

WORLD AFFAIRS

The Journal of International Issues



VOLUME TWENTY • NUMBER ONE

SPRING (JANUARY-MARCH) 2016

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BUILDING RESPONSIVE, INCLUSIVE AND COLLECTIVE SOLUTIONS

The BRICS group of countries is garnering clout in the global system and may soon surpass the G-7 association in economic terms. India is assuming the chairmanship this year and will host the 2016 summit. This paper portrays the strengths and resources of BRICS member states and details the agenda laid out for the year by Indian Prime Minister Narendra Modi's "building responsive, inclusive and collective solutions". It notes that BRICS has evolved into a political alliance as well as a focussed cooperative, which has been reshaping the global order through various new international institutions such as the New Development Bank. Related bodies are also being set up in the areas of agriculture, culture, education, clean energy generation, healthcare, information technology, infrastructure, scientific research and tourism. However, major challenges remain in raising the required funding and mustering effective coordination between BRICS states for achieving shared benefits.

SAMEERA SAURABH

BRICS (Brazil–Russia–India–China–South Africa) brings together five major economies spread across the continents of Asia, Africa, Eurasia and South America. It comprises 43 per cent of the world's population,

contributes 45 per cent to global agricultural output, 30 per cent to the world's gross domestic product (GDP), 17 per cent to world trade and 13 per cent to the global services market. BRICS contribution to global economic growth over the last decade was fifty per cent, making it the leading power in world economic development. According to the International Monetary Fund (IMF), the combined GDP of BRICS is US\$32.5 trillion by purchasing power parity (PPP) while the G-7 combined GDP is US\$34.7 trillion. However, the five economies combined currently hold less than 15 per cent of voting rights in both the IMF and World Bank though their combined strength is predicted to surpass that of G-7 economies in size by 2032. As a formal grouping, BRICS began at the suggestion of Russian President Vladimir Putin at a meeting of the leaders of Russia, India and China in St. Petersburg on the margins of the G-8 Outreach Summit in July 2006. The grouping was formalised with the first meeting of BRIC foreign ministers on the margins of the United Nations General Assembly in New York in September 2006. A decision to include South Africa was taken at another foreign ministers meeting in New York on 21 September 2010. Accordingly, with the concurrence of the other leaders, China as host of the third summit invited South African President Jacob Zuma to attend the summit in Sanya on 14 April 2011.

Seven summits have taken place so far with the last in Ufa, Russia on 8–9 July 2015 and the eighth to be hosted by India some time during its chairmanship in 2016. One of the biggest factors propelling BRICS as a force to reckon with is the huge market it offers to the world. Brazil has developed its mining and farming/pasture industries and become a major producer and exporter of cane sugar, coffee, corn, iron sand and soybean. It has also furthered its auto, mining, petrochemicals and steel industries and become a leader in manufacturing civil regional airplanes (Lixing Zhou, "International Investment and Financial Cooperation between BRICS", *BRICS and a New World Order: In Search of Stability, Security and Growth*, Observer Research Foundation, 2012).

Russia is endowed with abundant coal, natural gas and oil reserves. Exploitation and export of these resources provide a large income to the Russian federal administration. The heavy industry infrastructure, a legacy of the Soviet era, has created a sound base for the rise of Russian industries and the continued development of its aerospace industry. The computer and software industries of India have developed impressively since the mid-1990s. The information technology based service industry makes a rich contribution to the country's economy, making it a major base for the outsourcing services of developed countries. China took advantage of economic globalisation in the 1980s to provide cost-effective manufacturing services to the world. The abundance of cheap labour resources attracted large amounts of foreign capital resulting in the exponential growth of its export processing industry. China's GDP outstripped Japan's in 2010, making it the second largest world economy (*ibid*). South Africa has a relatively well-developed agricultural sector and sound infrastructure. It has the most advanced transportation system on the continent and connectivity plays a vital role in its own development as well as that of its neighbours. The Johannesburg stock exchange is an important platform that attracts 90 per cent of investors among Southern African countries. Although the economy of South Africa is small compared to other member states, it provides a gateway for them to access the huge African market. Moreover, all BRICS countries have robust domestic markets with rapidly growing purchasing powers and promising investment environments (*ibid*). As a whole, the group is endowed with tremendous wealth—huge agrarian economies, significant human resources, ambitious manufacturing centres, enormous natural resources and burgeoning services sectors. All these factors provide opportunities for the five nations to collaborate with each other as well as the rest of the world for a greater share in global output and power.

The BRICS heads of state met on the margins of the G-20 summit in Antalya, Turkey on 16 November 2015, where Indian Prime Minister Narendra Modi announced that the theme of India's chairmanship would be "Building Responsive, Inclusive and Collective Solutions (BRICS)". BRICS is not only an economic grouping but has increasingly taken the form of a political entity as well. Russia, which hosted the seventh summit at Ufa in 2015, emphasised partnership as a powerful factor in global development by leveraging opportunities for cooperation. The Strategy for BRICS Economic Partnership was the theme of the summit. India's chairmanship from February 2016 will be guided by

the Prime Minister's commitment to consolidate intra-BRICS cooperation. India's vision will need to focus on pertinent areas of sectoral cooperation and enhancing capacities by institutional building. As BRICS chair in 2011–12, India had heralded the concept of a BRICS bank, which finally evolved into the New Development Bank at the 2014 Fortaleza Summit, thereby leading the way in creating the group's first permanent institution. The 2014 Fortaleza Declaration mentions a readiness to explore new areas towards comprehensive cooperation and closer economic partnership to facilitate financial integration, infrastructure connectivity, market inter-linkages as well as people-to-people contact. India will need to play a key role in terms of enhancing production and market access opportunities by diversifying economic cooperation and encouraging a business friendly environment for BRICS investors and entrepreneurs. Building responsive, inclusive and collective solutions must foster innovative growth strategies with a view to building knowledge economies.

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SECTORAL COOPERATION AMONG BRICS NATIONS

India is set to post rates of economic expansion above seven per cent for the foreseeable future supported in part by favourable demographics. The moderate acceleration in economic growth will be largely due to strong domestic consumption. Services will remain the leading sector and education, professional services and telecommunications will expand as the country's middleclass grows. Agriculture proved its resilience despite below average rainfall during 2015. Growth in this sector is expected to accelerate, supporting private consumption through higher income in rural areas. In contrast, growth in the industrial sector is likely to decelerate modestly amidst weak export growth. The Make in

India campaign may not perform as expected due to ailing infrastructure and a shortage of skilled labour.

At Ufa, the Indian Prime Minister endorsed the Strategy for BRICS Economic Cooperation as an important framework document. For trade and investment cooperation he recommended that the Business Council and Contact Group on Trade and Economic Issues prepare a work plan for implementing the strategy in a time bound manner. The joint sitting could also work on a roadmap for economic, investment and trade cooperation until 2020. He also suggested each member country take the lead in at least two priority areas listed in the strategy. The prime minister highlighted the institutionalisation of BRICS through the setting up of the New Development Bank Institute in 2016 and stated that India would host the first BRICS trade fair. As per reports, an investment forum may be planned on the margins of the trade fair, leading to greater awareness about investment opportunities among members. The Associated Chambers of Commerce of India, the BRICS Business Council and Contact Group on Trade and Economic Issues, the Confederation of Indian Industry, the Federation of Indian Chambers of Commerce and Industry and the Federation of Indian Export Organisations would provide the intellectual and logistical framework for hosting trade fairs amongst partner countries.

Employment in the agricultural sector remains high in BRICS states. Agriculture contributes 18 per cent to India's GDP, 11 per cent to food merchandise exports and 56 per cent to employment. However, food security remains a critical issue. Insecurity stems from two major sources— declining food production and a lack of purchasing power among large sections of the population leading to high rates of chronic malnutrition. It has been estimated that almost 50 per cent of Indian children suffer from malnutrition. Nearly 60 per cent of the population is reliant on agricultural income and stagnation in growth has slowed the rate of poverty decline. Agriculture has been lagging due to a lack of investment, groundwater depletion and soil degradation. India could collaborate effectively with other BRICS nations to address these issues. Brazil and China have gradually reduced child malnutrition. China achieved a 50 per cent reduction in 1992–2002 by providing better access to healthcare and improved maternal literacy while Brazil achieved a 73 per cent reduction in 2002–08 through its national Zero Hunger Strategy based on social protection and income generation including cash transfers, community kitchens, the low income restaurant programme, school meals, etc. While local participation has

been important in Brazil, small farm holders have not been targeted in India's food security programmes (Priya Chacko, "India and the Indo-Pacific in New Delhi's BRICS Calculus" in Francis A Kornegay and Narnia Bohler-Muller (Eds), *Laying the BRICS of a New Global Order from Yekaterinburg 2009 to EThekwini 2013*, Africa Institute of South Africa, 2013).

There is potential to improve information sharing best practices in the Basic Agricultural Information Exchange System as envisaged in the BRICS Agricultural Action Plan 2012–16 (BRICS Ministers of Agriculture and Agrarian Development, Fifth Meeting, Moscow,

Russian Federation, 9 October 2015, online at <http://brics.itamaraty.gov.br>). The joint declaration of the fourth meeting envisioned intensifying cooperation technologies for small farm holdings, as a large proportion of farm holdings in the five countries are small ("Agriculture Cooperation in BRICS: Vivan Sharan Session", online at <http://www.nkibrics.ru>). Intra-BRICS collaboration on agriculture must be prioritised during India's chairmanship. According to the United Nations Food and Agriculture Organisation, India's crop yield per hectare is much lower than the global average. Water shortage, lack of availability of high-

yield varieties of seeds and limited research and development have been quoted as the main reasons behind the low yield. Table 1 below gives the rice and wheat productivity in BRICS states. Increasing agricultural productivity is an achievable goal, given the wide disparities within member countries (Vivan Sharan, "Promoting Sectoral Cooperation in BRICS", 2015, online at <http://businessworld.in>). Collaboration in new areas of research like nanotechnology, stem cell, etc should be furthered to improve productivity and increase yield per hectare. Apart from creating an investor friendly environment for agricultural investment, farm extension services should also be developed. The five nations still employ a vast labour force in agriculture with nearly 56 per cent engaged

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in agrarian activities in India and 40 per cent in China. Thirty-four per cent of Brazil's exports and ten per cent of South Africa's are agrarian based. The BRICS Agriculture Research Centre is also in the pipeline as announced by the Indian Prime Minister at UFA as a strategy to enhance intra-BRICS cooperation.

Table 1: Productivity in Rice and Wheat

Country	Rice (tonnes/hectare)	Wheat (tonnes/hectare)
China	4.67	4.97
Brazil	3.64	2.73
India	2.40	3.15
South Africa	2.00	3.41
Russia	3.25	2.30

Source: The Organisation for Economic Cooperation and Development and the Food and Agriculture Organisation, "Agricultural Outlook 2014", online at <http://www.agri-outlook.org>

A digital initiative suggested by him must also be made a priority to increase the relatively low rate (40 per cent) of internet penetration across BRICS countries. The digital roadmap launched by the Government of India in 2015 aims to cover 250,000 villages by 2019, by increasing internet penetration rates through the creation of fibre optic networks. India is currently the fastest growing Smartphone market in the world and yet its internet and broadband penetration rates are low compared to its high growing counterparts. The internet penetration rate for India was 19.7 per cent in 2014, behind Brazil at 65 per cent, China at 66 per cent and Russia at 71 per cent ("India Telecommunications: A Digital Roadmap", online at <http://www.eiu.com>). India also trails behind rival markets in the digital race on internet connection speeds where it ranked 115 worldwide (Akamai Technologies, "State of the Internet Report", online at <https://www.akamai.com>). Only 100 million people had broadband connections in April 2015. The BRICS initiative could include technology transfer and the development of fibre optic networks for quick information dissemination as well as e-commerce initiatives in member countries.

Encouraging connectivity and building a digital economy could provide

inroads for inclusive economic growth by increasing financial inclusion and credit disbursement. In India to encourage financial inclusion and mobilise resources over 170 million bank accounts have been opened and over 100 million debit cards with insurance cover issued (Table 2). The degree of financial exclusion is high and there are wide disparities as 73 per cent of all farming households have limited or zero access to formal credit (“National Sample Survey Office Data”, online at <http://www.rbi.org.in>), while 13 per cent of all bank loans are disbursed to ten business conglomerates (online at <https://doc.research-and-analytics.csfb.com>). Formal credit facilities are extended to only a third of all small and medium scale enterprises. Recent government initiatives have tried to include technology in providing access to credit through the distribution of RuPay debit cards and Aadhar linked bank accounts. India’s innovative Jan Dhan Yojana and Aadhar–Mobile link programmes could also be shared and improved upon by intra-BRICS cooperation (Sharan, *ibid*). For instance, Brazil has sound experience in the field of e-governance, service delivery and transparency and about 63 per cent of the rural population in BRICS states have bank accounts. There is scope for improving mobile phone penetration (Table 3), which could enhance internet connectivity, basic services delivery and bring vast rural populations within the ambit of the banking sector. India must play a pivotal role in guiding the New Development Bank to finance the “inclusive and responsive” needs of emerging economies. The Government of India has announced an ambitious target of setting up seven hundred thousand kilometres of fibre optic networks to connect all *panchayats* (village councils) with broadband services by 2016. The Digital India Initiative involves establishing broadband highways e-Governance and e-Kranti, which entail the electronic delivery of services in rural and urban areas. Telecom infrastructure could be used to provide agricultural extension services in all BRICS countries.

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Table 2: Formal Credit Access in BRICS Countries

Country	ATMs per 100,000 people	Per Cent of the Rural Population with an Account in a Financial Institution
Brazil	13.27	63.02
Russian Federation	130.74	61.22
India	61.88	49.78
China	46.94	74.33
South Africa	155.55	68.59

Source: World Bank Group

Table 3: Mobile Phone and Internet Penetration in BRICS Countries

Country	Number of Mobile Phones	Call Phones per Person	Per Cent of Households with Internet Access
India	950 million	0.7	13.0
China	1.2 billion	0.9	43.9
Russian Federation	243.1 million	1.8	67.0
Brazil	278 million	1.2	42.4
South Africa	N/A	N/A	39.4

Source: International Telecommunication Union, 2014

The New Development Bank: Arguably, the most important outcome of BRICS is the creation of the New Development Bank (NDB) with its headquarters in Shanghai, China. With KV Kamath from India as its first president, the bank aims to provide a fresh source of finance for developing and emerging economies to meet developmental needs. Through it, BRICS states seek to reform the global development financial architecture and offer opportunities to ensure that development financing prioritises the needs of the economically vulnerable sections of developing and emerging economies. The idea of a development bank serving as a counterweight to the Bretton Woods institutions was first mooted at the 2012 summit in New Delhi. It has been estimated that at current levels even the combined assistance from multilateral development banks and official development assistance will not meet more than three to four per cent of the projected infrastructure needs of developing countries. It is hoped that the NDB will channel savings from within its membership as well as mobilise resources from other middle-income and oil rich countries. The share of BRICS countries in global savings is now larger than that of the United States of America, Japan and the European Union. The NDB could be used to bridge

the gap between the global discourse on development finance and reform of the international financial architecture. The Basel III Accord's focus on capital adequacy discourages the need for credit enhancement in developing nations. Activities with high social returns including rural development are questioned by this model. Approximately 33 per cent of firms in the micro, small and medium enterprises sector in India have access to institutional finance. Emerging economies may gradually become ineligible for concessional loans through the World Bank's International Development Association as it only provides assistance to countries with a per capita income of less than \$ 1,205. The NDB must bridge the gap in developmental financing for developing and emerging economies and focus on niche areas such as the digital economy and data generation on the informal economy as well as infrastructure building such as India's initiative of "smart cities" ("The BRICS Development Bank", 2014, online at <https://www.oxfam.org> and "The New Development Bank: Identifying Strategic and Operational Priorities", National Institute of Public Finance, 2015, online at <http://www.nipfp.org.in>).

The digital roadmap launched by the Government of India in 2015 aims to cover 250,000 villages by 2019, by increasing internet penetration rates through the creation of fibre optic networks. India is currently the fastest growing Smartphone market in the world and yet its internet and broadband penetration rates are low compared to its high growing counterparts.

Economic Cooperation in Infrastructure: BRICS economic cooperation in infrastructure is based on engagement through the Friendship Cities Forum and encouragement of members to invest in programmes such as 100 Smart Cities, Make in India and Skill India. The Government of India aims to foster trade among member countries and has sought to liberalise foreign direct investment (FDI) in defence, insurance and the railways. The smart cities project while changing the urban landscape would also create huge opportunities for investment. The initiative should explore public-private partnership between information communications technology firms and local governments. Urban centres are drivers of growth and their development should be a priority area of BRICS cooperation. It has been estimated that over US\$500 billion would be

required over the next 20 years for urban development in India. Urban local bodies would play a significant role in the creation of “smart infrastructure” and service delivery. Best practices and experiences should be shared with local government counterparts across member states. A forum concerning BRICS nations, cities and local bodies has been planned to initiate collaboration between members at the local level. Structural impediments must be removed across member states to boost economic and trade cooperation amongst them. Growth prospects for BRICS will depend on changes in the working populations of these countries, the percentage of people moving into the middleclass and the willingness for institutional reforms.

The Environment, Energy Security and Clean Energy Cooperation: BRICS has two of the world’s biggest energy consumers (China and India) and two of the world’s largest energy producers (Brazil and Russia). Brazil, the leading producer of sugarcane ethanol also has the second largest proven oil reserves after Venezuela and has discovered large offshore oil and gas reserves as well. Russia is the foremost exporter of natural gas and second largest exporter of oil. In 2013–14, the Russian Federation was second in the production of crude oil in the world with 12.86 per cent of total production and China with 5.04 per cent was in fourth place. In natural gas, the Russian Federation was the second largest producer contributing 17.9 per cent of the world’s production as well as the second largest consumer. In terms of oil consumption in 2013–14, China with 12.1 per cent was the second largest consumer after America and India was in fourth place at 4.2 per cent, followed by the Russian Federation at 3.66 per cent (Chacko, *ibid*). In India, a quarter of the population does not have access to electricity and there is huge untapped demand for energy. By 2030, India may import 90 per cent of its oil requirement, half of gas and one third of coal. The Russian energy sector, especially the hydrocarbon sector and the discovery of new oil reserves in Brazil and coal in South Africa have elicited interest from India. BRICS countries need to increase cooperation with each other in the energy sector to define for themselves a significant role in the international governance of energy. Energy diplomacy has important implications for foreign policy. BP’s “Energy Outlook 2035” (online at <http://www.bp.com>) estimates that BRICS will account for 42 per cent of world energy consumption up from 23 per cent in 1990 (“Energy News: World Energy Consumption”, online at <http://www.enerdata.net>). All five member states are global drivers of energy demand and account for 35 per cent of the global primary production of energy. China is a

premier producer of coal and contributes vastly to the global energy economy. China and India account for nearly 50 per cent of the world's incremental energy demand. Coal has met 40 per cent of the rising demand resulting in increased CO₂ emissions. Since BRICS economies have been undergoing fast-paced industrialisation and growth rates, they contribute substantially to global emissions with China leading the way. With the high dependence on coal for energy needs clean technologies cooperation should be pursued actively. At Ufa, Prime Minister Modi stated that the first NDB project should be on clean energy across member countries and a memorandum of understanding on energy efficiency and saving was signed in Russia on 26 May 2015. As energy is a priority area in the Strategy for BRICS Economic Partnership, environment ministers spearheaded a platform for sharing clean technology knowhow. China has offered a ready template of "clean coal" technology for private sector innovation and technological dispersion across BRICS states.

Health: Collaborative initiatives in the health sector have been expanded to include maternal mortality, sexually transmitted infections, HIV and population issues such as ageing and intergenerational transfers, rural–urban migration and urbanisation. Cooperation in this sector includes universal access to first line anti-TB (tuberculosis) medicines, scientific research and innovation in treatment, sharing technologies and aspiring towards 90-90-90 TB targets (90 per cent of vulnerable groups screened, 90 per cent diagnosed and started on treatment and 90 per cent treatment success). Further, India has earmarked 15 June as International Yoga Day and this has been received with enthusiasm around the world. India would do well to showcase its traditional knowledge by organising Ayurveda and Yoga festivals within the BRICS platform. Apart from sharing traditional knowledge and health benefits, this has the potential of being an employment generator by creating jobs with forward and backward linkages to the tourism industry.

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Science and Technology: At a meeting of science and technology ministers in 2015 in Brasilia, a memorandum of understanding on Cooperation in

Science, Technology and Innovation was signed. India's proposal for setting up a BRICS Young Scientists Forum to develop innovative mechanisms was accepted enthusiastically. Its areas of collaboration would include but not be limited to climate change and the mitigation of natural disasters, food security and sustainable agriculture, the exploration of energy efficiency and new and renewable energy initiatives, space research and technology transfer. Energy has been included in the Strategy for BRICS Economic Partnership and endorsed by the leaders as a priority area. In science and technology cooperation, BRICS nations have agreed to the following:

- The flow of knowledge between research institutions through joint projects, workshops and exchange of young scientists, especially in advanced material science, biotechnology, energy, food, health, nanotechnology and pharmaceuticals.
- The creation of an agriculture information base system.
- Reduction of the negative impacts of climate change on food security and the adaption of agriculture to climate change.
- Enhanced agriculture technology cooperation and innovation.
- BRICS countries are willing to take the lead in the following sectors (Research and Information System, Department of Science and Technology, Government of India, "Annual Reports", online at <http://www.ris.org.in>):
 - o Brazil: Climate change and natural disaster mitigation
 - o Russia: Advanced materials, nanotechnology innovation
 - o India: Agriculture
 - o China: Renewable energy, solid state lighting, new energy vehicle
 - o South Africa: Astronomy, health (HIV/AIDS)

Cooperation in Services: The services sector accounts for nearly 60 per cent of value added in the BRICS GDP. Services accounted for 42 per cent of exports in value added terms from G-20 countries and more than 50 per cent from China and India. Growth in the value of BRICS services trade with the world in 2010–14 was about 30 per cent, important though not calculated in value added terms.

Tourism Sector: According to the World Travel and Tourism Council, tourism directly employs 36.7 million people in India, more than automotive manufacturing or mining ("Regulatory Changes will support Tourism Development", online at <http://www.eiu.com>). However, it lags behind many

of its Asian counterparts in the tourism industry indicating untapped potential. In 2014, China alone attracted 14 times as many international tourists as India (*ibid*). The tourism industry has the potential to provide the country's rapidly expanding workforce with employment opportunities. Medical tourism and easier access to visas would help raise India's share in the global tourism market. At the Fortaleza Summit in 2014, the Indian prime minister expressed interest in developing a framework for promoting tourism among BRICS countries. The proposal received overwhelming support and tourism cooperation was included in the Strategy for BRICS Economic Partnership. Member countries must be targeted for increasing tourist inflows. In 2014, over 100 million Chinese tourists travelled worldwide but fewer than 200,000 visited India (*ibid*). In July 2015, India extended e-visas to China where it also held a "Visit India" year (*ibid*). Similar initiatives should be planned for other member states. India is also one of Asia's leading destinations for medical tourism since it has skilled doctors but low treatment costs. In June 2015, the Indian government announced that it would set up a National Medical and Wellness Tourism Board to market local traditional systems such as Ayurveda and Yoga. BRICS member countries and especially India have an advantage as price competitive destinations making them attractive to price sensitive travellers.

Education: At a meeting of BRICS education ministers in Brasilia, India offered its online open courses platform Swayam to other members for collaboration and sharing the knowledge repository. Initiatives were also taken by India for use of information and communications technology in education and a digital library. To explore the idea of setting up a BRICS University, a memorandum of understanding on the Establishment of the BRICS Network University was signed in Moscow in November 2015. The Indian prime minister's idea of setting up of language schools in each of the BRICS languages is also an interesting concept that should be pursued. In addition, satellite technology should be harnessed to make quality communication accessible for education and health cooperation among member states.

BRICS countries need to increase cooperation with each other in the energy sector to define for themselves a significant role in the international governance of energy. By 2035, BRICS will account for 42 per cent of world energy consumption up from 23 per cent in 1990.

THE GLOBAL INNOVATION INDEX

Innovation driven growth is no longer the prerogative of high-income countries. Developing nations are increasingly designing policies to increase their innovation capacities. These have different forms depending on a country's perceived needs and their impacts vary across countries even at similar levels of development. While certain developing states have managed to improve their innovation inputs and outputs continually, others still struggle. The annual Global Innovation Index (GII) gives an insight into the level of innovation in a particular country. It relies on five input pillars capturing elements of a national economy that enable innovation activities—institutions, human capital and research, infrastructure, market sophistication and knowledge and technology outputs. In 2013, apart from India all other BRICS economies registered improvements in their GII ranks. Brazil improved by three places to 61, the Russian Federation by 13 places to 49, China by six places to 29 and South Africa by five places to 53. The progress of China and the Russian Federation were among the most notable of all countries. China is now ranked among the high-income economies. India however slipped ten places to 76. In 2015, the rankings were Brazil 70, the Russian Federation 48, India 81, China 29 and South Africa 60. Most BRICS economies particularly China's have been gaining ground in innovation quality. Among middle-income top ten countries in innovation quality, the BRICS economies are at the top. At the same time, the distance between China and the others has been rapidly increasing. The Russian Federation ranked among the high-income group is third among upper-middle income countries. The BRICS economies are at the top of the innovation quality composite ranking of the middle-income group. With the exception of Brazil's score for the number of patents filed, the group has increased scores in all three quality indicators. China's score for quality of innovation has improved more rapidly than those of its BRICS neighbours and the rest of the top ten ranked in the composite group and the gap between it and other middle-income economies has consistently widened since 2013. Although India has also steadily improved its quality of innovation score, its improvement has not been as substantial as that of China. Brazil on the other hand has worsened in this metric and thus the gap between it and India has reduced since 2013. South Africa has remained at constant levels but below those of its BRICS peers.

Following renewed domestic policy attention for improving innovation

quality, China has moved up to 18 in the innovation quality ranking, retaining the top place among middle-income economies and narrowing the gap that separates it from the high-income group. This upward movement may be attributed to its first place among middle-income economies in the top university rankings (eleventh out of all GII economies) as well as an improvement in the number of patents filed. Brazil and India remain in second and third positions in the innovation quality composite ranking among middle-income nations for the second consecutive year. Although both countries moved down in their overall GII ranking, their performance similar to that of 2014 in all three quality indicators has kept them in the top five among middle-income economies and helped move upwards in terms of the quality of innovation composite at 26 and 28 respectively. For India, the substantial improvement in patents filed also contributed to its enhanced performance. South Africa has kept up its upward trajectory in innovation quality moving to 32 in the composite list and fourth among middle-income economies. Along with other BRICS states, it also saw a drop in its GII rank but retained a strong performance in innovation quality. Even though the Russian Federation is not among the top ten high-income innovation quality performers, its sum of scores is much better than most middle-income countries in the top ten. Its ranking for the combined indicators is 27, above that of India and South Africa. India today is regarded as an innovation achiever in Central and Southern Asia in the group of lower-middle-income countries. It is seen as a representative innovation achiever by providing a narrative of how the country has shaped its innovation policy over the years and a perspective on what has worked and what has not. With the exception of China, whose innovation quality scores display a balance similar to that of high-income economies, the majority of middle-income economies still face a significant journey to improve their innovation quality metrics. Moreover, even innovation quality top performers depend heavily on their high university rankings to achieve top quality scores. Greater priority

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should be given to the calibre of publications and patents filed globally—the area in which middle-income countries show the weakest relative performance (*The Global Innovation Index*, online at <https://www.globalinnovationindex.org>).

PEOPLE-TO-PEOPLE CONTACT

BRICS culture ministers also finalised an agreement at Ufa to promote cooperation in the fields of book fairs, cinematography, exchange of scholars for the protection and management of cultural heritage, fine and applied arts, folk culture and crafts, music theatre, and youth art festivals. Russia invited youth delegations to Kazan to participate in the first BRICS Youth Summit based on the theme of cooperation in economics, on humanitarian issues, in mass media, on political issues, etc. The Indian prime minister mooted the idea of cooperation in sports at Ufa and under India's chairmanship of BRICS an under-17 football cup will be organised. Given the strength of member states in sports, exchanges between selective sports academies should be encouraged to develop capabilities. He also proposed a film festival and film awards, which could showcase classical and contemporary cinema from the five countries. These may be hosted on a rotational basis and the mega events could start during India's chairmanship in 2016.

THE BRICS ECONOMY 2015–16

In 2015, global economic activity remained subdued. Growth in developing economies and emerging markets though still accounting for over 70 per cent of global growth declined for the fifth consecutive year while a modest recovery continued in advanced economies. Three key transitions continue to influence the global outlook:

1. The gradual slowdown and rebalancing of economic activity in China away from investment and manufacturing towards consumption and services.
2. Lower prices for energy and other commodities.
3. A gradual tightening of America's monetary policy.

Growth in developing economies and emerging markets is projected to increase from four per cent in 2015, the lowest since the 2008–09 financial crisis,

to 4.3 and 4.7 per cent in 2016 and 2017, respectively. Growth in China is expected to slow to 6.3 per cent in 2016 and six per cent in 2017, primarily reflecting weaker investment growth as the economy continues to rebalance. It is anticipated that India and the rest of emerging Asia will generally continue growing at a robust pace but with some countries facing strong headwinds from China's economic rebalancing and global manufacturing weakness. The aggregate GDP in Latin America and the Caribbean is projected to contract in 2016 as well, albeit at a lower rate than in 2015, despite growth in most regional countries. This reflects the recession in Brazil and other countries in economic distress. Emerging Europe is expected to grow at a steady pace, albeit with some slowing in 2016. Russia, which continues to adjust to low oil prices and Western sanctions is expected to remain in recession in 2016. The growth in most of Sub-Saharan Africa will gradually pickup but at rates lower than over the past decade due to the continued adjustment to lower commodity prices and higher borrowing costs weighing heavily on some of the region's largest economies (Angola, Nigeria and South Africa) as well as a number of smaller commodity exporters (IMF, "World Economic Outlook 2016", online at <http://www.imf.org>).

In 2014, over 100 million Chinese tourists travelled worldwide but fewer than 200,000 visited India.

In July 2015, India extended e-visas to China where it also held a "Visit India" year. Similar initiatives should be planned for other member states.

Table 4: Emerging Markets and Developing Economies

Country	Per Cent Inflow of FDI into India (2000–15)	Per Cent Share in World GDP (in PPP Terms 2013)	Per Cent Share in World Outward FDI	Per Cent Share in India's Total Exports (2013–14)	Per Cent Share in India's Total Imports (2013–14)
Brazil	0.01	2.97	0.41	1.77	0.83
China	0.36	12.22	7.68	4.72	11.34
Russian Federation	0.41	2.77	3.15	0.67	0.87
South Africa	0.12	0.48	0.12	1.61	1.35

Source: Department of Industrial Policy and Promotion, Department of Commerce, Government of India

CHALLENGES FOR INDIA'S CHAIRMANSHIP OF BRICS 2016

BRICS today has an undeniable niche in the world's geopolitical order. It is not a geographical grouping like the Association of Southeast Asian Nations and the European Union, a commodity based club like the Organisation of Petroleum Exporting Countries or a security based alliance such as the North Atlantic Treaty Organisation. BRICS stands out in its shared strategic objectives to reconfigure the world order and redefine the thrust on building responsible, inclusive and collective solutions to common issues (Ministry of External Affairs, Government of India, online at <http://www.mea.gov.in>). The grouping is important for members in terms of their creating for themselves an important role on the global stage, underlined by members sharing diverse but common perspectives on the global economic order and a desire to wield greater influence over the rules governing international business, economy and trade.

India's chairmanship of BRICS must stress on the reform of economic and political institutions that are sensitive to the challenges faced by developing and emerging economies. To climb to higher growth trajectories, initiatives announced at previous summits must be implemented and taken seriously by members. BRICS nations have the latent potential to surpass the combined GDP of the G-7 in the next few years. The Contingent Reserve Agreement with an initial size of a hundred billion dollars will give member countries a cushion against sudden external pressure on their currencies, help address volatility in financial flows and strengthen the global safety net. Institutional building such as the New Development Bank should be supported by developing other organisations specialising in research activities in various relevant sectors such as agriculture, business ranking and credit rating, culture, development finance, digitisation, disaster management and risk mitigation, economics and investment, education, the environment, high-speed railways, satellite communication networks, science and technology, urbanisation, etc. At the Ufa Summit, Prime Minister Modi had stated the need to create supporting mechanisms such as a New Development Bank Institute, which would function as a bank of ideas, a storehouse of experience and a knowledge powerhouse. It could also provide inputs for contingency reserve arrangements.

The Indian chairmanship needs to retain the BRICS ethos and reinvigorate itself in building responsive, inclusive and collective solutions for developing and emerging economies. The implementation and financing of development will remain critical areas for BRICS to retain its strategic position in the world multilateral economic order. 

This article expresses the personal views of the author and does not necessarily reflect the official position of the Government of India
