Africa are among the world's most unequal societies in terms of income dispersion, while the Gini income equality measure in China, India and Russia are around the inequality level observed for the United States. Note also that the rise in income inequality as measured by the Gini coefficient was halted through much of the 2000s in China thanks to rural development policies, modifications in the social safety net and the reduction of regressive fees and taxes (Herd 2010).

Figure 11: Changes in the Gini index in the BRICS, 1990-2007



In preparing a closer ranking analysis of the five BRICS with respect to the social sustainability of their governance performance, it is useful to compare the average of the five (judgment-based) SGI indicators (S10 to S14) with hard social statistics, notably life expectancy (a proxy for the quality of health care), poverty headcount relative to the national poverty line, the income-based Gini coefficient and literacy rate (all indicators of social inclusion). The results of that comparison are presented in Table 5. They show again how varied social development achievements are today among the five BRICS countries. Life expectancy at birth now is 20 years longer in Brazil and China than in South Africa, eight years more than in India and five years more than in Russia. During the last decade alone, that difference in life expectancy between South Africa and the other four BRICs has widened by five or six years.

Note in Table 6 the “explosive” coexistence of high literacy rates, growing inequality and high shares of extremely poor people (defined as living on \$38 per month or less, in PPP 2005 dollars). Looking at social considerations, therefore, social governance performance would appear least sustainable in South Africa, with a risk of giving rise to a higher frequency of socially (rather than politically, as perhaps in China and Russia) motivated violence. According to the Johannesburg-based Centre for the Study of Violence and Reconciliation (CSV), South Africa’s high violent crime rates continue to be related to economic and social marginalization, just as was the case in the 1980s (CSV 2007). In 2010, the intentional homicides rate (as reported by the UN-DOC) was highest in South Africa, at 32 per 100,000 people, although this represents a decline from than 50 during the 2000s; the homicide rate in the other BRICS was lowest in China (1 per 100,000), followed by India (3), Russia (10) and Brazil (21).

Table 6: SGI social affairs indicators, health and social inclusion, BRICS, late 2000s

Scores	Avg. score SGI social affairs (S10–S14)	Life expectancy, years at birth	Poverty headcount, % at national poverty line	Gini income coefficient, %	Literacy rate, % age ≥ 15
Brazil	5.8	73.4	6.1	54.7	90
China	4.8	73.3	16.3	42.5	94
Russia	4.6	68.8	0.0	40.1	100
India	4.2	65.1	41.6	33.4	63
South Africa	4.2	52.1	13.8	63.1	89

Sources: SGI country studies 2012; World Bank, WDI database; World Bank, PovcalNet.

| BertelsmannStiftung

When considering future social sustainability, the notion of *relative poverty* becomes important. Garroway and de Laiglesia (2012) show that with rising per capita GDP levels, absolute meas-

ures of poverty decline in relevance (Garroway and de Laiglesia 2012). Instead, the adoption of a combination of absolute and relative measures provides a more complete picture. Relative measures of poverty essentially measure the distance from a customary living standard in a country (such as median income). They better capture the importance of poverty for social exclusion, which is likely to give rise to widespread discontent. This insight reflects the well-known Easterlin Paradox, which also resonates with Europe's post-World War II experience (Cohen 2009). This observation notes that once growth rates come down, people stop comparing their current state of wellbeing with yesterday's, and begin instead comparing themselves to their contemporaries. This allows social envy to creep in.

The Easterlin Paradox is worth keeping in mind in evaluating recent BRICS performances. While both Brazil and China have been spectacularly successful in reducing absolute poverty as measured in people living below the \$1.25 per day line, *relative poverty* in both countries has either been stagnating (Brazil) or rising (China). Brazil has reduced the share of its population that lives on \$1.25 or less per day from nearly 20 percent in the early 1980s to 6 percent today. Yet at the same time, the share of population living on less than 50 percent of the *median* income has remained stable at roughly 25 percent of the total population. This picture is even sharper in China. The country has had unprecedented success in the eradication of absolute poverty, with the share of the population in this category falling from more than 80 percent in the early 1980s to around 16 percent today. But the share of people living on less than 50 percent of the median income has increased and is still rising. China has recently crossed the threshold at which relative poverty becomes more important than absolute poverty, with more people today living in relative than in absolute poverty.

4 Overcoming barriers to sustainable development in the BRICS

This last section will initially present insights drawn from recent literature that has successfully used the increasingly varied and rich data available to construct strategic sustainable development models. This literature offers policy authorities valuable guidance as they seek to position their states within the development process, sequence the opening of the economies, and enhance comparative advantage and competitiveness by endowing their markets with appropriate “soft” and “hard” infrastructure.

Subsequently, this section will distill insights from the five country studies and the detailed descriptions of the 10 SGI policy areas considered here (S5 to S14) in such a way as to identify three pressing sustainable development policy challenges common to all five BRICS (NB: Other potential challenges, such as the modernization of state-owned enterprises, are not addressed in sufficient detail in the reports for treatment here):

- BRICS are by definition large countries. For this reason, subnational authorities are important, albeit often underemphasized, elements of sustainable governance. While not all BRICS are federal countries, fiscal federalism – the transfer of fiscal authority from central

to subnational governments, along with the corresponding degree of tax authority and political liability – adds a multidimensional aspect to the issues of capital (mis)allocation, corruption and social equity. In a context of little democratic accountability and an unreliable rule of law, fiscal federalism may corrode public governance and harm economic performance rather than generating positive Tiebout-type effects linked to decentralized competition (Feld and Schnellenbach 2010).

- High private-sector job vacancy rates existing simultaneously with high youth unemployment indicate the existence of *skills mismatches*. Raising the quality of – not necessarily spending on – public schooling, reinforcing vocational training, and improving the relevance of secondary and tertiary education to the private sector will be necessary to erode the skills gap. Closing the skills gap is a necessary prerequisite for any country seeking to improve industrial competitiveness and climb up the value-added hierarchy of modern global production networks.
- The *changing competitive scenario* faced by the BRICS requires industrial innovation policies able to
 - a) diversify and upgrade the countries' domestic production structures and increase private sector commitment to innovation;
 - b) overcome skills-based, infrastructural and financial barriers to innovation, especially in smaller non-state firms; and
 - c) increase participation in global knowledge networks and markets (as has already been the case in China).

4.1 General policy and strategy insights from modern growth diagnostics

What are the appropriate policies for emerging countries seeking to move toward advanced-income levels? Previous waves of reform have been disappointing.

Through much of the 1990s and early 2000s, a significant proportion of Western development advice was driven by the so-called Washington Consensus, a mix of policies encompassing fiscal discipline and tax reform, subsidy reductions, financial liberalization, unified and competitive exchange rates, trade liberalization, openness to foreign direct investment, privatization, deregulation and secure property rights. However, this first-generation set of reforms produced uneven results in terms of growth and poverty reduction, and the Washington Consensus is today a “damaged brand name,” according to John Williamson, who coined the term in 1990.

An “augmented consensus” in the early 2000s produced a call for “second generation reforms,” this time focused on corporate governance, anti-corruption policies, flexible labor markets, WTO agreements, financial codes and standards, “prudent” capital-account opening, nonintermediate

exchange-rate regimes, independent central banks and inflation targeting, social safety nets and targeted poverty reduction.

Yet this second generation of reforms too produced disappointing results, as it eventually “morph[ed] into an impossibly broad and ambitious agenda under the general heading of ‘governance reforms’” (Rodrik 2011). From this standpoint, modeling institutional and governance reforms after the experiences of advanced countries (which themselves had taken decades or even centuries to develop) came to be seen as ineffective policy advice. The global crisis that originated 2007 in the United States has also led to skepticism, and the consistent rise of China in particular has prompted searches for alternatives to Western policy paradigms.

While economic growth has always been at the core of the development literature, a particular set of recent contributions is particularly relevant for rethinking strategies and policy frameworks aimed at producing innovative and sustainable growth. A common thread in this literature is an effort to explain the Washington Consensus reforms’ limited ability to create sustained economic growth in developing countries. Three particular criticisms have been offered to explain the reform agenda’s limited effectiveness:

- Developing countries often face bottlenecks and restrictions in key areas that interact with other policies and constrain overall economic growth. For example, if poor infrastructure hinders export competitiveness, improving access to credit or expanding the quantity of credit overall will do little to boost export activities until the infrastructure constraint is removed. Because growth constraints differ from country to country, a single set of reforms will have very different impacts on growth in different states. The new framework therefore calls for a country- and context-specific approach.
- Second, the traditional approach gives little guidance in terms of sequencing reforms. The new literature puts emphasis on sequencing for two reasons. On the one hand, early reforms that fail to remove binding economic constraints will typically struggle to create growth. Thus, broader aspects of the political economic situation could undermine the overall process of reform, leading to a reversal of reform or stalemate. On the other hand, framework conditions affecting efforts to upgrade and transform the economic structure will depend on a country’s current stage of development and factor endowments (Lin 2012). For example, while financial markets in developed economies are driven by equity markets and large banks, developing countries seeking to increase access to finance for small agricultural and manufacturing enterprises might find small and local banks to be the optimal financial infrastructure. Therefore, financial market development should be sequenced, facilitating a transition toward more sophisticated economic structures able to use other types of financial instruments to finance innovation or handle risks.
- Third, while maintaining the central role of markets in the economy, the new growth diagnostics highlight the prevalence of market failures and the occasional need for coordination in developing countries, as well as the need for compensatory public intervention. State-led development is thus granted a more significant role than in the first- or

second-generation reform models, acknowledging that a variety of countries (China, Taiwan, Malaysia, Singapore, Ruanda and Tanzania are often referenced) have produced growth under state-led guidance. Under this view, institutional reform should again focus on context-specific and sequential concerns rather than a general reduction of the public sector's role or an unrealistic, accelerated effort to establish and enforce institutions mimicking those in the developed economies (Rodrik 2011).

Thanks to thorough empirical studies by Hausmann, Pritchett and Rodrik (2005), among others, we do not need to rely on judgment calls, but can instead rely on hard empirical evidence in explaining why countries see sustained growth accelerations. A sample of GDP growth decelerations of more than two percentage points since 1957 additionally illuminates why fast-growth episodes come to an end (Eichengreen, Park and Shin 2011). Eichengreen and his co-authors find that slowdowns tend to occur at the median per capita income level of \$15,000 (PPP-adjusted 2005 dollars). They argue that 85 percent of the slowdown in output growth rates is explained by a slowdown in the total factor productivity (TFP) growth rate. Slowdowns coincide with the point in the growth process where it is no longer possible to boost productivity by shifting additional workers from agriculture to industry, as well as when the gains from importing foreign technology diminish.

Conjectures that authoritarian regimes are either more or less prone to growth slowdowns than democracies, or that countries experiencing a shift in political regime in one direction or the other are more vulnerable to slowdowns, are refuted by both the Hausmann-led and the Eichengreen-led studies. The fact that the nature of the political regime and the level of trade and financial openness have been shown to be less than robustly related to economic growth suggests that these factors might be similarly unrelated to sharp (negative) *changes* in economic growth rates. Indeed, the evidence demonstrates that financial openness, terms of trade shocks and political regime changes do not appear to have a significant impact on the likelihood of growth slowdowns. But this raises a natural question: What, then, was responsible for arresting high-growth episodes in the past half-century? Recent literature points to several factors:

- Higher *old-age dependency rates* appear to increase the likelihood of a slowdown. This is intuitive insofar as the condition is associated with lower savings rates and low or declining labor force participation rates.
- All other things being equal, economies more *open to trade* are less likely to experience slowdowns (importantly, the presence or absence of terms of trade shocks is among the factors that must be held equal). This effect reaches a peak when exports and imports as a share of GDP approach 96 percent. This result is consistent with earlier research that had shown trade openness to be more important during the early stage of growth, with institutions becoming more important at the later stages.

- Slowdowns are less likely in countries that maintain exceptionally high investment rates, all other things being equal. However, they are comparatively more likely in countries in which the *consumption ratio* rises from low levels.
- Finally, the Eichengreen results suggest that countries with *undervalued real exchange rates* are more vulnerable to slowdowns. In addition, there is now some indication that policy instability – taking the form of high and variable inflation rates – is a precursor to slowdown.

The question of whether and how China’s growth experience can be emulated by other poor countries is a frequent topic of discussion among development economists (see, for example, Justin Lin’s discussion of the World Bank’s decision to appoint him as the first Chinese chief economist in Lin 2012). To this end, it is necessary to determine the extent to which China is unique, what elements of its experience can serve as a model for others, and whether its development path is sustainable. Despite China’s success in poverty reduction and growth, the so-called Beijing Consensus also has potential flaws if viewed as a new paradigm for national development strategies elsewhere. First, China’s development is now understood to be highly idiosyncratic. Second, simply copying its export-led model of growth could be difficult for a large number of countries, given the competition they will face from China and each other. Third, China has no explicit set of development policies, although its experiences have yielded a number of policy lessons in recent times (Lin 2012). Among these are three key elements requiring improvement when upgrading an economy: worker training, “hard” infrastructures (transport, energy, telecommunications) and “soft” infrastructures (finance, education, legal framework, social networks). Moreover, while an effective market-based resource allocation mechanism remains important, externalities inherent in industrial upgrades and infrastructural improvements require the government to act as a proactive facilitator.

4.2 Three common policy challenges for sustainable governance in the BRICS

Within the SGI country studies, fiscal federalism, skills mismatches in labor markets and shifting competitive scenarios appear as significant policy challenges common to all five BRICS.

Fiscal federalism is often accompanied by tension between a drive for national centralization, deemed necessary to sustain a country’s political and social cohesion, and the subsidiarity principle, which requires local-level expenditure and accountability in the provision of public goods. At present, subnational levels of government often receive insufficient access to public finance sources (grants, transfers and taxes), creating significant vertical imbalances between expenditures and revenues. This has consequent implications for autonomy, efficiency and accountability. From a political perspective, the key issue is the extent to which fiscal decentralization is accompanied by significant political decentralization.

In India and Brazil, subnational governments already have a significant degree of fiscal autonomy, with the ability to set some key tax rates. The constitutional change in South Africa in the 1990s devolved substantial budgetary responsibility to the newly created provincial governments. However, improvements are needed in the general consumption taxes that are the main source of regional government revenues, as well as in the property taxes on which local governments mainly depend (Bird 2012). Both China and Russia have made a number of important changes in the direction of centralizing rather than decentralizing effective control over subnational taxes.

In China, unstable expenditure assignments are a frequent challenge. Major and growing subnational government spending responsibilities, notably in the provision of social services, have not been accompanied by adequate devolved revenue-raising powers or by an effective system of transfers. Many local governments are simply unable to perform their assigned functions. Nor is any support system in place able to ensure minimum standards of service provision across regions and localities. As noted in the SGI report on China (tax policy indicator):

“An important deficit of China’s fiscal system is the lack of constant and reliable revenues for cities, counties, townships and villages. These jurisdictions cannot count on substantial fiscal support from higher levels of government, and instead are supposed to be by and large self-reliant. They rely predominantly on auctions and leases of public land to generate income.... Since local governments’ approach to land management and income generation is extremely prone to official corruption and even the influence of organized crime, this has arguably become the single most destabilizing factor in China’s local governance.”

An earlier IMF study (De Mello and Barenstein 2001), based on data for up to 78 countries, empirically explored the interaction between fiscal decentralization and governance indicators. The results showed that while the relationship between fiscal federalism and governance standards (corruption, rule of law, government effectiveness) is complex, subnational government financing is the key policy variable in improving governance levels. The IMF study warned against filling subnational funding gaps through the decentralization of tax bases, as its evidence indicated poorer governance results when local tax revenue mobilization was pursued in the course of fiscal decentralization. The empirical evidence instead favors an increase in transfers and grants from central authorities to the local level if governance standards are to be improved.

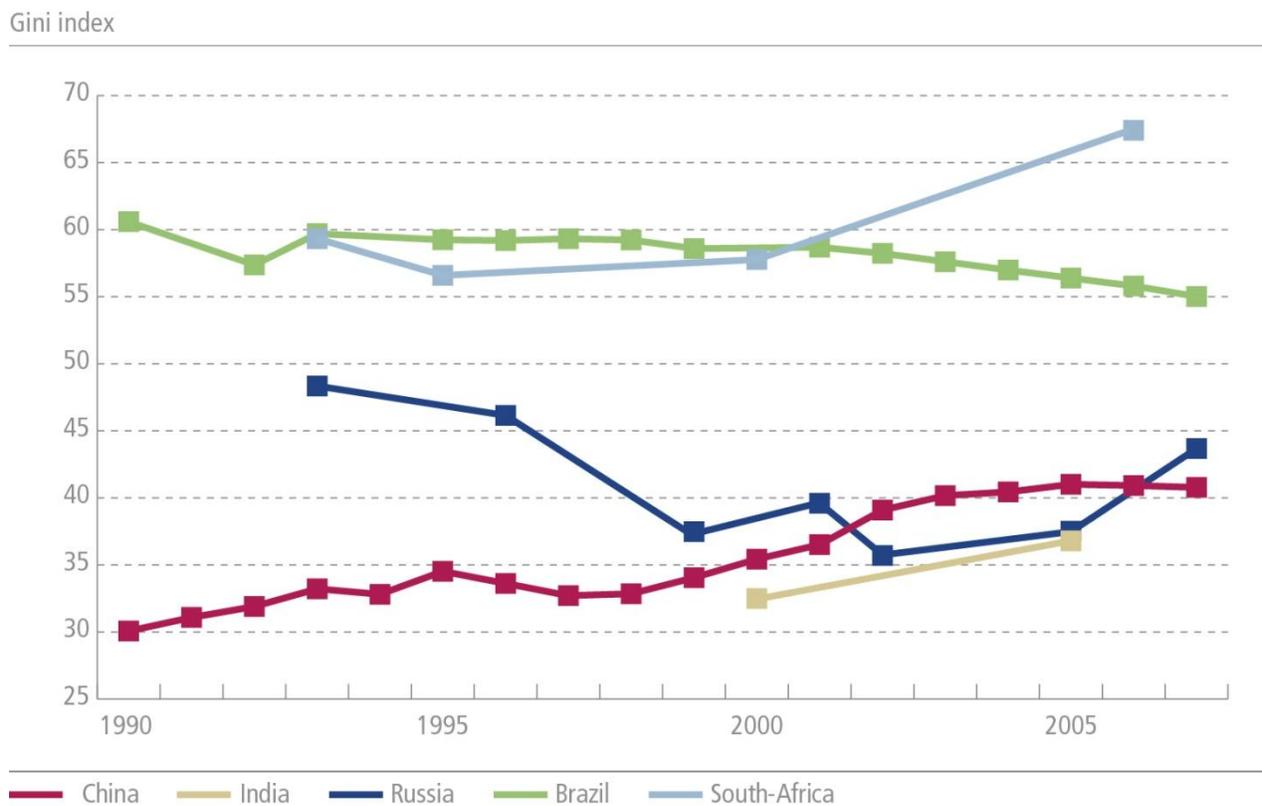
Skills mismatches are a problem common to BRICS countries (with the possible exception of China, youth unemployment is a key policy problem in G-20 countries, see OECD 2012), as indicated by the coexistence of high job vacancy and unemployment rates, especially among comparatively young age cohorts. About half of young labor force participants were unemployed in South Africa at the end of 2011. Youth unemployment rates also exceeded 15 percent in Brazil and Russia. As evidenced by the December 2010 events in Tunisia, which subsequently led to the Arab Spring, high youth unemployment and skills mismatches can have dramatic effects in the area of sustainable governance.

The cost of youth unemployment is high indeed, with poverty being the most immediate consequence. But the overall costs run much deeper. An individual’s early years in the labor market – particularly the skills developed and the experience accumulated during this time – affects his or

her future professional development to a considerable degree. Long spells of unemployment or underemployment in informal work can permanently impair future productive potential and therefore employment opportunities. A lack of skills and work experience among young people undermines a country's ability to increase its domestic share of added value, and restrains income growth.

Although BRICs and emerging countries tend to be characterized by large numbers of unemployed young people and a constantly growing labor supply, many enterprises struggle to fill open positions. A recent Gallup poll, cited in the African Economic Outlook 2012 (AEO 2012), showed that unemployment among youth with some higher education is much higher in middle-income countries than in low-income countries (Fig. 11), suggesting that mismatches between the skills demanded by employers and those taught by the education system become greater as countries grow wealthier.

Figure 11: Changes in the Gini index in the BRICS, 1990-2007



Source: OECD (2012).

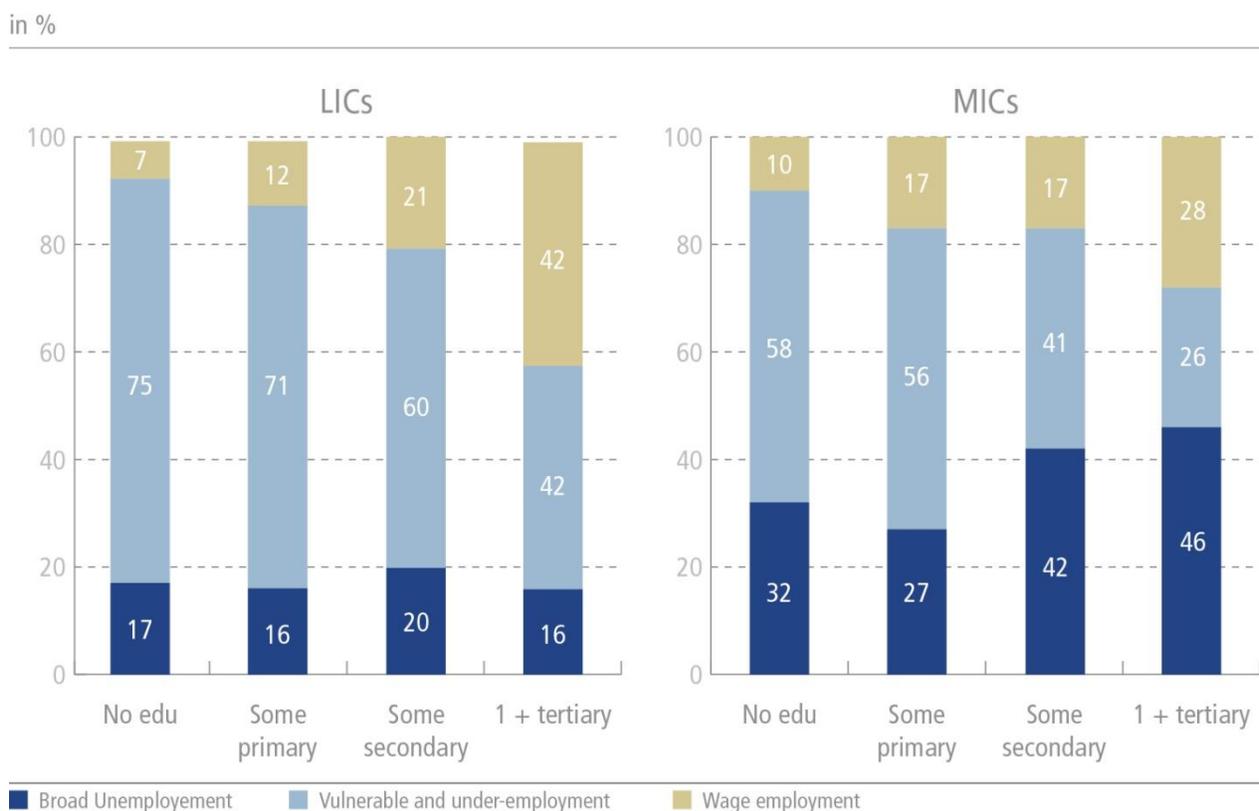
BertelsmannStiftung

Mismatches are not confined to university graduates, but also strongly affect young people with secondary education. Figure 12 shows that broad unemployment is higher among the young with some secondary education than those with some tertiary education in LICs, and is only slightly

lower in MICs. Given that broad unemployment is much lower among *adults* with a secondary education than among those with primary education or less, mismatches seem to be a serious problem for young people with secondary education. As noted by the AEO 2012, skills mismatches point to the poor quality of education and the absence of links between education systems and employers as factors underlying core economic problems. This is a particularly serious issue in South Africa, but is also relevant in Brazil and Russia.

At the tertiary level, BRICS university systems have traditionally been focused on educating students for public sector employment, with little regard for the needs of the private sector. Below the tertiary level, policy should focus on expanding secondary level education. Returns to primary education are low, and are bound to drop further as low-skilled activities within the BRICS increasingly move to lower-income countries. Therefore, rising competition from low-income countries will put mounting pressure on the BRICS to focus on and improve education beyond the primary level. As large, low-skill manufacturing operations shift to low-wage economies, secondary education will increasingly become the minimum requirement for entry into formal sector wage employment.

Figure 12: Youth un(der)employment in low- and middle-income countries



Source: Gallup, authors' calculations.

BertelsmannStiftung

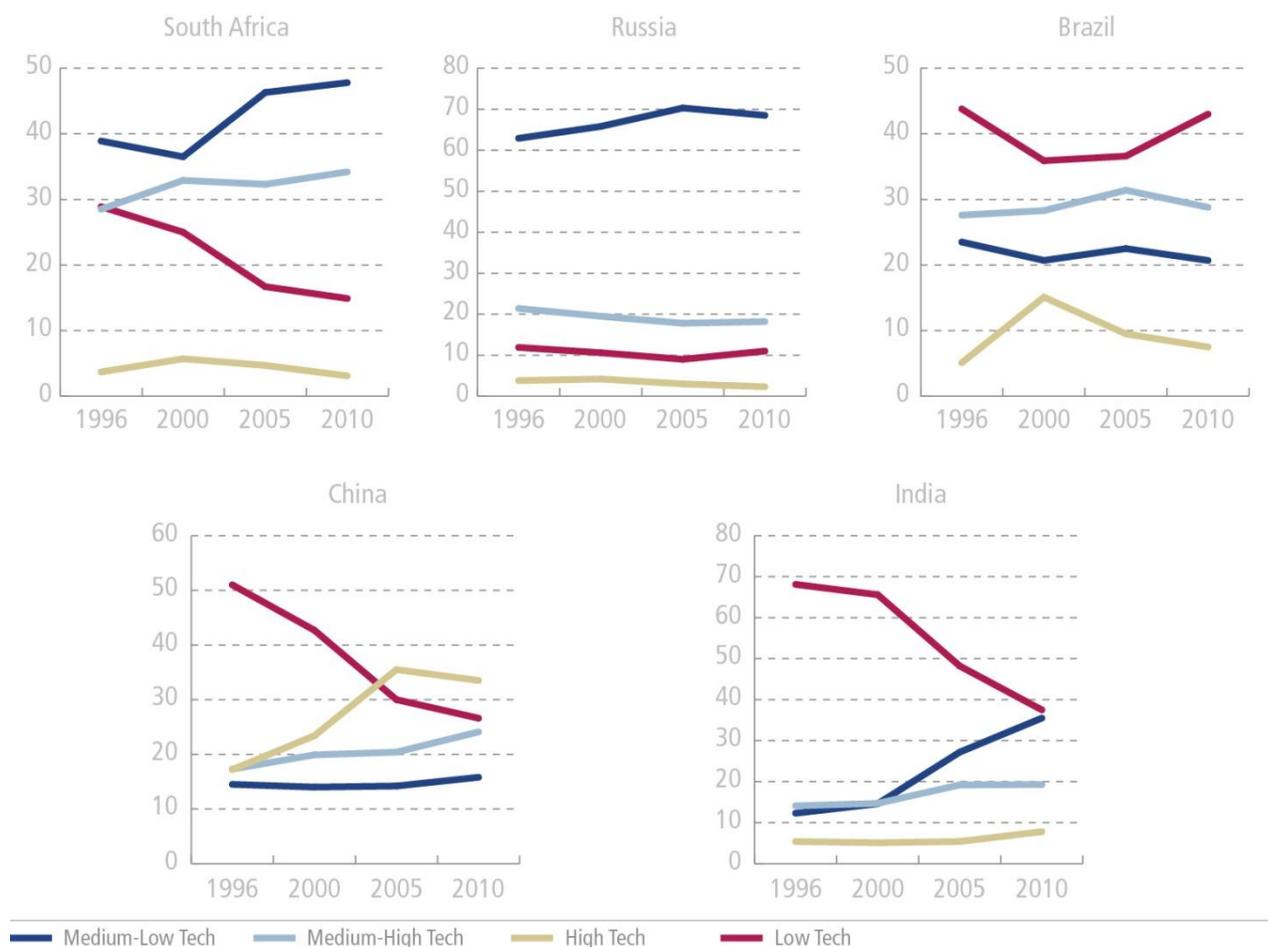
Finally, BRICS are threatened by a prospective or even immediate “middle-income trap” (see discussion under “Sustainable governance in the BRICS”) related to a changing competitive scenario. Growth tends to slow when the distance to the world’s technology frontiers has been narrowed, when the value added through the acquisition and deployment of foreign technology starts to decline (as poorer countries compete prices down for activities intensive in basic skills), and when the pool of unskilled labor diminishes to the point that rising wages slow corporate profit growth. At this point, a local and idiosyncratic process of skill acquisition becomes essential. It no longer suffices to transfer and adapt technology blueprints and organizational capabilities from abroad. Labor force education and access to advanced infrastructure networks – such as high-speed communications and broadband technologies—are obvious requisites for moving further up the global value-chain.

The evolution of export technology intensity offers some indication as to whether individual BRICS countries have been successful in moving up the value chain. Judged by the sophistication of their exports, positive structural transformation in Brazil, Russia and South Africa appears to have been rather minimal. China and India are the only two BRICS that have systematically and substantially reduced the share of overall exports accounted for by low-technology exports (textiles and unprocessed food products, for instance), while at the same time increasing the share of medium-high, medium-low and high technology goods. Although certainly an imperfect measure, this indicates that both India and China are gradually driving up the sophistication of their supply mix. This pattern is particularly pronounced in China, where high technology exports overtook of the country’s low technology export share in 2005.

A different picture emerges for Russia and Brazil. Russia has seen little change in the composition of its exports, with only its share of medium-low technology products increasing over time. Given its state of development, we would expect its shares of medium-high and high technology products to rise as well. Similarly in Brazil, a middle-income country (Agénor et. al 2012), low-technology exports remain by far the largest component within the country’s export mix. After falling in the mid-1990s, this low-technology share increased again from the mid-2000s onward, with no significant improvement in the share of high technology exports over the same period. South Africa figures as an intermediate case between Russia and Brazil on the one hand, and China and India on the other. While low-technology exports fell considerably over the 1996 – 2010 period, the share of medium-low technology exports has grown faster than the medium-high technology share.

Figure 13: BRICS exports by technology intensity, 1996 – 2010

in %



Source: OECD Database.

Bertelsmann Stiftung

The OECD Global Development Perspectives 2013 report will point to four promising avenues for emerging and developing countries to spur the creation of new industrial capacities within this newly competitive global market. These include:

1. fostering scientific and technological development,
2. leveraging public procurement,
3. activating learning through foreign direct investment (FDI), and
4. promoting entrepreneurship.

Japan, Korea and China are all examples of countries where industrialization went hand in hand with the accumulation of scientific and technological capabilities, and where strong public support for R&D was supported over time by rising private sector commitments (OECD 2012b).

Sustaining growth and addressing the equity challenge in the long run will require the BRICS countries to strengthen capacities for production and innovation, while improving links with the global knowledge economy. This will be possible only if countries take an integrated approach to development. Identifying priorities, aligning activities aimed at scientific and technological development, and upgrading production capacities will need to be accompanied by targeted actions addressing skills-based, financial and infrastructural obstacles. Barriers and incentives differ from country to country; there will be no single, unique response. Each country has to develop its particular, innovative way of shaping its own development trajectory.

5 References

- Acemoglu, Daren, Philippe Aghion and Fabrizio Zilibotti. "Distance to Frontier, Selection and Economic Growth." *Journal of the European Economic Association* (4)3: 37–74, 2006.
- African Development Bank (AfDB). *African Economic Outlook 2012: Promoting Youth Employment*. AfDB/OECD: Tunis/Paris, 2012.
- Agénor, Pierre-Richard, Otaviano Canuto, and Michael Jelenic. "Avoiding Middle-Income Growth Traps." *World Bank Economic Premise* (98) November, 2012.
- Bénassy-Quéré, Agnes, Benoit Coeuré, Pierre Jacquet and Jean Pisani-Ferry. *Economic Policy: Theory and Practice*. Oxford: Oxford University Press, 2010.
- Besley, Timothy and Masayuki Kudamatsu. "What Can We Learn from Successful Autocracies?" *Vox*, July 5, 2007. www.voxeu.org/article/what-can-we-learn-successful-autocracies
- Bird, Richard. "Subnational Taxation in Large Emerging Countries: BRIC Plus One." *Andrew Young School International Studies Program Working Paper 12–01*. Atlanta: Georgia State University, 2012.
- Centre for the Study of Violence and Reconciliation (CSVR). *The Violent Nature of Crime in South Africa*. Johannesburg: CSVR, 2007. www.csvr.org.za/docs/crime/compatibility_mode.pdf
- Cohen, Daniel. *La prospérité du vice: une introduction (inquiète) à l'économie*. Albin Michel: Paris, 2009.
- Commission on Growth and Development. *The Growth Report: Strategies for Growth and Inclusive Development*. Washington, D.C.: World Bank, 2008.
- DeLong, Brad and Lawrence Summers. "Equipment Investment and Economic Growth." *Quarterly Journal of Economics* 106: 445–502, 1991.
- De Mello, Luiz and Matias Barenstein. "Fiscal Decentralization and Governance: A Cross-Country Study." *IMF Working Paper WP/01/71*. Washington, D.C.: IMF, 2001.
- Drechsler, Wolfgang. "Südafrika steht am Rand eines Wirtschaftskriegs." *Finanz und Wirtschaft*, October 9, 2012. www.fuw.ch/article/sudafrika-steht-am-rand-eines-wirtschaftskriegs/

Eichengreen, Barry, Donghyun Park, and Kwanho Shin. "When Fast Growing Economies Slow Down: International Evidence and Implications for China." *Asian Economic Papers*, MIT Press (11)1: 42–87, 2011.

Feld, Lars P. and Jan Schnellenbach. "Fiscal Federalism and Long-Run Macroeconomic Performance." *Andrew Young School International Studies Program Working Paper 10–09*. Atlanta: Georgia State University, 2010.

Garroway, Christopher, Burcu Hacibedel, Helmut Reisen, and Edouard Turkisch. "The Renminbi and Poor-country Growth." *The World Economy*. (35) 3: 273–294, 2012.

Garroway, Christopher, and Juan Ramón de Laiglesia. "On the Relevance of Relative Poverty for Developing Countries." *OECD Development Centre Working Papers No.314*. OECD: Paris, 2012.

Gerschenkron, Alexander. *Economic Backwardness in Historical Perspective: A Book of Essays*. Cambridge, Mass: Belknap Press of Harvard University Press, 1962.

Hausmann, Ricardo, Dani Rodrik, and Andrés Velasco. "Growth Diagnostics." In *The Washington Consensus Reconsidered: Towards a New Global Governance*, edited by Narcis Serra and Joseph Stiglitz. Oxford, UK: Oxford University Press, 2008: 324–355.

Hausmann, Ricardo, Francisco Rodriguez, and Rodrigo Werner. "Growth Collapses." *Harvard University Kennedy School of Government Working Paper 06–046*. Boston: Harvard University, 2006.

Hausmann, Ricardo, Lant Pritchett, and Dani Rodrik. "Growth Accelerations." *Journal of Economic Growth* (10) 4: 303–329, 2005.

Herd, Richard. "A Pause in the Growth of Inequality in China?" *Economics Department Working Papers No. 748*. Paris: OECD, 2010.

Kharas, Homi and Andrew Rogerson. *Horizon 2025: Creative Destruction in the Aid Industry*. London: Overseas Development Institute, 2012.

Kuznets, Simon. "Economic Growth and Income Inequality." *American Economic Review* (45)1: 1–28, 1955.

Lee, Chung and Helmut Reisen (eds.). *From Reform to Growth: China and Other Countries in Transition*. Paris: OECD, 1994.

Lin, JustinY. "New Structural Economics: A Framework for Rethinking Development." *The World Bank Research Observer* (26)2: 193–221, 2011.

-----*New Structural Economics: A Framework for Rethinking Development and Policy*. Washington, D.C: World Bank, 2012.

OECD. *Divided We Stand: Why Inequality Keeps Rising*. OECD: Paris, 2011.

-----*The Challenge of Promoting Youth Employment in the G-20 Countries*. Paris: OECD, 2012a.

-----“Industrial Policy and Territorial Development: Lessons from Korea.” *Development Centre Studies*. Paris: OECD, 2012b.

McKinley, Terry. “Revisiting the Dynamics of Growth, Inequality and Poverty Reduction.” *CDPR Discussion Paper 25/09*. London: School of Oriental and African Studies, 2009.

Reisen, Helmut. “The Next Global Reserve Currency.” *Vox*, June 20, 2009. www.voxeu.org/article/next-global-reserve-currency

Rodrik, Dani. *The Globalization Paradox: Democracy and the Future of the World Economy*. New York: W.W. Norton & Co, Inc, 2011.

Rölller, Lars-Hendrick and Nicolas Véron. “Safe and Sound: An EU Approach to Sovereign Investment.” *Bruegel Policy Brief 2008/09*. Brussels: Bruegel, 2008.

Sachs, Jeffrey D. “Government, Geography, and Growth: The True Drivers of Economic Development.” *Foreign Affairs* (91)5: 142–150, 2012.

Sumner, Andy. “Global Poverty and the New Bottom Billion: What if Three-quarters of the World’s Poor Live in Middle-income Countries?” *IDS Working Papers* (2010) 349: 1–49, 2010.

Williamson, John. “What Washington Means by Policy Reform.” In *Latin American Adjustment: How Much has Happened?* Washington, D.C.: Peterson Institute for International Economics, 1990.

World Bank. “World Bank Sees Progress Against Extreme Poverty, but Flags Vulnerabilities.” Press Release No:2012/297. February 29, 2012. Washington, D.C.: World Bank, 2012. <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:23130032~pagePK:64257043~piPK:437376~theSitePK:4607,00.html>

Wölfl, Anita, Isabelle Wanner, Oliver Röhn, and Giuseppe Nicoletti. “Product Market Regulation: Extending the Analysis Beyond OECD Countries.” *OECD Economics Department Working Papers* 799. Paris: OECD, 2010.

Zhang, Xiaobo, Jin Yang, and Shenglin Wang. "China has Reached the Lewis Turning Point." *China Economic Review* (22)4: 542–554, 2011.

Address | Contact

Bertelsmann Stiftung
Carl-Bertelsmann-Straße 256
33311 Gütersloh
Germany

Phone +49 5241 81-0
Fax +49 5241 81-81999

Dr. Daniel Schraad-Tischler
Phone +49 5241 81-81240
Fax +49 5241 81-681240
daniel.schraad-tischler@bertelsmann-stiftung.de

Najim Azahaf
Phone +49 5241 81-81411
Fax +49 5241 81-681411
najim.azahaf@bertelsmann-stiftung.de

www.bertelsmann-stiftung.de

www.sgi-network.org