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Reconfiguring International Financial Institutions: The BRICS Initiative

Manmohan Agarwal*

Abstract: This paper examines the implications of the establishment of the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) for the international financial system and for the BRICS countries. Their establishment is placed in the context of the current international aid architecture and of the international monetary system (IMS) and the economic performance and needs of developing countries. Developing countries have been dissatisfied with the governance system, the operations and the lack of reform of the World bank and the International Monetary System. Dissatisfied at their lack of success in engineering reform developing countries have moved to a positive phase of devising new institutions that could meet their needs. The scope for the NDB to break new ground is greater. Not only additional aid would be made available but the NDB could break new ground in project preparation and implementation that might force the current multilateral development banks to alter their practices. But the task of replacing the IMF is more difficult. A new IMS can only come into being if it is universal. A group of developing countries even if very large cannot develop a new international monetary system. The CRA can only provide a welcome new source of BOP finance.

Keywords: BRICS, BRICS Initiative, International Financial Institutions, Reconfiguring

1. Introduction

BRICS have established the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA). In this paper, we examine the implications of these for the international financial architecture and for the domestic economies, particularly of the BRICS countries. We first analyse in Section 2 whether their establishment is the result of a shift in economic power, the rise of emerging economies. We conclude that though a shift in economic power has been occurring it has been occurring very gradually. Furthermore, most of the increasing

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economic importance of developing countries is because of the rise of China. In Section 3, we analyse the needs of developing countries by examining their economic performance and economic structures with a view to identifying the constraints to better economic performance.

In Section 4 we discuss the importance of the NDB for the international aid architecture. We place the NDB in the context of the current aid institutions and the needs of developing countries. We conclude that the NDB has the potential to become an important component of the international aid architecture not only in terms of increasing the quantity of funds but also in terms of the practices that accompany aid flows, the conditionality. In Section 5 we examine the significance of the CRA in terms of its contribution to a redrawing of the international monetary system (IMS). For this analysis we discuss some of the main features of an IMS and in light of this the shortcomings in the operation of the International Monetary Fund (IMF). We conclude that while the CRA would increase the availability of balance of payments (BoP) funding for the BRICS countries and also developing countries, if its membership is expanded, it would not be able to remove the fundamental shortcomings of the current IMS and the IMF. In Section 6 we discuss the response of developing countries to the shortcomings of the IMF. We end by making some concluding observations in Section 7.

2. Shifting economic power

Developing countries are playing an increasing role in the world economy whether in terms of GDP, trade or capital flows. However, most of this increasing importance of developing countries is because of the rise of China. We then examine whether the increasing role of developing countries presages a shift in economic power. We analyse this issue by ranking by GDP the 25 major countries of the world in 2007 and studying how the relative ranks, viz. the sizes of these economies have changed over the past 45 years. We also compare

the GDP and GDP per capita of different countries relative to that of the US, since the US is considered to be the major economic player in the world economy. We also develop an index of economic power based on 20 indicators to examine any shifts in economic power that might be occurring. This index gives an ordinal ranking and so does not allow an answer to the question as to whether other countries are catching up with the US. We try to answer the issue of convergence by calculating the distance of different countries from the US on the basis of these 20 indicators.

2.1 Increasing Role of Developing Countries in the World Economy

The share of developing countries (DCs) in the increase in world income has been increasing over time. Whereas DCs provided less than 13 per cent of additional world income in the period 1965-73, they provided almost a quarter in the 1980s and remained at this level during the 1990s (Table 1). The share of DCs in additional world income increased further to 40 per cent in the period 2000-07 (Table 1); since the 2008 financial crisis, DCs have accounted for almost all the incremental world income.

East Asia and Pacific (EAP) is the principal region contributing more to the world's increased income with Latin America and the Caribbean (LAC) and South Asia (SA) also having a significant share of the incremental world income. The share of the non-OECD members of the G20[1] increased considerably from about 8.5 per cent of the additional world income in the period 1965-73 to about 25 per cent in the period 2000-07, and over 55 per cent in the period 2008-11. The share of BRICS has also increased very substantially. China accounts for most of this increase in this century, almost half of the incremental income in developing countries. The decline in the share of the high income countries has been mainly because of slow growth in the G7 countries, particularly the largest, namely, the US, Japan and Germany.[2,3]

Table 1: Share in Increase in World GDP (%)

	1965-73	1973-82	1982-90	1990-2000	2000-07	2007-10
High Income Countries	87.4	80.3	74.3	76.7	59.9	2.7
o.w. G-7 Total	82.6	61.1	69.6	57.7	41.4	-3.2
Canada	2.1	2.3	2.1	2.3	1.8	1.2
France	5.1	4.8	3.2	3.0	2.3	0
Germany	21.8	4.9	5.1	4.2	2.5	2.0
Italy	4.2	4.4	3.0	2.0	1.3	-2.2
Japan	20.9	19.5	21.5	6.3	6.3	-6.4
UK	4.4	1.6	4.2	4.1	4.4	-1.1
US	24.1	21.6	30.5	35.8	22.8	3.3
Other Developed Countries	4.8	19.2	4.7	19.0	18.5	15.9
o.w Australia	1.1	1.3	1.1	1.5	1.4	2.0
Austria	0.7	0.6	0.4	0.6	0.4	0.2
Belgium	0.3	0.7	0.5	0.6	0.4	0.3
Netherlands	1.2	0.9	1.0	1.3	0.7	0.1
Norway	0.4	0.7	0	0.6	0.9	0
Spain	2.3	1.3	1.7	1.8	2.0	-0.8
Sweden	0.7	0.5	0.6	0.6	0.7	0.5
Switzerland	0	4.7	0.7	0.3	0.5	0.6
Developing Countries	12.6	19.7	25.7	23.3	40.1	87.3
EAP	2.0	4.6	5.7	12.0	19.3	49.7
ECA			13.5	-1.6	4.9	4.1
LAC	7.3	9.9	2.9	7.1	7.3	15.0
MNA	1.4	2.0	0.9	1.7	2.0	3.1
SA	0.8	1.9	2.1	3.3	4.9	12.0
SSA	1.1	1.3	0.6	0.9	1.7	3.4

Table 1 continued...

Table 1 continued...

BRICS	5.0	7.8	13.2	13.7	25.1	60.1
Brazil	2.9	3.6	1.4	1.8	2.2	5.2
China	1.0	2.3	3.8	9.5	16.3	43.7
India	0.6	1.3	1.6	2.5	4.1	10.3
Russia			6.2	1.6	1.9	0.9
South Africa	0.5	0.6	0.2	0.3	0.6	0
Other G20 Countries	6.3	9.2	4.6	8.7	3.3	11.1
Argentina	0.9	0.4	-0.1	1.3	-3.7	0
Indonesia	0.3	0.7	0.7	0.7	0.9	2.4
Korea	0.9	1.7	2.6	3.0	2.6	3.9
Mexico	1.8	3.9	0.6	2.1	1.4	1.2
Saudi Arabia	1.7	1.6	0	0.6	0.7	1.6
Turkey	0.7	0.9	1.0	1.0	1.4	2.0

Note: The regions are as defined by the World Bank. EAP is East Asia and Pacific, ECA is Europe and Central Asia, LAC is Latin America and Caribbean, MNA is Middle East and North Africa, SA is South Asia and SSA is Sub-Saharan Africa.

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx

Similarly, the share of developing countries in incremental world exports has risen, while the share of the developed countries, particularly the G7 countries, has decreased (Table 2). Again the share of most of the developing regions in incremental world exports has increased. But the share of regions other than EAP and SA decreased till the 1990s; it has increased only since then. The share of BRICS in incremental world exports has increased steadily. But the share of a number of countries has fluctuated. Furthermore, the share of large developing countries has increased since the 1990s except for Indonesia and Korea, perhaps a lingering effect of the Asian financial crisis. Subsequently, however, the share of these two economies increased substantially in the period 2007-10.

Table 2: Share (%) in Increase in World Exports

	1965-73	1973-82	1982-90	1990-2000	2000-07	2007-10
High Income Countries	86.8	84.6	81.4	76.4	60.1	37.8
o.w. G-7 Total	55.6	48.5	53.9	39.4	36.4	21.0
Canada	4.4	3.5	3.4	4.8	2.1	1.0
France	7.2	5.6	6.7	3.1	3.9	1.2
Germany	14.3	7.5	12.1	5.4	11.7	5.3
Italy	4.2	4.4	6.0	2.1	4.0	0.4
Japan	7.2	8.2	7.6	5.2	3.2	2.7
UK	5.3	6.1	5.4	4.4	4.4	0.8
US	13.0	13.2	12.7	14.4	7.1	9.6
Other Developed Countries	31.2	36.1	27.5	37.2	23.7	16.4
o.w Australia	1.2	1.2	1.0	0.9	1.1	2.7
Austria	1.3	1.1	1.8	0.7	1.6	0.4
Belgium	3.9	2.3	3.7	1.2	2.5	1.2
Netherlands	5.0	3.7	3.9	2.8	3.9	2.5
Norway	1.2	1.2	1.0	0.8	1.2	0.7
Spain	1.9	1.6	2.4	2.2	2.7	1.3
Sweden	2.2	1.4	1.9	1.1	1.6	0.7
Switzerland	-0.9	2.6	2.4	0.8	1.6	0
Developing Countries	13.2	15.4	18.6	23.6	39.9	62.6
EAP	3.3	3.5	3.8	12.2	18.8	33.6
ECA			8.9	2.0	7.4	9.0
LAC	4.4	5.3	3.9	5.8	5.9	9.8
MNA	2.1	2.9	0.4	1.4	2.8	2.5
SA	0.6	0.9	0.8	1.4	2.7	4.9
SSA	2.8	2.8	0.8	0.8	2.3	2.8
BRICS	6.1	10.2	11.5	12.5	23.6	59.6
Brazil	1.1	1.0	0.8	0.7	1.5	2.5
China	0.7	1.3	1.6	5.9	13.2	21.1
India	0.4	0.6	0.5	1.0	2.4	4.3
Russia			4.4	0.5	3.5	4.1

Table 2 continued...

Table 2 continued...

SouthAfrica	1.0	1.0	0.3	0.3	0.7	0.6
Other G20 Countries	5.2	6.8	5.1	9.9	4.8	11.6
Argentina	0.5	0.3	0.3	0.4	0.4	0.7
Indonesia	0.8	1.4	0.2	1.0	0.7	2.1
Korea	0.8	1.5	2.3	3.3	2.9	4.1
Mexico	0.7	1.5	1.1	3.5	1.4	1.7
Saudi Arabia	3.9	4.4	-1.4	0.9	2.1	2.3
Turkey	0.3	0.4	0.6	0.9	1.1	0.9

Source:World Development Indicators,WorldBank,WashingtonD.C.http://databank.worldbank.org/data/home/aspx

Furthermore, the share of developing country exports is going to other developing countries has increased, surging particularly after 2008. This share increased from 42.6 per cent in 1995 to 46 per cent in 2005 but then shot up to over 55 per cent in 2011. Among the larger emerging economies, Mexico had in 2011 the lowest share of its exports destined for DCs, only 11 per cent, followed by Russia at 22 per cent and Turkey at 31 per cent . The other large emerging economies had 50 per cent or more of their exports destined for DCs with Argentina having the largest share at almost 70 per cent.[4] Asia was the leader in this with almost 60 per cent of exports going to other developing countries.

A similar picture emerges regarding foreign direct investment (FDI) flows. DCs have been increasing their share of world FDI inflows and this has continued even during the current financial crisis because the decrease in FDI inflows has been less in the case of DCs (UNCTAD 2010). The share of DCs in FDI inflows has increased from 26.9 per cent in 2007 to 42.9 per cent in 2009. Their share of FDI outflows has also increased rapidly though these shares still are much smaller than the share of the developed countries.[5]

The decrease in the share of the G7 countries in world income, world exports and FDI flows raises obvious questions about the

ability and the legitimacy of the G7 in coordinating actions for better governance of the world economy.

2.2 Changing Economic Size

To analyse whether there has been a significant change in the economic importance of countries we chose the 25 largest countries by GDP in 2011 and looked at their relative size over the previous almost five decades (Table 3). We find that despite differences in economic performance, there has not been very much change in the relative ranking of the top 25 countries by size of GDP between 1965 and 2007. The Spearman's rank correlation between their rank in 1965 and in 2007 is .88,[6] which is highly significant as it is more than four times the standard deviation (Kendall and Stuart, 1968). Except for Brazil (rose by 5 ranks), Korea (rose by 9 ranks) and Turkey[7] few countries changed their rank by more than a couple of positions.

Table 3: Countries Ranked by Size of Economy

Countries	2011	2007	1990	1981	1965
U.S.	1	1	1	1	1
Japan	2	2	2	2	5
Germany	5	3	3	3	2
China	3	4	10	8	6
UK	4	5	6	5	3
France	6	6	4	4	4
Italy	7	7	5	6	7
Spain	13	8	8	11	11
Canada	11	9	7	7	8
Brazil	9	10	9	10	15
India	8	11	13	13	9
Mexico	12	12	14	9	13
Korea	10	13	15	21	22

Table 3 continued...

Table 3 continued...

Australia	14	14	11	12	10
Netherlands	15	15	12	14	14
Turkey	16	16	22	23	19
Switzerland	18	17	17	18	17
Sweden	17	18	16	16	12
Belgium	21	19	18	17	16
S.Arabia	20	20	23	15	23
Indonesia	19	21	20	19	21
Norway	23	22	21	22	20
Austria	22	23	19	20	18

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx

Korea, however, steadily raised its rank from 22nd in 1965 to 13th in 2007, and Turkey rose from 23rd in 1981 to 16th in 2007. Interestingly, China the sixth largest economy in 1965 only improved to the fourth largest in 2007,[8] and India actually slipped from ninth in 1965 to eleventh in 2007. The US was the largest economy in 1965, and remained the largest in 2007.[9] A significant change was the rise of Japan from the 5th rank in 1965 to the 2nd by 1981.[10] Sweden and Austria slipped significantly in their relative importance dropping by 6 and 5 ranks, respectively.

When we analyse the effect of the 2008 financial crisis we find that Korea improved its position further between 2007 and 2011 by 3 ranks, and India also improved its position by 3 ranks. Among the developed countries Spain dropped 5 ranks and Belgium and Germany dropped by 2 ranks. But the rank correlation between the ranks in 2007 and 2011 is 0.97. Even the rank correlation between the ranks in 1965 and 2011 is 0.83. Also the Spearman's rank correlation between the ranks for any two years is about 0.9, which is over four times the standard deviation. The high rank correlations show that

changes in the relative sizes of economies occur but very slowly and any significant shift would take decades.

2.3 GDP and GDP per capita Relative to that in the US

We next look at per capita GDP and the GDP of the large economies relative to that in the US (Table 4). We find three phases in the evolution of relative per capita incomes. In the first phase, till the early 1980s, countries and regions raised their per capita incomes relative to that in the US. In the second phase of the later 1980s and 1990s per capita income in most other parts of the world remained constant as a share of US per capita income or declined. In the third phase, the relative share of per capita incomes in other parts of the world is again increasing. Only in EAP does relative per capita income rise fairly steadily and among the large economies this is true for China, India, Indonesia and Korea. Turkey’s relative size has also increased.

Table 4: GDP Per Capita in constant 2000 US Dollars

(% of US GDP per capita)

	1965	1973	1982	1990	2000	2007	2011
High Income Countries	62.5	69.1	73.0	73.5	71.8	72.8	73.5
Canada	71.3	73.7	69.1	67.2	67.8	68.5	68.8
France	65.0	71.8	66.2	62.1	60.7	61.0	61.1
Germany	65.1	70.9	69.3	65.4	65.3	68.1	69.5
Italy	51.8	59.6	58.7	55.3	52.4	50.7	50.3
Japan	96.7	109.6	121.0	106.3	105.5	107.1	105.0
UK	71.9	70.5	71.0	71.4	76.9	75.6	74.9
Average	70.3	76.0	75.9	71.3	71.4	71.8	71.6
Other Developed Countries	67.0	79.5	75.5	74.1	75.7	77.0	77.1
o.w Australia	64.6	67.4	62.0	61.9	64.1	68.2	68.0

Table 4 continued...

Table 4 continued...

Austria	62.6	71.1	67.8	68.3	69.8	71.4	72.3
Belgium	64.3	69.8	66.2	64.7	64.7	65.8	72.3
Netherlands	68.7	69.4	66.6	68.9	69.7	71.0	70.7
Norway	83.0	101.0	97.5	106.8	108.2	107.1	106.2
Spain	39.7	39.4	40.1	41.1	42.2	41.3	41.0
Sweden	86.2	88.0	83.0	79.4	85.9	87.4	89.3
Switzerland		129.7	120.9	101.6	100.7	104.0	103.9
Developing Countries	3.3	3.4	3.8	3.3	3.3	4.2	4.9
EAP	0.9	1.0	1.3	1.7	2.7	4.3	5.6
ECA				7.6	5.1	7.0	7.4
LAC	14.4	15.0	15.9	12.1	11.1	12.6	12.7
MNA	5.0	5.7	6.0	4.6	4.5	4.9	5.4
SA	1.3	1.1	1.1	1.1	1.3	1.7	2.0
SSA	2.9	2.7	2.5	1.8	1.4	1.5	1.7
Brazil	12.9	14.5	11.8	10.5	11.1	12.6	12.7
China	0.7	0.9	1.4	2.7	4.8	6.5	7.0
India	1.0	1.1	1.1	1.3	1.7	2.2	2.2
Mexico	18.9	23.3	17.3	16.6	16.4	16.4	16.7
Russia			9.2	5.1	7.5	7.8	8.0
South Africa	15.8	15.5	11.1	8.6	9.6	10.1	10.1
Argentina	34.0	29.4	19.7	21.9			
Indonesia	1.3	1.8	2.1	2.2	2.6	3.1	3.2
Korea	11.6	16.6	24.4	32.3	39.0	43.4	44.3
Saudi Arabia	60.7	57.6	31.6	26.8	24.2	25.4	26.3
Turkey	11.4	11.8	12.2	11.9	13.8	14.3	15.2

Source: World Development Indicators, World Bank, Washington D.C. http:// databank. worldbank.org/data/home/aspx

When we compare the GDP of other countries with that of the US we find a similar pattern. Initially till the 1990s, GDP of other countries increases relative to that of the US; then it decreases and finally, in recent years, it again increases (Table 5).

Table 5: GDP in constant 2000 US Dollars

(% of US GDP)

	1965	1973	1982	1990	2000	2007	2011
Canada	7.0	7.5	8.0	7.7	7.3	7.4	7.6
France	14.6	16.3	17.3	15.5	13.4	12.9	12.8
Germany	24.2	24.0	22.0	19.1	17.8	18.2	
Italy	12.0	13.4	14.6	13.3	11.2	10.3	9.8
Japan	35.6	49.3	56.0	59.9	47.8	44.7	43.1
UK	19.4	19.1	17.1	16.3	14.9	15.6	15.1
Average	17.7	21.6	22.8	22.4	18.9	18.1	17.8
Other Developed Countries							
o.w Australia	3.8	4.1	4.4	4.2	4.2	4.5	4.9
Austria	2.1	2.2	2.3	2.1	1.9	1.9	2.0
Belgium	2.8	3.0	3.0	2.6	2.4	2.3	2.3
Netherlands	4.1	4.4	4.3	4.0	3.9	3.8	3.8
Norway	1.5	1.6	1.8	1.7	1.7	1.7	1.7
Spain	5.4	6.5	6.5	6.2	5.9	6.3	6.1
Sweden	3.5	3.3	3.2	2.8	2.5	2.6	2.7
Switzerland			3.6	3.3	2.6	2.5	2.6
Developing Countries	3.3	3.4	3.8	3.3	3.3	4.2	4.9
EAP	4.6	5.6	8.2	11.0	17.4	27.6	38.0
ECA				11.9	7.2	9.4	10.1
LAC	18.3	21.5	25.5	21.2	20.8	22.5	25.5
MNA	2.9	3.7	4.6	4.2	4.4	5.1	5.7
SA	4.1	3.9	4.7	5.3	6.3	8.6	11.1
SSA	3.9	4.1	4.4	3.8	3.4	4.0	4.7
Brazil	4.2	6.3	8.0	7.1	6.5	7.0	8.0
China	2.3	2.8	4.1	6.3	12.1	21.1	30.2

Table 5 continued...

Table 5 continued...

India	3.0	2.9	3.4	3.9	4.8	6.8	8.9
Mexico	4.2	5.1	7.2	5.9	5.9	5.9	6.1
Russia				5.5	2.6	3.5	3.7
South Africa	1.7	1.8	1.9	1.6	1.3	1.5	1.6
Argentina	4.1	4.1	3.7	2.6	2.9		
Indonesia	0.6	0.8	1.2	1.5	1.7	2.0	2.5
Korea	1.2	1.9	2.8	4.2	5.4	6.3	7.1
Saudi Arabia		1.9	2.8	2.0	1.9	2.0	2.4
Turkey	1.8	2.0	2.4	2.6	2.7	3.2	3.66

Source: http:// databank.worldbank.org/data/home/aspx World Development Indicators, World Bank, Washington D.C.

The behaviour of total GDP and per capita GDP differs between the developed economies and the developing economies. The GDP of more developed economies had declined relatively to the US between 1965 and 2011 than had increased (Table 5) whereas more developing countries ganed on the US than lost ground. But in terms of per capita GDP, most developed economies gained relatively to the US and only some lost ground. But more developing economies lost ground than caught up to the US. Most of the countries catching up to the US are in Asia.

That the developed economies are catching up to the US in terms of per capita income but not in terms of total GDP is mainly a reflection of their slower growth of population, in nine of the advanced economies population growth was slower than in the US. On the other hand, population in developing countries usually grew faster than in the US and this enabled their GDP to catch up to that in the US. But productivity in many of them is not growing very rapidly so there is less of a narrowing of the gap in per capita income.

2.4 Indicators of Economic Importance

GDP, however, may not be a good indicator of economic power.[11] Broadly speaking, there are two schools of thought, one believing that power can be measured and the other that whether a country is powerful is one of perception (Morgenthau 1948 and Kissinger 1994). Many analysts believe that economic power is an important component of power if not the predominant component as the ability to develop one's military power depends itself on economic power (Gilpin 1987 and Kennedy 1988).[12]

Without getting into a detailed discussion of these issues we chose a number of indicators which could reflect economic power and aggregated them to derive an index of overall economic power. We aggregate the different indicators into one index using the Nagar-Basu method (2002) of principal components.[13]

The indicators used reflect the different dimensions of economic power such as the standard of living measured by GDP per capita and access to education, health and water and sanitation facilities. They also reflect the country's importance in the world economy as well as the vulnerability this imposes because of fluctuations of the world economy. A country's share of world trade should reflect its ability to influence international agreements and rules to serve its national interest while the share of trade in GDP reflects its vulnerability to instability in the world economy. A number of indicators measure the potential of the economy for productivity growth. Some such as military expenditures may have a positive or negative effect; though they are usually a drain on resources, people often talk of a peace dividend and military expenditures usually have a smaller multiplier than civilian expenditures. The indicators used were : (1) GDP per capita (PPP $), (2) population density (people per Sq. Km.),

(3) net inflows of foreign direct investment (% of GDP), (4) trade (% of GDP), (5) world trade share, (6) current account balance (% of GDP), (7) Reserves (% of GDP), (8) net energy imports (% of total energy use), (9) food imports (5 of merchandise imports), (10) public expenditure on health (% of GDP), (11) public expenditure on education (% of GDP), (12) under 5 mortality (per 1000 live births) (13) internet users (per1000 people), (14) patents granted to residents (per million persons), (15) expenditures on R&D (% of GDP), (16) Researchers in R&D (per million people), (17) population using an improved water source (% of population), (18) military expenditures (% of GDP), (19) tertiary enrolment (% of relevant age population) and (20) mobile users (per 100 persons).

2.4.1. Results of Aggregation of Indicators

The greatest contribution to economic power seems to be in terms of human capital. Patents granted, researchers in R&D, R&D expenditures and tertiary enrolment contribute almost half to the index, 49.8 per cent in 1990 and 43.1 per cent in 2005.[14] Within these categories of human capital, tertiary enrolment has become more important and patents granted less important.[15] Other important contributors are internet and mobile phone users and social services such as expenditures on health, education and an improved water supply (Agarwal and Samanta 2015).

The ranks derived on the basis of the index are given in Tables 6 and 7.[16] The rank correlation between the rank in 1990 and 2005 is 0.91, highly significant, so that there has not been very much change in the relative power of the countries. The major gainers have been China, 9 ranks, Korea and Israel 4 ranks. The major losers are Canada, 5 ranks and Mexico and Pakistan 4 ranks.[17]

Table 6: Rank of Countries, 1990

Rank	Country	Index
1	United States	3.24
2	Japan	2.16
3	Canada	1.85
4	Germany	1.10
5	France	1.08
6	United Kingdom	0.66
7	Russian Federation	0.53
8	Israel	0.39
9	Italy	0.35
10	Saudi Arabia	0.12
11	Korea (Republic of)	-0.05
12	Brazil	-0.30
13	Argentina	-0.53
14	Mexico	-0.55
15	Turkey	-0.64
16	Iran (Islamic Republic of)	-0.69
17	India	-0.75
18	Pakistan	-0.86
19	South Africa	-0.88
20	China	-1.04
21	Indonesia	-1.13
22	Egypt	-1.44
23	Nigeria	-2.22

Source Author's Calculations.

Table 7: Ranks of Countries, 2005

Ranking	Country	Index
1	United States	2.40
2	Japan	1.69
3	Germany	1.15
4	Israel	1.15
5	France	1.06
6	United Kingdom	0.86
7	Korea (Republic of)	0.85
8	Canada	0.81
9	Italy	0.70
10	Russian Federation	0.54
11	Saudi Arabia	-0.14
12	Argentina	-0.38
13	China	-0.41
14	Turkey	-0.54
15	Brazil	-0.62
16	Iran (Islamic Republic of)	-0.68
17	South Africa	-0.75
18	Mexico	-0.76
19	Egypt	-0.94
20	India	-1.26
21	Indonesia	-1.43
22	Pakistan	-1.57
23	Nigeria	-1.76

Source: Author's calculations.

2.4.2 Are Countries Converging on the US

Since the absolute values of the index calculated above have no meaning, as only the ranks matter, the values of the index do not allow us to judge whether the countries are converging in terms of economic power or whether they are diverging. To judge this issue we measure the distance of these countries from the US in terms of the indicators. Most countries whether developing or developed have moved closer to the US (Table 8).

Table 8: Distance from the US

	1990	**2005**	**Ratio (2005 value/ divided by 1995)**
Developing Countries			
Argentina	57.6	44.8	0.78
Brazil	54.4	45.6	0.84
China	72.3	70.9	0.98
Egypt	89.0	83.7	0.94
India	77.8	72.9	0.94
Indonesia	79.4	80.8	1.02
Iran	71.6	55.8	0.78
Israel	66.5	53.5	0.80
Korea	58.9	45.3	0.77
Mexico	64.2	50.9	0.79
Nigeria	133.9	103.2	0.77
Pakistan	75.4	78.6	1.04
Russia	42.9	49.6	1.16
Saudi Arabia	59.6	42.3	0.71
South Africa	88.8	93.0	1.05
Turkey	64.8	48.9	0.75
Developed Countries			
Canada	19.8	22.4	1.13
France	30.6	15.8	0.52

Table 8 continued...

Table 8 continued...

Germany	33.7	18.0	0.53
Italy	27.9	24.7	0.89
Japan	34.8	45.3	1.30
UK	42.4	31.6	0.75

Source: Author's calculations.

However, their relative ranks haven't changed much, with the rank correlation for 1990 and 2005 being 0.95. Saudi Arabia has improved its position the most whereas Russia, Japan and Canada have lost position.[18,19] Japan has lost the most ground with respect to the US and even ranks below two of the developing countries, Argentina and Korea. The continental European countries, particularly France and Germany, have moved much closer to the US. This might imply that France and Germany could challenge the hegemonic position of the US and it could be seen as a sign of increasing multipolarity. The US initiative to enlarge the G7 to the G20 at the leaders' level might be seen as reducing their influence in the G7. If that is the case there could have interesting implications for international cooperation.

China and India have shown the least movement towards the indicators of the US among the countries converging to the US. This is mainly because they were so far from the US that movement towards the US still leaves them very far from the US.

3. Economic Performance of Developing Countries

In this section we look in greater detail the differential economic performance among developing countries. Since 1991 developing countries, particularly the low income countries, have grown faster than the high income countries (Table 9). Furthermore, per capita in

the developing world did not fall after the 2008 financial crisis unlike in high income countries. But there has undoubtedly been a slowing down of the growth rate in developing countries.

Table 9: Growth of per capita GDP

	1991-2000	2001-07	2008-10	2011-13
High Income	2.0	1.9	-0.7	1.2
Middle Income	2.4	5.0	4.2	4.0
Upper Middle Income	3.0	5.3	4.5	4.5
Lower Middle Income	1.4	4.7	4.1	3.5
Low Income	-0.2	3.0	3.5	3.5
Least Developed	0.3	4.3	3.2	2.0
Brazil	1.0	2.2	3.2	1.2
China	8.8	10.1	9.2	7.7
India	3.7	5.9	6.1	4.1
Russia	-3.5	7.2	0.6	2.7
S. Africa	-0.4	2.8	0.4	1.3

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

However, the low income countries actually have grown faster since the crisis so that though they continue to grow slower than the middle income countries the gap in growth rates has narrowed. But within the middle income countries the lower middle income group has faced a greater slowdown than the upper middle income group. Similarly, among low income countries, the LDCs which were growing faster than other low income countries before the crisis, have experienced a greater slowdown after the crisis than other low income countries.

There are considerable variations in the growth achieved by the different BRICS countries and also over time. However, China has grown much faster than the other countries by a very large margin. Per capita income in China increased more than seven times between 1991 and 2013; almost tripled in India. But per capita income increased by only 50 per cent in Brazil and barely grew in each of Russia and S. Africa (20 per cent). Growth in the period 2011-13 as compared to that in the pre-crisis priod 2001-07, has decreased the most in Russia and the least in Brazil and South Africa.

Table 10: Share of Manufacturing in GDP (%)

	1991-2000	2001-07	2008-10	2010-12
Brazil	16.1	15.4	14.3	13.2
China	29.6	32.6	32.8	n.a
India	14.0	14.3	15.1	14.9
S. Africa	17.0	16.6	15.6	15.3

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

In a generally robust growth performance, the performance of the manufacturing sector has lagged. The share of manufacturing in GDP has declined in Brazil and South Africa (Table 10). There are indications that it has also declined in Russia.[20] In India also it has been declining in recent years.

Though growth rates have declined in developing countries, the share of gross fixed capital formation (GFCF) in GDP continues to increase (Table 11). This is in sharp contrast to the situation in developed countries where the share of GFCF in GDP has been slowly but steadily declining.

Table 11: Gross Fixed Capital Formation

(% of GDP)

	1991-2000	2001-07	2008-10	2011-12
High Income	22	22	20	19
Low and Middle Income	24	28	29	30
LowIncome	18	22	22	25
Brazil	18	17	19	20
China	33	39	43	46
India	23	28	33	34
Russia	21	18	22	23
S.Africa	13	16	20	20

Source: World Development Indicators, World Bank, Washington D.C. http:// databank. worldbank.org/data/home/aspx.

The maintenance of GFCF despite the fall in growth rates of GDP suggests that capital is being invested in more capital intensive sectors as could happen if developing countries are seeking to reduce imports in line with the diminished export prospects.[21] Another possibility along somewhat similar lines is that domestic investment is being concentrated in the infrastructure sector and that tends to be capital intensive, particularly if the investment is in large scale projects. Of course, capital that is being invested is not being used because of lag of demand so that excess capacity is building up. But this seems unlikely as it would suggest that investment is continuing despite substantial excess capacity. However, the existence of considerable excess capacity would imply that any revival of demand would lead to a rapid expansion of output and a fall in the capital-output ratio.

Developing countries have continued their integration into the world economy. The share of exports of goods and services in GDP

increased much faster in developing countries than in the high income countries (Table 12). The low income countries have continued to see a rise in this share even after the crisis, as did the high income countries.[22] But middle income countries have experienced a fall in the share.

Table 12: Share of exports of Goods and Services in GDP (%)

	1991-2000	2001-07	2008-10	2011-12
High Income	22	26	28	30
Low and Middle Income	22	31	30	30
Low Income	16	21	22	24
Brazil	9	14	14	14
China	14	32	33	31
India	9	17	21	23
Russia	25	34	34	33
S.Africa	25	28	24	23

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

The share of exports in GDP increased in the BRICS countries before the crisis. Since the crisis the share has stagnated, showing either small increases or decreases.

The integration into the world economy extends into the area of FDI also. The integration of developing countries, particularly the low income countries, into the world FDI system has been dramatic (Table 13).

Table 13: Inward Flows of FDI (% of GDP)

	1990-2000	2001-05	2006-07	2008-11
World	1.6	2.1	3.9	2.5
High Income	1.5	1.9	4.0	2.4
Middle Income	2.0	2.6	3.7	3.0
Low Income	0.9	2.2	2.6	3.4
Brazil	1.8	2.7	2.5	2.6
China	3.8	3.4	4.5	3.4
India	0.4	0.9	2.1	2.4
Russia	0.8	1.6	3.6	3.3
S. Africa	0.6	2.2	1.0	1.8

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

The increase in inward flows of FDI has been overall similar in the high income and middle income countries but with a different pattern of timing. Inflows into these two groups have declined since the financial crisis. This, however, is not the case for the low income countries. The share of FDI flows in GDP has continued to increase and in the period 2008-11 was larger than in the other two groups of countries.

Inward flows of FDI as a percentage of GDP have increased in the BRICS countries except for China. But despite the slowdown they are a larger in China than the other BRICS countries. The increase in FDI inflows has been particularly large in India.

Outward flows of FDI present a different picture than inward flows (Table 14). Outward flows from low income countries are negligible suggesting that companies in these countries have no assets that can be exploited only through outward FDI. Flows from middle

income countries have grown rapidly but still are small, as compared to the flows from the high income countries.

Table 14: Outward Flows of FDI (% of GDP)

	1990-2000	2001-05	2006-07	2008-11
World	1.7	2.2	3.8	2.9
High Income	1.9	2.6	4.7	3.6
Middle Income	0.3	0.4	1.1	1.1
Brazil	0.2	0.4	1.6	0.3
China	0.4	0.3	0.7	0.9
India	0.0	0.3	1.4	1.2
Russia	0.6	1.6	2.9	3.5
S. Africa	0.8	-0.4	1.6	-0.1

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

Among the BRICS, Russia has very large outward FDI. On the other hand Brazil and South Africa usually have negligible outward FDI. The crisis has had a mixed effect on outward FDI, increasing in some countries but decreasing in others.

In brief, the growth rates in developing countries continue to be quite high despite a decline and much higher than in the high income countries so that they are catching up. The low income countries are growing faster after the crisis so the decline has been in the middle income countries. But the least developed countries have been badly hit by the crisis. Investment rates are being maintained. However, the slowdown in the world economy has stopped the increase in the share of exports in GDP that had been occurring earlier. The inward FDI continues to be substantial, but the outward FDI has fallen. In this largely positive economic performance a weak point has been the performance of the manufacturing sector. Another area of concern, that we do not discuss here, is that developing countries have not been

able to increase their share of world exports in the dynamic service sectors of financial services and IT related services.

4. The aid architecture and a Role for the NDB

4.1 The Regional Distribution of Aid and Its Diminishing Importance

The importance of aid as a share of GDP has been declining, particularly for the regions of East Asia and Pacific (EAP) and for Latin America and the Caribbean (LAC) (Table 15).[23] But it is still very important for the poorest countries. Aid in recent years supports about a third of investment in low income countries, but surprisingly a smaller portion in the least developed countries, though till 2000, aid was a larger share of investment in the least developed countries than in the low income countries.

Table 15: Regional Distribution of Aid (% of GNI)

	1960-73	1974-82	1983-90	1991-2000	2001-07	2008-10	2011-12
LDCs	7.5	9.2	9.8	9.0	7.6	6.5	
Low Income	3.5	5.2	8.4	8.8	9.2	9.2	8.1
L and M Income	1.2	1.4	1.5	1.2	1.0	0.8	0.6
Lower M Income	2.2	2.5	2.1	2.0	1.4	1.0	0.8
Upper M Income	0.3	0.3	0.4	0.3	0.3	0.1	0.1
EAP	1.1	0.9	1.0	0.8	0.3	0.2	0.1
LAC	0.5	0.3	0.5	0.3	0.3	0.2	0.2
SA	1.6	2.0	1.5	1.2	0.8	0.8	0.7
SSA	2.0	2.6	4.6	5.2	5.2	4.2	3.3

Note: These regions are as defined by the World Bank. LDCs are least developed countries.

Source: World Development Indicators, World Bank, Washington D.C. http:// databank.worldbank.org/data/home/aspx.

Examination of the absolute amounts of bilateral aid (Table 16) to the different regions and the distribution between the regions (Table 17) reveals the following trends:

1. There was a slow increase in the amount of nominal aid between 1983 and 1992. It then tended to decline till 2001.
2. There was a very substantial increase in aid between 2001 and 2005 (134 per cent).
3. Since 2005 the nominal amount of aid has fluctuated with overall a small increase .
4. The share of Africa declined substantially between the period 1983-90 and the period 1991-2000. But has been constant since; but the share of Asia and America has shown an almost steady decline throughout.
5. The share of other has increased. This is mainly aid given through multilateral agencies, either through direct contributions to the capital of these agencies or through earmarked funds. The latter have increased particularly sharply. For instance, whereas multilateral aid grew by 31 per cent between 2007 and 2012 earmarked resources grew by79 per cent (OECD 2014). Earmarked funds have the advantage that they can help meet specific needs and evolving development challenges, and can make tracking easier. But they also have several disadvantages. Earmarked funds can make coordination and coherence of the international development co-operation system more difficult and undermine the strategic and coherent allocation of resources for individual multilateral organisations.[24]
6. Use of trust funds helps donors reduce the cost of managing the programme while having to achieve the donor's objectives. The utilisation of earmarked funds is more driven by the objectives of the donor than of the recipient. It leads to essentially a blateralisation of multilateral aid.

Table 16: Net Disbursements by Regions (Billions of US$)

	Africa	America	Asia	Europe	Oceania	Other	Total
1983	6.5	2.1	6.2	0.4	0.9	1.7	17.8
1984	7.2	2.2	6.0	0.3	0.9	2.5	19.0
1985	8.1	2.6	6.9	0.3	0.8	2.5	21.2
1986	9.3	2.9	8.6	0.4	1.1	2.9	25.2
1987	10.7	3.4	8.9	0.5	1.2	4.1	28.9
1988	12.0	3.3	10.4	0.5	1.3	4.5	31.9
1989	12.1	3.8	10.6	0.4	1.3	4.7	32.9
1990	15.8	4.2	11.3	0.8	1.2	5.1	38.5
1991	16.5	4.8	13.2	1.5	1.2	5.6	43.0
1992	16.2	4.3	13.4	1.4	1.3	6.1	42.8
1993	13.4	4.3	12.0	1.8	1.4	6.1	39.0
1994	14.4	4.6	13.7	1.1	1.6	5.5	41.0
1995	13.2	4.8	12.4	1.3	1.7	7.0	40.5
1996	12.8	5.8	11.9	1.2	1.7	5.7	39.1
1997	11.4	3.9	8.1	1.0	1.4	6.5	32.4
1998	11.2	4.0	10.3	1.2	1.5	6.9	35.2
1999	10.3	4.3	12.6	2.5	1.4	6.8	37.8
2000	10.4	3.8	11.0	2.1	0.7	8.1	36.1
2001	10.1	4.4	10.6	1.7	0.7	7.4	35.1
2002	13.4	3.9	11.3	3.4	0.7	8.2	40.8
2003	19.1	4.6	13.7	2.3	0.7	9.3	49.7
2004	19.3	5.1	15.4	1.9	0.8	11.7	54.3
2005	24.6	4.8	37.8	2.4	0.9	11.9	82.4
2006	31.5	5.2	22.3	3.1	1.1	13.7	76.9
2007	24.5	4.7	24.3	2.1	1.2	15.9	72.9
2008	27.2	6.9	28.9	3.0	1.3	19.1	86.4
2009	28.2	6.6	23.6	3.0	1.4	21.1	83.9
2010	29.4	7.6	24.8	3.1	1.8	24.3	91.0
2011	32.7	7.8	23.8	2.7	2.0	25.5	94.4
2012	30.5	6.6	22.9	2.1	1.8	24.6	88.6

Source OECD Data Base. Last accessed on 27/10/014.

Table 17: Net Disbursements by Region by DAC Donors
(Share of Total Net Disbursements)

	Africa	America	Asia	Europe	Oceania	Other
1983-90	0.43	0.13	0.36	0.02	0.05	0.15
1991-2000	0.34	0.12	0.31	0.04	0.04	0.17
2001-05	0.33	0.09	0.34	0.04	0.01	0.18
2006-08	0.35	0.07	0.32	0.03	0.02	0.21
2009-12	0.34	0.08	0.27	0.03	0.02	0.27

Source: OECD Data Base. Last accessed on 27/10/14.

4.2 The Sector Distribution of Aid

Over the years the sector distribution of aid has varied. What is significant that productive investment, whether directly productive in agriculture or industry or indirectly assisting production through better infrastructure has tended to decline over the years (Table 18). On the other hand, the multisector investment including in environment projects has inreased.

Table 18: Sector distribution of Aid

	1983-90	1991-2000	2001-05	2006-08	2010-12
Social Sectors	24.8	27.7	32.9	38.2	42.1
Infrastructure	18.8	20.1	12.6	13.5	15.0
Production	17.2	10.8	6.2	5.8	7.5
Of which Agriculture	10.5	7.3	3.9	3.9	5.3
Multi Sector	3.1	5.4	6.9	6.3	11.1
Of which Environment	1.2	1.9	2.5	4.3	
Commodity Assistance	5.6	2.6	1.7	5.2	4.8
Humanitarian Aid	1.8	5.0	6.8	7.4	8.5
Debt Relief	6.6	8.8	18.2	14.3	3.2
Administrative costs	3.4	4.7	5.1	4.8	5.6[i]
Support to NGOs	1.8	1.4	2.7	2.6	
Refugees in Donor Countries		1.2	2.2	2.4	4.4

Source: OECD Development Cooperation Report various years.

There has been a substantial increase in aid to social sectors; but the increase is not to education or even much to health, It is to other social sectors,

4.3 The Role of the World Bank and International Development Association

The main issues before the World Bank and its soft loan window, the International Development Association (IDA), are how to maintain their level of activities. Many of the large borrowers from IDA will graduate in the next decade or so. A number of options about the operations of IDA are being discussed (Moss and Leo 2011).[25] One of the options is a reduction in the size of IDA.[26]

The lending capacity of the World Bank which depends on its capital will soon hit a ceiling unless the capital is increased; the developed countries do not seem inclined to do that. Furthermore, an increasing share of resources made available to the World Bank come through earmarked funds which increases the role of donors in determining the priorities for the lending programme. Borrowing countries have a greater say in the use of the World Bank's own funds, whether owned or borrowed, viz. there is greater country ownership in the case of the World Bank's own funds. Donors are bilateralising multilateral aid and saving on their own costs.

In addition there are single borrower limits (SBL) that apply to the largest borrowers. These limits apply to three of the BRICS countries. In FY 2014 (the fiscal year runs from July to June) the SBL was raised for India to US$ 20 billion and for the other four, Brazil, China, Indonesia and Mexico, to US$ 19 billion (World Bank 2014).[27,28] A country can borrow beyond its SBL under special agreements that essentially mean no increase in net availability of

resources to the borrowing country because the country must either prematurely pay off previous loans or subscribe to the resources of the WB in other ways.

A fall in lending by the World Bank which would happen if the capital of World Bank is not increased will open up possibilities for the NDB.

4.4 The NDB and the Aid Architecture

The NDB has been established to mobilise resources for infrastructure and sustainable development projects. It will do so through "loans for public or private projects, guarantees, equity participation and other financial instruments".[29] It will also provide technical assistance to projects supported by the Bank. Membership to the NDB is open to all members of the UN. But the presidency will rotate among the original members. The subscriptions of the other members and thus their voting power will be determined by the Governing Council (GC). However, the voting power of the original members will not be allowed to fall below 55 per cent and those of non-borrowing members to exceed 20 per cent.[30] Furthermore, the voting power of a non-founding member cannot exceed 7 per cent of the total. These rules may lead to the founding members being charged with running a non democratic organisation just as the governance of the World Bank is criticised.

The first two subscriptions would be due in18 months after the coming into force of the agreement and would amount to merely US$ 2 billion. After the rest of the capital is paid in over a period of five years the total paid in amount would be US$ 10 billion. The World Bank had started 1945 with an authorised capital of US$ 10 billion of which 20 per cent was paid in. Only about 6 per cent or about 12 billion of the total authorised capital of US$ 191 billion at the end of

2010 was subscribed, the rest was callable. Similarly, of the US$ 81 billion increase agreed in 2010 only 6 per cent was subscribed. More important than the subscribed capital are the accumulated reserves which are almost twice the size of the subscribed capital. The World Bank's loan portfolio of about US$ 200 billion is mainly supported by its borrowings from the market, which are supported by its large callable capital.

The US$ 10 billion paid in capital of the NDB at the end of the seventh installment would compare very favourably with the US$ 18 billion paid in capital of the World Bank. However, the resources of the NDB would have two shortcomings in comparison to the World Bank. The NDB would not have any significant reserves and these are very large at the World Bank. Furthermore, the World Bank is able to leverage its own resources by considerable borrowings from capital markets. Initially its bonds were given only an "A" rating. Prudent financial management, its large callable capital and the developed countries being its main shareholders ultimately resulted in its bonds getting a "triple A" rating in 1959. Initially the NDB may not have a high rating and so may not be able to borrow cheaply and so similarly leverage its own resources. This would limit its lending capacity. The GC might be faced with a dilemma. A high rate of interest may be needed to win the confidence of private bond markets. But a high rate of interest would not only limit the demand for loans, and may also lead to debt servicing problems later.[31]

A further development has occurred in the aid architecture. On 24 October 2014, a signing ceremony held in Beijing, formally recognised the establishment of the Asian Infrastructure Investment Bank (AIIB). Twenty-one countries, all Asian, participated at the meeting and signed the bill. Subsequently, more countries joined as founding members, all countries that join by 31 March 2015 would

be considered founding members. There are 31 members as of 17 March 2015 and this includes European countries such as the UK, France, Germany and Italy who had earlier held off. Australia and South Korea who had also refrained from becoming members at US insistence are expected to also become members soon.

The AIIB would also have an authorised capital of US$ 100 billion. But clearly the AIIB is making headway in attracting members in contrast to the NDB which has not yet attracted any new members. The Chinese who are contributing 50 billion to the AIIB are obviously going to dominate it. The obvious point is that China is more interested in the AIIB which is a Chinese initiative and is pushing to get countries to join. No similar push is being made to get countries to join the NDB. Countries may have come to the conclusion that the AIIB is a more serious endeavour.

Of course, the two may have separate spheres of operation. The AIIB is restricted to Asia. It may then be likely that the NDB will operate mainly in LA and SSA.

The NDB has the potential to increase substantially aid flows to developing countries, though in the initial stage it will likely make only a small contribution to the increased flow of financial resources. However, it will lend only for infrastructure and so its contribution can be substantial. There is a danger of structural imbalances because of concentration on infrastructure. For instance, in the case of India, the concentration on infrastructure and on housing resulted in the share of construction in total gross fixed capital increasing from about 45 per cent in the early 1990s to almost 60 per cent in recent years (Agarwal, Mitra and Whalley 2015). The lack of investment in machinery and equipment reduced the rate of growth of the economy from over 9 per cent to under 5 per cent. Furthermore, the increased demand

emanating from the construction activity was for both tradeables and non-tradeables. The former resulted in larger current account deficits and the latter in higher inflation.

The NDB can make a significant contribution in the management of aid and projects. Preparation of projects by the World Bank is time consuming and uses scarce administrative talent intensively. Furthermore, the projects are accompanied by many conditions. The BRICS countries do not put any conditions on the amounts they make available through their development cooperation programmes. They might continue with this policy in the NDB. There is the danger that lack of conditionality may endanger the viability of the projects. On the other hand it has been argued that what is important is ownership of the project by the country. If there is ownership, conditionality may not be required. If the projects of the NDB are successful even with no conditionality, the multilateral development banks may be forced to change their practices. So the NDB has the potential to change the international aid architecture.[32]

4.5 Aid and Development

In the 1950s and 1960ds aid was meant to supplement low domestic savings to enable the higher rate of investment needed to raise the rate of growth (Rosenstein-Rodan, 1943, Nurkse 1953, Lewis, 1954). Then in the 1960s the two gap model for aid was developed (Chenery and Bruno, 1962 and Chenery and Strout, 1966) as current account deficits became a binding constraint. The two gap literature argued that there were two gaps, the savings investment gap and the export import gap, and aid should fill the larger of the two gaps. Since then the rates of savings in most developing countries have increased considerably and considerable amounts of private capital is available for investment. So what is the role of aid?

Considerable amounts of private capital is available; but it is essentially short term capital as the interest rate on even long term capital is often a variable interest rate tied to the London Inter-Bank Offered Rate (LIBOR). This raises the classic problem which has been analysed in the context of bank runs, i.e. what happens when the prospects for a long term investment changes in mid-stream (Diamond and Dybvig, 1983). Sources of long term finance are needed for long gestation projects. They are also needed for projects which give returns to the economy at large, e.g., health and education, which is easier to repay through general revenues than user charges.

The NDB, as also the AIIB, can fill a useful lacuna in the international financial architecture. However, the mandate should be extended to provide finance for long gestation projects including manufacturing.[33]

5. The CRA and the International Monetary System

A well functioning IMS would enable cross-country flows of goods, services and factors of production along the lines of comparative advantage and thus raise the level of output and welfare. Such an IMS could function along broadly similar lines as the domestic monetary system does in a national economy. There would be an international money whose supply changes to support international transactions and the required level of international economic activity. If the supply of money increases too slowly then there will be a deflationary pressure in the world economy. If it increases too rapidly then the world economy will experience too high a rate of inflation.

5.1 Characteristics of an IMS and the current IMS

Important features of an IMS are what is the international money and how its supply is controlled. Other significant aspects of an IMS are:

(i) the resources available to countries in need of BoP financing, (ii) the mechanisms of adjustment when a country faces a BoP imbalance, (iii) the distribution of the burden of adjustment between surplus and deficit countries. Very often there is an asymmetry in this distribution as deficit countries have to adjust as they would soon run out of the available resources for financing a BoP deficit whereas surplus countries may not be under any pressure to adjust, and (iv) how exchange rates, viz. the relative value of the currencies of different countries are determined.

The current IMS is the result of evolution of the system that was set up at the end of the Second World War (SWW). Dissatisfaction with the operation of the gold standard which had operated till then[34] resulted in negotiations during the SWW that led to the creation of a new system, often called the Bretton Woods System (BWS).[35] The history of the IMS since the SWW can be divided into two periods. The first till 1973 when the BWS collapsed. Since then there have been fundamental changes that have been ushered in the current system.

Keynes had sought to set up an international system based on an international institution, the Clearing Union (CU), that would control the money supply to ensure a full employment world economy.[36] Under his scheme unlimited BoP financing would be available in the short term in order to avoid the trade restrictions that had prevailed in the 1930s aggravating the depression conditions.[37] In the longer term adjustment in the Keynes Plan was to be through by compulsory symmetric exchange rate changes; depreciation by deficit countries and appreciation by surplus countries.

The system set up at the end of the SWW, however, differed from that proposed by Keynes and reflected more the preferences of the US. Two important aspects in which it differed from the Keynes'

proposals were firstly that the amounts available for BoP financing were limited and depended on its subscription to the currency holdings of the central body, called the International Monetary Fund (IMF).[38] Secondly, the adjustment process was asymmetric in that there was no pressure on surplus countries to undertake any adjustment.[39]

5.2 International Money

Before 1973, the BWS had three forms of international money: gold, IMF quotas and holdings of convertible currencies. The latter initially consisted mainly of the pound sterling and dollars. Gradually sterling was phased out and dollars became the main currency that was acceptable.[40] Dollars were convertible into gold, and the other currencies into gold or dollars. However, gold was gradually phased out starting in 1968 so currently the main international moneys are IMF quotas and US dollars. Consequently, convertibility of a currency today merely means that one can use the currency to buy other currencies.

Since the supply of gold grew slowly the increase in reserve holdings of countries depended mainly on increased holdings of dollars and such holdings could increase only if the US ran balance of payments deficits. This resulted in a dilemma during the first phase that came to be called the "Triffin" paradox.[41] If the US did not run deficits then the reserves of other countries would not increase in tune with their increase of trade.[42] They would then be tempted to reduce import demand either through restrictions on imports or keeping their incomes low. Either of such measures would reduce the level of world economic activity and incomes. If the US ran a BoP deficit then other countries would have larger reserves. But the stock of dollars with other countries could become so large compared to the gold holdings of the US that these countries would fear that the US would not be able to redeem the dollars in terms of gold, a requirement

of the system. This lack of confidence in the dollar would lead to a run on the dollar and a crisis. So either the world faced a shortage of international money and world depression or a run on the dollar and a collapse of the system.

This problem was tackled by two measures. Firstly, the Special Drawing Rights (SDRs) were created at the IMF in 1969 and increases in the quotas of SDRs, which can be done by the members of the IMF, would reduce the need for dollars.[43] Secondly, gold was phased out. The US would be under no obligation to convert dollars into gold. Nor would gold be used for payments between central banks. This meant that international money consisted only of the quotas that countries have at the IMF and their stocks of convertible currencies mainly dollars. This is the situation under the current system.

Without a quota increase a country's reserves can increase only if it has a BOP surplus. If the surplus is with other countries then the existing supply of international money would be merely re-allocated. Only if the surplus is with the US would the world supply of dollars increase, viz. international money supply would increase. Therefore, for the supply of dollars to increase for the whole world the other countries as a whole must run a current account surplus, viz. the US must run a current account deficit. This depends mainly on US policies.

If the US is running a deficit in the BoP then other countries are essentially extending a low interest loan to the US. Thus, the US has a vested interest in preventing an increase in the IMF quotas. The IMF quotas are periodically reviewed and, if the members agree, can be increased. However, the US can block a quota increase since such an increase requires an 85 per cent vote in favour and the US has over 17 per cent of the IMF's voting rights. There is a moral hazard problem as the US, that gains from quotas not increasing, can block any quota increase. Quota increases have not kept up with the growth

in world trade or capital flows. Whereas trade in goods has increased by a factor of almost 150 between 1950 and 2010, IMF quotas would increase by a factor of just over 80 if the latest quota increases are ratified. Capital flows have increased even more. In brief, the supply of international money is beyond the control of almost all countries.

The other major changes that have occurred in the system are the liberalisation of capital movements and the adoption of market determined exchange rates by an increasing number of countries. The original agreement represented a compromise between the views of bankers who wanted free capital movements and the views of the major negotiators Keynes and White that speculative capital movements would be incompatible with the objective of governments in giving primacy to the objective of domestic full employment.[44] The agreement was based on the premise that capital movements would be controlled.[45] The early experience, when capital account liberalisation of the pound in 1948 resulted in a run on the pound and a crisis, seemed to support capital account restrictions.[46] But gradually capital accounts were liberalised and the more frequent crises in the last two decades are said to be a consequence of this liberalisation.

With the collapse of the BWS the developed countries adopted floating exchange rates so that the exchange rate would change to bring about balance in the BOP.[47] Gradually developing countries are also adopting more market determined exchange rates as the efforts of many developing countries to maintain a fixed exchange rate has ended in a crisis.[48]

5.3 Balance of Payments Financing and Adjustment Policies

BoP financing can be private or public. For most of the period till 1973 countries could not borrow from private capital markets through

bonds or from private commercial banks. Private financing is now readily available to many countries and definitely to the BRICS countries, to meet normal current account needs. The experience of the 1980s showed that large stocks of private debt could lead to a debt servicing problem. Tackling this problem required more than a decade in Latin America, most countries in debt servicing problems were in Latin America, resulting in very low rates of growth. Private financing also usually dries up when a country faces a crisis. In fact a crisis can be defined as a situation when private financing is not available. Countries then have to have recourse to official financing, namely borrowing from the IMF.

Dependence on private finance also affects policy. To attract such finance a country has to retain the confidence of markets (Polak, 1981). Some economists consider this a benefit as it forces governments to follow "sound finance" and not indulge in large budget deficits. Others, however, see it as a detriment. The restriction on deficits can prevent useful government deficits. The credit agencies either downgraded the US government credit rating or threatened to do so, though nobody seriously thought that there was any chance of the US government defaulting on its loans-interest rates on the debt actually declined. But it forced the US government to reduce the size of the stimulus programme leading to a slow recovery, according to many economists.[49]

In the period before 1973 availability of private financing was limited. Both developing and developed countries in BoP difficulties borrowed from the IMF. The IMF imposed similar conditions on both developed and developing countries. The situation has changed substantially after 1973. Developed countries did not borrow from the IMF between the late 1970s and the current financial crisis that started in 2008.[50] Developed countries adopted flexible exchange rates

so exchange rate changes took the burden of adjustment and there were usually not prolonged periods of BoP deficits. Furthermore, the developed countries could borrow large sums from private sources.

Private financing remained limited for developing countries particularly the poorer developing countries of Africa and Asia. This meant that the Fund membership could be divided into developed countries who did not borrow from the Fund and who determine the Fund's lending policies because they have a voting majority and developing countries, which borrowed from the Fund, were subjected to various conditions for these loans. Over time in the 1980s and 1990s the conditions attached to the loans became more numerous and seemed to be less and less related to the crisis and more to a belief on what the structure of economic governance of a country should be. For instance, the 1997-98 crises in Korea and in East Asia generally arose because of over-borrowing by the private sector. Yet the conditions were imposed on the government. It was not clear how these would prevent mistakes by the private sector. Furthermore, one of the conditions was privatisation, based more on prior convictions than an analysis of what had caused the problem.

The amounts required to meet the financing needs during a crisis were much greater than the normal quotas that countries had. The IMF approved lending to Russia of US$ 38 billion (SDR US$ 24.786 billion) in the 1990s. In 2002 alone, the IMF approved a stand by programme for Brazil of US$ 30 billion. The IMF package for Mexico in 1994 was US$ 50billion, and for Thailand, Indonesia and Korea were US$ 21 billion, US$ 23 billion and over US$ 58 billion, respectively.

Such financing thus required additional discretionary funding and could then be used by the funders to attach conditions they thought fit.

Developing countries became increasingly unhappy with the operations of the IMF.[51] There were two aspects to this, the governance structure of the Fund and its lending policies. The managing director was always an European and the First Deputy Managing Director was always from the US. Furthermore the voting rights of the different countries and their representation on the Board of the Fund represented the structure of power in the world economy at the end of the SWW and not the current one. Developing countries argued that European countries had too much voting power and were over represented on the Board.

The policies attached to loans from the IMF sought to ensure rapid correction of any current account deficit. Originally the Fund's prescription for correction of a deficit was based on a combination of a devaluation and contractionary monetary and fiscal policies. The devaluation increased demand for a country's goods. The contractionary fiscal and monetary policies freed resources that could then move to the tradeables sectors to increase production there leading to higher exports and lower imports.[52] But later the fiscal budget was required to be always in balance and so during a deficit period the budget was expected to be in surplus. Also monetary policy became more contractionary in order to prevent capital outflows due to perceived increased risks of investing in the country. So policy came to have a pronounced deflationary bias.[53] On the other hand, there was no pressure on surplus countries to adjust.[54]

6. Response of Developing Countries: Reserve Accumulation and Special Financing Initiatives

6.1 Reserve Accumulation

The reluctance of countries to borrow from the Fund because of the conditionality has resulted in a build up of their reserves as a

precautionary measure. Such reserve accumulation by poor countries imposes a number of costs on the international system: (i) lending by poor countries to the much richer US is a misallocation of resources. (ii) It reduces the incentive for the US to change the system; reserve by almost all developing countries and not only China has allowed the US to run large deficits.[55] (iii) The G20 leaders believe that this pattern of current account balances caused the 2008 crisis and its elimination essential for restoring the world economy to stable and balanced growth.

Developing countries have increased their reserves whether measured against their imports, or short term debts or GDP or M2 as a precautionary measure. There is a sharp increase in these ratios after the 1997 Asian financial crisis. During the Asian crisis borrowed reserves were promptly withdrawn so that many countries will only feel comfortable if the reserves are accumulated by current account surpluses (Williamson 2010). But only about half of the total reserve accumulation has been because of current account surpluses (Williamson 2009).

The question then arises as to what is the level of desired reserves? Reserves are required to fiancé current account deficits and so are expected to cover the deficit for a period while adjustment occurs. Furthermore, many developing countries have borrowed through short term loans. Such loans are often withdrawn when the country faces a BoP crisis. So reserves must cover short term debt also. But it is increasingly recognised that with capital account liberalisation domestic money could be converted into foreign currency and withdrawn and the amount that can be so converted is given by the money supply, i.e. M2. Reserve accumulation was occurring on a large scale till the 2008 crisis. Countries with larger reserves seem to have weathered the storm better. Since then reserve accumulation has

either slowed down or reserves have even fallen in some countries.[56]

The reserves to short term liabilities (which are the sum of imports and short term debt) increased substantially for the BRICS countries before the 2008 crisis (Table 1).

Table 19: Reserves to imports and short term Debt Ratio

	1997	2001	2007	2011
Brazil	0.46	0.35	0.90	0.99
China	0.74	0.80	1.25	1.31
India	0.52	0.72	0.82	0.46
Russia	0.18	0.39	1.26	1.03
S. Africa	0.13	0.19	0.27	0.35

Source World Bank Development Indicators

Except for South Africa all the countries had ratios approaching 1. But since the crisis the ratio has declined in al the countries except China. It has also increased in South Africa though from a very low level. While the ratio is still quite healthy for Brazil and Russia India has joined South Africa in having a precarious ratio.

5.2 New Initiatives for BoP Financing

Developing countries have also undertaken new initiatives to provide additional BOP financing. Two of the main initiatives are the Chiang Mai Initiative Multilateralised (CMIM) and the Contingent Reserve Arrangement (CRA). The question is will the creation of the CMIM and the CRA usher in a new architecture to the IMS.

The CMIM was originally established as a bilateral swap arrangement among East Asian countries in the wake of the Asian financial crisis of 1997-98. It was later multilateralised and the amounts under the scheme were increased.

The CMIM has the characteristics of its origin as a network of bilateral swaps. Its membership is limited to the original members, which are China, Japan, Korea and the ASEAN countries, and there is no provision in its articles for new members to join. The reserves continue to be owned by the countries and would only be available if another country has made a funding request. Also a country can opt out of meeting a funding request; there seem to be no conditions specified under which a country can opt out.[57] At the time of the Asian financial crisis undoubtedly Korea would have opted out of meeting any financing request from other members as it was also facing a BoP crisis. Many analysts believe that only China and Japan would be in a position to meet any request that was made.

A macro surveillance unit has been set up under the CMIM to analyse the macro policies of the countries. In particular, it is expected to examine whether the policies that a country is following is sufficient to return it to BoP sustainability. But no analysis of its work or the theoretical framework underlying it seems to be available.

The CRA was created at the Sixth BRICS summit held at Fortaliza, Brazil in August 2014 "to forestall short-term balance of payments pressures, provide mutual support and further strengthen financial stability".[58] It seeks to achieve this provision of "liquidity and precautionary instruments in response to actual or potential BoP pressures". The resources committed to the CRA are initially US$ 100 billion with China contributing US$ 41 billion, Brazil, India and Russia each contributing US$ 18 billion and South Africa contributing US$ 5 billion. Each country retains rights to and possession of the committed resources but must make them available for any eligible request. A decision as to whether a request is eligible will be made by the Standing Committee on the basis of documents and information supplied by the requesting party. A decision can be taken by a simple

majority of weighted voting of the countries.[59] For the request to be considered the party shall not be in arrears with other BRICS countries or their public financial institutions. Nor must it be in arrears to any other multilateral or regional financial institution and it must be in compliance with surveillance and provision of information obligations to the IMF. 30 per cent of the eligible amount is de-linked from the IMF. To access the other 70 per cent the country must provide evidence that it is on an "on track arrangement with the IMF that involves a commitment by the IMF to provide financing to the requesting country". Another country can opt out of supplying the requested amounts if this is justified by the BoP and reserve position of the country.[60]

No new international money is created by either of the two schemes. The loans to countries requiring BoP financing will be in convertible currencies, mainly the dollar, and will be repaid in those currencies.[61] Since no new international money is created the member countries will have no control over the supply of international money and will not be able to vary it to suit their economic imperatives. This also implies that, though an additional source of BoP financing is now available, the burden of adjustment will remain on the deficit countries. Surplus countries will be under no pressure to adjust.

The major difference these schemes will make is that additional BoP financing will be available. But the amounts that will be available to the countries are small particularly if they do not have an IMF programme. Without an IMF programme China would be able to borrow US$ 6 billion under the CRA and South Africa US $3 billion while the other countries would be able to borrow US$5 billion. The CAD deficit that Brazil, India or South Africa is currently running is much larger. The CAD of Brazil averaged about US$ 50 billion during the years 2010 to 2012, that of India averaged almost US$ 7

billion during these years and that of South Africa averaged US$ 12 billions. However, with an IMF programme the BRICS countries can borrow additional amounts, which would be about 7 billion for South Africa and 13 billion for Brazil, India or Russia. These amounts are quite significant compared to their quotas at the IMF and therefore the sums that they would be eligible to borrow under various facilities of the Fund. The quota for Brazil is about US$ 6.4 billion, for China US$ 14.3 billion, for India US$ 8.7 billion, for Russia US$ 8.9 billion and for South Africa US$ 1.9 billion.[62] The countries can borrow upto twice their quota under the extended fund facility (EFF) in a year and this is about equal to their eligible borrowings from the CRA. In addition, they can borrow for three years under the EFF, namely for a cumulative total of 600 per cent of their quota. Furthermore, they can borrow even larger amounts under other schemes.[63] Furthermore, EFF can be for upto 10 years. Drawing from the CRA without an IMF programme can be for a maximum of two years, whereas, with an IMF programme it can be for a maximum of three years.

The amounts that the member countries can borrow under the CRA may be small compared to the current account deficits that they are running and also the size of recent rescue packages from the IMF. But it is a beginning.

Similar rules apply to the Multilateralised Chiang Mai Initiative of East Asia. The facility has been gradually expanded and currently US$ 240 billions is available (Siregar and Chabchitraidol 2013). Since it has become multilateralised it would be easier for a member to borrow. But one of the restrictive conditions remains. The period for which a country can borrow is very limited usually less than 2 years. Furthermore, originally only 10 per cent of a country's borrowing rights could be drawn without an IMF programme. Later it has been gradually increased to 20 and then 30 per cent. There are plans to

further raise it to 40 per cent. So without an IMF programme China, Korea or Japan could borrow US$ 11.5 billion. This is insignificant compared to their reserves. The only countries for which the borrowing amounts are significant compared to their reserves are Cambodia, Laos and Vietnam. Perhaps because of the various restrictions no country has as yet borrowed under it. Korea and Singapore preferred to activate their bilateral swap programme with the Federal Reserve of the US at the time of the 2008 crisis rather than borrow under the CMI and Indonesia asked the World Bank for financial assistance. Furthermore, there are no rapid response procedures to handle a fast developing emergency. Some analysts believe that it would be difficult to actually release funds as these can only be released subject to surveillance and conditionalities and as yet even though an implementing agency has been st up there are no institutional mechanisms for surveillance or to monitor conditionality.

The CRA or the CMIM would not as yet make a substantial difference to the IMS. They do not change the kinds of international money nor do they increase developing countries' control of the supply of international money. While the schemes would increase the amounts that would be available to their member countries to meet any BoP crisis the amounts available are unlikely to be sufficient to meet a serious crisis.

A serious shortcoming of the current schemes is that they do not incorporate any new model of BoP adjustment. Historically there have been two broad modes of adjustment to a BoP deficit. One is to reduce demand and output in the economy. This is how the gold standard operated for most countries. The other is through changes in the exchange rate. The members of CRA or CMIM have not indicated what their preferred mode of adjustment is, or whether they have an entirely different adjustment mechanism in mind.[64] The

CMIM, however, has established a macroeconomic research office to examine the compatibility of a country's policies with maintenance of external balance (Siregar and Chabchitraidol, 2013). It is not clear what is the macro framework used for such an analysis and how it compares with that used by the Fund. It is also not clear what advice has been proffered by the research unit and how it differs from that of the iMF in its consultations with the countries and how receptive the countries have been to that advice. The CRA has not yet set up any such macro analysis unit.

The establishment of the CMIM and CRA are, however, small beginning to break the monopoly of the Bretton Woods institutions. Maybe it may be a signal that the developed countries should be more serious about reforms at these organisations. However, the developed countries are unlikely to be serious about the reform of the Bretton Woods institutions unless they believe that the BRICS or other groups of developing countries are mounting a serious challenge to the hegemony of the Bretton Woods institutions.

7. Conclusions

Developing countries dissatisfied with the operation of the major institutions involved in international economic governance have started the process of establishing their own institutions. To avoid borrowing from the IMF developing countries have been running BoP surpluses in order to accumulate reserves as a precautionary measure. While the pace of reserve accumulation has slackened since the 2008 crisis most developing countries have weathered the crisis well as the growth rate of GDP has declined only slightly and most have not run into a BoP crisis. But such reserve accumulation has a high opportunity cost for developing countries as their savings are hoarded rather than invested. Developing countries have further bolstered their defences by establishing facilities such as the CMIM

and the CRA to provide additional BoP financing for their members. Though the amounts available under these schemes are compared to their quotas at the IMF they are small compared to the amounts that have had to be mobilised to meet the different BoP crisis over the past couple of decades. Also the schemes do not indicate any new model of BoP adjustment. The onus for adjustment would continue to remain on deficit countries.

The aid scenario does not seem very promising from the viewpoint of developing countries. The share of bilateral aid going for projects in the production or infrastructure sectors has been declining. An increasing share of such aid is channeled through earmarked funds at the multilateral agencies reducing the coherence of the assistance and orienting it more according to donor preferences than borrower preferences. Furthermore, both the World Bank and IDA face challenges in trying to continue their operations.

The NDA and CRA are as yet no challenge to the hegemony of the Bretton woods institutions. They however are a small beginning and may be a pointer of things to come.[65] It is like a swimmer on the seashore who gingerly puts a toe in the water to test the temperature.

Endnotes

1 These are Argentina, Brazil, China, India, Indonesia, Russia, Saudi Arabia, South Africa and Turkey

2 This suggests that some convergence may be occurring.

3 This may be considered ironic as these economies were considered by many analysts in the 1980s to be the leaders and drivers of the world economy, and, perhaps, vying for hegemony of the world economy.

4 The increase in South-South trade is discussed in greater detail in Agarwal (2013).

5 The share increased from under 10 per cent in 2007 to 20.3 per cent in 2009. Most of the regions increased their share of inward and outward flows of FDI. This is also true for BRICS.

6 We had to exclude Poland and Russia from the comparison as we could not get data on their GDP for the earlier years. Also there were a number of small European countries who were in the top 25 four decades, but have now dropped out. We took the top 25 countries in 2007 and then ranked them in the previous years dropping countries which were not in the top 25 in 2004 from the comparison.

[7] Turkey's rank declined by 4 between 1965 and 1981 and it then rose by 7 by 2007. The net rise was however only 3.

[8] This masks the sharp fall in its relative size between 1965 and 1980 and the subsequent rise. Since then it has further raised its rank, seemingly becoming number 2 in 2010.

[9] This was because of poor performance in the late sixties and early seventies, partly because of exogenous shocks as the poor harvests in 1965- 67, the oil price increases in 1973-4, the cost of feeding the refugees who came over from Bangladesh then east Pakistan and the later war with Pakistan, and the adjustment to cut-off of aid from the US and the world bank in the mid-sixties. The cut-off of US aid persisted whereas that of the World Bank was later reversed.

[10] It seems to have slipped to number 3 in 2010.

[11] In economic theory power usually means the ability to influence the working of the market and is usually measured by the ability to influence the price of a good because of monopoly or monopsony power. But there is an extensive literature on the concept and measurement of power in political science (Friedberg 1988).

[12] The faster growth of the US and Germany at the end of the 19th century was taken as a sign of the declining power of the UK. Similarly, faster growth in Germany and Japan after the Second World War was seen as a sign of declining US power. More recently more rapid growth in China and India particularly is seen to herald a shift in power. However, the German and Japanese challenge, particularly the latter seems to have petered out and should serve as a caution for projecting past growth rates into the future.

[13] For a discussion of the different methods that have been used in the literature see Agarwal (2011).

[14] For a more detailed analysis of the main contributors to the index see Agarwal and Samanta (2015)

[15] It is unclear whether this is because of the stricter intellectual property right laws which some theoretical models predict would lower the rate of innovative activity (Helpman 1993).

[16] Since the eigenvalues can be negative and some components of the associated the associated eigensvectior be negative the country can have a negative value for the indicator.

[17] For an analysis of the effect of the financial crisis on power see Agarwal and Samanta (2015). They find very little effect of the crisis on relative economic power.

[18] The increased distance of South Africa, Pakistan and Indonesia is marginal.

[19] Developed countries such as Canada and Japan which have lost relative power have been at the forefront of opposing the moves of the US to expand the G7/8 to the G20.

[20] The available data for Russia is for the industry sector of which manufacturing is usually a substantial part. Share of industry in GDP has declined in Russia.

[21] In line with the Heckscher-Ohlin trade theory developing countries being capital scarce would import capital intensive products so any import substitution would raise the capital output ratio in the economy.

[22] This increase in the high income countries could also be because of the decline in incomes in those countries. It would suggest that pledges to not increase trade protection have been successful and the decline in demand has fallen more heavily on non-traded goods.

[23] It has also been declining as a share of GFCF and of imports. For a fuller discussion see

[24] The Report of the IEG of the World Bank (2011) comes to similar conclusions. Among other observations it notes "Trust funds do not demonstrably provide additional resources at the global level. Donor countries generally allocate money to trust funds from within a fixed aid budget ." It goes on to say "Trust funds have not been a consistently effective way of providing financing. They do not necessarily integrate well with countries' own programs, nor do they foster coordination on the ground with other sources of aid. …Notably, many trust funds of global scope involve insufficient recipient participation in the design of their objectives and modalities and lack clear outcome objectives.

[25] The options being discussed are (i) loans to middle income countries for poverty reduction as most of the poverty would be concentrated in these middle income countries. (ii) decrease the amounts lent by IDA. (iii) increase the amounts lent to the remaining IDA eligible countries. These would be mainly in (SSA) and the issue whether these countries would have the absorptive capacity. (iv) lend for projects that supply global or regional public goods. These would be mainly in the areas of either public health or infrastructure.

[26] The options that are being explored in the current, 17th round of replenishment range from maintaining the real value of the replenishment to an 11 per cent decrease.

[27] These countries will have to pay an additional 50 basis points if they borrow more than their previous SBL limit, US$ 17.5 billion for India and US$ 16.5 billion for the others.

[28] India has a larger amount because of its greater need as levels of poverty are much higher.

[29] The details are contained n the agreement that can be accessed at http://brics6.itamaraty.gov.br/media2/press-releases/219-agreement-on-the-new-development-bank-fortaleza-july-15

[30] In essence this limits the voting power of the developed countries if they become members of NDB.

[31] For instance, India started borrowing from the World Bank and other bilateral donors only in 1958-59. But this debt was restructured 6 times between 1968 and 1976 (Rieffel, 2003).

[32] This state of affairs is predicted in the choice of techniques literature of the 1950s and 1960s. Choice of too labour intensive a technique would reduce the savings and so the investment and lower the growth rate. So higher employment today would be at the expense of lower employment tomorrow (Sen, 1960).

[33] Finance for manufacturing has been an important issue historically. Banks provided long term finance and to protect their investments they were involved in the management of enterprises (Gerschenkron, 1962). This pattern seems to have been replicated in Korea and Taiwan (Amsden, 1989, Wade, 1990). In the case of Russia, the state had to step in to provide the finance (Gerschenkron, 1962).

[34] Before the First World War the prevailing system was the gold standard. After the First World War countries tried to restore the gold standard; however, it never functioned very well in the post war period.

[35] The negotiations for the establishment of the Bretton Woods institutions are covered extensively in Gardner (1980) and Strange (1976). For an analysis of the original rationale for the IMF and the evolution of the different proposals see Keynes (1980). See van Dormael (1976) and Bordo and Eichengreen (1993) for a US perspective on the negotiations.

[36] He did not want full employment to be sacrificed at altar of BoP equilibrium.

[37] Countries in BoP difficulties could not get financing and so were forced to cut back on imports. Then their partners cut back on imports and the resulting reciprocal cutting back of imports in a number of countries resulted in a sever cutback in activity and employment in export sectors in all countries.

[38] Since the US expected to be the major surplus country in the post war period and so the creditor it wanted to limit the draft on its resources.

[39] A clause was included in the agreement, "the scarce currency" clause under which the partner countries could discriminate against the exports of a country whose currency was declared scarce. But this provision has never been used.

[40] Later in the 1960s countries held small amounts of Japanese yen and German marks.

[41] The problem was first discussed by Triffin (1980). The original Keynes plan (1980) avoided this problem. The surplus countries would hold their balances at the proposed clearing union. So the resources available to the clearing union and so the amount of international money would automatically increase.

[42] Countries tried to keep reserves equal to here months worth of imports.

[43] For a discussion of SDRs including their history see Williamson (2009).

[44] The US at that period accepted the need for restrictions on capital movements. For a detailed discussion see Helleiner (1996), Ruggie (1982) and Horsefield Vol. 3 (1969).

[45] For instance, Keynes (1980) said of the IMF agreement, "Not merely as a feature of the transition, but as a permanent arrangement, the plan accords to every member government the explicit right to control all capital movements."

[46] Kindleberger (2006) argues that this episode revealed the weakness of the pound which ultimately resulted in its devaluation in 1949.

[47] This had important implications for the IMS as discussed below.

[48] This is the result of what has come to be known as the impossible trinity, namely, that it is impossible to have a fixed exchange rate, liberalised capital flows and an independent monetary policy Obstfeld and Taylor (1997).

[49] There is also a bias in the evaluations of government actions. While cuts in tax rates and subsidies given to corporations are favoured safety nets and other pro-poor expenditures are frowned upon.

[50] The last borrowing till the recent crisis was by the UK in 1977.

[51] Khan (2011).

[52] This analysis was developed at the IMF. See Alexander (1952). Also see Johnson (1962). There is no evidence, however, that the IMF used the Mundell (1960) and Fleming (1952) frameworks to ensure both internal and external balance.

[53] The policies adopted came to resemble those countries adopted during the gold standard period when maintaining external balance was paramount and policy makers felt no responsibility to maintain internal balance.

[54] There is also an asymmetry between the US and other countries. Since the US dollar is the international currency there is no pressure on the US to adjust.

[55] Detailed analysis shows that of the 11 non developed countries in the G20, namely those other than the G7 and Australia, China is usually in the middle in the extent and speed of its reserve accumulation (Agarwal 2013).

[56] Of the 11 non developed countries in the G20, more countries have had a fall in the reserve ratio than an increase n the reserve ratio since the 2008 crisis independently of whether the ratio is of reserves as a percentage of GDP, imports, short term debt or M2.

[57] Countries can opt out of meeting a funding request by the IMF if their BoP position Is not comfortable.

[58] Article 3bi gives the Governing Council the power to admit new members, but lays no conditions for who can be a new member. See http://brics6.itamaraty.gov.br/media2/press-releases/220-treaty-for-the-establishment-of-a-brics-contingent-reserve-arrangement-fortaleza-july-15 for the agreement. This lack of conditions is in contrast to the New Development bank which was set up at the same meeting. Any UN member is eligible to become a member of the Bank with a minimum subscription of 4100,000 and a maximum subscription of 7 per cent of the total capital.

[59] 5 per cent of the votes will be divided equally among the members. The rest will be apportioned according to their contributions.

[60] A country can also opt out by an event of force majeure such as war or natural disaster.

[61] This is explicitly stated in the agreement establishing the CRA.

[62] The quotas are expressed in terms of SDR and the value of the SDR is determined in terms of a basket of currencies and so its value fluctuates with respect to any currency. The above dollar values for the quotas are based on the dollar value of the SDR in September 2014.

[63] The PCL works as a renewable credit line with a duration between one and two years. Qualifying countries have front loaded access up to 500 per cent of quota made available on approval of

the arrangement and up to a total of 1000 per cent of quota after 12 months upon satisfactory progress in reducing their vulnerabilities. See http://www.imf.org/external/np/exr/facts/pdf/pcl.pdf

64 Since exports are important for all the members devaluation may be frowned upon.

65 Already the BRICS are thinking of setting up their own credit rating agency.

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