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## China, India, Brazil and South Africa in the world economy: Engines of growth?

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Discussion Paper No. 2008/05

## **China, India, Brazil and South Africa in the World Economy**

Engines of Growth?

Deepak Nayyar\*

June 2008

### **Abstract**

This paper attempts to analyse the economic implications of the rise of China, India, Brazil and South Africa, for developing countries situated in the wider context of the world economy. It examines the possible impact of their rapid growth on industrialized countries and developing countries, which could be complementary or competitive and, on balance, positive or negative. In doing so, it considers the main channels of transmission, to focus on international trade, investment, finance and migration. The essential question is whether, in times to come, these four countries could be the new engines of growth for the world economy. The answer is that rapid growth in China already supports growth elsewhere, so far primarily as a market for exports, while India and Brazil have the potential to provide similar support, but South Africa does not yet exhibit such a potential. In future, these countries could also provide resources for investment and technologies for productivity. The transformation and catch-up could span half a century or longer. Even so, rapid growth in these large emerging economies is already beginning to change the balance of economic power in the world.

Keywords: China, India, Brazil, South Africa, growth, development, history, trade, investment, finance, migration

JEL classification: F02, F40, F50, N10, O10, O11, O19

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## **Introduction**

The object of this paper is to analyse the economic implications of the rise of China, India, Brazil and South Africa, situated in the wider context of the world economy. The structure of the paper is as follows. Section 1 sketches a profile of China, India, Brazil and South Africa in the world economy. It sets the stage by outlining the broad contours of their significance in the past, present and future. Section 2 asks whether these countries could be the new engines of growth for the world, beginning with history and statistics to touch upon the underlying economic causation. Section 3 examines the possible impact of rapid growth in the four economies on the world economy, the industrialized countries and the developing countries. Section 4 considers the main forms of engagement and channels of interaction for these countries with the world economy, with a focus on international trade, international investment, international finance and international migration. Section 5 discusses the potential influence of China, India, Brazil and South Africa on institutions in the global context, which would obviously extend beyond economics into politics and range from bilateralism through plurilateralism to multilateralism.

### **1 China, India, Brazil and South Africa in the world economy**

The significance of China, India, Brazil, and South Africa (CIBS) in the global context has changed over time. The discussion in this section provides a historical perspective of the past, a snapshot picture of the present and an extrapolated scenario of the future.

#### **1.1 The past**

The emerging significance of China, India, Brazil and South Africa in the world economy must be situated in historical perspective. Table 1, which is based on estimates made by Angus Maddison, presents evidence on the shares of China, India, Brazil and South Africa in world population and in world income for selected years during the period from 1820 to 2001. It shows that, in 1820, China, India, Brazil and South Africa accounted for 57 per cent of world population and almost 50 per cent of world income. There was a dramatic change in the next 150 years. In 1973, the share of China, India, Brazil and South Africa in world population was significantly lower at about 40 per cent but their share in world income collapsed to less than 11 per cent, which was a small fraction of what it was 150 years earlier. The next thirty years witnessed some recovery. While the share of China, India, Brazil and South Africa in world population remained in the range of 40 per cent, their share in world income rose to almost 21 per cent in 2001. These aggregates reveal the essential contours, but also conceal some aspects of the story. There are similarities between China and India, just as there are similarities between Brazil and South Africa. But there are significant differences between the two sets of countries. For much of the time, China and India had dominant shares.<sup>1</sup>

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<sup>1</sup> The dominance was even greater earlier. During the period from 1000 to 1700, China and India, taken together, accounted for 50 per cent of world population and 50 per cent of world income. And, two thousand years ago, in 1 AD, China and India accounted for almost 60 per cent of world population and world income. For a more detailed discussion, see Nayyar (2008a).

Table 1  
China India, Brazil and South Africa in the world economy  
Share in world population and world GDP, 1820-2001

Year	China	India	Brazil	South Africa
Percentage share of world population				
1820	36.6	19.9	0.4	0.1
1870	28.1	17.0	0.8	0.2
1913	24.4	14.2	1.3	0.3
1950	21.7	14.8	2.1	0.5
1973	22.5	14.8	2.6	0.6
2001	20.7	16.5	2.9	0.7
Percentage share of world income				
1820	32.9	16.0	0.4	0.1
1870	17.1	12.1	0.6	0.2
1913	8.8	7.5	0.7	0.4
1950	4.5	4.2	1.7	0.6
1973	4.6	3.1	2.5	0.6
2001	12.3	5.4	2.7	0.5

Note: The percentages in this table have been calculated from estimates of population and GDP in Maddison (2003). The data on GDP are in 1990 international Geary-Khamis dollars, which are purchasing power parities used to evaluate output that are calculated based on a specific method devised to define international prices. This measure facilitates inter-country comparisons over time.

Source: Maddison (2003).

Beginning in 1820, the share of China and India in world population declined steadily until 1973 but, over the same period, the decline in their share of world income was much more pronounced. Consequently, during the period from 1820 to 1973, there was a sharp increase in the asymmetries, or disproportionalities, between the shares of China and India in world population and in world income. The partial recovery in their share of world income during the period from 1973 to 2001 has reduced the asymmetry but the disproportionalities remains significant. For much of the time, the shares of Brazil and South Africa were far smaller. But there were also other important differences. For one, the shares of Brazil and South Africa in world population and in world income increased, even if slowly for some of the time, throughout this period. For another, the shares of Brazil and South Africa in world population and in world income were symmetrical and proportional throughout this period.

## 1.2 The present

It is possible to juxtapose this past with the present. Table 2 outlines a profile of GDP, population and GDP per capita in China, India, Brazil and South Africa as compared with developing countries, industrialized countries and the world, in 2000 and 2005. It shows that the population of the world is more than six billion, of which a little less than one billion is in the industrialized countries, somewhat more than five billion is in the developing countries and more than 2.5 billion is in China, India, Brazil and South Africa. Thus, 40 per cent of the population in the world and 50 per cent of the population in developing countries lives in China, India, Brazil and South Africa. There are two sets of figures on GDP and GDP per capita: at constant prices with market exchange rates and in terms of purchasing power parities. Consider each in turn.

Table 2  
GDP, population and GDP per capita  
China, India, Brazil and South Africa, 2000 and 2005

Country	GDP				Population		PPP-GDP			
	(\$ billion)		(\$ per capita)		(million)		(\$ billion)		(\$ per capita)	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
China	1198	1890	949	1449	1263	1305	4973	7842	3939	6012
India	460	644	453	588	1016	1095	2402	3362	2364	3072
Brazil	602	670	3461	3597	174	186	1251	1393	7193	7475
South Africa	133	160	3020	3406	44	47	386	463	8764	9884
Total above	2393	3364			2496	2632	9011	13061		
Developing countries (CIBS as % of)	6058 (39.5)	7813 (43.1)	1191	1440	5085 (49.1)	5427 (48.5)	18818 (47.9)	25322 (51.6)	3701	4666
Industrialized countries	24542	27148	27304	29251	899	928	25157	27898	27988	30058
World (CIBS as % of)	31756 (7.5)	36352 (9.3)	5241	5647	6060 (41.2)	6438 (40.9)	45144 (20.0)	54573 (23.9)	7450	8477

Notes: GDP and GDP per capita are measured in constant 2000 US dollars;  
PPP-GDP and PPP-GDP per capita are measured in constant 2000 international dollars.

Source: World Bank (2007).

At market exchange rates, between 2000 and 2005, the share of China, India, Brazil and South Africa increased from 7 per cent to 9 per cent of world GDP and from 39 per cent to 43 per cent of GDP in developing countries. Over the same period, at market exchange rates, GDP per capita in China was about the same, GDP per capita for India was less than half, while GDP per capita in Brazil and South Africa was more than double the average GDP per capita in developing countries. It is worth noting that China, India, Brazil and South Africa are far below GDP per capita in the industrialized countries and significantly below GDP per capita in the world as a whole. The picture is somewhat different if the comparison is in terms of purchasing power parities. Between 2000 and 2005, the share of China, India, Brazil and South Africa increased from 20 per cent to 24 per cent of world PPP-GDP and from 48 per cent to 52 per cent of the PPP-GDP of developing countries. It would seem that, for China, India, Brazil and South Africa, taken together, these shares in world income are now much more symmetrical with their share in world population. Over the same period, in PPP terms, GDP per capita in China moved ahead of GDP per capita in developing countries, whereas GDP per capita in India was about two-thirds of GDP per capita in developing countries. In contrast, GDP per capita in Brazil and South Africa was more than double the GDP per capita in developing countries and close to the world average.

This snapshot picture situates China, India, Brazil and South Africa in the world economy at the present conjuncture. But the observed reality has been shaped by their economic performance in the past. Table 3 sets out rates of growth in GDP and GDP per capita, during the period 1951-80 and 1981-2005 for China, India, Brazil and South Africa, in comparison with regions within the developing world, the developing countries, the industrialized countries and the world economy.<sup>2</sup>

<sup>2</sup> The evidence in Table 3, and the discussion that follows, draws upon earlier work of the author. See Nayyar (2008b).

The figures for the period 1951-80 are based on Maddison data because United Nations data are not available before 1971. The figures for the period 1981-2005 are based on United Nations data because Maddison data are not available after 2001. These two sources are not strictly comparable. For the period 1981-2000, however, data are available from both sources. To facilitate a comparison, Table 3 also presents figures on growth rates, during 1981-2000, computed separately from Maddison data and United Nations data. A comparison of the two sets of growth rates, during the period 1981-2000 for which both sources are available, shows that the numbers correspond closely, although there are significant differences in the figures for China where UN data suggest much higher growth rates than Maddison data. Even so, it is reasonable to infer that the growth rates for the periods 1951-80 and 1981-2005, even if computed from different sources, are comparable, with the exception of China for which some downward adjustment may be needed.

Table 3  
Growth performance of China, India, Brazil and South Africa, 1951-80 and 1981-2005  
comparison with regions and country-groups (% per annum)

	Maddison data		United Nations data	
	1951-80	1981-2000	1981-2000	1981-2005
GDP				
China	5.03	7.36	9.80	9.73
India	3.57	5.68	5.54	5.79
Brazil	6.78	2.14	2.00	2.04
South Africa	4.48	1.54	1.63	2.01
Asia	6.28	4.04	3.90	4.06
Latin America	4.69	2.01	2.09	2.26
Africa	4.12	2.42	2.60	2.97
Developing countries	4.84	2.65	2.74	3.04
Industrialized countries	4.40	2.56	2.59	2.50
World	4.77	2.64	2.72	2.95
GDP per capita				
China	3.01	6.01	8.46	8.51
India	1.40	3.62	3.50	3.83
Brazil	3.85	0.33	0.22	0.33
South Africa	1.85	-0.29	-0.63	0.04
Asia	2.90	1.61	1.36	1.63
Latin America	2.11	0.15	0.20	0.44
Africa	1.66	-0.17	-0.06	0.39
Developing countries	2.19	0.39	0.42	0.80
Industrialized countries	3.50	2.04	2.06	1.96
World	2.40	0.66	0.69	0.99

- Notes:
- (a) The growth rates for each period are computed as geometric means of the annual growth rates in that period;
  - (b) The Maddison data and the United Nations data on GDP and GDP per capita are not strictly comparable;
  - (c) The Maddison data on GDP and GDP per capita, which are in 1990 international Geary-Khamis dollars, are purchasing power parities used to evaluate output which are calculated based on a specific method devised to define international prices. This measure facilitates inter-country comparisons;
  - (d) The United Nations data on GDP and GDP per capita are in constant 1990 US dollars;
  - (e) The figures in this table for the world economy cover 128 countries, of which 21 are industrialized countries and 107 are developing countries;
  - (f) Latin America includes the Caribbean.

Sources: Maddison (2003), United Nations (2006a, 2006b).

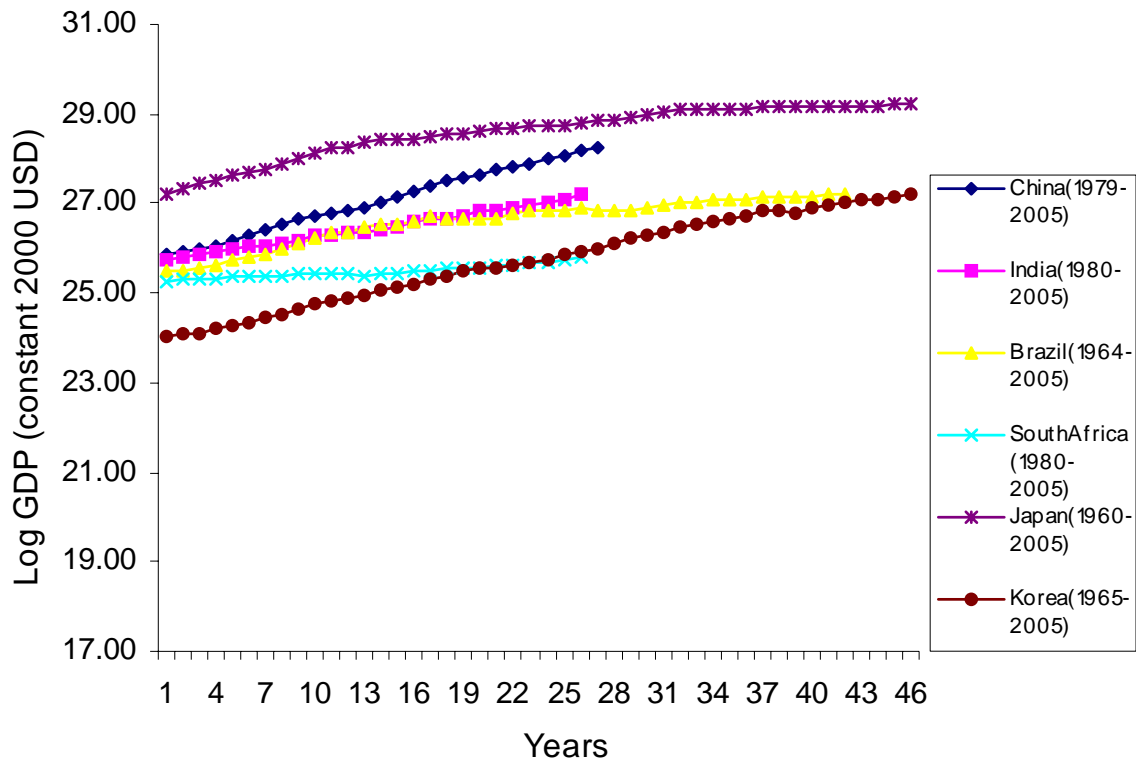
A study of Table 3 clearly shows that growth in GDP and GDP per capita during 1981-2005 was much slower than it was during 1951-80. This was so for the world economy, for industrialized countries and for developing countries. Growth in GDP was in the range 4-5 per cent per annum during 1951-80 and in the range of 2-3 per cent per annum during 1981-2005 almost everywhere, except Asia where it was 6 per cent and 4 per cent per annum, respectively. Growth in GDP per capita slowed down considerably even in the industrialized countries, from 3.5 per cent per annum to 2 per cent per annum, but the slowdown was more pronounced for developing countries, from 2.2 per cent per annum to 0.8 per cent per annum. In Latin America and Africa, during 1981-2005, growth in GDP per capita was less than 0.5 per cent per annum, while Asia fared better at more than 1.5 per cent per annum.

The economic performance of China, Brazil and South Africa presents a mixed picture, which does not quite conform to the trends observed in the aggregate. The most striking contrast is that China and India were the clear exceptions to this worldwide slowdown in growth. In both countries, growth rates in the second period were much higher than the perfectly respectable growth rates in the first period. So much so that, between 1951-80 and 1981-2005, average annual growth in GDP per capita almost trebled in both China and India. This was attributable in part to higher GDP growth rates and in part to lower population growth rates. Unlike China and India, however, Brazil and South Africa were a part of the worldwide slowdown in growth. In both countries, growth rates in the second period were much lower than the impressive growth rates in the first period. So much so that, during 1981-2005, average annual growth in GDP per capita was almost negligible in both Brazil and South Africa. But it is also worth noting that, during 1951-80, average annual growth in GDP and GDP per capita in Brazil was significantly higher than that in China and India. The growth performance of South Africa during 1951-80 was also better than that of India although it did not quite match that of China.

It might also be worth comparing the growth performance of China, India, Brazil and South Africa with the growth performance of other latecomers to industrialization at comparable stages of development. Figure 1 attempts such a comparison. It shows the GDP growth trajectories in China starting 1979, India starting 1980, Brazil starting 1964, South Africa starting 1980, Korea starting 1965, and Japan starting 1960. The selected years coincide, as far as possible, with points in time when rapid economic growth began in these countries. In Japan, rapid growth started around the mid-1950s but comparable data for the period before 1960 are not available. In South Africa, it is not possible to discern any turning point in economic growth. It is worth noting that, in Figure 1, the year of origin for each country is different, which makes it possible to compare their growth trajectories at similar stages of development. It would seem that China's growth performance is discernibly better while India's growth performance is roughly comparable with that of Japan and Korea. Brazil's growth performance, until about 1980, was also broadly comparable with that of Japan and Korea at similar stages but lagged behind thereafter. South Africa, it would seem, is the exception in so far as its growth performance is simply not comparable with that of other latecomers to industrialization. Interestingly enough, a comparison of growth in exports of goods and services, in Figure 2, reveals that export performance in China beginning 1979, in India beginning 1980 and in Brazil beginning 1964 but only until 1980, was roughly comparable with that in Japan beginning 1960 and Korea beginning 1965, although export growth in Japan and Korea was discernibly higher in the first decade. Once again, South Africa does not fit into this picture.

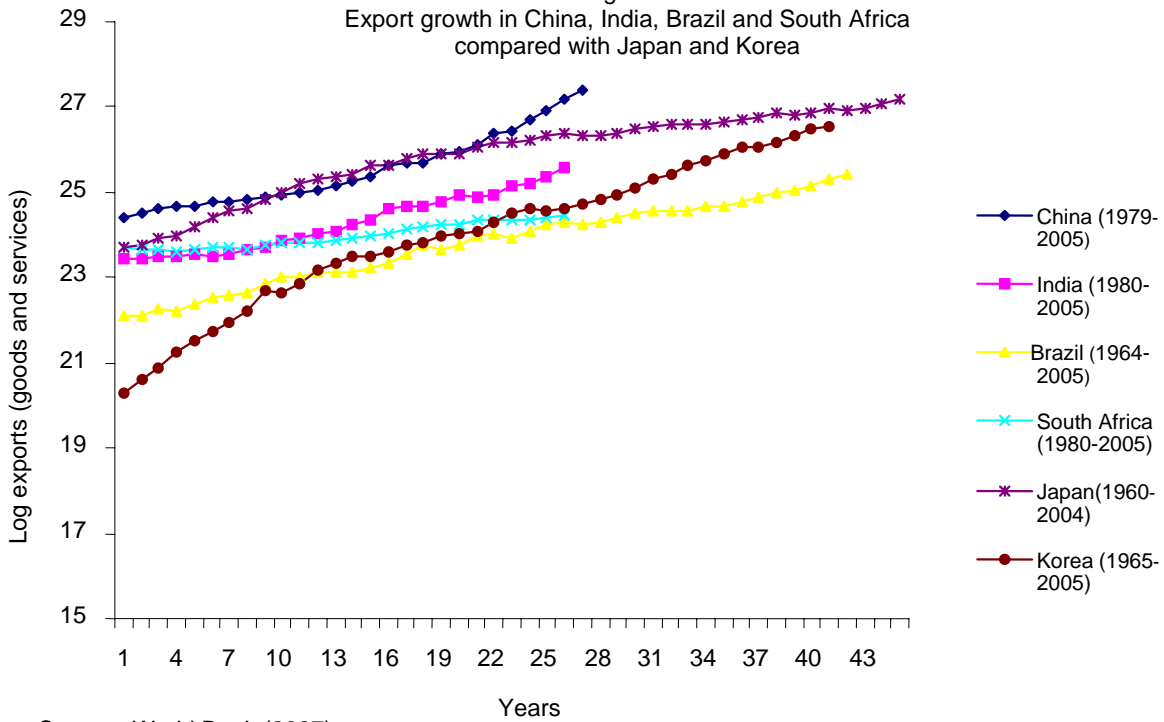


Figure 1  
GDP growth trajectories in China, India, Brazil and South Africa compared with Japan and Korea



Source: World Bank (2007).

Figure 2  
Export growth in China, India, Brazil and South Africa compared with Japan and Korea



Source: World Bank (2007).

### 1.3 The future

Most growth scenarios for the future are based on an extrapolation of growth from the past. In attempting such projections, most exercises assume that growth rates in China and India, as also in the industrialized countries, would remain at levels observed in the recent past, while growth rates in Brazil would step up once again. Of course, it is Russia, rather than South Africa, that is an integral part of projections for, and scenarios in, 2050. And even if South Africa has some potential, it is not yet on a trajectory of rapid economic growth.

The construction of future scenarios began with the Goldman Sachs study which attempted to project levels of GDP and GDP per capita for Brazil, Russia, India and China (BRICs) in 2050.<sup>3</sup> The exercise is based on a simple model of capital accumulation and productivity growth combined with demographic projections. The broad conclusions of the study are as follows.<sup>4</sup> In 2000, the GDP of these four economies was less than 15 per cent of the GDP of the G-6: US, Japan, Germany, UK, France and Italy. By 2025, in terms of GDP, the BRICs would be more than 50 per cent of the G-6. And, in 2040, the BRICs economies together would have a larger GDP than the G-6. In terms of GDP, each of the BRICs economies would overtake each of these G-6 economies, except the US, by 2040. And, by 2050, of the G-6, only the US and Japan would remain among the six largest economies in the world. It is estimated that about two-thirds of the increase in GDP of the BRICs, measured in US dollars, would come from real growth while the remaining one-third would be attributable to currency appreciation. The catch-up of BRICs is expected to be most dramatic until 2030. Thereafter, growth in BRICs would also slow down and only India might have growth rates higher than 3 per cent per annum in 2050. The catch-up would be less in terms of GDP per capita. On average, with the exception of Russia, citizens in the BRICs are likely to be poorer than citizens in the G-6. It needs to be stressed that the projected growth path for the BRICs, even in the Goldman Sachs study, depends on critical assumptions about policies and institutions, as also the capacities of these countries to resolve their problems, so that outcomes are neither predictable nor certain.<sup>5</sup>

In a more sophisticated exercise for China and India, that uses simple convergence equations, Robert Rowthorn (2006) projects that, in 2050, at purchasing power parity, per capita income in China would be 63 per cent of per capita income in the United States, while per capita income in India would be 45 per cent of per capita income in the United States. It is also projected that both China and India should comfortably overtake the United States in GDP measured at purchasing power parity. This catch-up is not confined to PPP-GDP comparisons. The Rowthorn projections show that, even at market exchange rates, by 2050, total output in China would be 60 per cent larger than in the US, while total output in India and the US would be roughly equal.<sup>6</sup>

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<sup>3</sup> See O'Neill et al. (2004).

<sup>4</sup> For a discussion of the methodology, assumptions and conclusions, see Wilson and Purushothaman (2004).

<sup>5</sup> The authors recognize this limitation to state: 'there is a good chance that our projections are not met, either through bad policy or bad luck' (Wilson and Purushothaman 2004: 25).

<sup>6</sup> For a detailed discussion, see Rowthorn (2006), who explains the methodology underlying these projections in Appendix 1: 17-8.

It needs to be said that these projections suggest broad orders of magnitude rather than precise predictions. Even so, such projections highlight the power of compound growth rates. For growth rates do indeed matter. If GDP grows at 10 per cent per annum, national income doubles in seven years. If GDP per capita grows at 7 per cent per annum, per capita income doubles in ten years. If GDP grows at 7 per cent per annum, national income doubles in ten years. If GDP per capita grows at 5 per cent per annum, per capita income doubles in fourteen years. Growth rates in China and India have been in this range for some time. And growth rates in India have accelerated in the early 2000s. Growth rates in Brazil were also in this range during the period 1951-80 and could return to that path once again. If such growth rates are sustained, their cumulative impact over time is no surprise. However, growth is not simply about arithmetic. In fact, it is about more than economics. Therefore, it is necessary to consider the economic determinants of growth.

In principle, China and India may be able to sustain high rates of economic growth for some time to come for the following reasons. Brazil may also be able to attain high rates of growth for similar reasons although their relative importance may be different. First, their population size is large and income levels are low. Second, their demographic characteristics, in particular the high proportion of young people in the population, which would mean an increase in the work force for some time to come, are conducive to growth. Third, in China and India more than in Brazil, wages are significantly lower than in the world outside while there are large reservoirs of surplus labour. Fourth, emerging technological capabilities have the potential to support productivity increase. In practice, however, China, India and Brazil may not be able to sustain their high rates of growth because of constraints that are already discernible. In China, the declining productivity of investment at the margin and the sustainability of the political system are both potential constraints. In India, the crisis in agriculture, the bottlenecks in infrastructure and the limited spread of education in society are potential constraints. In Brazil, the level and the productivity of investment, both of which are low, constrain growth at a macrolevel. Of course, these constraints are illustrative rather than exhaustive. And there are many other problems in these countries, which could slow down the process of growth. Even if growth slows down, however, a catch-up scenario is plausible but it would require a longer period of time.

## **2 Engines of economic growth in the world**

Globalization is associated with increasing economic openness, growing economic interdependence and deepening economic integration in the world economy. In such a world, growth prospects would be significantly influenced, if not shaped, by the growth performance of lead economies. The discussion that follows asks whether China, India, Brazil and South Africa could be new engines of growth, to consider the underlying causation and mechanisms.

### **2.1 Engines of growth**

History provides obvious examples. Britain in the nineteenth century and United States in the twentieth century were engines of growth for the world economy. Statistical

analysis for the period since the early 1960s provides confirmation.<sup>7</sup> It is widely accepted that GDP growth in the United States leads GDP growth in the world. A statistical analysis of long-term trends in economic growth, with five-year moving averages for both sets of growth rates, yields a correlation coefficient of 0.82, while a simple lead-lag analysis shows that the US economy leads the world economy by one year. Evidence available also reveals that developing countries, excluding China, follow the trends in world economic growth and, hence, trends in economic growth of the United States. It is worth noting that economic growth in developing countries follows economic growth in the United States with a lag but with more pronounced swings in cyclical ups and downs.

In reflecting on the future, is it possible to think of China, India, Brazil and South Africa as engines of growth for the developing world, even if not for the world economy? The answer depends, in large part, on the size of the four economies and their rates of growth. There are some pointers in recent experience. Statistical analysis shows that, since 1980, the Chinese economy also leads world GDP, with a lag of one or two years, although the correlation coefficient is much smaller than that for the United States.<sup>8</sup> This is not surprising. For one, in 2005, China accounted for 5 per cent of world GDP at market exchange rates and 14 per cent of world GDP in PPP terms. For another, GDP growth in China has been in the range of 9 per cent per annum for 25 years. By these criteria, India is not an engine of growth, at least yet. This is also not surprising. Its economic size is smaller than that of China and its growth rate is not as high. For one, in 2005, India accounted for only 2 per cent of world GDP at market exchange rates and 6 per cent of world GDP in PPP terms. For another, GDP growth in India has been in the range of 6 per cent per annum for 25 years. Even so, India is a potential engine of growth in terms of both attributes. Brazil presents a mixed picture. Its economic size is significant. In 2005, Brazil accounted for 2.5 per cent of world GDP both at market exchange rates and in PPP terms. But GDP growth has been just 2 per cent per annum for the past 25 years. Brazil has the economic size but not the growth rate to drive the world economy. South Africa provides a sharp contrast. In 2005, it accounted for only 0.6 per cent of world GDP at market exchange rates and 0.8 per cent of world GDP in PPP terms. And GDP growth has been only 2 per cent per annum for the past 25 years. Clearly, South Africa meets neither criteria, whether size or growth. Of course, given their economic size in relation to most developing countries, the four countries together could be a possible engine of growth for the developing world, but that would depend on the degree and the nature of linkages.

Rapid economic growth in lead economies drives economic growth elsewhere in the world by providing markets for exports, resources for investment, finances for development, and technologies for productivity. The classic examples—Britain in the nineteenth century and the United States in the twentieth century—provide confirmation of the suggested economic causation and the possible transmission mechanisms. Indeed, during their periods of dominance in the world, both Britain and the United States were engines of growth, in so far as they provided the rest of the world not only with markets for exports and resources for investment, but also with finances for development and

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<sup>7</sup> For a more detailed discussion on the statistical evidence and analysis cited in this paragraph, see United Nations (2006).

<sup>8</sup> See United Nations (2006: 22-3).

technologies for productivity. And, despite the diminished dominance, the United States economy continues to be an engine of growth for the world. At this juncture, China is not quite an engine of growth in every dimension. Economic growth in China provides a stimulus to economic growth elsewhere, in large part, as a market for exports. So far, India and Brazil cannot be characterized as engines of growth in any dimension, perhaps not even as markets for exports. But, along with China, India and Brazil have some future potential in terms of markets for exports, resources for investment and technologies for productivity. South Africa is the obvious outlier in this picture, although it could provide some impetus to the growth process in Africa if linkages turn out right.

## 2.2 Causation and mechanisms

The economic causation outlined above is necessary but not sufficient. The overall effects of economic growth in lead economies on economic growth elsewhere depend upon: (i) whether such growth is complementary or competitive, (ii) whether the direct effects are reinforced or counter-acted by the indirect effects, and (iii) whether, on balance, the impact is positive or negative.<sup>9</sup>

In principle, economic growth in lead economies may be complementary or competitive to economic growth elsewhere. It may be complementary in so far as it increases the demand for exports but it may be competitive in so far as it develops alternative sources of supply. It may be complementary if it provides resources for investment or finances for development but it may be competitive if it pre-empts such resources for investment or finances for development. It may be complementary if it provides technologies to others but it may be competitive if it stifles the development of technologies elsewhere. This distinction between the complementary and the competitive aspects is widely recognized. However, the distinction between direct effects and indirect effects is less clear because the latter sometimes are difficult to discern, let alone measure. In situations where direct effects are complementary, indirect effects could be reinforcing if complementary, but counter-acting if competitive. Some examples might be illustrative. The direct effects may be complementary if the lead economies, say China, India, Brazil or South Africa, provide cheap wage goods to other developing countries, but the indirect effects may be competitive if competition from firms in lead economies squeezes out local firms in other developing countries. The direct effects may be complementary if firms from these lead economies invest in other developing countries, but the indirect effects may be competitive if firms from industrialized countries relocate production and invest in China, India, Brazil or South Africa rather than in other developing countries. The direct effects may be complementary if these lead economies provide cheaper inputs for manufactured exports from other developing countries but the indirect effects may be competitive if competition from the lead economies squeezes out manufactured exports from other developing countries in the markets of industrialized countries. In principle, then, the impact of economic growth in lead economies on economic growth elsewhere, in different spheres, could be positive, or negative, or some combination of both. Therefore, on balance, such impact can be

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<sup>9</sup> For a detailed discussion, see Kaplinsky (2006). The literature on this subject is limited. But the implications and consequences of rapid growth in China and India, for the developing world, are analysed in Kaplinsky and Messner (2008).

either positive or negative. The outcomes may differ across space and change over time so that generalizations are difficult.<sup>10</sup>

The main mechanisms of interaction, through which outcomes would be shaped, are international trade, investment and finance. These are considered later in the paper. In this context, however, it is worth noting that domestic developments within such large countries could also have international consequences. For instance, macroeconomic policies in China, India, and Brazil, once they become lead economies, may exercise an important influence on economic growth elsewhere. If such policies are countercyclical, which has been the case for the United States, these would be supportive of economic growth elsewhere. But if these policies are procyclical, which is common in developing countries, these could be disruptive for economic growth elsewhere. Similarly, exchange rates and interest rates in lead economies could exercise a significant influence, either positive or negative, on economic growth elsewhere in the world. For example, an undervalued exchange rate in China, which has persisted for quite some time, constrains the prospects for labour-intensive manufactured exports from other developing countries, thereby limiting the potential demand stimulus to economic growth that could be provided by exports. Similarly, the combination of a high interest rate and a strong exchange rate, which has been the case for some time in both India and Brazil albeit for different reasons, pre-empts possible foreign capital inflows thereby limiting the potential external finance necessary to support economic growth in other developing countries.

### **3 Possible impact of rapid growth in China, India, Brazil and South Africa**

Rapid economic growth in China and India, if it is sustained at the projected rates, is bound to exercise considerable influence on prospects for the world economy, the industrialized countries and the developing countries. This impact could be either positive or negative.

#### **3.1 World economy**

The consequences for the world economy could be positive if, as the old engine of growth slows down, China, India, Brazil and South Africa emerge as new engines of growth that drive the process. Ultimately, it is possible that the new engines replace the old engines of growth. This is, at best, a scenario for the future. The preceding discussion suggests that rapid growth in China supports but does not yet lead growth in the world economy. India and Brazil have the potential to provide similar support but this has not materialized so far. South Africa does not even exhibit such a potential. It is clear that for some time to come the United States economy would continue to be the engine of growth for the world economy. But this dominance is bound to diminish as rapid growth in large emerging economies of the developing world slowly yet surely changes the balance of economic power in the world.

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<sup>10</sup> There is a clear need for more systematic research on the subject, where information and understanding are both limited.

The impact of rapid economic growth in China, India, Brazil and South Africa on the world economy could also be negative in the form of environmental consequences and labour market consequences. Much of the literature tends to focus on the environmental consequences of rapid economic growth in China and India. The energy needs of these two mega economies are enormous. This is not surprising as levels of consumption per capita are low and income elasticities of demand are high. In absolute terms, China's demand for oil is catching up rapidly with that of Europe and the United States while China's CO<sub>2</sub> emissions are now only exceeded by the United States. India lags behind China but the process of catch-up has commenced. Energy consumption in Brazil and South Africa is also likely to grow, even if not as rapidly as in China and India. It would mean too much of a digression to enter into a discussion of this complex issue here.<sup>11</sup>

In the context of the world economy, the other issue that has received some attention is the consequences for the labour market. The focus, once again, is on China and India. It has been argued by Richard Freeman that the entry of China, India and the erstwhile socialist countries of Europe into the world economy has had a dramatic impact on the size of the global workforce. He argues that, if nothing had changed, the world labour force would have increased from almost one billion people in 1980 to about 1.5 billion people in 2000, attributable, in large part, to population growth. In fact, however, he concludes that the world labour force in 2000 was double the size, at three billion, attributable largely to the economic integration of China, India and the transition economies with the world.<sup>12</sup> Freeman believes that this transformation is good for workers in low-income countries and bad for workers in high-income countries. The conclusion drawn is not protectionist. It is much more nuanced. Freeman suggests government intervention, in the national and international context, that would be conducive to a more harmonious integration of China and India, to which we could add Brazil and South Africa, into the world economy. In pursuit of this objective, he suggests that it would be important to follow the good examples of integration, such as the integration of Western Europe and Japan into the world economy after the Second World War, rather than the bad examples of integration, such as the integration of the southern part of the US into the US after the Civil War or the integration of East Germany into Germany after unification. This proposition is clearly sensible. Even so, it is important to recognize two essential limitations of the Freeman hypothesis.<sup>13</sup> For one, it seeks to focus far too much on the supply side in terms of labour market consequences in the world economy, while it neglects the demand side in so far as rapid economic growth in China and India, as well as Brazil, could also provide an impetus to growth in the world economy. For another, it underestimates the strength and dynamism of the US economy, embedded in history which provides it with a competitive edge even in the early twenty-first century.

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<sup>11</sup> For some evidence and discussion on this issue, see Rowthorn (2006) and Kaplinsky (2006).

<sup>12</sup> For a more detailed discussion on this proposition, see Freeman (2005).

<sup>13</sup> For a critical, yet nuanced, evaluation of the Freeman hypothesis, see Singh (2007).

### 3.2 Industrialized countries

The impact of rapid economic growth in China, India, Brazil and South Africa on the industrialized countries could be either positive or negative. The focus is often on the negative. But there is also the positive. Consider each in turn.

There are three reasons why the impact may be negative. First, rapid economic growth in China, India, Brazil and South Africa may worsen the terms of trade for industrialized countries. The burgeoning demand from CIBS could drive up the prices of primary commodities in the world market. At the same time, rising wages in CIBS could drive up prices of labour-intensive manufactured goods in the world market. Both could turn the terms of trade against industrialized countries. Rowthorn (2006), who examines this issue in some depth, argues that terms of trade for industrialized countries might worsen over time but the consequences would be easy to absorb because the process would be spread over a long period of time.<sup>14</sup> What is more, its impact in terms of loss of real income in the industrialized world would be modest.

Second, for the industrialized countries, China, India, Brazil and South Africa could emerge as new destinations that may become a source of competition for investment. This may happen if firms from the industrialized countries, whether United States or Europe, relocate production in China, India, Brazil or South Africa. Even if they do not, it would strengthen capital and weaken labour in terms of bargaining power, thereby exercising some outward pressure on wages. Rowthorn, who also examines this issue in depth, concludes that it is a limited phenomenon so far and is not likely to happen on a larger scale for quite some time to come.<sup>15</sup>

Third, the economic rise of China, India, Brazil and South Africa may lead to a downward pressure on employment levels and real wages in the industrialized countries. It needs to be said that this concern is somewhat exaggerated. It is important to recognize that the stagnation in real wages and the high levels of unemployment in the industrialized countries are attributable to the nature of technical progress, which is replacing several unskilled workers with a few skilled workers, and the impact of macroeconomic policies which have sought to maintain price stability at the expense of full employment. The source of these problems lies within the industrialized countries and not in their trade with developing countries.<sup>16</sup> And even if the expansion of such trade in manufactured goods with China, India, Brazil and South Africa could exert some downward pressure on employment levels or real wages in industrialized countries, such pressures are bound to diminish with the ageing of industrial societies.<sup>17</sup>

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<sup>14</sup> It is argued that such a loss could be quite severe if all of it came at the same time but if it were spread over many years it would have only a marginal impact. For instance, if the United States experienced a deterioration in its terms of trade which lowered real income by the equivalent of 5 per cent of GDP over a period of 25 years, per capita income would grow by 1.6 per cent per annum instead of its present trend rate of 1.8 per cent per annum (Rowthorn 2006: 9).

<sup>15</sup> For a discussion, see Rowthorn (2006). It must also be recognized that the high mobility of capital combined with the low mobility of labour in the contemporary world economy has already strengthened capital and weakened labour, so that any observed downward pressure on wages cannot be attributed to trade with CIBS alone.

<sup>16</sup> This argument is developed, at length, in Nayyar (1996).

<sup>17</sup> For a discussion, and some evidence, see Nayyar (2002).



There are other two reasons, stressed by Rowthorn (2006) and Singh (2007), which confirm that such concerns about employment and wages are probably exaggerated. For one, there is the Krugman proposition that ‘economic history offers no examples of a country that experienced long-term productivity growth without a roughly equal rise in real wages’.<sup>18</sup> Thus, in the long run, productivity increase in China and India would also be followed, after a time, by a commensurate increase in real wages. For another, a coordination of macroeconomic policies, reinforced by the logic of international collective action, could be an important means of minimizing the social costs for workers in the industrialized countries, during the transition period in which China, India, Brazil and South Africa integrate into the world economy.

It is just as important to recognize that rapid economic growth in China, India, Brazil and South Africa may have a positive impact on the industrialized countries.<sup>19</sup> First, starting from low levels of income per capita juxtaposed with high income elasticities of demand, higher incomes associated with rapid growth would create expanding markets for exports from industrialized countries. Second, these emerging economies could be a source of cheap manufactured goods that could help reduce inflationary pressures in industrialized countries, thereby enabling them to maintain higher levels of output and employment than would otherwise be possible. Third, these emerging economies could be a source of new technologies in the future that could help extend production possibility frontiers and consumer possibility frontiers in the industrialized economies.

### **3.3 Developing countries**

During the first quarter of the twenty-first century, economic growth in China, India, Brazil and South Africa could have a positive impact on developing countries if it improves terms of trade, provides appropriate technologies, and creates new sources of finance for development, whether investment or aid. Consider each in turn.

It is clear that, for some time to come, the positive impact on developing countries would be transmitted through an improvement in their terms of trade.<sup>20</sup> Rapid economic growth in China and India is bound to boost the demand for primary commodities exported by developing countries. The reasons are simple enough. Both China and India have large populations. But that is not all. In both countries, levels of consumption per capita in most primary commodities are low, while income elasticities of demand for most primary commodities are high. This burgeoning demand will almost certainly raise prices of primary commodities in world markets and thereby improve the terms of trade for developing countries. It would benefit Brazil and South Africa as exporters of primary commodities, while the revival of growth in Brazil and South Africa, when it happens, would reinforce this process. What is more, China already is, while India and Brazil are likely to become, sources of manufactured goods in the world market. Such manufactures, particularly wage goods but also capital goods, from China, India and Brazil are likely to be cheaper than competing goods from industrialized countries. At

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<sup>18</sup> Krugman (1994). This argument is developed further, in the China-India context, by Rowthorn (2006) and Singh (2007).

<sup>19</sup> The underlying factors mentioned in this paragraph are also emphasized by Singh (2007) and Rowthorn (2006), with reference to China and India.

<sup>20</sup> This proposition is stressed by Kaplinsky (2006), Rowthorn (2006) and Singh (2007).

the same time, Brazil and South Africa could provide cheaper natural resource-based manufactures. This would also improve the terms of trade for developing countries.

The positive impact of China, India, Brazil and South Africa on developing countries through the other potential channels of transmission is not as clear. We do not yet have either the evidence or the experience. In principle, it is possible that China, India, Brazil and South Africa would develop technologies that are more appropriate for the factor endowments and the economic needs of developing countries. But it is too early to come to a judgment on this matter. Similarly, China, India, Brazil and South Africa are potential sources of finance for development. Their foreign aid programmes, particularly in Africa, constitute a modest beginning.<sup>21</sup> But their contribution in terms of foreign direct investment is limited so far.

The emergence of China, India, Brazil and South Africa in the world economy could also have a negative impact on developing countries if these economies provide developing countries with competition in markets for exports or as destinations for investment. Consider each in turn.

At this juncture, China is clearly the largest supplier of labour-intensive manufactured goods in the world market. Even if not as large as China, India is also a significant supplier of labour-intensive manufactured goods in the world market. Brazil and South Africa are important suppliers of natural resource-based manufactures. China, India and Brazil are emerging suppliers of capital goods. There can be little doubt that manufactured exports from China, India, Brazil and South Africa span almost the entire range of manufactured exports in which other developing countries could have a potential comparative advantage. Hence, it is plausible to argue though impossible to prove, that on balance China, India, Brazil and South Africa possibly have a negative impact on manufactured exports from other developing countries which have to compete with these four economies for export markets in industrialized countries.<sup>22</sup> This can change if and when China and India vacate their space in the international trade matrix, in much the same way as latecomers to industrialization in Asia such as Japan, Korea, Hong Kong, Taiwan and Singapore, vacated their space in the market for simple labour-intensive manufactures for countries that followed in their footsteps. It is not likely, at least in the medium term, because both China and India have large reservoirs of surplus labour at low wages not only in the rural hinterlands but also in the urban informal sectors. Brazil and South Africa may not have such large reservoirs of surplus labour, but given their abundance in primary commodities and natural resources, it is not likely that they would vacate their space in the market for processed products or resource-based manufactures for other developing countries that have similar endowments from nature.

The evidence presented later in the paper shows that China, India, Brazil and South Africa absorb a significant proportion of inward foreign direct investment in developing countries both in terms of stocks and flows. Given that China, India and Brazil are now among the most attractive destinations for transnational firms seeking to locate

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<sup>21</sup> For a discussion on China's trade with, and aid to Africa, see Toye (2008).

<sup>22</sup> Kaplinsky and Morris (2008) show that China's emergence as a large exporter of manufactured goods in the world economy poses severe problems for export-oriented growth in Sub-Saharan Africa, particularly in textiles and clothing.

production in the developing world, it is once again plausible to suggest though impossible to prove that foreign direct investment in China, India and Brazil might be at the expense of developing countries. South Africa may not have the same attraction as a destination, but it may draw foreign direct investment that could have gone to developing countries in Africa. At the same time, the share of China, India, Brazil and South Africa in outward foreign direct investment in the world economy, as also from developing countries, is modest in both stocks and flows, so that firms from these four countries do not compensate with foreign direct investment in other developing countries.

The less discernible but more significant negative impact of the four economies, particularly China, on developing countries are the implicit barriers to change in the traditional division of labour and specialization in production. For one, China and India might pre-empt opportunities for other developing countries to industrialize through exports of labour-intensive manufactures, which is attributable to their surplus labour and low wages that might continue for some time to come. For another, Brazil and South Africa might pre-empt opportunities for other developing countries to industrialize through agro-based or resource-intensive manufactures, which is attributable to their abundance in primary commodities and natural resources. But this is no more than a plausible hypothesis about possible future developments which cannot be tested.

The problem has, however, surfaced in one dimension. China's present division of labour with the developing world, reflected in the composition of trade flows, is not different from the old north-south pattern of trade, in so far as Chinese imports from developing world are largely primary commodities while Chinese exports to the developing world are largely manufactured goods.<sup>23</sup> China's trade with countries in South-East Asia is the exception to this rule. But Chinese trade with, and investment in, Africa confirms even more closely to this caricature neocolonial pattern. Such traditional patterns of trade, it should be recognized can neither transform the structure of production in developing countries nor make for a new international division of labour. Indeed, such trade can only perpetuate the dependence of developing countries on exports of primary commodities without creating possibilities of increasing value-added before export or entering into manufacturing activities characterized by economies of scale. Such path-dependent specialization can only curb the possibilities of structural transformation in developing countries. Trade with China can sustain growth and support industrialization in developing countries only if there is a successful transition from a complementary to a competitive pattern of trade, so that inter-sectoral trade is gradually replaced by intra-sectoral or intra-industry trade and specialization.

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<sup>23</sup> An unpublished study by Rhys Jenkins and Chris Edwards, cited in United Nations (2006a: 22), on China's trade with 18 developing countries (six in Asia, six in Africa and six in Latin America) shows that countries that had significant trade with China were exporting mostly agricultural or extractive, primary commodities. A study on China's economic interaction with Latin America and the Caribbean also confirms the traditional pattern of trade, importing mostly primary commodities and exporting mostly manufactured goods (Inter-American Development Bank 2005). Another study on the impact of China's trade with, and foreign direct investment in, Latin America and the Caribbean shows that there are winners and losers that can be identified: primary commodity-producing sectors and countries are the winners, while sectors and countries producing or exporting manufactured goods are the losers (Jenkins, Peters and Moreira 2008).

## 4 Channels of engagement and transmission

The preceding discussion is largely in terms of macroeconomic aggregates. It is also necessary to consider the forms of engagement with the world economy, through which the impact of rapid economic growth in China, India, Brazil and South Africa, whether positive or negative, is transmitted elsewhere. The obvious, and most important, channels of transmission are international trade, international investment, international finance and international migration.

### 4.1 International trade

International trade is, perhaps, the most important form of engagement with the world economy not only for China, India, Brazil and South Africa, but also for developing countries. Available evidence provides confirmation. Exports and imports of goods and services as a proportion of GDP rose from 44 per cent to 69 per cent in China, from 28 per cent to 45 per cent in India, from 23 per cent to 29 per cent in Brazil, from 53 per cent to 56 per cent in South Africa, and from 56 per cent to 67 per cent in developing countries.<sup>24</sup> Table 4 presents evidence on trade in goods, for China, India, Brazil and South Africa, with the developing countries, the industrialized countries and the world as a whole in 2000 and 2005. It shows the relative importance of China, India, Brazil and South Africa, as markets for exports and sources of imports for the world. The share of CIBS in world trade almost doubled in this short span of time from than 5.7 per cent in 2000 to about 9.8 per cent in 2005. The share of CIBS in the trade of developing countries increased from 19 per cent in 2000 to 27 per cent in 2005. The share of CIBS in the trade of industrialized countries increased from 6 per cent in 2000 to 10 per cent in 2005.<sup>25</sup> The emerging significance is clear. In 2005, China, India, Brazil and South Africa, taken together, accounted for about one-tenth of merchandise trade in the world, more than one-fourth the merchandise trade of developing countries, and one-tenth the merchandise trade of industrialized countries. It is worth noting that these aggregate proportions may be somewhat deceptive because, in 2005, China accounted for as much as 72 per cent, India accounted for 12 per cent, Brazil accounted for 10 per cent and South Africa accounted for only 6 per cent of CIBS trade with the world. The respective shares of these countries in CIBS trade with developing countries and industrialized countries were about the same.<sup>26</sup>

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<sup>24</sup> These figures, obtained from data reported in World Bank (2007), relate to exports *and* imports of goods *and* services as a proportion of GDP. Even so, it needs to be said that for large countries such as China and India, these trade-GDP ratios are high and may not be sustainable in the long term. Merchandise trade flows, presented in Table 4 and discussed in this paragraph, are perhaps the more appropriate indicator.

<sup>25</sup> The shares of CIBS in the trade of developing countries, industrialized countries and the world, reported in this paragraph, are calculated from the data in Table 4 and relate to total trade, that is, the sum total of exports and imports.

<sup>26</sup> The share of South Africa was somewhat higher in trade with industrialized countries and somewhat lower in trade with developing countries.

Table 4  
Trade flows (\$ billion), China, India, Brazil and South Africa, 2000 and 2005

	Exports, total		Imports, total	
	2000	2005	2000	2005
China	249	762	225	660
India	42	100	52	139
Brazil	55	118	59	78
South Africa	30	52	30	62
Total above	377	1,031	365	939
World	6,444	10,441	6,642	10,712
(CIBS as % of)	(5.8)	(9.9)	(5.5)	(8.8)
	Exports to developing countries		Imports from developing countries	
China	102	317	104	330
India	17	52	17	45
Brazil	21	56	24	38
South Africa	8	15	9	22
Total above	148	440	154	434
Developing countries	803	1614	791	1664
(CIBS as % of)	(18.4)	(27.3)	(19.4)	(26.1)
	Exports to industrialized countries		Imports from industrialized countries	
China	144	421	106	254
India	23	44	21	46
Brazil	31	54	37	41
South Africa	14	31	20	38
Total above	212	550	184	380
Industrialized countries	3161	4645	3151	4553
(CIBS as % of)	(6.7)	(11.9)	(5.8)	(8.3)

Notes: (a) CIBS stands for China, India, Brazil and South Africa;

(b) The figures in this table are on merchandise trade, exports and imports, in US\$ billion at current prices.

Source: UNCTAD Handbook of Statistics Online ([www/stats.unctad.org/handbook](http://www/stats.unctad.org/handbook)).

## 4.2 International investment

The picture of international investment is different. In the global context, the relative importance of China, India, Brazil and South Africa is mixed. Table 5 sets out evidence on foreign direct investment, inward and outward, in China, India, Brazil and South Africa, compared with developing countries, industrialized countries and the world. The figures on stocks are for 2000 and 2005, while the figures on flows are annual averages for the period 2001-05. In the early 2000s, CIBS accounted for 20 to 25 per cent of the inward stock of foreign direct investment in developing countries and about 6 per cent of that in the world. During the period 2001-05, CIBS accounted for about 37 per cent of inward flows of foreign direct investment in developing countries and about 11 per cent of those in the world. In the early 2000s, CIBS accounted for about 13 per cent of the outward stock of foreign direct investment from developing countries and less than 2 per cent of that in the world. During the period 2001-05, CIBS accounted for 10 per cent of the outward flows of foreign direct investment from developing countries and about 1 per cent of those from the world. These aggregate proportions could also be deceptive but the distribution of the stock of foreign direct investment, whether inward or outward, among CIBS was not as unequal as it was in trade and China was not as dominant. In 2005, China accounted for 50 per cent of the inward stock but only 27 per

cent of the outward stock, India accounted for just 7 per cent of the inward stock and 6 per cent of the outward stock, Brazil accounted 32 per cent of the inward stock and 43 per cent of the outward stock, while South Africa accounted for 11 per cent of the inward stock and 24 per cent of the outward stock.<sup>27</sup> It is possible to draw three inferences from this evidence. First, foreign direct investment in, and from, China, India, Brazil and South Africa is small as a proportion of both stocks and flows in the world. Second, for CIBS, inward foreign direct investment is much more significant than outward foreign direct investment in terms of both stocks and flows. Third, it would seem that China, India, Brazil and South Africa are more competition for, rather than a source of, foreign direct investment for developing countries.<sup>28</sup>

Table 5  
Foreign direct investment: stocks and flows (\$ billion), 2000 and 2005

	Stocks				Flows (avg per annum)	
	Inward		Outward		Inward	Outward
	2000	2005	2000	2005	2001-05	2001-05
China	193	318	28	46	57	4
India	18	45	2	10	6	2
Brazil	103	201	52	72	16	3
South Africa	43	69	32	39	3	0
Total above	357	634	114	166	82	8
Developing countries (CIBS as % of)	1697 (21.1)	2655 (23.9)	856 (13.3)	1268 (13.1)	225 (36.6)	80 (10.3)
Developed countries	4,035	7,219	5,593	9,278	476	602
World (CIBS as % of)	5,803 (6.2)	10,130 (6.3)	6,471 (1.8)	10,672 (1.6)	727 (11.3)	691 (1.2)

Source: UNCTAD Foreign Direct Investment Online Database ([www://stats.unctad.org/fdi](http://www://stats.unctad.org/fdi)).

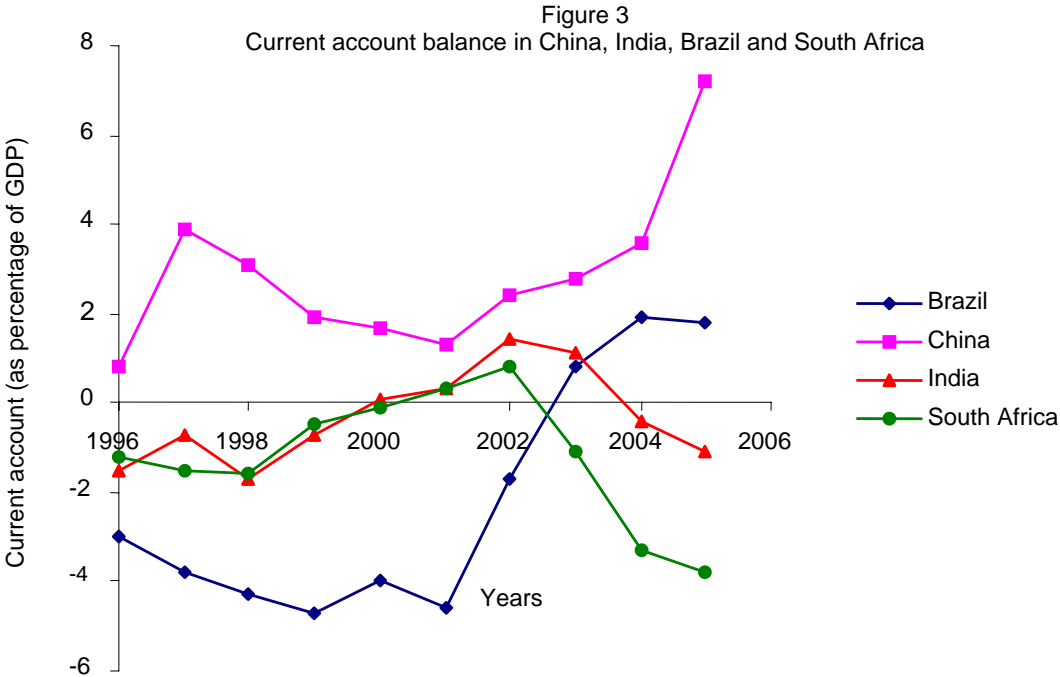
### 4.3 International finance

International finance is, perhaps, the most limited form of engagement for China, India, Brazil and South Africa with the world economy, at least so far, but this could change. In principle, these four countries could be potential sources of finances for development through current account surpluses, foreign exchange reserves and foreign aid flows. Consider each in turn.

<sup>27</sup> The distribution of flows among the CIBS was different. During the period 2001-05, China accounted for 70 per cent of the inflows and 45 per cent of the outflows, Brazil accounted for 20 per cent of the inflows and 33 per cent of the outflows, while India accounted for 7 per cent of the inflows and 22 per cent of the outflows. The residual share of South Africa was only 3 per cent in inflows and negligible in outflows. It would seem that the relative importance of China in inflows and outflows of foreign direct investment from CIBS, registered an increase during the early 2000s.

<sup>28</sup> In this context, it is worth noting that the sectoral composition and geographical distribution of outward foreign direct investment from India provides two sharp contrasts with that from developing countries. For one, three-fifth of international investment from India is in manufacturing activities while this proportion is about one-eighth for developing countries. For another, almost three-fourths of international investment from India is in industrialized countries, while this proportion is less than one-fifth for developing countries. The proportions for China are similar to those for developing countries as a group. In fact, foreign direct investment from China is probably even more concentrated in primary commodities and developing countries. For a discussion, see Nayyar (2008).

The current account surplus in the balance of payments is significant for China but that is not so for India, Brazil and South Africa. In China, the current account surplus, as a proportion of GDP, increased from 2.3 per cent during 1996-2000 to 3.5 per cent during 2001-05.<sup>29</sup> In India, there was a modest current account surplus during 2001-05, the equivalent of 0.9 per cent of GDP, while there was a current account deficit during 1996-2000, the equivalent of 1.1 per cent of GDP. In Brazil, the current account deficit decreased from 4 per cent of GDP during 1996-2000 to 0.4 per cent of GDP during 2001-05. In South Africa, the current account deficit, as a proportion of GDP, increased from 1 per cent during 1996-2000 to 1.4 per cent during 2001-05. These figures are quinquennial averages that might conceal fluctuations over time. Figure 3 outlines the trends in the current account balances, as a percentage of GDP, for these countries during the period 1996-2005. It shows that, during 2001-05, the current account balance improved rapidly in China and Brazil while it worsened slowly in India and South Africa. These trends are easily explained in a wider macroeconomic context. Throughout the period 2001-05, as a proportion of GDP, gross domestic savings exceeded gross capital formation in China and Brazil, as also in South Africa for three

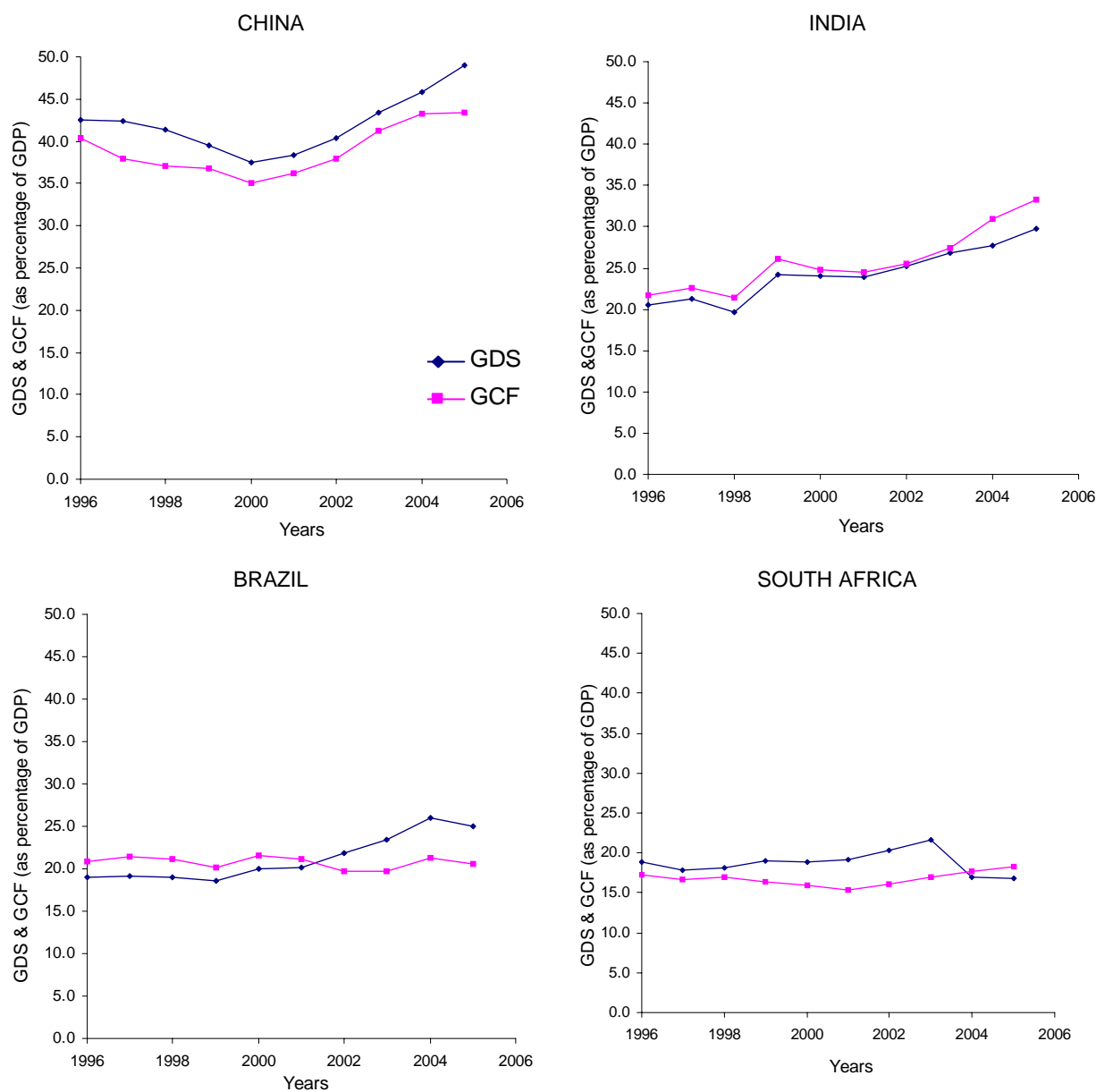


Source: World Bank (2007).

<sup>29</sup> The data on the current account balance, as a percentage of GDP, for China, India, Brazil and South Africa, cited in this paragraph are obtained from World Bank (2007).

of the five years, which is puzzling, whereas gross capital formation exceeded gross domestic savings in India.<sup>30</sup> This evidence suggests that China is a potential source of international finance for developing countries but India, Brazil and South Africa are not, at least yet.

Figure 4  
Gross domestic saving (GDS) and gross capital formation (GCF)  
in China, India, Brazil and South Africa, 1996-2005



Source: World Bank (2007).

<sup>30</sup> During the period 2001-05, in China gross domestic saving was 43.4 per cent of GDP and gross capital formation was 40.4 per cent of GDP; in India gross domestic saving was 26.7 per cent of GDP and gross capital formation was 28.4 per cent of GDP; in Brazil gross domestic saving was 23.3 per cent of GDP and gross capital formation was 20.5 per cent of GDP, whereas in South Africa gross domestic saving was 19 per cent of GDP and gross capital formation was 16.8 per cent of GDP. These averages for the period are calculated from data reported in World Bank (2007).



Table 6  
Foreign exchange reserves (SDRs billion), China, India, Brazil and South Africa, 1996-2005

Years	China	India	Brazil	South Africa	Total CIBS	Developing Countries	CIBS as % of	World	CIBS as % of
1996	75	14	41	1	131	601	21.8	1,178	11.1
1997	106	19	38	4	166	691	24.1	1,297	12.8
1998	106	20	30	3	160	706	22.7	1,282	12.5
1999	115	24	25	5	170	786	21.6	1,405	12.1
2000	130	29	25	5	189	902	20.9	1,586	11.9
2001	172	37	28	5	242	1,022	23.7	1,741	13.9
2002	215	50	28	5	297	1,127	26.4	1,890	15.7
2003	275	67	33	5	380	1,306	29.1	2,155	17.6
2004	396	82	34	9	521	1,588	32.8	2,521	20.7
2005	575	93	37	13	719	2,035	35.3	3,000	24.0

Note: The data relate to international reserves held by the central banks of countries or country-groups at the end of the calendar year.

Source: IMF International Financial Statistics Online Database ([www://imfStatistics.org](http://www://imfStatistics.org)).

In the sphere of foreign exchange reserves, however, the similarities are greater than the differences. Table 6 outlines the trends in foreign exchange reserves from 1996 to 2005 for China, India, Brazil, South Africa, developing countries and the world. It shows that both China and India accumulated international reserves at a rapid rate. In Brazil, international reserves went down and then recovered. In South Africa, international reserves increased slowly but remained at modest levels. Between 1996 and 2005, the share of CIBS in the total foreign exchange reserves of developing countries rose from 22 per cent to 35 per cent, while their share of foreign exchange reserves in the world as a whole more than doubled from 11.1 per cent to 24 per cent. Once again, it is important to note that these aggregates are deceptive because, in 2005, China accounted for 80 per cent of the international reserves held by the four countries taken together, whereas India accounted for 13 per cent, Brazil accounted for just 5 per cent and South Africa accounted for a mere 2 per cent. The substantial importance of China, India and Brazil in foreign exchange reserves held by central banks, however, does not quite translate into a potential source of finance for developing countries. This is so for two reasons. First, an overwhelming proportion of these foreign exchange reserves are held in the form of fiduciary deposits or government bonds in industrialized countries, so that actual placements are not put to any strategic use, let alone provide a potential source of finance for development. Second, even these massive foreign exchange reserves are marginal in relation to transactions in international finance, given that daily transactions in foreign exchange in world markets are perhaps as large as the foreign exchange reserves held by all the central banks in the world.<sup>31</sup>

The possibilities are much greater in the sphere of foreign aid and development assistance. China, India, Brazil and South Africa are emerging as donors, with a

<sup>31</sup> In April 1997, for example, the average turnover in foreign exchange markets in the world was the equivalent of US\$1490 billion per day while, at the end of 1997, the foreign exchange reserves of all the central banks in the world put together were US\$1550 billion (Nayyar 2006).

significant presence in Africa. The thrust of China's aid programmes is development finance, whereas the focus of India's aid programmes is technical assistance. Evidence on foreign aid flows from China, India, Brazil and South Africa to developing countries is not readily available. It is clear, however, that foreign aid from these four countries is relatively small as compared with foreign aid provided by the industrialized countries.<sup>32</sup> Yet, it is possible that the multiplier effects of aid from China, India, Brazil and South Africa, as also from other emerging donors such as Korea, may be significant for two reasons. For one, technical assistance may alleviate infrastructural constraints in developing countries. For another, emerging donors could be a catalyst for aid flows from the industrialized countries in much the same way as foreign aid from the socialist countries was a catalyst in the cold war era.

#### 4.4 International migration

International migration is, possibly, a significant form of engagement with the world economy, particularly for India and, to some extent, China, but much less so for Brazil and almost negligible for South Africa. In the contemporary world economy, it is possible to distinguish between four categories of cross-border movements of people. The traditional category is emigrants who move to a country and settle there permanently. The new categories are guest workers, illegal migrants and professionals. Guest workers are people who move to a country on a temporary basis for a specified purpose and a limited duration. Illegal migrants are people who enter a country without a visa, take up employment on a tourist visa or simply stay after their visa has expired. Professionals are people with high levels of education, experience and qualification, whose skills are in demand everywhere and can move from country to country, temporarily or permanently. Both China and India have always been, and continue to be, important countries-of-origin for international migration. Globalization has, however, increased the mobility of labour in the new categories.<sup>33</sup> India, China, and possibly Brazil, are also countries-of-origin for such cross-border movements of people.

Remittances are, perhaps, the most important source of development finance associated with international migration.<sup>34</sup> Indeed, for India, remittances are a substantial source of external finance.<sup>35</sup> This is not so for China, Brazil and South Africa. During the period 1996-2005, remittance inflows were the equivalent of 2.7 per cent of GDP in India, but only 0.15 per cent of GDP in China, 0.26 per cent of GDP in Brazil and 0.08 per cent of GDP in South Africa.<sup>36</sup> In this context, it is important to note that India, China and

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<sup>32</sup> During the period 2001-05, net official development assistance (ODA) disbursements from Development Assistance Committee (DAC) countries were US\$73200 million per annum, while net ODA disbursements from non-DAC donors were a mere US\$575million per annum. For the annual statistics, see [www/stats.oecd.org/wbos](http://www/stats.oecd.org/wbos). It is worth noting that non-DAC donors include Saudi Arabia, Korea, Turkey, Kuwait, United Arab Emirates, Czech Republic, Hungary and Poland, among others, but net ODA disbursements from China, India, Brazil and South Africa are not even reported in these OECD statistics on foreign aid.

<sup>33</sup> The changing nature of international migration is analysed, at some length, in Nayyar (2002).

<sup>34</sup> See Solimano (2005) and Nayyar (2008c).

<sup>35</sup> For an analysis of the macroeconomic significance of remittances in India, see Nayyar (1994).

<sup>36</sup> These percentages have been calculated from data on remittances obtained from the IMF balance of payments statistics online data base and from data on GDP in World Bank (2007).

Brazil export labour to, rather than import labour from, the outside world. Consequently, remittances from India, China and Brazil cannot simply enter the picture as a source of development finance. The engagement of India and China with the world, through international migration, is attributable in the past to the diaspora. In the present, the engagement of India, China and Brazil with the world economy, through cross-border movements of people, is attributable to globalization.

The diaspora has historical origins. Following the abolition of slavery in the British Empire, starting around the mid-1830s, for a period of fifty years, about 50 million people left India and China to work as indentured labour in mines, plantations and construction in the Americas, the Caribbean, South Africa, South East Asia and other distant lands.<sup>37</sup> This was probably close to 10 per cent of the total population of India and China *circa* 1880. The migration from India and China continued, in somewhat different forms, during the first half of the twentieth century, particularly in the period between the two world wars. There is, consequently, a significant presence of the diaspora from China and India across the world not only in the industrialized countries but also in the developing countries. This is associated with entrepreneurial capitalisms, Chinese and Indian, in developing countries as well as the industrialized world, where the migration stream has aged.

The second half of the twentieth century also witnessed significant waves of international migration from India, made up of permanent emigration to the industrialized countries and temporary migration to the oil-exporting countries in the Middle East.<sup>38</sup> The international migration from China, however, was limited during this period. Of course, such migration, particularly to the industrialized countries, is now constrained by immigration laws and consular practices. But the gathering momentum of globalization during the past two decades has led to a significant increase in the new categories of cross-border movements of people. In this sphere, the engagement of India with the world economy is much more than that of China, Brazil or South Africa. The advent of globalization, which has also made it easier to move people across borders, is associated with managerial capitalisms, especially with professionals from India, and to some extent Brazil, who can migrate permanently, live abroad temporarily, or stay at home and travel frequently for business. These people are almost as mobile as capital across borders.

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<sup>37</sup> See Tinker (1974) and Lewis (1977). See also Nayyar (2002).

<sup>38</sup> For a discussion of, and evidence on, international migration from India, see Nayyar (1994).

## 5 The global context

It is necessary to recognize that the significance of China, India, Brazil and South Africa in the world would be shaped not only in the sphere of economics but also in the realm of politics. Their emerging significance in the world economy is attributable in part to their share in world population and in world income and in part to their engagement with the world through international trade, investment and finance. The early 2000s are perhaps a turning point. Even so, in the economic sphere, their potential importance in future far exceeds their actual importance at present. In the realm of politics, however, their importance is more discernible at the present juncture which is attributable in part to their size and in part to their rise. It is plausible to argue, though impossible to prove, that this represents the beginnings of a profound change in the balance of economic and political power in the world. History does not repeat itself. But it would be wise to learn from history. The early twentieth century was a turning point. It was the beginning of the end of Britain's dominance in the world. And it was the beginning of the rise of the United States to dominance in the world. The catch-up and the transformation spanned half a century. The early twenty-first century perhaps represents a similar turning point. It could be the beginning of the end of the dominant status of the United States in the world. The emergence of countries outside North America and Western Europe, particularly the powerhouse economies in Asia, which began with the East Asian success stories and is now manifest in the rise of China and India, represents a striking transformation. In addition, there are emerging economies in other continents of the developing world, among which Brazil and South Africa deserve mention. Of course, in the decades to come, the continued rise of these countries is not quite predictable and by no means certain. This catch-up and transformation could also span half a century or longer. Yet, the beginnings of a shift in the balance of power are discernible.

This is going to shape the international politics of nation states in times to come, not only through bilateralism but also through pluralilateralism. China, India, Brazil and South Africa are each engaged in a bilateralism that is both intra-regional and interregional. There are intra-regional initiatives led by China and India in Asia, by Brazil in Latin America and by South Africa in Africa. There are also some interregional initiatives on the part of these countries, such as China taking a lead in forging APEC and India seeking a partnership with ASEAN. China, India, Brazil and South Africa are also beginning to engage in a plurilateralism. There are two striking examples. At one level, India, Brazil and South Africa have constituted a plurilateral group, the G-3 or IBSA, attempting to develop a strategic alliance that would foster partnership among them, promote cooperation with developing countries and articulate a collective voice in international politics. At another level, China, India, Brazil and South Africa, together with Mexico, constitute the Outreach-5, who had been invited to the G-8 Summit in recent years. There is a hint of discontent about their status as observers peripheral to deliberations and decisions. And the Outreach-5 are now seeking a place at the high table with the G-8.

From the perspective of the developing world, China, India, Brazil and South Africa, together, may be able to exercise significant influence through multilateralism, whether institutions or rules, in the global context. The United Nations, the World Bank, the

International Monetary Fund and the World Trade Organization are among the most important multilateral institutions.<sup>39</sup>

In the United Nations, China alone is a permanent member of the Security Council with a right to veto. And it is also a member of the P-5. But India, Brazil and South Africa are engaged in knocking at the door, seeking permanent membership of the Security Council, with or without a veto. There can be little doubt that if and when there is an increase in the number of permanent members of the Security Council in the United Nations, these three countries would have the strongest claim to permanent membership.

In the Bretton Woods institutions, the World Bank and the International Monetary Fund, China, India, Brazil and South Africa are permanent members of the Executive Boards. The industrialized countries may be the principal shareholders but the developing countries are the principal stakeholders. Given the democratic deficit in these institutions, which is embedded in unequal voting rights, China, India, Brazil and South Africa together could influence decisions or even reshape rules. So far, however, there is a limited, if any, coordination among CIBS for this purpose.<sup>40</sup> They have neither articulated collective voice nor exercised collective influence.

The situation in the World Trade Organization is different. India and Brazil have been long standing advocates of developing countries in the WTO. China has a low profile possibly because of its recent accession. South Africa is not quite part of the strategic alliance among developing countries. But India and Brazil, along with United States and the European Union, are now members of the *Quad* which is the principal institutional mechanism for resolving differences and finding solutions.

In conclusion, it would seem that China, India, Brazil and South Africa have a considerable potential for articulating a collective voice in the world of multilateralism. Coordination and cooperation among them carries a significant potential for exercising influence on multilateral institutions, which could reshape rules and create policy space for countries that are latecomers to development. Such coordination and cooperation, which is in the realm of the possible, has not yet surfaced. There could be two reasons for the near absence of coordination and cooperation so far. For one, in the early stages of change, these countries might not have recognized their potential for exercising collective influence. For another, their relationship with each other may be characterized more by rivalry, economic or political, and less by unity. It is obviously difficult to predict how reality might unfold in times to come. Even so, it is important to recognize that once these countries become major players, there is a danger that they might opt for the pursuit of national interest rather than the spirit of solidarity among developing countries or the logic of collective action.

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<sup>39</sup> For a detailed discussion on the possibilities of reform and change in these multilateral institutions, in the wider context of global governance, see Nayyar (2002a)

<sup>40</sup> There is, perhaps, a modest beginning in the G-20, where India, Brazil and South Africa, with some participation from China, have made an attempt to coordinate their stance on reform and change in the IMF. But this is no more than a beginning. It has not influenced, let alone shaped, outcomes.

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