

Finding Cash for Infrastructure in Addis: Blending, Lending and Guarantees in Finance for Development

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Abstract

The total scale of incremental investment requirements in infrastructure in developing countries has been estimated at around USD 1 trillion a year, with a range of related studies suggesting numbers between \$815 billion to \$1.3 trillion. While all such numbers are open to considerable debate, and were not designed to measure the cost of delivering the specific SDG infrastructure targets, they suggest the likely scale of the financing challenge for an SDG agenda which includes universal coverage to adequate housing, water, sanitation, modern energy

and communications technologies. The complexity of infrastructure finance in developing countries suggests that external private investment will remain a minor player in the financing of infrastructure for development. Nonetheless, reforms of development finance institutions and multilateral development banks alongside infrastructure pricing in recipient countries could considerably increase financial flows, and the Addis Financing Conference later this year could help provide the authorizing environment for such reforms.

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Introduction

In Addis Ababa this July, the world's finance and aid ministers will come together to discuss how to pay for an incredibly ambitious set of Sustainable Development Goals likely to be agreed by the United Nations in 2015. The price tag is large, with the bulk of the money for infrastructure: the total scale of incremental investment requirements in infrastructure in developing countries has been estimated at around USD 1 trillion a year,¹ that on top of \$0.8 to \$0.9 trillion spent today.² Climate change mitigation and adaptation costs related to infrastructure are estimated at 10-15% of the incremental financing needs—equal to an additional \$100-\$150 billion.³

The current draft of the Addis Declaration suggests a broad agenda covering not only aid and other official finance but domestic resource mobilization, tax cooperation, trade and technology.⁴ Much of that broader agenda may be key in increasing the domestic resources that will provide the bulk of development finance. But this paper will focus on what Addis may be able to help deliver in terms of better and different international finance that will help countries cover some of the gap in infrastructure in particular.

Amongst external flows, overseas development assistance will have a small (and flat) part to play—suggesting the focus should be on quality and leverage. There is more money to be had in blended grant and market rate investments, simple market-rate lending and guarantees

¹ UN System Task Team Working Group on Sustainable Development Financing. Background papers— Chapter 1: Financing for sustainable development: Review of global investment requirement estimates, <http://sustainabledevelopment.un.org/content/documents/2096Chapter%201-global%20investment%20requirement%20estimates.pdf>. To quote from the relevant paragraph: “A World Bank paper (Yepes, 2008, quoted in Estache, 2010) estimated developing country needs at US\$1.1 trillion per year ... Fay et al. (2010, pp. 365-366) provides a “guesstimate” of US\$ 1,250-1,500 billion per year for developing countries for total investment requirements, out of which incremental investment requirements are about US\$600-700 billion. In addition to that, US\$140-177 billion would be needed for climate mitigation and US\$75-100 billion for adaptation, in order to make infrastructure more sustainable. In early 2013, on request of G20 the World Bank/UN and other international organization estimated annual investment needs for infrastructure to be around US\$ 1 trillion in developing countries through 2020, with additional \$200-300 billion per year required to “ensure that infrastructure investments are low emitting and climate resilient” (World Bank, 2013). A recent G24 policy paper retains the estimate of US\$ 1 trillion additional spending needed in developing countries (Bhattacharya et al., 2012).” Note the Yepes, 2008 calculation that underlies much of this work is based on estimating demand based on forecast GDP growth rather than any measure of bottom-up calculation of costs. See: http://siteresources.worldbank.org/DEC/Resources/84797-1275071905763/Infra_and_Sust_Dev-Fay_and_Tomanr.pdf

² Bhattacharya, A., M. Romani and N. Stern Infrastructure for Development: Meeting the Challenge Center for Climate Change Economics and Policy Paper June 2012. A recent World Bank estimate suggested an investment shortfall on African infrastructure alone of \$38bn per year World Bank Fact Sheet: Infrastructure in Sub-Saharan Africa, <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:21951811~pagePK:146736~piPK:146830~theSitePK:258644,00.html>

³ Bhattacharya, A., M. Romani and N. Stern Infrastructure for Development: Meeting the Challenge Center for Climate Change Economics and Policy Paper June 2012.

⁴ <http://www.un.org/esa/ffd/wp-content/uploads/2015/03/1ds-zero-draft-outcome.pdf>

from official sources. But currently these are small and focused on middle income countries, suggesting demand as well as supply problems. There is hope in new funding from the BRICs, multilateral and bilateral market rate finance, and the G-20 nations have made repeated calls to expand this pool of market-rate financing further, in particular for infrastructure. But in order to ensure sustained development impact such funding will have to be high quality and financially sustainable.

And while there is considerable hope that international finance can leverage private sector funding to fill the infrastructure gap, that will not be straightforward. Infrastructure is a particularly complex sector to finance: investments are lumpy (with single projects often accounted in the billions), payback periods are long (often in the decades), and markets function poorly (most infrastructure sectors are natural monopolies). In addition, the political economy and practicality of infrastructure pricing is complex –it is often provided at below cost or no cost. This limits the potential for private provision even in well-regulated infrastructure markets in countries with a robust financial sector capable of supporting long-term debt.

In short, adding to the impact of official finance on infrastructure outcomes is going to take changes in the nature of the supply of finance but also the factors that create private sector interest in infrastructure projects in developing countries. Otherwise any impact from the Addis agreements on actual international flows to developing country infrastructure will be limited.

Domestic Resource Mobilization Is the Primary Source

Public and private resources from developing countries accounted for about 84 percent of total development finance in 2010, private international finance accounted for 14 percent and all forms of public international finance for about 2 percent. These numbers make starkly clear where a discussion of financing for development should concentrate.⁵ With regard to infrastructure, OECD analysis suggests official development finance for the sector reached \$48 billion in 2011 (approximately evenly split between concessional and non-concessional finance) –around five percent of total infrastructure spending in developing countries.⁶

In terms of absolute contribution, domestic resources are going to play a far larger role in delivering infrastructure than international flows for all but the smallest and poorest of countries. The first draft of the Addis declaration suggested a target that all countries reach a minimum of a 20 percent tax to GDP ratio, which was subsequently removed. But had all developing countries had reached that tax take in 2013 it would equal about \$9.8 trillion. The IMF suggests that total annual government revenues in developing countries were \$9.2

⁵ OECD Development Cooperation Report 2014

⁶ http://www.oecd-ilibrary.org/development/official-support-for-private-sector-participation-in-developing-country-infrastructure_5jz14cd40nf0-en?crawler=true

trillion in 2015, rising to a forecast \$10.9 trillion by 2019, a sign that the target is already surpassed in the considerable majority of countries.⁷

The draft Addis declaration suggests a range of international actions that can help increase domestic revenue mobilization including cooperation on profit shifting, beneficial ownership, and tax collection. These may turn out to be the most important elements of the package in terms of driving up financing available for infrastructure.

ODA Is Small and Flat

International flows still do matter, and could matter more in the future, especially to small and poor countries. But expanded flows are more likely to be found in blended finance, lending or guarantees than aid.

For all the UK will trumpet reaching 0.7% of GDP going to aid at the Addis conference, traditional overseas development assistance is not going to be a major expanded source of development financing for infrastructure. That is in part because few rich countries apart from the UK have the appetite to expand budgets. But, as importantly, it is because developing economies are growing so large. The developing world accounts for around half of global GDP using adjustments for purchasing power. Even at market exchange rates, it accounts for one third of global GDP. If all rich countries reached a 0.7% aid target tomorrow that would still only be around 1% of developing country GDP.

That said, in countries with government expenditure of below PPP \$500 per capita, ODA accounts for an average of two thirds of government revenues and two thirds of international resource flows.⁸ In these poorest countries in particular, aid can play a vital role through direct finance of public infrastructure or through blended finance or guarantees that reduces the cost of finance for infrastructure. The rest of this paper discusses some of these uses for ODA as well as stand-alone market-rate finance and guarantees.

Blending, Lending and Guarantees – Alongside International Private Infrastructure Investment – Are Currently Small and Focused on Middle Income Countries

The current scale of non-ODA official finance is (also) limited. “Other Official Flows” (covering non-concessional bilateral and multinational sovereign loans, export credits and direct investment by agencies like the US Overseas Private Investment Corporation) were \$27 billion in 2013 (the net figure was \$7.0 billion).⁹

⁷ IMF World Economic Outlook October 2014 revenues in current US \$ deflated to 2015 using US CPI.

⁸ Report of the intergovernmental committee of experts on sustainable development financing

⁹ OECD. Statistics on resource flows to developing countries,

<http://www.oecd.org/dac/stats/statisticsonresourceflowstodevelopingcountries.htm>

Table One: Requirements and Sources of Infrastructure Finance in Developing Countries

	\$ Trillion
Incremental infrastructure investment requirements including climate-proofing	1.10-1.15
Domestic resource mobilization	9.20
ODA	0.134
Other official flows	0.027
Investment in infrastructure with private involvement	0.181

Looking at the World Bank in particular, the IBRD is currently lending (gross) about \$15bn a year.¹⁰ There are 81 IBRD borrowers (including countries like India that, for the moment, can borrow from IBRD and get IDA support as well). For 66 of those countries, the World Bank has gross capital formation data—a measure of investment. Across those countries, this investment totaled \$7,666 billion, or about 511 times IBRD lending volume. Of course, much of this investment took place in a handful of large countries (like Brazil and China). For the median of our 66 countries, gross capital formation was around \$12 billion—total *global* IBRD lending each year is 13% of mean investment or 123% of median investment in *one* of its borrower countries. Net other official flows from all sources together would be about six times these percentages—or a little over 1% of gross capital formation in IBRD borrower countries.

This limited contribution is not just a matter of limited supply—many developing countries are some way from their country limit for borrowing from the IBRD, for example. Some chose not to borrow simply because of the considerable overhead in terms of bureaucratic steps. These transactions costs apply in particular to large infrastructure projects where the safeguards involving the environmental and social impacts of the project can add significant delay and bureaucratic weight. Analysis of World Bank performance in Latin America suggest that as countries have become more credit worthy, demand for IBRD lending has declined both absolutely and compared to the Andean Development Corporation—a regional development bank which does not impose external safeguards controls.¹¹

As a back of the envelope calculation, if we assume about a third of other official flows go to infrastructure that would amount to a commitment flow of around \$9 billion. This equals about one percent of the incremental (domestic and international) investment costs in

¹⁰ Information Statement—International Bank for Reconstruction and Development. 2009, <http://treasury.worldbank.org/cmd/pdf/InformationStatement.pdf>

¹¹ Shopping for Development: Multilateral Lending, Shareholder Composition and Borrower Preferences (note also that the fact the IBRD organization is considerably more cumbersome, its loan products are actually more expensive http://wp.peio.me/wp-content/uploads/2014/04/Conf5_Humphrey-30.09.11.pdf)

infrastructure that World Bank and other estimates suggest is required across the developing world.

Development finance agencies like the Overseas Private Investment Corporation lend and invest directly in private sector projects in developing countries. Total Development Finance Institution support measured in terms of commitments was estimated at \$33bn in 2009 (much of this finance will be included as other official flows and a considerable proportion was not provided to developing countries).¹² As with aid and other official finance, this suggests DFIs are a comparatively small part of global financing. There are 26 countries in 2009¹³ where the International Finance Corporation, The European Investment Bank and the Commonwealth Development Corporation between them contributed 2% or more of gross fixed capital formation over the second half of the last decade. In only two countries –Tonga and the Maldives—did DFI equal more than five percent of Gross Fixed Capital Formation. Assume (generously) a 3:1 leverage ratio,¹⁴ this still suggests a modest role even in the most DFI-dependent countries.

Institutional factors mean that available DFI finance is inequitably distributed. The considerable bulk (around two thirds) of DFI finance comes from the International Finance Corporation, the European Bank for Reconstruction and Development and the European Investment Bank.¹⁵ This means that non-(near-) European areas are under-represented in portfolios. South Asia, for example, is excluded from the EBRD portfolio, accounts for only 6% of EIB's external portfolio and 17% of IFC's portfolio.¹⁶

As with other official flows, the limited scale of DFI operations is not only an issue of supply. DFIs face considerable difficulty in finding partners for investment in fragile and low income states in particular. Active shareholder encouragement, alongside the implicit subsidy of an unofficial linkage with World Bank lending, is apparently not enough to attract significant IFC-backed investment in fragile states, for example. In its FY2013-15 roadmap, the IFC reports it committed \$515 million in 43 investment projects in countries and territories on the World Bank Group Fragile Situations List in FY2011. That amounts to just

¹² D.W. te Velde. 2011. The role of development finance institutions in tackling global challenges. London: Overseas Development Institute, <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7310.pdf>

¹³ D.W. te Velde. 2011. The role of development finance institutions in tackling global challenges. London: Overseas Development Institute, <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7310.pdf>

¹⁴ IFC claims a 3:1 ratio, [EBRD suggests it leverages at around 5:7](#). Removing other public sector cofinanciers, this would drop to 2:7.

¹⁵ OPIC disbursed [\\$263m](#) in direct loans in 2012

¹⁶ C. Kingombe, I. Massa, and D.W. te Velde. 2011. Comparing Development Finance Institutions Literature Review. London: Overseas Development Institute, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67635/comparing-DFIs.pdf

4% of total IFC commitments, down from 6% in FY08.¹⁷ And the IFC has followed FDI patterns in general in largely supporting telecoms projects in low income countries when it supports infrastructure at all. More broadly suggesting limited ability to create projects where there is limited private sector interest, in only about one quarter of IFC investments overall is the involvement of the corporation deemed essential to the project going ahead.¹⁸ It may be difficult for the IFC alone to provide significant enough reassurance to investors to enter into an infrastructure sector where reform is partial and institutions are weak.

Existing multilateral political insurance institutions also lack the scale and attractiveness necessary to back considerable infrastructure investments. For example, because the World Bank's MIGA is a comparatively small and financially separate entity from the rest of the World Bank Group, its capacity to reduce risk through a large portfolio is significantly reduced. In fiscal year 2012, MIGA could take net exposure of up to \$220 million per project and up to \$720 million per country. A typical 300 MW pulverized coal power plant is about \$800m,¹⁹ suggesting large scale infrastructure projects are simply beyond the agency's scope to support.

The World Bank offers partial risk guarantees, but despite the fact guarantees have a significantly lower call rate than loans in arrears or default the policy remains to book them at 100% of face value for provisioning purposes. Not only does this limit their use because of country caps (and total caps) on IBRD lending but also it makes the products expensive: the fee for a guarantee is identical to the contractual spread on a loan plus fees and demands government counter-guarantee.²⁰ A client country can borrow IBRD money at the same cost and with similar implications to getting a guarantee—it is unclear why it would do the second. Guarantees may help countries issue longer term bonds on the market, but the spillover benefits are questionable. In the circumstances, the very limited take-up of the guarantee instrument should come as no surprise.²¹

¹⁷ http://www.cgdev.org/sites/default/files/moving-beyond-mines_wcover_0.pdf

¹⁸ Independent Evaluation of IFC's Development Results 2008. Washington, DC: Independent Evaluation Group–IFC, <https://openknowledge.worldbank.org/bitstream/handle/10986/6576/450070PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1>

¹⁹ D. Pauschert. 2009. Study of Equipment Prices in the Power Sector. Energy Sector Management Assistance Program Technical Paper 122/09. Washington, DC: The International Bank for Reconstruction and Development/The World Bank Group, http://www.esmap.org/sites/esmap.org/files/TR122-09_GBL_Study_of_Equipment_Prices_in_the_Power_Sector.pdf

²⁰ <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9398.pdf>

²¹ Set-aside fund created by the World Bank provide that for a limited number of guarantee operations 75% of a guarantee is marked against a special fund rather than country lending allocation, but this is a band-aid not a fix. <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9398.pdf>

The difficulties faced by DFI's in 'frontier' markets and the limited role of guarantees to dates is reflected in low overall private financial flows to infrastructure particularly in those markets. Across infrastructure as a whole, governments and donors still account for around four fifths of sector investment,²² and private participation in infrastructure has been historically concentrated in richer, larger, more stable developing countries with ready access to global capital markets. Public and private investment in infrastructure with private participation in developing countries equaled about \$181bn in 2012 but more than half of that was in India and Brazil alone. Only seven percent --around \$13 billion-- flowed to Africa, with the majority of that to telecommunications.²³

Looking at the longer term, low income countries account for a little less than \$57 billion of the \$2 trillion of reported private investments in infrastructure across developing countries over the period 1990-2012.²⁴ Since 1990, telecom in Sub-Saharan Africa has received over \$82 billion in private investment –but that is nearly four fifths of the infrastructure total. This compares to less than \$8 billion –or about \$332 million a year—going to electricity. Note that \$332 million is less than half the cost of one medium-sized power plant per year across the region as a whole.²⁵

With regard to 'new' sources of finance, institutional investors in OECD and Emerging markets sit on over \$80 trillion in assets,²⁶ and sovereign wealth funds alone have an estimated \$5.5 trillion in assets. They have somewhat increased their infrastructure exposure in recent years, but this is from a low level and largely in advanced markets (Heathrow is now majority owned by SWFs).²⁷ Considerably less than one percent of the portfolios of SWFs and institutional investors are in developing country infrastructure and one hopeful estimate by the World Bank of the *potential* investment level of pension reserve and social security funds alongside SWFs and institutional investors suggests the total infrastructure investment in developing countries from these sources might reach a little over \$1 trillion – or about one year's worth of incremental infrastructure investment needs.²⁸ The IFC's Asset

²² <https://openknowledge.worldbank.org/bitstream/handle/10986/7314/wps4331.pdf?sequence=1>

²³ Infrastructure Policy Unit 2012 Global PPI Data Update. 2013. Washington, DC: The World Bank Group, <http://ppi.worldbank.org/features/August-2013/PPI%202012%20Glo%20Update%20Note%20Final.pdf>

²⁴ <http://ppi.worldbank.org/explore/Report.aspx?mode=1>

²⁵ http://ppi.worldbank.org/explore/ppi_exploreRegion.aspx?regionID=1 The good news is that energy has been taking an increasing share of the total, but still from a very low base.

²⁶

http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166322&entityID=000158349_20140214150617

²⁷ http://itemsweb.esade.edu/wi/Prensa/ESADEgeo_SWF_Report_2013.pdf

²⁸

http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166322&entityID=000158349_20140214150617. Note also that new regulation is restricting the appetite of investment banks for infrastructure lending –and they have traditionally been the largest sources of such finance in the developing world. The Abu Dhabi Investment Authority (ADIA) has historically invested about 40 to 60% of its capital in equities, 15-30% in fixed income with the remaining 10-45% between real estate,

Management Company has attracted US\$8.1 billion of assets from institutional investors and had committed approximately US\$4.6 billion to emerging market companies and private equity funds across all sectors. This is a success for the Corporation but still a very small amount compared to investment needs or (even) proposed potential investment levels from such sources.

Finally, the experience of private sector investment in developing country infrastructure has been far from 100 percent positive.²⁹ Public-Private Partnerships in general have been found to be associated with broadly positive outcomes,³⁰ and in Latin America (at least) they have been fairly robust to renegotiation (only 10 percent of contracts have been renegotiated).³¹ But worldwide there are some notable failures: the Enron-constructed Dabhol power plant in India and the Independent Power Tanzania Limited (IPTL) generator project in Tanzania both produced electricity priced at a cost that it made it prohibitive for distributors to purchase despite legal agreements that involved take or pay conditions. These are hardly the only examples.

To summarize: flows in the form of bilateral and multilateral market rate loans to sovereign borrowers or loans, guarantees and equity stakes in private sector investors are limited in scale particularly in infrastructure and particularly in low income and fragile states. That is due to a combination of supply factors, demand from sovereign borrowers and private sector interest. It is also worth noting the development impact of these flows is often difficult to assess and may be low. They may somewhat reduce the cost of borrowing and equity while (marginally) increasing overall investment, but the headline figures of project size or exports covered are an over-estimate of development impact.³² The concern should be the quality of flows as much as quantity.

private equity, infrastructure and alternative investments. There is some hope that Gulf SWF will build on their portfolios in renewable energy as a hedge against the impact of any future carbon tax on oil revenues
<http://www.brookings.edu/research/papers/2011/03/11-sovereign-wealth-funds>

²⁹ In 2012, electricity generation (and some distribution) accounted for \$77 billion of the total \$181 billion in investments in infrastructure with private participation in developing countries. Infrastructure Policy Unit 2012 Global PPI Data Update. 2013. Washington, DC: The World Bank Group, <http://ppi.worldbank.org/features/August-2013/PPI%202012%20Globo%20Update%20Note%20Final.pdf>

³⁰ Luis A Andrés, J Luis Gausch, Thomas Haven & Vivien Foster, *The Impact of Private Sector Participation in Infrastructure: Lights Shadows and the Road Ahead* (Washington, DC: World Bank, 2008)

³¹ J. Luis Gausch, Jean-Jacques Laffont and Stéphane Straub, “Concessions of Infrastructure in Latin America: Government-Led Renegotiation” (2007) 22 J. Appl. Econ. 1267 at 1277

³² A \$1.9 million export credit for a US firm shipping organic cosmetics to the United Arab Emirates is unlikely to have the same development impact as a donation of \$1.9 million in bed nets to households in Uganda.

Expanding Flows

For all the caveats, donor countries could play a greater role in providing bilateral market-rate loans to creditworthy developing countries. And there is scope for new support in this area: not least the bilateral investment programs of middle income countries may be particularly important for the post-2015 development agenda. China may have supplied as much as \$75 billion³³ to Africa over the past decade, for example, most in the form of other official/development finance. Again the role of the Asian Infrastructure Investment Bank may grow as it ramps up to a planned \$100 billion capitalization. A focus on other official flows might be an important part of bringing newly emerging players including China and Brazil into a global partnership discussion around financing, and provide additional sources of both official development and other official flows.

There is also the potential for a larger role for the Twentieth Century multilaterals. IBRD has secured less than \$12 billion in contributions since its inception over only four funding rounds compared to \$225 billion for IDA over seventeen rounds. By cutting the administrative budget, increasing fee-for-service business and making higher charges on loans, the World Bank has put itself in a position to lend as much as \$26-28 billion a year, up from \$15 billion expected at the last capital increase.³⁴ But there is room to move further and an opportunity provided by a richer pool of developing countries both to move resources toward market-rate instruments and to extend the resource base available.

On the side of borrowers, estimates suggest 37 out of 82 IDA-eligible countries will graduate by 2025. This both creates more demand for the World Bank's non-concessional IBRD lending as well as shrinking the pool of recipients for concessional financing. The Asian Development Bank is already exploiting a similar opportunity by moving towards a single capital account that can better leverage resources, the World Bank could head in the same direction.

CGD's Scott Morris estimates that IBRD capital contribution leverages about fourfold the Bank's ability to borrow in capital markets --this is considerably better than IDA's highly concessional model, in which one dollar of donation leads to about one dollar of IDA support. What is the scope for increasing the scale of such flows? The 17th IDA replenishment provided \$52 billion in additional resources in low income countries. If a little more than one quarter of IDA's replenishment amount in future rounds was repurposed to increase the IBRD's lending capacity, this would increase that capacity (one time) by approximately \$50 billion, or a little more than \$15 billion per year. Morris proposes a quadrennial 'Bank Resource Review' for the World Bank in which donations to

³³ C. Provost and R. Harris. 2013. China commits billions in aid to Africa as part of charm offensive – interactive. The Guardian, <http://www.theguardian.com/global-development/interactive/2013/apr/29/china-commits-billions-aid-africa-interactive>

³⁴ <http://www.worldbank.org/en/news/press-release/2014/04/01/world-president-100-billion-increase-lending-poverty>

IDA alongside capital increases to IBRD are discussed by shareholders at the same time, to allow for more frequent capital increases and greater flexibility between contributions to IDA and IBRD.³⁵

There is also scope to increase the size of Development Finance Institutions like OPIC. If the US, UK, German, and French development banks alone had commitments to GDP ratio equal to that of the Netherlands DFI, this would add \$47 billion a year to the financing available. This might be accomplished through aggressive restructuring to allow these agencies to take on greater risk and free them from some of the or onerous safeguard policies and staff caps (for example, OPIC is not allowed to back an investment that may cost one US job, even if it will create significant net domestic employment).³⁶

It is possible to increase the attractiveness of DFI finance and guarantees through blending or subsidy. Institutions like the World Bank's proposed Global Infrastructure Facility may improve the situation of lack of projects attractive to the private sector at reasonable financing costs. (Although note past efforts to use IDA resources to leverage investments with the support of IFC have been limited in scale,³⁷ and blended finance will be competing for scarce ODA resources with other development priorities including health, education and environmental sustainability.) Again, safeguards policies will need to be streamlined if the bureaucratic delay and costs associated with large infrastructure projects is to be reduced.

With regard to guarantees, the operations (and capital base) of MIGA should be absorbed back into the World Bank and IFC, allowing the two institution's considerably larger balance sheets to underpin larger per country guarantee operations. Even so, the long timeframe and complexity of the guarantee operation would still be a considerable disincentive to many potential investors suggesting that, guarantees would also benefit from a review of the World Bank's safeguard policies.

Financial Sustainability, Transparency and Quality

As well as dealing with supply issues for blended finance, market-rate loans and guarantees, the demand issues are considerable, as we have seen. This applies in particular to efforts to leverage private resources with public infrastructure investment. Where political and regulatory risk alongside broader economic concerns loom large, attracting private capital for infrastructure may be hard except at rates of return that might be considered prohibitive (both politically and financially) in developing countries. One estimate suggests demanded

³⁵ The World Bank Board has supposedly authorized management to develop plans for 'IDA+' where receivables collateralize further borrowing on IBRD terms and 'IBRD+' where non-voting capital is added to the IBRD balance sheet.

³⁶ See Moss, Leo and Schwanke, 2014, for a review. OPIC is also sitting on \$5.4 billion in Treasury Securities (that compares to an outstanding loan portfolio of \$1.3 billion and an outstanding guarantee portfolio of \$6.4 billion) thanks to limited staff capacity.

³⁷ <http://www.worldbank.org/ida/papers/ABCs/psd-2013.pdf>

rates of return on equity at 20% or higher in some countries.³⁸ Of course, blended finance and political risk coverage, were it more widely available, should help this problem, but it is very much a last line of partial defense (bureaucratic and insufficiently scaled).

Furthermore, there are surely questions about the development impact and opportunity costs of a private infrastructure investment requiring a 20 percent annual rate of return that is provided in some or considerable part through aid support as opposed to a public infrastructure investment borrowing money at IBRD or equivalent rates. And for both private and public market-rate financing, it is questionable that we really want to mount up debts for infrastructure before we know it will be maintained (and so able to pay back and deliver development outcomes).

This suggests a vital part for a second complimentary approach to attracting more finance for infrastructure: to make the environment for both sustainable sovereign as well as private infrastructure investment considerably more attractive. This involves ensuring a pipeline of projects as well as a strong regulatory and pricing mechanism that allows for assurance that initial investments will be paid back. Of course, this has been a central concern of donors working on infrastructure over the past twenty years, and their mixed success suggests supply limits will remain perhaps particularly in many of the countries most chronically in need of infrastructure. Nonetheless, any additional progress that can be made in this direction may help on the margin.

In particular, any effort to ramp up private finance in infrastructure, *especially* where it is most needed, is going to require considerable regulatory reform including pricing services at a level sufficient to cover operation, maintenance and repayment flows. Take electricity, which accounts for around half of the estimated infrastructure investment requirements going forward:³⁹ the IMF suggests global (pre-tax) subsidies for petroleum products, electricity, natural gas, and coal in the developing world reached \$480 billion in 2011.⁴⁰ Ethiopia spent 7% of government revenues on supplying under-priced electricity to the lucky quarter of the population connected to the grid, for example. The same number for Bangladesh is nearly three percent of government revenues. Those subsidies are bad for the sustainable provision of infrastructure. Selling electricity at less than cost means that many developing country power companies have inadequate money to operate and maintain their plants and power lines –let alone roll out services to the millions denied modern energy access. Fossil fuel subsidy reform will produce the revenues necessary to pay back financing for infrastructure expansion.

³⁸ Bhattacharya, A., M. Romani and N. Stern Infrastructure for Development: Meeting the Challenge Center for Climate Change Economics and Policy Policy Paper June 2012.

³⁹ Bhattacharya, A., M. Romani and N. Stern Infrastructure for Development: Meeting the Challenge Center for Climate Change Economics and Policy Policy Paper June 2012.

⁴⁰ <http://www.imf.org/external/np/pp/eng/2013/012813.pdf>

As with the call for more market-rate finance, energy pricing is an issue that the G-20 has addressed: pledging to remove ‘inefficient’ fossil fuel subsidies. As important, the Open Working Group on the Sustainable Development Goals set a target (12.c) to “Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist.” This suggests that there might be the potential for a grand deal over the financial sustainability issue at Addis –more financing in return for sustainable pricing (there is already strong language in the Addis draft on the pricing front).

G-20 countries could sign up to a commitment to significantly increase investment guarantee and non-concessional bilateral and multilateral official flows to infrastructure priced to ensure financial sustainability. All countries, led by developing economies keen to access additional international finance for infrastructure, would commit to removing energy subsidies, pricing energy at long-run cost and generating sufficient revenues from transport fuels or other use-related charges to cover the cost of transport infrastructure construction and maintenance.

There is also an important part to be played by increased procurement transparency in infrastructure. That contracts (and related upstream and downstream documentation) are not public prevents contractor understanding of the market, repressing competition. It stops cheap replication of successful contract models, raising government project preparation costs and reducing efficiency of that contracting. And secret contracts prevent third party monitoring, increasing the risk of poor delivery and corruption. This is a particular problem with large infrastructure projects, which frequently involve considerable over-runs and are highly politically sensitive. If procurement processes were transparent and contracts published, pricing benchmarks would be far more straightforward to set, and politicians and the public would be able to understand the pricing implications of the private provision. This should reduce the risk of renegotiation and overall political risk especially in private sector-led infrastructure projects.

Again, to increase the impact of other official flows, all providers of official finance including guarantees and equity investments that use project financing or fund particular firms should be encouraged to follow transparent and universal procurement or investment rules that do not favor providers or firms of a particular country. Just as tied aid reduces the development impact of ODA flows, tied guarantee, equity and lending finance is also likely to reduce the development additionality of development finance institutions.

Concerns are not just around political risks. Developing countries have legitimate concerns about the large multinational firms operating in infrastructure construction and operation. A number of operators including Enron and Siemens have been caught in bribery scandals involving infrastructure deals that were by no means in the public interest. Greater transparency around private sector operations will help allay these fears –to the benefit of private providers themselves. The Addis declaration already echoes commitments made by

the G-8 and recommended by the Financial Action Task Force to ensure that information on the beneficial owners of companies alongside tax information is fully available to authorities and (preferably) published.

Finally, sustainability concerns also involve debt. While developing country debt levels as a whole have improved considerably since the 1990s, a number of developing countries are already considered at high risk of debt distress. To ensure the sustainability of additional debt flows, all public creditors could be encouraged to sign up to the World Bank-IMF debt sustainability framework covering lending to low-income countries that analyses future debt burdens, assesses the risk of debt distress and recommends borrowing strategies that limit the risk of distress.⁴¹

Conclusion

It is worth noting that the level of additional resources likely to be forthcoming from a reinvigorated set of multilateral development banks alongside strengthened development finance and guarantee institutions may, most optimistically, surpass \$50bn in additional gross resources a year, perhaps (again optimistically) leveraging two times that amount. If an increased proportion (perhaps 50%) went to infrastructure, that would suggest a maximum of \$75 billion in additional resources.

This all assumes away problems of a project pipeline and the broader enabling environment to make infrastructure investments financially and economically successful. And this suggests that domestic governments will remain both the first line financiers and the most important enablers for infrastructure investment and that official finance in particular will play a secondary role.

With those caveats, based on the above discussion, potential language in the Addis agreement that could help deliver on a ramped up provision of infrastructure includes:

- We will increase bilateral and multilateral net flows of other official development finance to low and middle income countries by [0.1] percent of global GDP by 2020 and increase the proportion of that finance going to LDCs, while ensuring debt sustainability. As part of this effort, we will agree on a series of reforms to increase net non-concessional and blended resource flows from multilateral development banks by end 2016, including support for pooled approaches and those that attract private institutional investors.
- We will work to ensure the World Bank and regional development banks to increase the financing available to support development on an ongoing basis, including regularly scheduled [triennial] capital resource adequacy reviews beginning in 2017.

⁴¹ <http://www.imf.org/external/np/exr/facts/jdsf.htm>

- Multilateral and national providers of official finance commit to work together to considerably ramp up provision of guarantees, market-rate loans and investments in infrastructure in developing countries requesting such support in order to roll out infrastructure services that are priced to ensure financial and environmental sustainability. This commitment will support total annual gross resource flows worth [0.2] percent of aggregate provider country GDP by 2025.
- Industrialized countries and multilateral organizations collectively will increase provision of guarantees including (as necessary) reform of the institutional impediments to their use, [doubling] guaranteed investment finance in LDCs by [2020].
- We commit to supporting the growth of development finance institutions to ensure they invest more and leverage greater private finance for sustainable development, especially in fragile states and LDCs. [Doubling] investment in LDCs by [2020].
- Providers of official finance will make progress towards universal (non-discriminatory) procurement and investment rules, as well as transparency in procurement and investment processes, by 2020.
- We will increase the sustainability and transparency of public-private partnerships and private investment through Open Contracting, the and wider adoption of standards including the Equator Principles and implementation of the UN Guiding Principles on Business and Human Rights.
- Both creditor and debtor countries and multilateral lending institutions will utilize the World Bank-IMF debt sustainability framework to limit the risk of debt distress from increased flows of official finance and the UNCTAD Principles on Responsible Sovereign Lending and Borrowing. Creditor countries will join the Paris Club. Creditor and debtors will both publish detailed information on public and publicly guaranteed debt.