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A BRICS DEVELOPMENT BANK: A DREAM COMING TRUE?

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A BRICS DEVELOPMENT BANK: A DREAM COMING TRUE?

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Abstract

BRICS leaders have approved creating a new development bank which would fund long-term investment in infrastructure and more sustainable development. This paper documents the scale of unmet needs in these areas in developing and emerging economies. It then estimates the likely level of loans that this new development bank could make, under different assumptions. It highlights the complementary role that such a bank would play with existing development banks and shows its importance for enhancing the influence of BRICS and other developing countries in the international development architecture.

I. INTRODUCTION

There has been a fundamental change in the international economy, especially so in the last decade. Emerging and developing countries have significantly increased their weight in global GDP and especially in global economic growth; in particular, they have been responsible for most of the growth in the world economy since the 2007–2008 crisis. Perhaps most important in the context of this paper, some emerging and developing economies have accumulated very large long-term foreign exchange assets, which they have typically placed in Sovereign Wealth Funds. The share in the world total, as well as the absolute level of foreign exchange reserves that emerging and developing countries have accumulated, has also grown remarkably in the last decade. A large part of these resources are invested in developed countries, with relatively low yields (see, for example, Griffith-Jones, 2011).

At the same time, there are very large unmet needs in the emerging and developing countries, most clearly in the field of infrastructure and more environmentally sustainable forms of development where a deficit of investment of up to around US$1 trillion annually has been identified beyond what is currently likely to be financed (Bhattacharya, Romani and Stern, 2012; Bhattacharya and Romani, 2013). The persistence of such a major deficit would constrain future growth of developing and emerging economies, as well as imply that a large proportion of the world's population would continue not to have access to electricity and clean water.

The fact that emerging and developing countries have the necessary savings and foreign exchange reserves to finance a new development bank that could contribute to finance such investment makes a clear case for such an institution to be created. This institution would be a complement, not a substitute, for existing financial institutions both in the public and the private sector. Its existence would clearly strengthen the voice of developing and emerging economies in the development finance architecture, as well as provide much needed additional finance.

In this context, it is very welcome that the leaders of the BRICS countries (i.e. Brazil, the Russian Federation, India, China, and South Africa) approved in March 2013, during their meeting in Durban, the creation of a new Development Bank to finance investment in infrastructure and more sustainable development in BRICS and other emerging and developing countries. This is reflected in the March 2013 Durban Summit Declaration and Action Plan:

> In March 2012 we directed our Finance Ministers to examine the feasibility and viability of setting up a New Development Bank for mobilising resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, to supplement the existing efforts of multilateral and regional financial institutions for global growth and development... We have agreed to establish the New Development Bank. The initial contribution to the Bank should be substantial and sufficient for the Bank to be effective in financing infrastructure (BRICS, 2013: paragraph 9).

The paper is structured as follows: section II places the BRICS Development Bank in the context of the broader needs of a South-South financial architecture and outlines some of the other existing gaps in the financial architecture of Southern countries. Brief reference will be made to other Southern initiatives that are taking place or are desirable in this context. In relation to the BRICS development bank, section III addresses the needs in infrastructure and more sustainable development that should be met in developing and emerging economies, including the BRICS themselves, thus defining the level of finance required for infrastructure investment and more sustainable development. Section IV addresses features that a BRICS development bank could have to achieve its envisaged mandate, including possible trade-offs, where these exist. Naturally, the ultimate decisions on the size and other features of the BRICS development bank will be taken by the BRICS Governments themselves, but discussions of the technical options, and of related relevant experiences, may provide helpful inputs for those decisions. The type of issues to be discussed will include the capital level, as well as its structure, the scope of its lending, as well as its governance structure. Section IV also examines the way in which the BRICS development bank would cooperate with other development finance institutions, both public and private ones. Section V concludes.

II. EXISTING GAPS IN THE SOUTHERN FINANCIAL ARCHITECTURE

As we will discuss in more detail in the next section of this paper, there is a massive gap in development finance relating to the unmet needs for long-term financing to fund infrastructure and more sustainable development. Yet, this is clearly not the only need for the financial architecture of the South.

An equally important need is the provision of short-term liquidity by Southern institutions. The significance of such financing has again been shown by the very large capital outflows from emerging economies, leading to falling exchange rates, as a result of the announcement that the United States Federal Reserve may start “tapering” Quantitative Easing (QE), and later as a result of the beginning of actual tapering. This impact has happened, even though at the time of writing fundamentals (such as levels of foreign exchange reserves, debt to GDP ratios, inflation and growth) have in most emerging economies been sound. The uncertainty caused by the conflict between parts of the United States Congress and the United States President leading to fears of a default on short-term Treasuries, as well as the partial closing down of the United States Government due to disagreements on the United States Budget, have further shown the potential vulnerability of the emerging and developing economies to external shocks coming from the developed economies.

Though the International Monetary Fund (IMF) exists to provide short-term balance of payments financing, such funding is often insufficient, and is often tied to inappropriate conditionality. There is therefore a clear gap for a broad-based Southern-led monetary fund, that can be led by the BRICS, and that builds on the experience of, and complements existing regional Southern institutions. Examples of the latter include the original Chang Mai Initiative – which has evolved into the 10+3 foreign-exchange reserves pool established by the Association of South-East Asian Nations (ASEAN) plus China, Japan and the Republic of Korea, with a size of 240 billion US dollars, called CMIM, or Chang Mai Initiative Multilateralization – and the smaller-scale Fondo Latinoamericano de Reserva (FLAR).

The aim of CMIM is to strengthen the capacity of its member states to protect themselves against increased risks and challenges in the global economy. The core objectives are to address balance-of-payments and short-term liquidity difficulties in the region, as well as to supplement existing international financial arrangements. CMIM is limited to a regional grouping and to a currency swap. Moreover, it remains linked to the IMF, as only 30 per cent of a member's quota is accessible without the prior agreement of an IMF programme, though the share that is available without an IMF programme has been increasing, and reportedly the goal is for it to go up to 40 per cent by 2014. It is encouraging that at the Durban Summit the heads of state of the BRICS agreed to establish the BRICS Contingent Reserve Arrangement (CRA) – a stabilization fund of US$100 billion in reserves. Indeed, the CRA is a coordinated central bank fund which is set up to provide mutual liquidity in the event of a crisis, probably without the involvement of the IMF.

Thus, one likely key difference from the CMIM is that the BRICS CRA will not include a link to the IMF, which brings about policy conditionality in the event of crisis (Younis, Watson and Spratt, 2013). In this sense the BRICS CRA would be similar to the FLAR, which has no link with IMF conditionality. The initiative to establish a BRICS CRA was reflected in the Durban Summit Declaration and Action Plan:

> In June 2012, in our meeting in Los Cabos, we tasked our Finance Ministers and Central Bank Governors to explore the construction of a financial safety net through the creation of a Contingent Reserve Arrangement (CRA) amongst BRICS countries. They have concluded that the establishment of a self-managed contingent reserve arrangement would have a positive precautionary effect, help BRICS countries forestall short-term liquidity pressures, provide mutual support and further strengthen financial stability. It would also contribute to strengthening the global financial safety net and complement existing international arrangements as an additional line of defence. We are of the view that the establishment of the CRA with an initial size of US$100 billion is feasible and desirable subject to internal legal frameworks and appropriate safeguards. We direct our Finance Ministers and Central Bank Governors to continue working towards its establishment (BRICS, 2013: paragraph 10).

Furthermore, as emerging economies began to be affected quite strongly by the announcement by Federal Reserve Chairman Bernanke that "tapering" of QE could start soon, informal coordination between BRICS leaders has been reported. Widely reported in the press was the fact that Brazilian President Rouseff and Chinese President Xi Jinping spoke late in June 2013 on "ways to strengthen policy coordination" in the context of the recent depreciation of their currencies, especially against the dollar (Younis, 2013). Thus possible BRICS institutional developments, such as the creation of a CRA, are being preceded by informal coordination, the urgent need for which is being catalysed by events. The CRA would be the first attempt to broaden such agreements to a global level amongst emerging economies.

At the time of writing, it is encouraging that the Deputy Governor of the People's Bank of China, Yi Gang, was reported as saying to the Chinese press that the BRICS countries were close to consensus on the establishment of a CRA. He specified that consensus had been reached between the BRICS countries on the ratio of contributions, operation mechanisms, governance structure and loan to value ratio. He reported that "the working group of the CRA was actively pushing the process forward". As market volatility and uncertainty swell, according to Mr. Yi, the CRA will be conducive to enhancing confidence among BRICS countries. Mr. Yi also told a media briefing that China will contribute the "biggest share" to the fund, but not exceeding 50 per cent of the total contributions. He did not give out any more details (Economic Times, 28 August 2013).

At the same time, it was reported in Reuters that members of the Indian Government had informally said it was seeking support from other emerging economies for coordinated intervention in offshore foreign exchange (Kumar, 2013). India's currency had shed a fifth of its value against the dollar in three months. It was disappointing that such support was not forthcoming, and India received support instead from a developed economy, Japan. In some ways, a race against time has emerged, as the need for the CRA has come with some urgency, at a moment when the CRA was clearly approved in principle but whose details had not yet been agreed, and therefore was not quite ready for use. Indeed, this urgency could hopefully provide an impulse for the CRA to be quickly finalized, implemented and used. This could show the effectiveness of BRICS mechanisms at a difficult time for some BRICS countries.

III. INFRASTRUCTURE AND MORE SUSTAINABLE DEVELOPMENT NEEDS IN THE EMERGING AND DEVELOPING COUNTRIES

It is interesting that most regional and multilateral development banks have started their existence with a major or exclusive focus on infrastructure. For example, the European Investment Bank (EIB) started its operations with the aim of building key infrastructure that helped integrate infrastructure between European countries, as a complement to trade integration of a more classical kind (such as lowering tariff barriers) and of building infrastructure in the poorer areas of the European Union (such as the Southern parts of Italy) to help encourage convergence between poorer and richer regions, especially because it was feared that, otherwise, trade liberalization would risk increasing the divergence between richer and poorer regions. Similarly, the World Bank was originally established to support the reconstruction of European infrastructure after World War II. Over the course of time, most of these regional and multilateral banks diversified and expanded their activities to lend to other sectors (e.g. social sectors, indirect lending via global loans channelled through commercial or other banks to SMEs), and in recent years, have increasingly focussed on more sustainable development.

The rationale for the BRICS development bank has been built focussing on the major needs in infrastructure and more sustainable development. Thus, Bhattacharya, Romani and Stern (2012) as well as Bhattacharya and Romani (2013) – both of which have been very influential with the BRICS Governments – make the case for a major step increase in investment in infrastructure and more sustainable development, based on the need for growth, structural change, inclusion as well as sustainability and resilience. Firstly, developing countries need a step-increase in infrastructure investment to accelerate economic growth and development. There is extensive empirical evidence that infrastructure development can increase economic growth and reduce levels of inequality (Mwase and Yang, 2012; Agénor and Moreno-Dodson, 2006; Straub, 2008). As countries move from primary to secondary and tertiary sector-based economies, infrastructure needs expanding. Furthermore, there is strong evidence that a lack of infrastructure is a barrier to growth. As regards structural change, with around two billion people projected to be moving into urban centres in emerging and developing countries in the next three decades, there is a great need for major investments in urban infrastructure.

As regards inclusion, infrastructure is crucial for increasing access to basic services by poor people. Deficits are very large, as 1.4 billion people have no access to electricity, 0.9 billion people do not have access to clean drinking water and 2.6 billion lack access to sanitation. Helping provide these basic needs is a pre-condition for a more inclusive pattern of growth (Bhattacharya, Romani and Stern, 2012).

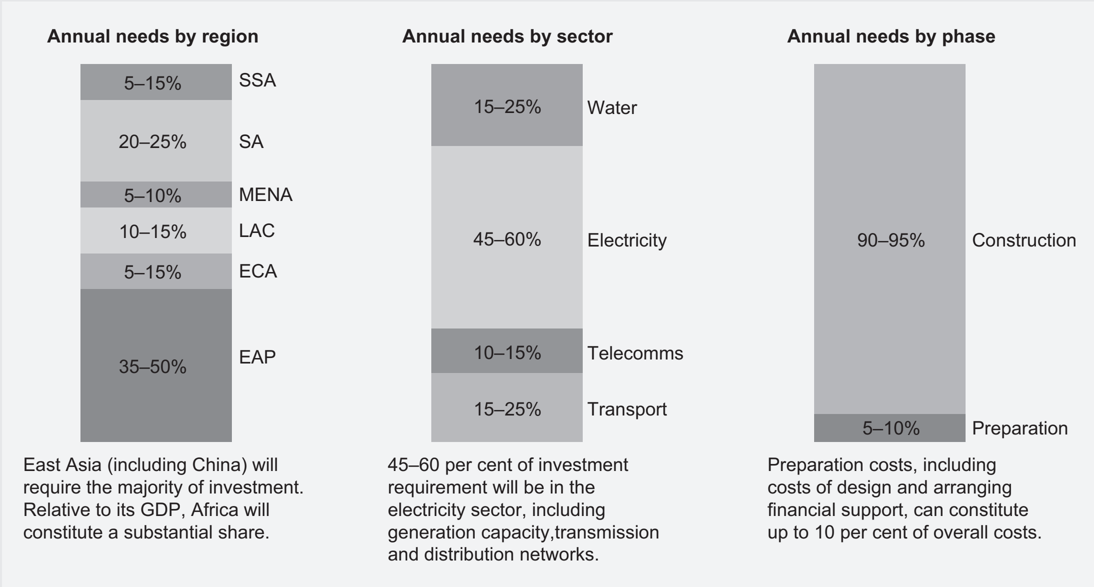
Last but certainly not least, it is crucial for development that environmental sustainability and climate resilience is guaranteed, and this requires new infrastructure. This implies reducing the environmental impacts of existing infrastructure, adapting it to a changing climate, and designing new infrastructure creatively to promote environmentally sustainable lifestyles, as well as a broader model of development. Investment in infrastructure, which enables the use of renewable energy, is an important initiative to promote development that is environmentally sustainable (Spratt, Griffith-Jones and Ocampo, 2013).

To meet these objectives, Bhattacharya, Romani and Stern (2012) have estimated the annual need for infrastructure investment. They project broadly that investment spending in infrastructure (excluding operation and maintenance) in emerging and developing countries will need to increase from approximately US$0.8–0.9 trillion per year currently, to approximately US$1.8–2.3 trillion per year by 2020, or from

Figure 1

Annual needs of developing and emerging economies for infrastructure, by region, sector and phase

(Per cent, $1.8–2.3 trillion)



Source: Bhattacharya and Romani (2013).

Note: US$ trillion per year (2008 real prices), capital investments only (excl. operation and maintenance costs); note the $200–300 billion annual requirement for sustainability is assumed split in the same ratio as the other investments across regions, sectors and phases. EAP (East Asia and the Pacific), ECA (Europe and Central Asia), LAC (Latin America and the Caribbean), MENA (Middle East and North Africa), SA (South Asia), SSA (sub-Saharan Africa).

around three per cent of GDP to 6–8 per cent of emerging and developing countries' GDP. This includes about US$200–300 billion to ensure that infrastructure results in lower emissions and is more resilient to climate change.

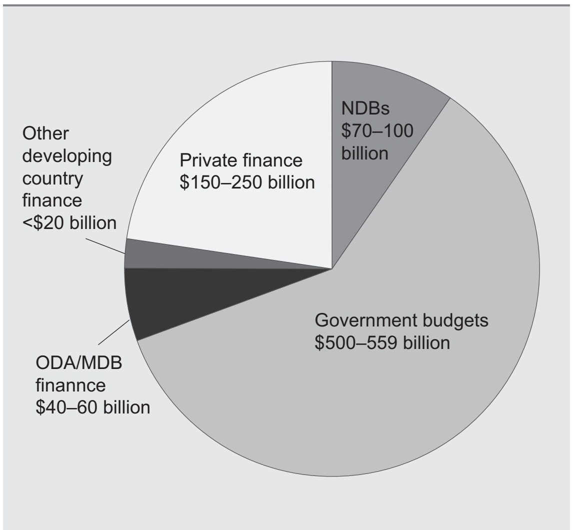
The calculations suggest that, in absolute terms, East Asia and the Pacific has the largest need for infrastructure investment, while as a share of GDP, sub-Saharan Africa has the largest needs (figure 1). As regards categories of countries, low- and lower-middle income countries account for 85 per cent of total needs. Regarding economic sectors, the largest needs, i.e. 45–60 per cent of the total, are estimated to be in the electricity sector, including generation capacity, transmission and distribution networks, with the remainder roughly equally distributed between the transport, telecommunications and water sectors (figure 1). Though most of the investment will be needed in the construction phase, it is important to stress that between 5–10 per cent will need to be invested in project preparation and arranging funding. The high proportion of the latter is an important feature of the planned BRICS bank, as it is sometimes considered that existing development banks do not devote sufficient resources to this purpose.

An additional important function of a BRICS bank would be to collect the experience of many projects in a centre of expertise. A useful extension of such a centre of expertise could be to provide technical assistance for project implementation and for project preparation. Recent analysis and experience (for example of the EIB) have stressed the importance of providing technical assistance for project preparation and implementation, especially in the case of low-income countries.[1]

[1] I am grateful to Matthias Kollatz, but also others, for making this point.

Figure 2

Current annual spending on infrastructure of developing and emerging economies, by source of financing



Source: Bhattacharya and Romani (2013).
Note: NDBs refer to National Development Banks, 'Other developing country finance' to South-South flows and ODA/MDB to Overseas Development Assistance/Multilateral Development Banks.

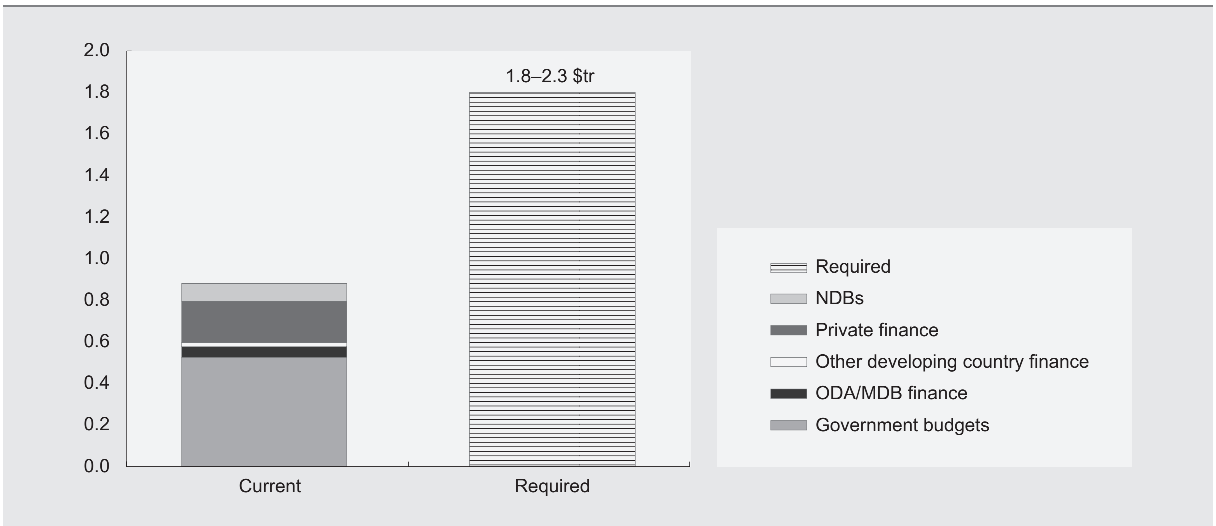
As already mentioned, current annual spending on infrastructure is estimated to reach around US$0.8–0.9 trillion (figure 2), leaving an estimated gap of unmet needs of between US$1.0–1.4 trillion (figure 3). As shown in figures 2 and 3, the main source of financing investment in infrastructure at present are national government budgets, which fund well over 50 per cent of the total; this national public share rises further if investment by national development banks is added, with the total of both categories summing up to US$570–650 billion annually. Domestic budgets will continue to play an important role in the future. However an increase in financing investment in infrastructure from national budgets will inevitably be constrained by macroeconomic considerations regarding sustainable levels of debt and budget deficits.

The next main source is private finance, which is estimated to provide US$150–250 billion annually (figure 2). One problem of this type of funding is that it is very pro-cyclical, and tends to fall during and after crises. Such a sharp decline of private finance for infrastructure investment in developing and emerging economies happened after the 1997–1998 East Asian crisis, and has also occurred since 2008, especially in relation to private bank finance. The capital outflows from emerging economies in the second half of 2013 – prompted by the fear of tapering of QE2 – would make attracting long-term private finance even more difficult. Private finance is also heavily concentrated in certain sectors, such as telecommunications, and in middle-income countries.

Figure 3

Annual financing gap between current and required investment in infrastructure, by developing and emerging economies

(US$ trillion)



Source: Bhattacharya and Romani (2013).
Note: NDBs refer to National Development Banks, 'Other developing country finance' to South-South flows and ODA/MDB to Overseas Development Assistance/Multilateral Development Banks.

Overseas Development Aid and existing Multilateral Development Banks (MDBs) finance provide only an estimated US$40–60 billion annually, and South-South flows are estimated to finance only around US$20 billion or less annually.

The resulting financing gap amounts to US$1.0–1.4 trillion annually, depending on how the estimations are done (figure 3). The main, though not the only, reason for creating a BRICS development bank is that it can contribute to bridge that crucial gap. The fact that the estimated financing gap is so large is an important reason for providing the BRICS bank with a large capital endowment. Another reason to create a BRICS bank is to give emerging and developing countries greater voice in the development finance architecture, at a time when they clearly have the financial resources to do so. From the perspective of the BRICS themselves, as well as other potential contributors of capital to the new bank, there are clear advantages in putting a small part of their existing reserves into long-term investment in developing countries, as this offers them clear benefits of diversification, as well as improving facilities for infrastructure in countries with which they increasingly trade and invest in.

IV. KEY FEATURES OF A BRICS BANK

As pointed out in the Introduction, this section will address features that a BRICS development bank could need to achieve its envisaged mandate, including possible trade-offs, where these exist. Naturally, the ultimate decisions on the BRICS development bank will be made by the BRICS Governments themselves, but discussions of the technical options, and of related relevant experiences (for example of the Development Bank of Latin America (CAF) and the EIB) may provide helpful insights for those decisions. We will discuss here the scope of a BRICS bank lending activities, the level and structure of its capital endowment, and its governance structure. How the BRICS development bank would cooperate with other development finance institutions, both public and private, will also be examined.

A. Scope of lending and other instruments

The scope of sectorial and country-specific lending of a BRICS bank has been clearly defined by the BRICS leaders in the Durban 2013 Summit Declaration as "mobilising resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries" (BRICS, 2013: paragraph 9).

The fact that the unmet needs in the area of infrastructure and sustainable development are extremely large and that such investment is crucial for inclusive and more sustainable growth – with only half of it currently being met by existing financial sources – justifies the BRICS leaders' decision to focus the operations of a BRICS bank on this area. It is important for the move towards a greener economy that investment in infrastructure is broadly defined, so it also includes infrastructure investment such as for renewable energy, like solar, wind and others. A case could also be made for a BRICS bank to finance innovation regarding both the adaptation of technologies already developed to the conditions of emerging and developing economies and, even more ambitiously, the development of such innovation in the borrowing countries themselves. In this regard, the EIB's experience in allocating an increasingly large share of its financing to innovation could provide useful lessons.

Furthermore, given that there are unmet needs in other sectors in developing and emerging economies (like lending to SMEs, which is crucial for growth and employment, as well as financing innovation and innovative firms which is key for increasing productivity) and the risk-reducing effects of having a diversified portfolio, this may in future justify that the BRICS bank expands its scope into other sectors, like lending via commercial or development banks to SMEs.

As regards the infrastructure and sustainable development sector, the overall un-met needs are massive, as discussed above. Firstly, this means that the scale of lending of the BRICS bank needs to be large enough to make a meaningful impact. Below we discuss estimates for how much lending can be generated by a particular level of capital of a BRICS bank. Furthermore, the impact of a BRICS bank must be measured in terms of its capacity to leverage, through its co-financing of projects with the private and public sectors. National and regional development banks – as well as the World Bank – will be natural partners. It is interesting to note that regional or multilateral development banks are often most successful in those countries that have efficient and well-established national development banks. This is because of the valuable synergies between them with, for example, national development banks having greater local knowledge of national projects and local regulations as well as risks, and international or regional institutions having greater comparative experience of best international or regional practice, regarding engineering, design and financial packaging. An example was given in interviews with EIB senior management, who argued that outside Europe, the EIB found it particularly productive to work with countries like Turkey, because Turkey has a well-functioning national development bank.[2]

An important issue is the quality of the loans made. There is a potential trade-off here between the speed of growth of a portfolio of loans and the quality of loans. Though the scale of operations is clearly important, a high quality of loans is an important priority as it maximizes the likely development impact of the projects and minimizes the risk of default on loans; the latter is important for improving the credit rating of the BRICS bank. It is also important for ensuring that a BRICS bank makes profits on its loans, as those profits can be reinvested in the BRICS bank, allowing an expansion of capital, which will facilitate increased lending in the future (see below).

Initial speed in building up a portfolio of loans should not be at the expense of the quality of projects. Devoting resources to project preparation, including with financial resources provided by a BRICS bank, is a key component for improving the quality of projects. Rigorous evaluation of projects by the BRICS bank, as well as a strong professional approach to such evaluations, is extremely important. Autonomy of management of a BRICS bank for approving only technically well-designed projects is important. Indeed, the EIB and CAF pride themselves that their decision-making process is reportedly autonomous in that sense.[3]

A second important issue is the degree of financial "sophistication" of the instruments used. Firstly, the more complex the products, the longer they take to be designed and implemented. So-called "plain vanilla" loans can be made much faster than more complicated loan structures. Transactions involving equity take even longer (though they have desirable features, such as capturing part of the "upside" if projects are very profitable). Therefore beginning with simple products can help quickly build up a portfolio of assets. Secondly, the experience of the North Atlantic crisis (as the so-called global financial crisis can more precisely be labelled) that started in 2007–2008 indicates that complexity often breeds opaqueness and leads to greater risk and future losses, linked to the financial engineering and hidden excessive leverage. Indeed, though a BRICS bank may wish to assume greater project risks (e.g. investing in projects with less tested technologies, or investing in very poor countries, with weak existing infrastructure) when these projects have potential large developmental or other benefits, it should avoid taking purely financial risks that could lead to substantial losses. We refer to purely financial losses, in the sense of those instruments, like those that have higher embedded leverage, that can create higher returns, but also potentially very high losses. Public development banks should not be in the business of taking on such excessive financial risk, which has had such disastrous effects on private banks.

For the above reasons, simplicity of instruments seems desirable, especially in the initial phases of a BRICS bank, which is probably the opposite advice to what investment bankers will give a BRICS bank. Simplicity and transparency should also characterize the investments that a BRICS bank makes with any surplus liquid funds. The search for high short-term profits made some development banks (both

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[2] I am grateful to Matthias Kollatz, but also others, for making this point.

[3] Interviews with senior management of both EIB and CAF.

national, such as some of the German *Landesbanken*, as well as regional ones) invest in assets that later led to major losses, during the North Atlantic financial crisis. This should be avoided by a BRICS bank.

B. Capital level

As reported in the press, officials from Brazil, the Russian Federation, India, China and South Africa have agreed to set up the BRICS bank with a total capital of US$50 billion, shared equally among them (for example, Wall Street Journal, 28 August 2013). It has also been reported that 20 per cent of this capital, or US$10 billion, would be paid-in. One proviso which should be mentioned here is that, once the BRICS bank is established, BRICS countries could consider making additional contributions to already paid-in capital, i.e. beyond the initial US$10 billion; this would have the advantage of generating future lending capacity in addition to that estimated below.

One option that has been discussed in this context is that non-BRICS countries (emerging and developing, as well as developed ones) could also contribute capital – either right at the beginning or only after the bank has been established. Assuming a total capital endowment of US$100 billion, of which 20 per cent would have been paid in, the level of annual lending could reach, after 20 years, a stock of loans of up to US$350 billion, equivalent to about US$34 billion annually. The latter amount could be used for investment projects worth at least US$68 billion annually, given that there would be co-financing by private and public lenders and investors. In what follows, we outline in detail levels of lending of a BRICS bank under different scenarios and assumptions.

To estimate the level of loans that such a capital endowment would generate, it is useful to look at similar development banks. One valuable precedent is provided by the CAF, though the credit rating of BRICS countries, especially China, is somewhat higher than that of CAF member countries. Nevertheless, the CAF has the advantage of being an institution with a long and very positive track record, including the fact that none of its borrowers has ever defaulted on any of its loans. In the period between 2007 and 2012, the average ratio of the total portfolio of CAF loans divided by its total available capital was 2.4.[4] Here total available capital is defined as paid-in capital plus reserves and retained profits plus surplus capital.

In the case of the BRICS bank, we can assume that in the first year there would be no retained profits, but these could start building up. Assuming paid-in capital to amount to US$10 billion, which is 20 per cent of the US$50 billion of total capital in principle agreed by BRICS leaders, and applying the same leverage ratio as that of the CAF, the initial stock of loans that could be achieved would be US$24 billion. Further assuming the average loan maturity to be ten years, the average annual loan level could be US$2.4 billion. In this context we are assuming that lending would be based only on actually available capital, i.e. paid-in capital, given the priority to achieve a high rating (and the fact that rating agencies tend not to consider callable capital as a base for lending, though an effort should be made to persuade rating agencies that callable capital should also be given some weight, especially as several of the BRICS countries are highly rated). The high rating would allow a low cost of borrowing on international capital markets.

However, if we assume that the BRICS bank could make a return on its lending of, for example, five per cent, the accumulated profits could reach US$0.12 billion the first year; if the profits were immediately retained and thus added to available capital, lending the next year could be five per cent higher. Therefore, profits in the second year would also be five per cent higher, which would further increase capital. By the power of compound interest, after a period of ten years, the total stock of accumulated lending would reach US$34 billion, and total available capital would reach US$14 billion. Therefore, annual lending could reach US$3.4 billion. After a period of 20 years, the total stock of lending could reach US$86 billion and total available capital would have increased to US$36 billion. By that time, therefore, annual lending

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4 I thank German Rios, CAF representative in Europe, for providing this information.

Table 1

Ratings for BRICS Governments by Moody's; long-term issuer ratings (foreign)

Country	*Rating*	*Date*	*Definition*
Brazil	Baa2	June 2011	Investment grade. Medium, moderate credit risk
Russian Federaion	Baa1	March 2013	Investment grade. Medium, moderate credit risk
India[a]	Baa3	December 2011	Investment grade. Medium, moderate credit risk
China	Aa3	April 2013	Investment grade. High quality and very low credit risk
South Africa	Baa1	July 2013	Investment grade. Medium, moderate credit risk

Source: Moody's (2013).
a For India, the rating is for domestic long-term issuer.

could have gone up to almost US$9 billion. It may be desirable to discuss in detail these options with rating agencies to explore what the impact would be for different levels of capital, and whether some additional weighting could be given to callable capital being allowed as a base for additional lending, as would seem logical, given the fairly high ratings of BRICS member Governments; all of them have investment grade, according to Moody's, as can be seen in table 1.

However, the BRICS bank could lend more if it was less concerned about its initial rating, and therefore about the cost of its funds in the market and the cost of its loans. Assuming its leverage ratio to be double that of CAF, its initial lending capacity would be US$48billion; when profits were accrued and reinvested on an annual basis (following the same logic and formula as in the previous paragraph), the BRICS bank could, after a period of ten years, reach a total stock of lending amounting to US$68 billion and its total available capital would reach US$28 billion; this would imply a level of US$7 billion of annual lending capacity, if still assuming ten year average maturity of loans. After a period of 20 years, the total stock of lending could reach US$172 billion and the total available capital would have reached US$72 billion. This would mean a level of net lending of nearly US$18 billion annually. Furthermore, part of the financing of the loans by the BRICS banks could possibly be funded by sources other than the international capital markets, such as Sovereign Wealth Funds, that may be less dependent on the rating of credit rating agencies, which could further increase its lending capacity.

The levels of loans could be even higher once a payment record was established by the BRICS bank that would increase its ratings above that of its member countries, as has occurred in the case of the CAF, which has traditionally had higher ratings than its member countries. More recently the EIB has maintained its AAA rating whilst several of its member governments have lost their AAA rating as a result of the European sovereign debt crisis. Another reason why development banks have higher ratings for the bonds they issue than their member governments is that their bonds are issued against their asset book, such as infrastructure projects, which have concrete value.

Furthermore, if as discussed below, developed economies with higher ratings were also to contribute some (minority) capital, the rating of the BRICS bank would increase further. Care would be needed to ensure that these were developed countries with a rating higher than that of the BRICS countries, and likely to remain high. This warning emerges from the fact that the CAF has developed country members, such as Spain and Portugal (initially invited partly to provide higher rating to the CAF), that now have a lower rating than the CAF itself!

An alternative route to raise the rating of the BRICS bank could be to increase the proportion of capital contributed by the Government of China, which Moody's has given a very high rating – Aa3 in April 2013, which is equivalent to investment grade, high quality and very low credit risk (see again table 1).

If China were to account for a higher share of paid-in capital, additional advantages would emerge (such as a higher level of total paid-in capital, given that China commands such high levels of reserves, which could then lead to higher levels of lending by the BRICS bank), but also the potential disadvantage of creating excessive dominance by China in the governance and decision-making of the BRICS bank. However, if capped – as was the case for the initial phases of the EIB with the share of German and French paid-in capital – a somewhat higher share of Chinese paid-in capital in the total of the BRICS bank could have two advantages. It would expand total paid-in capital and thus directly increase potential level of loans from the start, for a given leverage. This is highly desirable, given the large scale of unmet needs in infrastructure described above. Secondly, it could improve the rating of the BRICS bank, and thus expand the leverage allowed for a given level of capital, without increasing the cost of raising funds in the market. This higher share and level of China's contribution to paid-in capital would thus increase the potential level of loans through two channels.

Last but not least, other emerging and developing countries could be allowed to participate as members of the BRICS bank. This would broaden the Bank's membership base, and give voice also to all or most potential borrowers, thus improving significantly the governance of the BRICS bank, which should be an important consideration. As we discuss below, a BRICS bank would increase the weight of BRICS countries in global governance of development finance institutions, which will be very positive, but it should also give sufficient weight in its own governance to other developing and emerging economies. Furthermore, including other emerging and developing economies in the governance of the bank could also increase fairly significantly the level of paid-in capital. It could be objected that this expansion of membership could lower the rating of the Bank. However, if only paid-in capital is considered for calculating the leverage and the maximum of stock of loans, the value of the cash contribution of lower rated countries is the same as the cash contribution of that of higher rated governments (Griffith-Jones, Steinherr and Fuzzo de Lima, 2006). As the Romans said, "pecunia non olet" (money does not smell). Furthermore, it is worth remembering in this context that all countries (including low-income ones) are members of the World Bank, and this institution has AAA rating.

Thus, once the capital of both non-BRICS emerging and developing economies, as well as the minority share for developed economies were added, initial total capital could go up to US$100 billion and paid-in capital could increase to US$20 billion. This would mean an initial level of total lending of almost US$50 billion – that is US$5 billion annually initially – with accumulated profits reinvested in contributed capital. After a period of ten years, the bank could be lending US$7 billion annually. Assuming leverage to be double that of the CAF, annual lending capacity could, by that year, reach an annual amount of US$14 billion. In that case, after a period of 20 years, it could be lending up to US$34 billion annually, and the stock of total loans would reach almost US$350 billion.

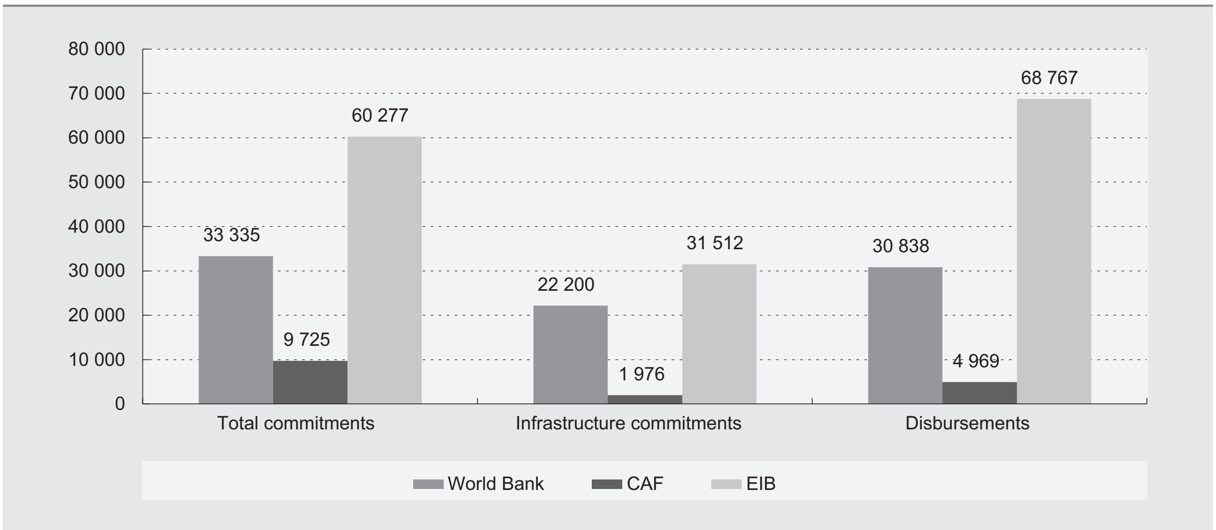
This would imply that after a period of 20 years the level of lending of the BRICS bank would become comparable to the current total level of annual EIB lending, which in 2012 reached US$60 billion, with its lending for infrastructure reaching US$32 billion (figure 4). The EIB is the largest regional development bank (the CAF lent US$9.3 billion in total in 2012, see figure 4) and is far larger than the World Bank in its level of lending, as total World Bank lending in 2012 reached US$35 billion, with US$22 billion reportedly going to infrastructure (figure 4). Therefore, under this scenario, in year 20 the BRICS bank would lend as much as the World Bank does now, and almost four times the lending of the CAF.

An objection to the above reasoning could be that such a level of BRICS bank lending would build up only slowly. However, it is interesting to note in this context that the level of EIB lending started at a low level in the first decade of its existence (1959–1968), only to increase exponentially thereafter. Thus, in the first decade, average annual lending – expressed in constant 2003-Euros – reached only around €0.8 billion per year; this was in sharp contrast with 2003, when EIB lending had reached €42.3 billion just in that year. This development of the level of annual lending is related to the expansion of lending to original members, increased lending due to augmented membership in the EU, and lending to new sectors (Griffith-Jones, Steinherr and Fuzzo de Lima, 2006). Whilst initial EIB lending levels and the

Figure 4

Lending by World Bank, CAF and EIB, 2012

(US$ million)



Source: Author's calculations, based on data from World Bank, CAF and EIB Annual Reports.

initial growth of this lending may have been too low, it may partly be explained by the need to build up operations relatively gradually, gain experience in the field and focus on economically viable projects, as well as by restrictions linked to capital. The BRICS bank will be able to grow faster than the EIB did originally, also because it can build on the experience of so many successful national and regional banks (including those owned mainly by developing countries, such as the CAF), as well as that of the World Bank.

It should be emphasized that the total investment financed by BRICS bank lending would be significantly higher than the level of loans described above. Like other development banks, a BRICS Bank would finance no more than half of the total project cost, with the remainder being co-financed by other sources, such as private and/or national development bank lending, as well as private investors. For example, the EIB provides approximately one-third of financing for a given project, serving as a catalyst for banks, financial institutions and private sector entities to participate in the investment. Indeed, EIB loans and those of other multilateral and regional development banks, often have a positive signalling effect to both private banks and to other financing partners (such as equity investors) that a project has been carefully evaluated and is likely to be successful. A similar catalytic effect would be created by a BRICS bank. So if, after a period of 20 years, a BRICS bank was funding US$34 billion by year, as in the more ambitious scenario above, it could help funding projects of at least US$68 billion annually, which is a significant amount.

The option of including developed countries as minority shareholders in BRICS capital has reportedly begun to be discussed within the BRICS group. Having developed economies as shareholders would have the positive effect of helping the bank get a higher credit rating and enabling it to raise cheaper funds from the market. However, it would defeat the purpose of having a purely South-South institution, though having a minority stake for developed economies would imply a BRICS bank would still be different from existing development banks that have a majority or equal share of developed countries in their capital structure.

A final problem could be that developed countries may in the future be more reluctant than BRICS countries to expand the capital of a BRICS bank than BRICS nations themselves, as has been the case for the expansion of international financial and development institutions in recent years. In those situations, special capital increases only by developing and emerging countries could be implemented, but it may be important to include such a provision in the BRICS bank's initial Articles of Agreement. Doing so would be easier than in existing development banks, given that developing countries would have the majority of votes. From the perspective of developed countries, it may be desirable to participate in a BRICS bank, even in a minority position, as it would allow them some involvement and influence in this bank, which may be important for them.

As pointed out, another issue which has been reportedly discussed is whether other emerging economies, such as for example Turkey, Mexico or Indonesia, could join the membership of the BRICS bank (see, for example, Conway-Smith, 2013). This would be beneficial, not just because total capital would be larger, but the range of expertise available would be broader and governance would be more inclusive.

It may be desirable for the BRICS to create the bank on their own as negotiations may be less complex and therefore quicker. However, there should clearly be an option for broadening the membership left open for the future, and provisions could be easily made for such broadening when the BRICS bank is created. Indeed, the EIB was created by only six countries, i.e. the six original members of the then European Community, later to become the European Union (see below). Similarly, the CAF was created by the few countries integrating the Andean Community. Both regional banks have seen their membership expand significantly, automatically as EU membership was expanded in the case of the EIB, and a more ad-hoc increase of membership in the case of the CAF, due largely to its excellent performance.

We will detail the EIB experience, which as mentioned is to some extent particular, as the EIB's membership is directly linked to membership of the EU. However, lessons can be extracted for the BRICS bank, but adapted to their circumstances. At the time of its establishment under the Treaty of Rome in 1957, the EIB had six founding members – Belgium, France, Germany, Italy, Luxembourg and the Netherlands. The subsequent growth in EIB membership has reflected EU enlargement, with countries becoming EIB members when joining the European Community. The United Kingdom, Ireland and Denmark joined in the early 1970s, followed by Greece, Spain and Portugal in the 1980s. Austria, Sweden and Finland acceded in the 1990s, as did another thirteen countries in the 2000s, mainly from Central and Eastern Europe. Today, the 28 Member States of the EU constitute the EIB's shareholders. Each member's share in the Bank's capital is based on that country's economic weight within the EU at the time of its accession. As mentioned above, a single shareholder cap of 16.2 per cent was instituted so that the four largest economies (France, Germany, Italy and then the United Kingdom) would all have equal shareholding. This idea of capping the voting share of a particular country could have some relevance for the BRICS bank, though the differences in size between the BRICS countries are far bigger than those between France, Germany, Italy and the United Kingdom.

Finally, there is the issue of whether developing countries (including low-income ones), which would also be important borrowers of a BRICS bank, should be allowed to contribute capital, and therefore participate in the governance of a BRICS bank. This would have the clear advantage of a more balanced approach between lenders and borrowers, as well as give voice to the borrowing countries, making for both a more democratic and more effective institution. As pointed out, it would also increase the paid-in capital of the bank.

BRICS countries may wish to limit the number of participating countries, especially in an initial period of, say, ten years. For example, they could say that the share of all non-BRICS countries should always be less than 50 per cent, so the BRICS would maintain a majority of votes. They could also decide that the President of the bank should always be from a BRICS country. Especially if there is a somewhat larger proportion of capital contributed by China, there could be a strong case for the President of the BRICS bank to be Chinese; this could be just the first President, and then there could be rotation amongst BRICS countries, or it could be a permanent Chinese position.

Most likely, the headquarters of the bank could also be in a BRICS country. The World Bank had its headquarters established in the capital of the country that provided the largest share of the capital. Though there is an assumption that the BRICS bank paid-in capital would be funded equally by the five BRICS countries, in practice, as pointed out above, it seems likely that China would contribute more resources. If the World Bank model was followed, then the headquarters of the new bank could be in China, possibly in a city like Shanghai or Hong Kong, with deep capital markets. This would have the advantage for the bank of have easy access to those capital markets and of access to financial expertise widely available in those centres. It would have the advantage for that financial centre, and for China – as well as for emerging economies more generally – of contributing to the further deepening of that financial market. It would also facilitate lending to Asian countries. However, there may be an advantage of having the headquarters of the new bank in a borrowing country, and one that could serve as a hub for other borrowers. This would point to the advantage of having the headquarters in South Africa, which would also facilitate close access to neighbouring sub-Saharan African countries, with large infrastructure needs. Furthermore, if China were to have the Presidency of the BRICS bank, it may be desirable for it to be headquartered in another country, to have a more balanced influence by different countries.

However, if the choice of the country where the bank should be headquartered became a bone of contention, a non-BRICS developing or emerging economy could possibly become headquarters of the bank. It would seem clearly important that the headquarters of this bank should not be in a developed economy, though of course important representative offices would be valuable in those countries, especially those where major financial markets are based and where there is significant expertise in the engineering and technical aspects of infrastructure.

C. Geographical coverage of lending

It seems clear that a BRICS bank would lend to both BRICS countries themselves and to other developing countries. Furthermore, it would seem desirable for the BRICS bank to have a balanced portfolio of loans that includes both middle-income and low-income countries from different regions, as this would be seen to make the bank more creditworthy, both because middle-income countries may be – or perceived to be – more creditworthy than low-income ones, and because it would ensure the benefits of geographical diversification that lowers risk, as problems in countries across regions are less correlated.

Clearly, however, sub-Saharan African countries have particularly large unmet infrastructure needs, and therefore there seems to be a case for greater priority to be given to lending to projects in that region. For lending to low-income countries, there could be a case for providing some subsidy element to make the loans concessional. One possibility for funding such a subsidy in the case of loans linked to more sustainable development would be to use international funds allocated for this purpose to finance the subsidy part of the loans, with the BRICS bank providing the loan itself. The rest could be financed by trust funds, funded by developed countries, in the context of existing international agreements.

D. Links with other multilateral, regional and national development banks

It seems important to think in terms of a system where synergies and complementarities exist between international, regional and national development banks. A BRICS bank would provide a valuable addition to that network of banks. It is evident that multilateral and regional development banks seem to perform far better their functions, including support for productive development through infrastructure investment, if they work closely with national development banks, which have far greater local knowledge. Moreover, such close collaboration also reduces asymmetries of information at the national level. Similarly, national development banks can operate better, if they have the financial and technical support of multilateral banks, such as the BRICS bank will be. There has been a lot of emphasis on public-private financial partnerships, but equally or even more important are the links between multilateral, regional and national development banks. An important advantage of the BRICS bank will be that this modus operandi – of close collaboration with national development banks – can be established right at its inception. Of course close collaboration with existing regional development banks and with the World Bank would also be an important feature of the BRICS bank.

A BRICS bank can initially benefit from the experience and expertise of existing development banks, like the CAF and EIB at a regional level, and for example, the Brazilian Banco Nacional de Desenvolvimento Econômico e Social, the German Development Bank (KfW), the South African Industrial Development Corporation, the Chinese Development Bank as well as others at the national level. Clearly the development banks of the BRICS countries themselves, especially in aspects where they have been successful, will also play a particularly large role in providing a model of best practice for the BRICS bank. At a later stage, the BRICS bank can play an important role in strengthening, as well as co-operating with national and regional development banks, especially in sub-Saharan Africa. Modalities of co-operation can, in the case of regional and national development banks, include co-financing with these institutions on bigger projects; in the case of national development banks, on-lending operations (especially where small and medium enterprise financing was involved, but also more broadly) would be desirable. There may be a case for some technical cooperation, once the BRICS bank is well established, to regional or national development banks in poorer regions.

It is interesting that the mere proposal of a BRICS bank has reportedly encouraged a new proposal by the World Bank Group to launch a separate large Fund for Infrastructure financing in sub-Saharan Africa, which would have a separate governance structure than that of the World Bank, with greater participation for developing and emerging economies, and would provide additional funding for much needed infrastructure. The fact that the BRICS bank, even before formally created, is already catalysing an expansion and improvement of World Bank initiatives is to be welcomed. It illustrates how the creation of a BRICS bank will generate, both through competition as well as complementarities, valuable externalities in the rest of the development finance institutions, as well as of course by making a major direct significant contribution through its own lending. More broadly, the development of large and effective BRICS institutions, like the Contingent Reserve Arrangement and the BRICS bank, can be a valuable platform for the BRICS advancing reforms in the international financial and development architecture that favour developing and emerging countries in general. Scale of the new institutions, as well as speed in establishing them, and making them effective, will significantly enhance such potential bargaining power for encouraging meaningful reform.

V. CONCLUSIONS

Emerging and developing countries have significantly increased their weight in global GDP and in global economic growth. Perhaps most importantly, some emerging and developing economies have accumulated very large long-term foreign exchange assets, which they have typically placed in Sovereign Wealth Funds. A large part of these resources are invested in developed countries, with relatively low yields.

At the same time, there are very large unmet needs in the emerging and developing countries in the field of infrastructure and more environmentally sustainable forms of development. A shortfall of investment of approximately US$1 trillion annually has been identified by Bhattacharya, Romani and Stern (2012), beyond what is likely to be financed with current institutions.

Emerging and developing countries have the necessary savings and foreign exchange reserves to finance a new development bank that could contribute to finance such investment. The fact that the leaders of the BRICS nations have committed to the creation of a new Development Bank for infrastructure and sustainable development is very welcome. This institution would be a complement, not a substitute, for existing financial institutions both in the public and the private sector. Its existence would also strengthen the voice of developing and emerging economies in the development finance architecture.

It is encouraging that BRICS leaders have also proposed the creation of other institutions, such as the Contingency Reserve Arrangements (CRA), amongst BRICS countries, which would provide official liquidity in times of need.

There are important similarities with other development banks in their initial phases, such as the World Bank, which also started life focussing on infrastructure. There is a strong case for a major step increase in investment in infrastructure and more sustainable development, based on the need for growth, structural change, inclusion as well as sustainability and resilience.

The scale of lending of the BRICS bank needs to be large enough to make a meaningful impact given the very large scale of needs identified. Furthermore, the impact of a BRICS bank must be measured in terms of its capacity to leverage, through its co-financing of projects with the private and public sectors. National and regional development banks, as well as the World Bank, will be natural partners.

An important issue is the quality of the loans made. There is a potential trade-off between the pace of growth of a portfolio of loans and the quality of loans. Though scale of operations is clearly important, a high quality of loans is a priority as it maximizes the likely development impact of the projects and minimizes risk of default; the latter is key for improving the credit rating of the BRICS bank. It is also important that a BRICS bank make profits on its loans, as those can be reinvested, allowing an expansion of capital, which will facilitate increased lending.

A second issue is the degree of financial "sophistication" of the instruments used. Firstly, the more complex the products, the longer they take to be designed and implemented. So-called "plain vanilla" loans can be made much faster than more complicated loan structures. Transactions involving equity take even longer (though they have desirable features, such as capturing part of the "upside" if projects are very profitable). Secondly, the experience of the North Atlantic crisis indicates that complexity often breeds opaqueness and leads to greater risk and future losses. Indeed, though a BRICS bank may wish to assume greater project risks (e.g. investing in very poor countries) when these projects have potential large developmental or other benefits, it should avoid taking purely financial risks that could lead to substantial losses.

It has been reported that officials from Brazil, the Russian Federation, India, China and South Africa have agreed to set up the BRICS bank with a total capital of US$50 billion of which 20 per cent or US$10 billion would be paid-in.

One possible option discussed is that non-BRICS countries (emerging and developing, as well as developed ones) could also contribute capital – either right at the beginning or after the bank has been established. Assuming a total capital endowment of US$100 billion, of which 20 per cent would have been paid in, the level of annual lending could – according to preliminary estimates made above – reach, after 20 years, a stock of loans of up to US$350 billion, equivalent to about US$34 billion annually. The latter amount could be used for investment projects worth at least US$68 billion annually, given that there would be co-financing by private and public lenders and investors.

It may be desirable for the BRICS to create the bank on their own as negotiations may be less complex and therefore quicker. However, there could be an option for broadening the membership left open for the future, and provisions could be easily made for such broadening when the BRICS bank would be created.

A BRICS development bank would lend to both the BRICS countries themselves and to other developing countries. Furthermore, it would be desirable for it to have a balanced portfolio of loans that includes middle- and low-income countries from different regions, as this would make the bank more creditworthy, both because middle-income countries may be more creditworthy than low-income ones, and because it would ensure the benefits of geographical diversification.

A BRICS bank would provide a valuable addition to the existing network of multilateral, regional and national development banks. Multilateral and regional development banks seem to perform far better their functions, including support for productive development through infrastructure investment, if they work closely with national development banks, which have far greater local knowledge. Similarly, national development banks can operate better, if they have the financial and technical support of banks, such as the BRICS bank will give.

A BRICS bank can initially benefit from the experience and expertise of existing development banks, like the CAF and EIB at a regional level, and for example, the Brazilian BNDES, the German Development Bank (KfW), the South African Industrial Development Corporation, the Chinese Development Bank as well as others at the national level.

The development of large and effective BRICS institutions, like the BRICS bank and the Contingent Reserve Arrangement, can provide a valuable platform for the BRICS advancing reforms in the international financial and development architecture that favour developing and emerging countries in general. Scale of the new institutions, as well as speed in establishing them, will significantly enhance such potential bargaining power for encouraging meaningful reform.

REFERENCES

Agénor PR and Moreno-Dodson B (2006). Public infrastructure and growth: new channels and policy implications. World Bank Policy Research Working Paper 4064. Available at: http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2006/11/08/000016406_20061108161655/Rendered/PDF/wps4064.pdf.

Bhattacharya A and Romani M (2013). Meeting the infrastructure challenge; the case for a new development bank. GGI, G-24 and LSE. Available at: http://www.g24.org/TGM/Bhattacharya.pdf.

Bhattacharya A, Romani M and Stern N (2012). Infrastructure for development; meeting the challenge. CCCEP, GRICCE and G-24. Available at: http://www.g24.org/TGM/Infrastructure%20for%20Development%20Final.pdf.

BRICS (2013). Fifth BRICS Summit Declaration and Action Plan. Available at: http://www.brics5.co.za/fifth-brics-summit-declaration-and-action-plan/.

Conway-Smith E (2013) Developing nations to meet at the BRIC beach party in South Africa. Global Post. Available at: http://www.globalpost.com/dispatch/news/regions/africa/south-africa/130323/developing-nations-meet-bric-summit-durban.

Economic Times (2013). BRICS may agree on 100bn currency fund during G-20 meeting. Available at: http://articles.economictimes.indiatimes.com/2013-08-28/news/41538890_1_brics-leaders-contingent-reserve-arrangement-new-fund.

Griffith-Jones S (2011). South-South financial cooperation. Background Paper No 2 to UNCTAD's *Least Developed Countries Report, 2011*. Available at: http://www.stephanygj.net/papers/SOUTHSOUTHFINANCIALCOOPERATION2012.pdf.

Griffith-Jones S, Steinherr A and Fuzzo de Lima AT (2006). European Financial Institutions: A Useful Inspiration for Developing Countries? In: Ocampo JA, ed. *Regional Financial Cooperation*, Washington, DC: Brookings and ECLAC.

Kumar M (2013). India pushes for joint FX intervention; action unclear at this time. Reuters. Available at: http://in.reuters.com/article/2013/08/30/india-rupee-intervention-idINDEE97T08M20130830.

Moody's (2013). Credit Rating Reports. Available at: http://www.moodys.com.

Mwase N and Yang Y (2012). BRICs' Philosophies for Development Financing and Their Implications for LICs, IMF Working Paper WP/12/74. Available at: https://www.imf.org/external/pubs/ft/wp/2012/wp1274.pdf.

Spratt S, Griffith-Jones S and Ocampo JA (2013). Mobilizing investment for Inclusive green growth in Low income countries. BMZ / GIZ. Berlin. Available at: http://stephanygj.net/papers/MobilisingInvestmentforInclusiveGreenGrowth2013.pdf.

Straub S (2008). Infrastructure and Growth in Developing Countries: Recent Advances and Research Challenges, World Bank Policy Research Working Paper 4460. Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/01/03/000158349_20080103082911/Rendered/PDF/wps4460.pdf.

Wall Street Journal (2013). BRICS agree capital structure for development bank. Available at: http://www.reuters.com/article/2013/08/28/us-brics-bank-idUSBRE97R1BA20130828.

Younis M (2013). China and Brazil: a new phase in the 'global currency war'? Institute of Development Studies. Available at: http://www.globalisationanddevelopment.com/2013/07/china-and-brazil-new-phase-in-global.html.

Younis M, Watson N and Spratt S (2013). What next for the BRICS bank? Rapid Response Briefing. Institute of Development Studies. Available at: http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/3270/Rapid%203.pdf.

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