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The Asian Infrastructure Investment Bank: What Can It Learn From, and Perhaps Teach To, the Multilateral Development Banks?

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Abbreviations

ADB	Asian Development Bank
AFD	French Agency for Development
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
BNDES	Banco Nacional do Desenvolvimento (Brazilian Development Bank)
CAF	Development Bank of Latin America
CDB	Chinese Development Bank
CSO	civil society organisation
DEC	Development Economics Vice Presidency
DEG	Deutsche Investitions- und Entwicklungsgesellschaft
DIME	Development Impact Evaluation
DOTS	Development Outcome Tracking System
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EIF	European Investment Fund
EPE	European Principles for the Environment
ESS	environmental and social safeguard
EU	European Union
EV	Operations Evaluation
GNI	gross national income
HIPIC	Debt Initiative for Heavily Indebted Poor Countries
IAD	Internal Audit Vice-Presidency
IADB	Inter-American Development Bank
IBRD	International Bank for Reconstruction and Development
ICSID	International Centre for Settlement of Investment Disputes
ICT	information and communications technology
IDA	International Development Association
IEG	Independent Evaluation Group
IFC	International Finance Corporation
KfW	Kreditanstalt für Wiederaufbau
MDB	Multilateral Development Bank
MFI	microfinance institutions
MIGA	Multilateral Investment Guarantee Agency
MIV	microfinance investment intermediary
MRI	Mutual Reliance Initiative
NDB	New Development Bank
NGO	non-governmental organisation
RDB	regional development banks
SME	small- and medium-sized enterprise
US	United States

1 Introduction

A striking phenomenon of recent global economic change is the emergence of new development actors, with alternative development experiences and development financing capacity. These actors are now creating collective institutional capacity with the aim of contributing to other countries' development. They are also increasingly influencing the path of global development.

One of the most important examples is the Asian Infrastructure Investment Bank (AIIB). The AIIB has a number of important features which distinguish it from existing institutions. Most of its capital is provided by emerging and developing governments, for example. Also, the composition of its membership means that it is likely to mainstream the alternative development experiences of these members, as well as emerging countries' knowledge of the development process more generally. The AIIB therefore has much to contribute to our understanding of development in general, and development financing in particular. The opportunity for developing and emerging economies to benefit from this new source of knowledge, policy and practice as they chart their own development paths is significant.

While the AIIB is a key part of a shift in the development finance architecture towards more South–South institutions, it is also important that it has incorporated many developed economies into its membership. This creates the possibility for the AIIB to learn positive lessons from their experiences, as well as avoiding the mistakes they have made, and building on the knowledge they have acquired.

As the title of this report suggests, therefore, the AIIB can both learn from the experience of these countries' engagement with the existing system of multilateral development banks (MDBs), *and* contribute to our understanding of development finance by bringing a different set of experiences and knowledge to those which underpin these institutions. This report will explore both of these aspects.

Although the AIIB is a new institution, many of the challenges it faces are not new. The AIIB is a public development bank, like those created after the Second World War to address similar challenges to those we face today. The emergence of public development banks in the post-Second World War era signalled an important change in the development finance paradigm, from reliance on private finance to a more nuanced, mixed economy approach. The recognition that private finance alone would not deliver the long-term funding needed to finance key development sectors remains crucial today. It is also consistent with the priorities and experience of China and other emerging economies, where public development banks have been, and remain, central to the process of strategic development.

As with the existing MDBs, however, the AIIB – though owned and capitalised by member governments – will fund itself in private capital markets, and co-finance its loans and equity with private lenders and investors, as well as public national governments and development banks. Public and private finance bring complementary attributes. The task is therefore to establish a framework that enables this potential complementarity to be realised. Retaining a balance between public and private finance has always been essential, and this remains the case.

As its name suggests, the AIIB has been created to help close the very large infrastructure financing gap in Asia, estimated at around US\$600bn per year, or more once the challenge of climate change is taken into account. Climate change mitigation has created a pressing need for sustainable infrastructure. Renewable energy is at the heart of this. There is also the need to adapt to the changes to climate that cannot be avoided, which means 'climate-proofing' existing and new infrastructure facilities. While this imperative is clear, however, it should also be noted that sustainable infrastructure can be more expensive. Where this is

the case, it will require some grant contribution from developed country donors for developing countries that have neither responsibility for creating the problem, nor the capacity to address it. Together, mitigation and adaptation costs may add 10–20 per cent to the infrastructure financing gap.

While the challenges of climate change were not known when today's MDBs were established, the need to increase investment in infrastructure is certainly not new. For reasons such as the divergence between private and social returns, the scale of capital and time frames involved, and technical, financial and regulatory risk (especially important in inter-regional projects), the private sector will generally not supply the socially optimal level of infrastructure investment. As a result, this has always been a core function of governments, and national as well as international development banks. Indeed, many of today's largest MDBs were, to a greater or lesser extent, established to increase infrastructure investment. The same is true for the AIIB.

The AIIB is therefore not starting from scratch, but has the opportunity to learn from the experiences of these institutions. Over the last half-century, they have had to tackle many new challenges. The importance of ensuring negative environmental and social impacts are minimised, for example, has become a crucial area for MDBs. Despite the progress that has been made in these areas, few would suggest that existing MDBs have successfully resolved all issues. As well as learning from these experiences, therefore, the AIIB has the opportunity to have a fresh look at the trade-off between those factors and the overall development impact of projects, including how these vary by country, sector and mode of intervention, and the need to increase the speed as well as the scale of infrastructure investment.

To begin a contribution to this process, this report explores what the AIIB can learn about infrastructure finance from the experience of the two largest MDBs: the World Bank and the European Investment Bank (EIB). As well as the relatively slow initial growth of these institutions, both started with a focus on infrastructure before diversifying into other sectors. This experience may provide some useful longer-term lessons for the AIIB. Also, reports suggest that, at least in its early years, the AIIB will primarily co-fund projects with the World Bank, but also with the EIB. Increasing understanding of how these institutions became as they are should help this process of cooperation.

This practical and technical analysis is complemented by a broader exploration of what the AIIB could contribute to our understanding of development finance over time. Given the fact that it will be largely funded by developing and emerging countries, and these countries will remain in a voting majority, the AIIB is a valuable addition to the existing development finance landscape, which is comprised of institutions drawn from a similar historical process, and has traditionally been dominated by today's developed countries, notably the United States (US), Europe and Japan. Establishing the AIIB as a 'knowledge bank', to which other developing and emerging countries can turn for a fresh perspective on how to finance development, would inject a healthy dose of plurality into the existing landscape.

The remainder of the report is structured as follows. Section 2 provides a brief history of the World Bank and the EIB, examining their origins, governance arrangements, and their approach to sector selection, social and environmental issues, and monitoring and evaluation. Section 3 reviews the AIIB's stated aims and Articles of Agreement and considers some of the ways the institution will add value in its operations. Section 4 considers what criteria the AIIB could use to select sectors and projects and what instruments might be most appropriate. Section 5 estimates the level of additional lending that the AIIB may be able to provide, and examines the factors that will influence this. Section 6 considers broader questions of AIIB 'additionality', exploring its potential role as a new global 'knowledge bank', and what this might mean in practice. Section 7 offers some suggestions for future research and concluding remarks.

2 The World Bank and the European Investment Bank

2.1 Origins, capital and financing, and governance arrangements

The World Bank was established in 1944. Today it is comprised of the following five institutions, forming the World Bank Group:

- i. the International Bank for Reconstruction and Development (IBRD), which was the first element to be established in 1944 to assist recovery from the Second World War;
- ii. the International Finance Corporation (IFC), established in 1956 to support private sector development;
- iii. the International Development Association (IDA), established in 1960 to provide concessional loans to low-income countries;
- iv. the International Centre for Settlement of Investment Disputes (ICSID), established in 1966 to provide arbitration over investment disputes; and
- v. the Multilateral Investment Guarantee Agency (MIGA), which was established in 1988 to provide guarantees against non-commercial risks to investors in developing countries.

The IBRD has 188 member countries. Voting rights are determined by each country's shareholdings, which are a function of their contribution to the capital base, as well as an allocation of 'basic votes'. In principle, shareholdings should reflect economic size, but changes have not kept pace with shifts in the relative economic weight of different countries, creating significant tensions. The Bank's subscribed capital today is US\$252.8bn, with 20 per cent of this paid in and the rest callable. The IBRD funds its activities by borrowing in capital markets, and has a 'statutory lending limit' of 100 per cent of the sum of its capital base, retained earnings and reserves, a leverage ratio of 1:1. IDA, in contrast, is supported by donor finance, enabling it to offer grants and highly concessional, long-term loans.

The Board of Governors, to which each member nominates one Governor, has overall responsibility for the World Bank and meets annually. A smaller Board of Directors is responsible for day-to-day operations. The IBRD has 25 executive directors on its Board of Directors, with the US, Japan, Germany, France, China, Saudi Arabia, and the United Kingdom each appointing one executive director. Other countries are grouped into constituencies, each of which elects an executive director as its representative (World Bank 2011). The executive directors select the Group President for a renewable five-year term. Every president of the World Bank since its foundation has been a US citizen, despite excellent candidates from emerging and developing countries.

The European Investment Bank (EIB) was established in 1958 as part of the Treaty of Rome, with the aim of supporting the creation of a common European market, and transferring resources from capital-rich to capital-poor countries and regions in Europe. Initially capitalised with US\$1bn, the EIB's capital base had reached €243bn by December 2013. Less than 10 per cent of capital is paid-in. The EIB is also a majority shareholder in the more recently established European Investment Fund (EIF) created in 1992. According to the EIB statutes, loans and guarantees may not exceed 250 per cent of the subscribed capital, reserves and retained earnings, a leverage ratio of 2.5:1. From an original six, the EIB today has 28 member states. There are four statutory bodies. The Board of Governors sets guiding principles, high-level policies, approves the annual accounts, and appoints members of the other governing bodies. The Board of Directors approves financing

decisions and operational strategy, and oversees the Management Committee. This Committee runs the EIB on a day-to-day basis under the control of the EIB President. Finally, the Audit Committee has responsibility for auditing financial accounts, and verifying that the EIB conforms to best banking practice.

2.2 Mandates and sector allocations

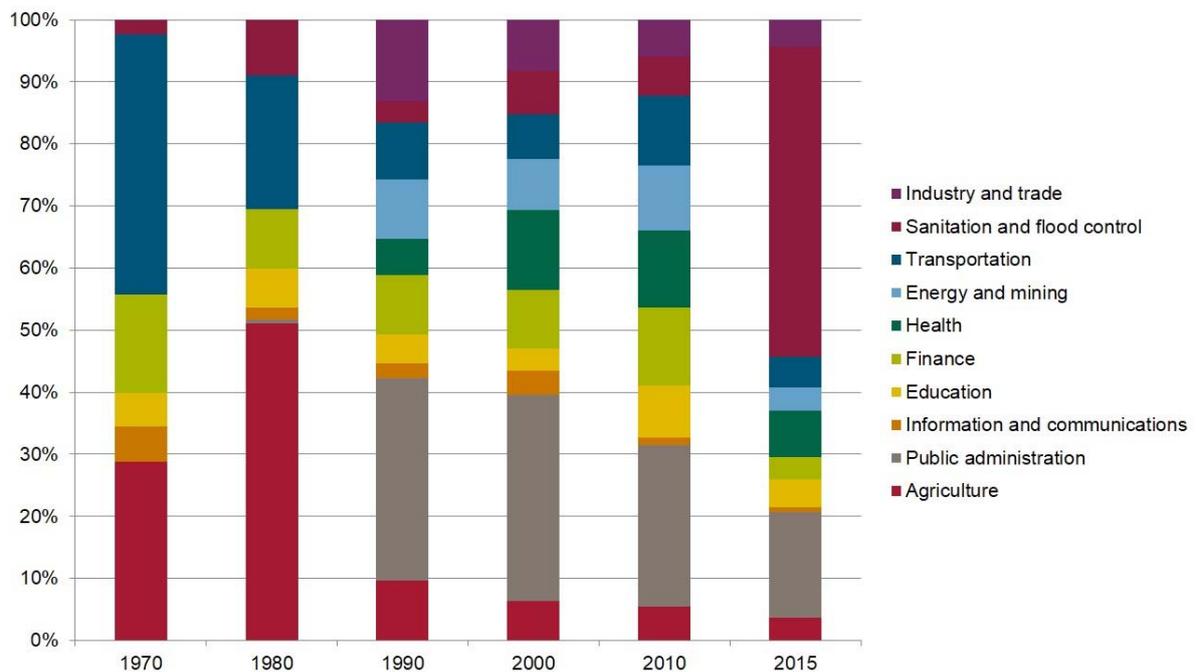
The World Bank's original mandate was to facilitate reconstruction of war-affected countries in Europe. Following the introduction of the Marshall Plan in 1947, however, the Bank switched to providing development support to poorer countries. Originally, the intention was to provide guarantees to leverage private investment, but this soon changed to the provision of direct loans as it was seen to be more 'administratively manageable', as well as more profitable for the Bank. In 1948, the first country loan to Chile worth US\$13.5m was issued followed by loans to Mexico and Brazil in 1949 (Culpeper 1997). The Bank focused exclusively on project-based lending at this time.

In its first period, the World Bank primarily lent to infrastructure projects, with over half its loans going to power, transport and water projects. In 1960, power and transport accounted for 69 per cent of total lending and an average of 55 per cent between 1960 and 1970 (*ibid.*). As the Bank needed to maintain profitability, a major criterion for sector selection was potential financial returns on investment in this period. From the late 1960s onwards, a gradual delinking between potential return on investment and project selection occurred, however, as the Bank began lending into development sectors such as education (Marshall 2008). The establishment of IDA in 1960, which was financed by donors rather than yield-requiring capital markets, facilitated this shift in low-income countries. Robert McNamara, who became president in 1968 and remained so for 13 years, made fundamental changes to the Bank's philosophy, expanding lending into sectors such as health and nutrition, and emphasising global poverty reduction. Under his direction, comprehensive processes for project selection and independent project evaluation mechanisms were also established (Marshall 2008).

With the oil shocks in the 1970s and multiple financial crises, which followed, the focus on project-based financing was complemented with broader-based loans to support economic recovery in crisis-affected countries. Over time, this was to culminate in structural adjustment lending, where World Bank loans carried conditions requiring borrowers to implement extensive macroeconomic adjustment, as well as often radical market-oriented reforms, such as privatisations and liberalisation of the financial sector.¹ Figure 2.1 highlights these sector shifts as percentages of total lending.

¹ A review of structural adjustment is outside of the scope of this report.

Figure 2.1 Evolution of World Bank sector lending

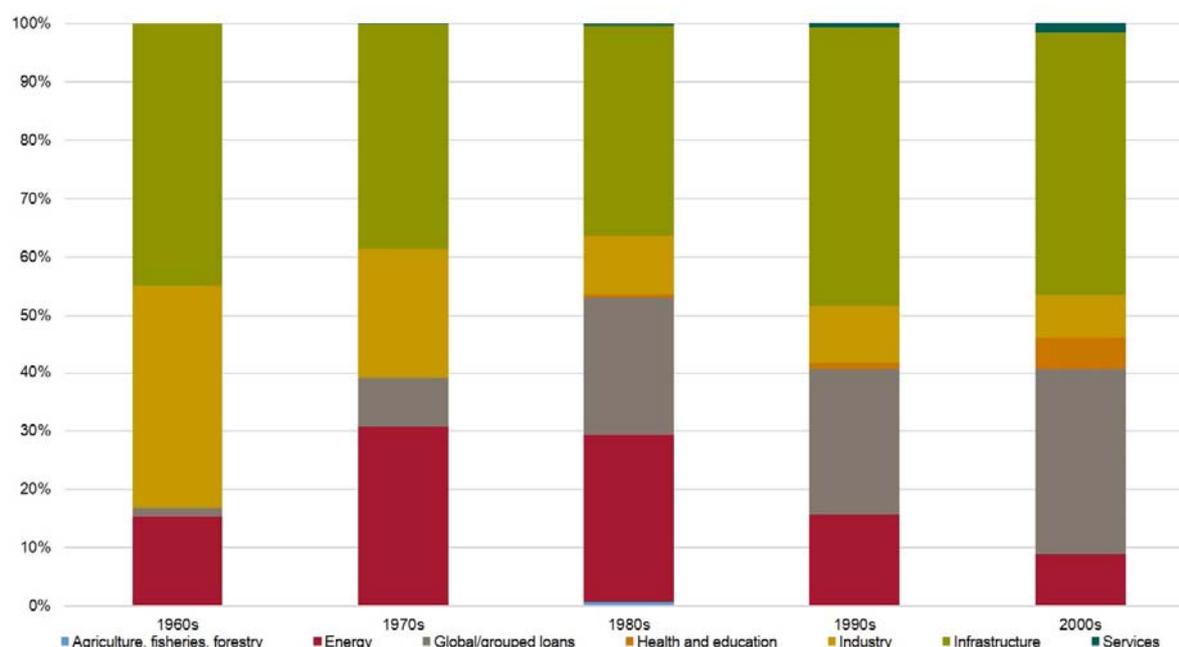


Source: Authors' own based on World Bank data.

The EIB's original mandate was to promote free trade, and facilitate the development of poorer regions, within Europe. As with the World Bank, a large proportion of EIB's initial investments went to infrastructure, as well as to poorer regions in the European Union (EU), such as the Italian South (Licari 1969; Griffith-Jones, Steinherr and Fuzzo de Lima 2005). The main sectors were interstate transport, industrial facilities and energy. In April 1959, for example, the EIB's first loans were made to the Italian companies, Sincat and Celene, to build a large petrochemical complex in Sicily, and Mercure, to exploit a seam of lignite in Lucania for electricity (EIB 2015b). Other typical loans made in those early years were to construct a hydroelectric power station in Luxembourg, or a natural gas pipeline network in France (EIB 2015b; Licari 1969). The largest share of lending during its first decade was to the transport sector, with over US\$200m spent between 1960 and 1967 to improve railways, shipping ports and roads, especially in what were then considered frontier districts (Licari 1969).

Over the years, the EIB has identified six objectives that it uses to make investment decisions: regional development; transport, telecommunication and infrastructure; protection of environment; energy; small- and medium-sized enterprises (SMEs); and international competitiveness of industry and its integration on a community basis (Honohan 1995).

Figure 2.2 Evolution of EIB sector lending



Source: Authors' own, based on EIB data.

In the first decade of its existence, the EIB focused only on infrastructure, including energy (its main initial focus) and on industry, most of which was also linked to infrastructure. The public sector was the predominant borrower to finance infrastructure, energy and capital-intensive state industry, mostly linked to communications, energy and transport (airlines, electricity generation and distribution, telephone systems, etc.). Figure 2.2 details the shift in the EIB's sectorial lending from the 1960s. While there is some diversification to new sectors, this is less pronounced than in the case of the World Bank. By the 2000s, infrastructure still accounted for around half of all loans, similar to the 1960s.

While recent decades have seen some investment in health and education, and a greater emphasis recently on investment to mitigate and adapt to climate change, the largest relative shifts are the reduction in agricultural lending, and the introduction of the 'Global Loan Facility'. Under this facility, the EIB lends to financial intermediaries, who lend on to SMEs who are too small for the EIB to lend to directly. This mechanism is similar to those used by the World Bank and other MDBs.

2.3 Instruments

Within the World Bank Group, the three providers of finance are the IBRD, IFC and IDA. The first two institutions primarily raise funds by selling bonds on the capital markets and so lend at rates that reflect their borrowing costs. While these are 'market-rates', their AAA credit ratings allow them to borrow more cheaply than would be possible for the countries they lend to, and so provide finance at favourable rates to these countries. They can also generally borrow more cheaply than commercial banks, and have other risk-reducing features that are important in constructing syndicated loan deals. Where external finance needs to be raised, for example, the IFC acts as the 'lender of record', borrowing on favourable terms and making finance available to a syndicate of private lenders on this basis. These lenders also

benefit from the IFC's 'preferred creditor status', reducing risks of default, while borrowers benefit from lower cost, longer tenor loans than would otherwise be available.

The IDA funds its activities from donor finance, and is therefore not obliged to charge a market rate of interest to repay these funds. Finance is made available as grants, concessional loans (with very low or no interest rate) or a blend of these two. To qualify for IDA financing, countries must have gross national income (GNI) per capita below US\$1,215. As well as per capita income, decisions on grant versus loan financing are based on country debt levels, as proportion of key variables, where higher debt ratios – *ceteris paribus* – means a greater proportion of grant finance may be made available.

The World Bank has two basic types of lending instruments: investment loans and development policy loans. Flexible investment loans, which finance the production of goods and services to support economic and social development, can have maturities of up to 35 years depending on the sector, though the average maturity of all loans will be considerably less than this, around 7–10 years. During the last two decades, investment operations accounted for around three-quarters of the Bank's portfolio (World Bank 2011). In addition to grants and loans, the World Bank provides guarantees to promote private sector financing by covering risks that private investors normally are unwilling to cover, i.e. non-commercial risk.

Development policy loans are of shorter maturities and are: 'quick-disbursing financing to support government policy and institutional reforms... for example, improving the management of public resources, strengthening the functioning of the judiciary, or promoting good governance' (World Bank 2011: 76). In the past two decades, a quarter of the Bank's portfolio has been of this form (*ibid.*).

The World Bank (here referring to the IBRD and IDA) primarily lends (or provides grants) to governments, though under certain circumstances it will provide finance directly to projects and civil society organisations (CSOs). The IFC provides loans and equity finance to the private sector. Funds are disbursed in a number of formats. As well as providing finance as a solo institution, *co-financing* 'is any arrangement under which funds from the Bank are associated with funds provided by sources from outside the recipient country for a specific lending project or program' (World Bank 2011: 77).

The World Bank also uses trust funds to disburse finance:

Trust funds are financial arrangements between the World Bank and a donor or a group of donors under which the donor entrusts the Bank with funds for a specific development-related activity. Trust funds enable the Bank, along with bilateral and multilateral donors, to expand their response to specific needs, as in the case of fragile states or natural disasters or in support of global public goods. (World Bank 2011: 77)

Trust funds are thus an important way of circumventing lending restrictions imposed by the size of the capital base.

The IFC has a more complex range of investing mechanisms: asset-management services, providing short-term liquidity, making equity investments (IFC, always a minority shareholder, usually has anywhere from 5 per cent to 15 per cent or less of a company's equity), investing in quasi-equity instruments and offering risk management products (i.e. derivatives of various kinds).

The IBRD, IDA and IFC all offer technical assistance and advisory services either on a stand-alone basis, or in conjunction with their financial support.

The EIB provides: project loans, intermediated loans, venture capital, microfinance, equity and fund support, and blended finance. As with the IBRD and IFC, the EIB borrows funds from the capital markets (on good terms given its AAA credit rating) and so can make finance available on more favourable terms than would be possible for many of its borrowers, i.e. countries with a credit rating below this level.

Most (around 90 per cent) of the EIB operations are within the EU; the remainder are to emerging and developing countries.

Project loans are provided above a threshold of €25m. Loans can cover up to half of total project costs, but the average EIB share is a third of total financing. As well as lending to individual projects, the EIB provides multi-component loans to fund multi annual investment programmes using a single 'framework loan'. This funds a range of projects in particular sectors, usually by a national or local public sector body, most frequently regarding infrastructure, energy efficiency/renewables, transport and urban renovation (EIB 2015a). While the average maturity all for EIB loans is perhaps 7–8 years – similar to the World Bank – infrastructure loans can go up to 25 or even 50 years (interview material).

Intermediated loans are made to local financial institutions who lend on to one or more of the following: SMEs, mid- and large-cap businesses, local authorities, national administrations or other public sector bodies. To qualify for EIB financing, loans must further at least one of the following policy goals: increase growth and employment; promote economic and social cohesion by reducing inequalities; promote the knowledge economy; address skills gaps; link regional and national transport infrastructure; or enhance environmental sustainability, including climate-resilient growth.

The EIB's *venture capital* arm funds venture capital funds, as well as offering conditional and subordinated loans. These activities are managed by the EIF, which sets-up, manages and advises venture capital fund-of-funds, most of which are entrusted by third parties such as the EIB, the European Commission, the Member States and regional authorities.

The *microfinance* work of the EIB was originally concentrated in the Africa, Pacific and Caribbean regions, which still account for 60 per cent of EIB microfinance activities. More recently, the EIB (and EIF) expanded microfinance operations into Mediterranean and European countries. Forty-three per cent of EIB microfinance support is in the form of direct loans to, and equity investment in, microfinance institutions (MFIs), while 54 per cent goes to microfinance investment intermediaries (MIVs), which operate as fund-of-funds, providing debt, equity, guarantees and technical assistance to MFIs.

Through its *equity and fund investments*, the EIB seeks to stimulate and catalyse private capital in traditional and innovative segments that are not yet mainstream. Investments are concentrated on funds investing in the following EU priority areas: infrastructure and environment; carbon funds; urban areas; venture capital and private equity; energy efficiency and renewables; and 'beyond the EU' (i.e. the same regions that microfinance investment focuses on).

The EIB also offers a wide, and increasing, range of *blended finance* instruments, within which EIB finance is combined with other sources, either public or private. Where EIB finance (or guarantees) is blended with private investment the aim is to improve the risk-return profile of projects in key strategic areas,² thereby increasing their attractiveness to private investors. For *structured finance* or *project bonds*, this might take the form of providing: loans or guarantees at particularly risky stages of projects (e.g. early stage);

² Trans-European transport and energy networks, knowledge economy, energy and SMEs.

subordinated debt to attract senior debt; mezzanine financing; or derivative products to lower investor risk. These facilities also provide finance for innovation (*InnovFin*), to mitigate early stage risk in revenue-earning transport projects by guaranteeing cash flows (*LGTT*), flexible funding for SMEs (*JEREMIE*), to promote energy efficiency (*PF4EE*), and environmental protection (*NCFE*). These forms of blended facilities generally combine EIB resources with those from other parts of the EU. Under its Mutual Reliance Initiative (MRI), in contrast, the EIB works with the French Agency for Development (AFD) and Germany's Kreditanstalt für Wiederaufbau (KfW) Development Bank to coordinate and rationalise where they are all funders of the same international development project.

Although the EIB offers quite a large number of blended finance facilities, these are all relatively new, with most being either still in the pilot phase, or having recently completed this. Their long-term effectiveness thus remains an open question, and will no doubt be a process of trial and error.

The EIB does not provide economy-wide loans, like the World Bank (e.g. in crisis situations) but focuses on projects or sectors, as was the case with the World Bank in its earlier period. EIB loans do not therefore have such wide conditionality. Also, it is reportedly the case that EIB loans are processed more quickly than those from the World Bank (interview material), making them more attractive to borrowers, all else equal. This is, in part, related to their more agile way of implementing social and environmental standards, which is the subject of the next section.

2.4 Social and environmental safeguards

Over the course of decades of criticism for its role in supporting projects such as the Sardar Sarovar (Narmada River Valley) Dam Project and the large road project in the Amazon rainforest, the World Bank has developed detailed environmental and social safeguards (ESSs) in ten areas: environmental assessment, natural habitats, pest management, involuntary resettlement, indigenous peoples, forests, cultural resources, dam safety, international waterways, and projects in disputed areas (World Bank 2011).

Prior to approval, all projects are screened for potential risks in each area, and where risks are identified borrowers must formulate approaches to mitigate them. Projects are assigned to the following categories. Category A: 'A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented'. Category B: 'A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas, including wetlands, forests, grasslands, and other natural habitats are less adverse than those of Category A projects'. Category C: 'A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts'. Category FI: 'A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts' (World Bank 2013).

For higher risk projects, an Environmental Assessment (EA) is required prior to implementation. The EA should take:

into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and trans-boundary and global environmental aspects... It also takes into account the variations in project and country conditions; the findings of country environmental studies; national environmental action plans; the country's overall policy framework, national legislation, and institutional capabilities related to the

environment and social aspects; and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements.
(World Bank 2013)

While it is the responsibility of the borrower to carry out the assessment, Category A projects require an independent panel to perform this function. The World Bank then reviews the recommendations arising from the process and makes funding decisions accordingly.

Although CSOs and non-governmental organisations (NGOs) (especially, but not only, from the lender countries), are wary of any attempt to weaken these safeguards, and some feel they do not go far enough, others believe that they have become so stringent as to discourage member nations from requesting World Bank loans (Marshall 2008). They have also been criticised for causing long delays in loan approval, which again may create a disincentive for borrowers. Furthermore, borrowing governments have complained often about the high transaction costs and delays introduced by safeguards. Partly in response to these criticisms, the World Bank has initiated a comprehensive consultation process to revise its ESSs, which is ongoing.

A number of consultation documents have been disseminated, identifying key issues in each safeguard area and suggesting options for discussion during the consultation. For reasons of brevity it is not possible to go into these here, but some important reforms to the general framework that have been proposed are: first, a greater reliance on borrower countries' own environmental and social policies, and a requirement on borrowers to undertake due diligence rather than the Bank; and second, a potential relaxation of the current requirement for EAs to be completed prior to project approval.³

Unsurprisingly, the EIB's approach to these issues reflects those of the EU, and is shaped by the need to comply with relevant EU Directives. From an environmental perspective, standards, principles and practices are documented in the European Principles for the Environment (EPE):

The EPE covers projects in all EU Member States, the European Economic Area countries, the EU Accession, Candidate and potential Candidate Countries. In the Neighbourhood and Partner Countries, projects should comply with the appropriate EU environmental principles, practices and standards, subject to local conditions. For projects in these regions, the EPE will be applied with reference to local circumstances.
(EIB 2015a: 1)

As with the World Bank, potential EIB projects are scrutinised to determine whether an Environmental Impact Assessment (EIA), as per the EU Environment Impact Assessment Directive and Strategic Environmental Assessment, is required. Again, in a similar way to the Bank, projects are then classified based on the level of potential risk.

Category A: Projects where EIA is mandatory. Category B: Projects for which the competent authority determines the need for an EIA according to specified criteria. Category C: Projects for which a limited environmental assessment is required according to any likely adverse environmental impacts of the project (projects outside the scope of the Directive). Category D: Projects for which no environmental assessment required.
(EIB 2015a: 1)

³ For details of the ESS consultation process see: <http://consultations.worldbank.org/consultation/review-and-update-world-bank-safeguard-policies>.

Projects financed by EIB are additionally screened for their impacts on sites of nature conservation and expected impacts on greenhouse gas emissions. For projects in water, sanitation and power, the EIB requires compliance with the EU Water Framework Directive and Large Combustive Plant Directive and also follows best practice international guidelines such as those produced by the World Commission on Dams and Extractive Industry Review of the World Bank. Finally, projects financed by EIB must also be compatible with multilateral environmental agreements to which the borrower is a signatory. Examples include the Montreal Protocol (on ozone depleting substances), the UN Convention on Climate Change and the Kyoto Protocol (on greenhouse gas emissions) and the Aarhus Convention (on environmental information) (EIB 2015a).

2.5 Monitoring and evaluation

The World Bank Group has two principle forms of internal impact evaluation. The Development Impact Evaluation (DIME) unit of the World Bank, and the Development Outcome Tracking System (DOTS) of the IFC.

DIME's mandate is to generate high-quality and operationally relevant impact evaluation research to transform development policy. DIME's objectives are to increase the use of impact evaluation in the design and implementation of public policy, improve the quality of the World Bank's operations, strengthen country institutions for evidence-based policymaking, and generate knowledge in strategic development areas.

DIME's portfolio is comprised of 175 ongoing evaluations in 47 countries, with the following sector allocations: agriculture (20 per cent); industry and competitiveness (10 per cent); finance and markets (6 per cent); transport and information and communications technology (ICT) (5 per cent); education (11 per cent); health, nutrition and population (11 per cent); social protection and labour (3 per cent); energy and extractives (3 per cent); environment and natural resources (1 per cent); social, urban, rural and resilience (13 per cent); governance (9 per cent); and water (3 per cent).

Evaluations use a range of evaluation methodologies, from experimental, quasi-experimental to theory-based, to seek answers to policy-relevant questions (e.g. what is the impact of a three-month job training programme on the probability of employment for unemployed youth?). As well as 'what' questions like this, DIME also poses 'why' questions to understand the mechanisms through which particular interventions succeed or not (e.g. what was the behavioural response to the intervention?).

The DOTS system of the IFC was launched in 2005 and is integrated into each stage of its project cycle, allowing – in principle – 'real-time' monitoring of development outcomes. The IFC describes this process with respect to investment as follows: At the outset of a project, IFC's staff members identify standardised indicators with baselines and targets. They track progress throughout supervision, which allows for real-time feedback into operations, until project closure. For investments, the overall DOTS score is a synthesis of four performance categories that are informed by standardised industry-specific indicators. To obtain a positive rating, a project must make a contribution to the host country's development.

Monitoring the impact of the advisory project cycle is necessarily different. For the IFC, here the overall DOTS score or development-effectiveness rating is a synthesis of the overall strategic relevance, effectiveness (as measured by project outputs, outcomes, and impacts), and efficiency of the services. At project completion, intended results are compared with achieved results. Some results – medium-term outcomes and longer-term impacts – may be unknown at project completion but can be examined post-completion.

As well as these internal impact assessments, the World Bank Group has established mechanisms that are independent of their project management structures. In 1973, the Independent Evaluation Group (IEG) was established to assess the impact of projects and report directly to the Board. The IEG has a broad mandate to assess project feasibility, project planning and sustainable completion, and finally to analyse the impact on the borrower nations' overall development (Marshall 2008).

Another body, the Inspection Panel, was established in 1993 to review complaints from groups who feel adversely affected by Bank-supported projects. The Inspection Panel is independent of World Bank management and staff and reports directly to the Board of Executive Directors. The Panel consists of three members appointed on a non-renewable five-year term by the Board. The approach followed by the Inspection Panel has been referred to as 'accountability from below' as it is designed to give voice to the presumed beneficiaries against the potential negative impacts of projects (*ibid.*). Inspections focus on the potential or actual harms that are linked with the Bank's failures to meet its own ESS policies, and hold the World Bank as an institution, rather than any individual, to account. During 2015, the Panel received nine complaints from projects in Ethiopia, India, Kenya, Nepal, Nigeria, and Paraguay (World Bank 2015).⁴

The monitoring and evaluation activities of the EIB are situated within the Operations Evaluation (EV) function, which has a mandate to carry out *ex-post* evaluations of financed projects. As stated in the terms of reference of the Operations Evaluation Group: 'EV focuses on the quality and the results of the EIB Group's operations within the framework of relevant EU policies (the Treaty, Directives, Council Decisions, Mandates, etc.) and the decisions of the EIB Governors' (EIB 2009).

The EV evaluates a representative sample of projects (sector, country, etc.) on a thematic basis. It is responsible to see if the projects comply with EU policies/Directives for the concerned themes or sectors and national policy objectives of the member nations. The overriding goal is to improve operational performance, accountability and transparency by better understanding what works and what does not (EIB 2009).

The EV reports directly to the EIB Management Committee, and independence is actively promoted by policies such as staff rotation, separate budget approvals and guidelines in case conflict of interest arises. A brief snapshot of the stages of the evaluation process is given below:

- A rolling 'work programme', designed to cover a representative range of projects across EIB themes, is established in consultation with the Directorates (EIB Departments), the Management Committee and the Board of Directors, which takes the final decision.
- Evaluations usually take place in the second half of project-cycles, normally one or two years after projects have started or post project-completion.
- Project evaluations assess financial and non-financial impacts and also review EIB's role in managing the project to ensure that the specified policies and procedures were followed.
- Evaluation reports are created based on primary and secondary information which includes: existing EIB documentation on theme, site visits, discussions with beneficiaries and other stakeholders. Before finalisation, Directorates receive a copy of this report. In some cases, clients also receive a copy at this point.

⁴ The World Bank has two further bodies that are responsible for financial fraud detection and improving the operational efficiency of the Group: the Integrity Vice Presidency has the responsibility to detect and deter fraud and corruption in financed projects, and the Internal Audit Vice-Presidency (IAD) has an independent and objective assurance advisory function to improve the Group's operations. 'IAD primarily focuses on assessing whether governance, risk management, and control processes of the Bank Group are effective in achieving the organization's goals' (World Bank 2015: 28).

- A synthesis of many such evaluations is presented to the Board and Management Committee for review and evaluations can also be accessed by EIB staff, internal decision-makers and externally via the EIB website (EIB 2009).

In this section we have summarised some of the key features of the World Bank and EIB, including how these have evolved historically. In Section 3 we turn to the AIIB and consider what the new MDB can learn from these experiences. This is followed by an analysis of what the international development community may, in time, learn from the AIIB.

3 Overview of the AIIB's Articles of Agreement, aims and 'additionality'

Before considering operational options in key areas for the AIIB, we first examine what is already established. As the AIIB has not yet begun operations, we are dependent on published material such as the Articles of Agreement and statements about AIIB aims from key policymakers. In the light of this, the section concludes with a brief discussion about the rationale for a new MDB, and what 'additionality' the AIIB may bring to the multilateral development financing landscape.

3.1 Articles of Agreement

The AIIB's Articles of Agreement describe some important features. As well as reproducing the relevant text, this section provides some commentary based on interviews with senior development bank officials, and the review of the approaches taken by the World Bank and EIB presented above.

The purpose of the AIIB shall be to: (i) foster sustainable economic development, create wealth and improve infrastructure connectivity in Asia by investing in infrastructure and other productive sectors; and (ii) promote regional cooperation and partnership in addressing development challenges by working in close collaboration with other multilateral and bilateral development institutions. Wherever used in this Agreement, references to 'Asia' and 'region' shall include the geographical regions and composition classified as Asia and Oceania by the United Nations.

Given its name, it is unsurprising that the AIIB's mandate focuses on infrastructure in Asia. Reportedly, however, there will be some exceptions, such as lending to its extra-regional developing and emerging country members, such as South Africa, Brazil and Egypt (interview material).

To implement this mandate, the AIIB will seek:

(i) to promote investment in the region of public and private capital for development purposes, in particular for development of infrastructure and other productive sectors; (ii) to utilize the resources at its disposal for financing such development in the region, including those projects and programs which will contribute most effectively to the harmonious economic growth of the region as a whole and having special regard to the needs of less developed members in the region; (iii) to encourage private investment in projects, enterprises and activities contributing to economic development in the region, in particular in infrastructure and other productive sectors, and to supplement private investment when private capital is not available on reasonable terms and conditions; and (iv) to undertake such other activities and services as may further these functions.

More specifically:

The Bank may carry out its operations in any of the following ways:

- i. by making, co-financing or participating in direct loans;*
- ii. by investment of funds in the equity capital of an institution or enterprise;*
- iii. by guaranteeing, in whole or in part, loans for economic development;*
- iv. by deploying Special Funds resources;*
- v. by providing technical assistance;*
- vi. through other types of financing as may be determined by the Board of Governors.*

This is broad enough in scope to enable the AIIB to proceed flexibly in its use of different instruments and activities. The ability to use 'special fund resources' matches the World Bank's use of trust funds, and will enable the AIIB to expand lending beyond the restrictions of its capital base if member countries have the desire and capacity to provide additional resources. Given the scale of the infrastructure funding gap, this is a very welcome move.

For membership:

Membership in the Bank shall be open to all members of the International Bank for Reconstruction and Development or the Asian Development Bank. A distinction is made between regional members and other members, called non-regional members. Regional members should have seventy-five per cent of the total subscribed capital stock, unless otherwise agreed by the Board of Governors by a Super Majority vote.

The stipulation that three-quarters of voting rights are reserved for regional members is interesting. The African Development Bank (AfDB) has a similar provision, ensuring regional countries maintain a voting majority.

The authorized initial capital stock of the Bank shall be one hundred billion United States dollars. The original authorized capital stock shall be divided into paid-in shares and callable shares. Shares having an aggregate par value of twenty billion dollars shall be paid-in shares, and shares having an aggregate par value of eighty billion dollars shall be callable. The authorized capital stock of the AIIB may be increased by the Board of Governors, by a Super Majority vote. Payment of the amount initially subscribed by each Signatory to this Agreement which becomes a member to the paid-in capital stock of the Bank shall be made in five yearly installments, of twenty per cent each of such amount, except members considered less developed countries, which can make their contribution in ten yearly installments.

In terms of scale of capital, therefore, the AIIB at the outset will be around a third of the size of the World Bank and EIB. As with the World Bank, 20 per cent of subscribed capital will be paid in, giving the AIIB US\$20bn of useable capital at the outset. The implications of this for the scale of lending that we might expect, and how this is likely to evolve over time, are considered in detail below.

The total amount outstanding of loans, equity investments, guarantees and other types of financing provided by the Bank in its ordinary operations shall not at any time be increased, if by such increase the total amount of its unimpaired subscribed capital, reserves and retained earnings included in its ordinary resources would be exceeded.

This establishes a leverage ratio of 1:1, the same as the World Bank. As the AIIB will start with no reserves or retained earnings, this sets a limit of US\$100bn of total lending given current capital levels.

Notwithstanding this, the Board of Governors may, by a Super Majority vote determine that, based on the Bank's financial position and financial standing, the limitation may be increased, up to 250 per cent of the Bank's unimpaired subscribed capital, reserves and retained earnings included in its ordinary resources.

It is noteworthy, however, that provision is made to relax this requirement, where assets may increase to 2.5 times this level, in line with the limit used by the EIB. This seems very positive, as such a strict 1:1 ratio of total capital to total loans is seen as too constraining today (see more discussion below).

The Bank shall place no restriction upon the procurement of goods and services from any country from the proceeds of any financing undertaken in the ordinary or special operations of the Bank.

This is a very enlightened provision, which bodes well for the efficiency of its operations, as it means goods and services from AIIB-funded projects can be provided by any country, whether they are members of the AIIB or not. (However, the EIB experience shows there may be problems with countries requiring local content, based on interview material. Indeed, some emerging and developing countries require a certain percentage of local content due to, for example, reasons of technological development; this may need to be dealt with on a case-by-case basis).

A similar point can be made regarding staff, which may be nationals of any country, even those who are not members of the AIIB, with appointments made on a meritocratic basis (interview material). Again, this is a valuable measure. It will not only enhance technical capacity of the staff, which is crucial, but may even help ensure the highest credit rating. It is noteworthy that the Black Sea Trade and Development Bank (a smaller bank than the AIIB, but also a new one) allows for permanent contracts of citizens of non-member states, which reportedly helped the bank achieve a good rating (interview material).

The Board of Directors shall function on a non-resident basis except as otherwise decided by the Board of Governors by a Super Majority vote.

This differs from the World Bank, which has a resident Board of Directors, but is similar to the EIB and the Development Bank of Latin America (CAF), both of which have a non-resident Board. The non-resident model, which the AIIB is adopting, may have advantages in terms of facilitating speedier approval of projects and lowering costs of operations.

The total voting power of each country member shall consist of the sum of its basic votes, share votes and, in the case of a Founding Member, its Founding Member votes.

- i. The basic votes of each member shall be the number of votes that results from the equal distribution among all the members of twelve (12) per cent of the aggregate sum of the basic votes, share votes and Founding Member votes of all the members.*
- ii. The number of the share votes of each member shall be equal to the number of shares of the capital stock of the Bank held by that member.*
- iii. Each Founding Member shall be allocated six hundred (600) Founding Member votes.*

3.2 Aims and additionality

The more specific aims of the AIIB have been spelled out in several speeches and interviews by Mr Jin Liqun, President-designate (see for example, Xinhuanet, 25 December 2015): the AIIB should be lean (avoid over-staffing and excessive bureaucracy, with few layers of management, and a non-resident Board), mean (zero tolerance for corruption), and green (encourage sustainable development through investments in renewable energy and energy efficiency). These seem very sensible objectives, emphasising the importance of speed of operations, which is a major priority for borrowers, and an important criticism by borrowing governments of many existing MDBs.

It is important to note, however, that there may be trade-offs involved in some of these aims; for example, the aim of speed could in some cases conflict with the quality of projects, including from a social and environmental perspective. While these risks can be mitigated

through the use of high-quality and experienced staff in the AIIB, and learning the lessons (both positive and negative) from the experience of existing multilateral, regional and national development banks (especially successful ones, such as the Chinese Development Bank (CDB) and KfW), it is important that they are acknowledged and actively addressed.

Ideally, the aim should be to maximise speed of operations without reducing the scale of development impact and quality of social and environmental outcomes. This is a critically important area where the AIIB could bring real additionality. By commencing operations, the AIIB will automatically increase the *quantity* of investment in infrastructure. If it can also accelerate the investment process this quantity affect will be amplified, particularly if other MDBs can learn from its innovations. If it can achieve this while also maintaining, or even enhancing the *quality* of projects, the positive development impacts will be huge.

As mentioned previously, the fact that the World Bank is currently reviewing its approach to environmental and social standards, suggests a window of opportunity for the AIIB to work in conjunction with existing MDBs to co-construct best practice in this area over time. As the AIIB will reportedly co-invest with the World Bank in its early years, this is very possible in practical terms.

The philosophy that seems to be emerging for the AIIB suggests scope for constructive collaboration. Reportedly, the AIIB's goal is for the environmental and social standards of projects to be high, but also consistent with the development needs of borrowing countries, i.e. not excessively onerous and time-consuming. Furthermore, there seems to be an acceptance for greater flexibility needed for poorer countries. This seems likely to lead to a greater reliance on countries' own systems for ensuring that safeguards are met, which also appears to be the direction that the World Bank is taking in its own ESS reform process. The Asian Development Bank (ADB) is adopting a similar approach.

Moving from a requirement of *ex-ante* environmental and social standard requirements towards *ex-post* monitoring mechanisms is likely to increase speed and lower costs, a highly desirable aim from a borrowers' perspective. A focus on development outcomes is also in line with the 'programme for results' initiatives piloted by the World Bank in 2010, which disburses finance on the basis of agreed development results rather than project inputs. In this regard, targeted development results should include environmental and social outcomes. In principle, such an approach could spur innovation, leading to better development outcomes, fewer delays and lower costs.

As ever, the devil will be in the detail. While this approach has the potential to create a valuable 'race to the top', it also runs the risk of standards being sacrificed to accelerate investment cycles and lower costs. Careful coordination and cooperation between MDBs, governments and other development actors such as CSOs, NGOs and academic researchers would be needed to ensure that this does not happen. Such an approach may also not be suitable for the most high-risk projects, where traditional safeguards would still need to be applied.

4 Investment criteria and choice of instruments

4.1 Sector and project investment criteria

The AIIB's focus is infrastructure, and there is very good evidence to support this in terms of maximising development impacts. As we saw in Section 2, infrastructure was also the largest sector for both the World Bank and EIB in their early period. Since then the World Bank has progressively diversified into other sectors, reducing the proportion of lending going to infrastructure. This has been criticised by several borrowing countries and by some development experts, leading to some renewed emphasis of the World Bank on infrastructure. The EIB, in contrast, has kept roughly the same weighting over time.

Other than the fact that it is called the 'infrastructure' investment bank, there is no intrinsic reason why the AIIB should take either route. Infrastructure can certainly deliver large development returns, but so can other sectors. The funding gap in infrastructure, however, is particularly large, and certainly for the foreseeable future, there is a strong case for an MDB that is fully dedicated to the sector in Asia. This would also make sense in terms of the accumulation of knowledge: infrastructure investment has its own distinctive features, and a specialised institution may be better placed to become a centre for knowledge accumulation and dissemination than a more diversified bank. Looked at from the perspective of the global development finance landscape, specialisation would need to be complemented by other MDBs specialising more in other developmentally important sectors.

When considering which sectors and sub-sectors to invest in more generally, it is important to choose those that have the potential for development impact *and* ensure sufficient commercial return to the development bank. 'Sufficient returns' are those which enable the bank to maintain its capital base and ideally accrue retained earnings. Put another way, the bank needs to make rather than lose money, but it does not need to maximise the amount of money it makes. The emphasis should be on maximising development returns not financial returns. Development banks should also take the long-view, prioritising sectors which yield the highest development returns over the longer term. After sectors have been selected on this basis, projects within prioritised sectors should be scrutinised for both potential development impact and their ability to generate positive financial returns.

The assessment of potential development impacts, at both the sector and project level, can first draw upon the extensive academic and policy literatures that have developed over the decades, including analysis of backward and forward linkages impact of investment and participatory methodologies that have been developed to give intended beneficiaries and other affected parties voice. The experience, and accumulated institutional knowledge, of existing MDBs, as well as successful national development banks, such as the CDB and KfW, is also an invaluable source for a new institution such as the AIIB.

Over time, however, the AIIB will be best served by developing its own capacity, where the prioritisation of sectors is based on its own impact evaluation of AIIB projects. As well as enabling the AIIB to enhance its development impacts, this would also create a valuable resource that other MDBs could use, amplifying these effects. The concept of the AIIB as a 'knowledge bank' is discussed in detail in Section 6.

Ensuring projects can generate positive financial returns requires not just careful consideration of whether it has the potential to operate commercially, but also debt sustainability analysis, to ensure projects and countries are able to pay back loans. Here the history of lending by institutions like the World Bank, as well as the regional development

banks (RDBs) (which suffered quite important losses, reflected in the Debt Initiative for Heavily Indebted Poor Countries (HIPIC)) suggests the AIIB should undertake careful debt sustainability analysis to avoid excessive future losses. Clearly not all losses can be avoided, but a rigorous analysis should aim to forecast and avoid expected losses. According to Matthias Kollatz, drawing on his extensive experience as Senior Vice President of the EIB, a useful lesson from the past is to ask for real guarantees, such as pledges of rolling stock, plots or buildings, including guarantees from regional authorities, to align their interest in the economic success of the project.

Though commercial profitability should not be the main aim of a development bank, any profits the AIIB makes can be added to its capital base, enabling higher future lending, and therefore potentially greater development impact in future years. Since their initial capital endowment at the time of their creation, both the World Bank and the EIB (as well as other development banks) have largely increased their capital and lending capacity in this way.

As ever, the key is to strike the right balance. Too much focus on financial returns risks achieving less development impact than could be achieved. On the other hand, paying insufficient attention to financial returns risks reducing the resources available for future lending, and therefore reduces the potential development impacts that could be achieved in the future.

4.2 Investment instruments

As regards the most effective financial instruments for funding infrastructure, valuable lessons can be extracted from the experience of existing MDBs. Reflecting the size of infrastructure projects, the greatest need is for large-scale, affordable, long-term loans, and for equity instruments to reach appropriate debt-equity ratios for infrastructure (normally around 60:40). Guarantees are also being demanded increasingly by the private sector to mitigate risk, and MDBs have an important role to play in this respect, though there are some caveats, as discussed below.

In infrastructure, three parameters (maturity, scale and cost) are therefore simultaneously crucial, as the required up-front investment is normally high, the construction period can be very long, and the time required before the project becomes commercially profitable is often long. The cost of finance is important as this will ultimately be paid by users as tariffs, or governments as subsidies. Expensive finance for infrastructure projects is thus likely to lower potential development impacts, either directly by undermining affordability for poorer groups, or indirectly by reducing the resources available to government for other types of developmentally important expenditure. This is why financing by public banks and/or governments is so needed, as large-scale, affordable, long-term, private finance is very scarce, particularly in developing countries.

An important criterion for choosing the mix of instruments is that they should facilitate rapid and significant financing of infrastructure. As we have seen, the President of the AIIB has rightly emphasised the need for speed in arranging funding. Another criterion is that, since the capital of MDBs like the AIIB originates in the savings of shareholder governments (and therefore of their citizens) unnecessary financial risks (and therefore excessive public contingent liabilities) should not be created. Though this may restrict somewhat the capacity of the AIIB to leverage its capital by very large numbers in the short term, it will reduce future risks to its capital and profitability in the future. Rather than excel in 'financial engineering' – as the private financial sector has, which has often resulted in the creation of excessive systemic risk, sometimes leading to developmentally costly financial crises – MDBs such as the AIIB and the New Development Bank (NDB) should excel in real engineering, to support countries and regions design and develop good infrastructure projects. Indeed, especially in their earlier phases, this is exactly what the World Bank and the EIB have done.

To fulfil these two criteria, simple instruments, such as ‘plain vanilla’ loans may be most appropriate, especially for a new MDB just beginning operations, such as the AIIB, as they will allow a rapid ramping-up of lending and investing in infrastructure, as well as minimise risks for the MDB. If a new MDB like the AIIB can establish a good asset book based on clear, understandable instruments, a good repayment record on its loans, and a strong decision-making process, it has the potential to achieve a better rating than the average (or weighted average) of its shareholders. This is the case with institutions like the World Bank, and the EIB, which both have AAA rating, even though many of their member governments do not. Building on this higher rating, the AIIB could provide cheaper financing to projects in member countries compared with their issuing sovereign bonds, for example.

To achieve greater leverage over time, other instruments, such as guarantees to private investors and lenders, will need to be developed to complement loan instruments. Guarantees are safer from a development bank perspective if they are at least partly funded *ex-ante*, and if the risks for which guarantees are provided are clearly capped; as we discuss below, risks are not open-ended (see also Griffith-Jones and Kollatz 2015).

As well as providing guarantees, development banks like the AIIB can also attract private investment by creating a ‘demonstration effect’, showcasing successful and profitable investments in developing and emerging economies that they have funded, and indirectly encouraging private investors. This has been the case both with IFC and Norfund, the latter experience discussed in Spratt, Griffith-Jones and Ocampo (2013).

There is a strong case for a predominance of simple instruments, such as long-term lending, co-financed by private lending and equity. Alternative instruments, which potentially can provide more leverage, are complicated to arrange, and may actually deliver very few transactions, and thus very little volume, as has been the experience of other MDBs such as the World Bank and EIB (based on interview material; see also Griffith-Jones and Kollatz 2015). Furthermore, they may force public development banks like the AIIB to take excessive risks. Finally, transactional costs tend to be higher with structured loans or other more complex instruments, so it seems clear that when using such instruments, small projects should be avoided. Therefore, an initial focus should be ‘plain vanilla’ lending. However, there is a case to introduce some more sophisticated instruments on an experimental basis, to learn from experience, and to scale them up – if successful – in a later stage.

Interviews carried out show that the limiting instruments for infrastructure finance are long-term loans and equity. As regards the balance between debt and equity, the overwhelming majority of AIIB financing should be provided through debt. To continue to increase their impact over time, development banks need to project and grow their capital base. Equity is inherently riskier than debt, hence its higher returns, and is therefore more suited to private than public investors, particularly at large scales.

This is not always the case of course. There will be cases where the provision of some equity or guarantees against certain specified risks is important to provide comfort to the private investor in infrastructure. Two caveats are needed. If risks are assumed, for example through guarantees, these should be clearly specified. Typically, as with MIGA, they should not involve commercial risk, but focus more on areas like regulatory risk, which is more clearly linked to government actions. Equity can also have the advantage that if, in good and profitable projects, it leads to higher profits for the AIIB, which can then be used for future capital increases, and increased activity, as was the case with Deutsche Investitions- und Entwicklungsgesellschaft (DEG), part of the KfW Group, for example (interview material).

One sector of great importance for sustainable development (a focus for both the AIIB and NDB) is renewable energy. Regulatory risks are perceived to be particularly high in this

sector as regulations or broader policies, such as feed-in tariffs often need to be maintained for long periods to ensure the commercial viability of projects. Governments or development banks such as the AIIB are very well placed to provide guarantees against such risks, not least as they may be able to mitigate these risks through their influence on governments. International infrastructure projects, which involve several countries, may also require guarantees from an MDB like the AIIB, especially on regulatory aspects, which generally differ between countries (interview material).

Beyond guarantees, other routes can be found to provide comfort to private investors. According to interviews with private investors and lenders, one such important route is co-investment or co-lending by one or more multilateral or regional public development bank. What seems to count most is not how much the development bank is involved or through what modality, but the fact that it is involved at all – the so-called ‘halo effect’. The ‘halo effect’ is often significant, not least as investors may suspect, probably correctly, that a default is less likely if a major MDB is a co-investor (see Spratt and Ryan-Collins 2012 for a discussion of this issue).

A particularly useful mechanism in infrastructure is co-financing for the initial (construction) or later periods of loans, where private finance is hard to obtain. For the former, support can be an intervention (e.g. partial guarantee or equity contribution) to support the construction phase, thus covering quite significant construction risk. Another option for development banks would be to support the project preparation phase, enabling more projects to be investment ready by the time they are brought to market. For later stages, development bank finance could be phased in when the commercial lending ends, enabling the tenor of the loans to be extended beyond the period that the private banks are willing to lend. These types of instruments have been used extensively by the World Bank and EIB, so useful lessons can be drawn from their experience on the details of design and implementation.

Another important function, especially in regional projects, can be provided by larger countries helping smaller ones, on occasions with the technical support of a development bank. More generally, MDBs often provide coordination services, again especially in regional projects. Examples include making regulations compatible across countries, or facilitating negotiations about electricity prices. (For an example of the role played by the World Bank in Mozambique and neighbouring countries in relation to large hydropower plant, see Spratt *et al.* 2013). MDBs are well placed to facilitate such collaboration between larger and smaller member countries.

Smaller projects (infrastructure at the municipal level, for example) may find it particularly difficult to raise private finance. In such cases, the AIIB, like other MDBs, needs to find the least cost financing mechanism; this relates not just to instruments, but to institutional approaches and modalities. For example, a new instrument may be desirable, in which similar projects being carried out in similar periods but different locations, are grouped together. The AIIB could collaborate with public or private banks specialised in financing municipalities, or with national development banks, to which it could provide credit lines for this purpose. The input of the AIIB could consist of three elements: risk taking, technical assistance in due diligence and the effort of standardisation.

As mentioned above, there is a growing interest in unfunded instruments such as guarantees; this interest originates especially from the private sector (which is always looking to minimise its risk exposure in infrastructure). Some experts from development banks also favour such instruments, in the belief that guarantees allow a more ‘efficient’ use of capital. However, as reported in Griffith-Jones and Kollatz 2015, though a lot has been written about guarantees, not a lot of financing for infrastructure has actually occurred through this mechanism. Between 1994 and 2013, for example, the World Bank provided

only around 50 guarantees, the ADB and the Inter-American Development Bank (IADB) hardly any, and the AfDB none at all.

It is therefore reasonable to be somewhat sceptical about the very generalised use of guarantee instruments, both due to practical difficulties (reflected in the low numbers of cases), and the large scale of contingent liabilities they generate, whilst offering no potential for the public banks like the AIIB to capture any upside. However, in some cases, guarantees (especially partial ones) can provide initial confidence for private investors to enter a new sector, or country, with following projects of a similar nature being undertaken by investors without development bank guarantees.

Guarantees against risks should be clearly limited, to avoid unlimited contingent liabilities being assumed by the AIIB. It is also important to fund guarantees at least partly *ex-ante* as problems tend to arise, and guarantees are called, when crises occur, a time when it may be harder for MDBs to raise resources on the markets or from governments. Stress analysis may be useful to develop if there are a significant number of guarantees being considered, which could include a certain percentage of guarantees being called under a situation where the access to the capital markets might be difficult – and therefore a liquidity buffer with some pre-funding would be prudent.

The experience of the EIB, and other development banks, indicates that guarantees are better suited if given to a portfolio of, for example, SMEs, diversifying idiosyncratic risks, except in extreme crises situations. For infrastructure, with fewer and larger projects, idiosyncratic risk (if one or two very big projects fail) may have a major impact on any contingent liabilities. Guarantees for infrastructure are thus far riskier for MDBs than guarantees against first losses for a diversified set of SMEs. If guarantees are given for infrastructure, the need to pre-fund a fairly high proportion is thus advisable.

An important innovation that the AIIB could help pioneer are loan instruments that allow an upside for the development bank, if a project is successful. This would generate profits that would be reinvested, increasing lending in the future. Such instruments have been discussed amply in the literature, and even suggested specifically for the EIF, linked to the EIB (Griffith-Jones 1993), but have not been implemented. The renewed interest in GDP-linked bonds for sovereign debt (e.g. by the Bank of England) is making the case that state-contingent loans (linked to state of the wider economy, or in the case of infrastructure projects, to revenue streams) are innovative instruments of value, as they reduce likelihood of default in bad times and capture the upside in good times.

If the AIIB contributes equity through capital or guarantees (and assumes risks), it should also benefit from the upside. This implies if the project were to be particularly profitable, a proportional part of the profits would be paid to it. One could establish the capital injection with a *pari passu* participation of the profits for a certain period of time, for example, or a permanent share of the project company for the future. This interesting innovation, which could increase the ability of the AIIB to generate greater revenue, would add to existing equity capital and thus increase its future lending capacity. Such a developmentally positive innovation could then be also used by other MDBs.

5 Scale of capital and likely level of loans

One of the key questions asked is whether the AIIB will make a significant contribution to the massive infrastructure deficit existing in Asia, by providing meaningful levels of funding, and to what extent the scale of lending to be provided by the AIIB is comparable to existing development banks.

It is possible to estimate the level of lending that the AIIB will reach in the following 5–10 years. A first important indication was provided in December 2015 by President-designate Liqun, when he indicated that the AIIB was expected to lend between US\$10–\$15bn a year during the next five to six years; this lending would be cumulative, as initially there would be no repayments, as loans would be of long maturity. In five years, one could expect therefore a stock of loans of about US\$50–\$75bn, which would be a significant amount.

We can do a more detailed calculation of the possible level of total stock of lending by the AIIB by 2025. This would be determined by the level of paid-in capital, expected profits (which can be accumulated as reserves or additional capital), as well as maximum leverage of loans over paid-in capital. The total level of committed paid-in capital in late 2015 was US\$19.6bn (of a total of initial authorised capital of US\$20bn). This will be contributed in five equal instalments on a yearly basis. President-designate Liqun has also indicated clearly (in his speech at Brookings), that the leverage of paid-in capital should be no more than five, i.e. that paid-in capital should represent not less than 20 per cent of total loans. It is interesting that this is the same as the new loan to paid-in capital ratio of 20 per cent announced by the World Bank in 2014, which is lower than the ratio used in previous years by the World Bank, which was over 30 per cent in the 2009–13 period.

Following Humphreys (2015), we assume a return on equity of the AIIB in the next ten years of 3.5 per cent, which represents the average return of the IBRD, the IADB, the ADB and the AfDB in the 2009–13 period, starting in the third year of operations of the bank, and that all profits are reinvested as reserves or capital increases, which is the traditional practice of existing MDBs. This, together with the other parameters described in the preceding paragraph implies that in 2025, the total level of accumulated loans by the AIIB could reach over US\$120bn. We are assuming here there would be no repayments of loans yet. This stock of lending would be higher than that of any of the RDBs in 2014, such as the ADB, the IADB or the AfDB, and would be almost as high as the total stock of lending by the IBRD part of the World Bank in 2014, which reached over US\$140bn. If we were just to consider only infrastructure lending (which by 2025 is likely to still be 100 per cent of AIIB lending), whereas it is less than 40 per cent for the World Bank in the 2010s, the total stock of infrastructure lending of the AIIB in 2025 could be significantly higher than IBRD stock of lending in infrastructure in 2014 (*ibid.*).

What is clear from these estimates is that by 2025 the AIIB could be a very major actor in funding infrastructure in Asia, and perhaps more importantly, could be making a significant contribution to the financing of the large deficit in infrastructure existing in Asia, and thus making a valuable contribution to inclusive and sustainable growth in that region.

Naturally, the impact will be enhanced if, as planned by the AIIB and following in the footsteps of the existing MDBs and RDBs, the AIIB would co-finance projects with private lenders and investors, as well as national development banks of the borrowing countries. If such co-financing follows the classical path of at least 50 per cent of co-financing by other parties (as for example required by the EIB, as a minimum, though often its projects have only one third participation of EIB resources), then the total stock of loans of the AIIB plus this private co-financing by 2025 could reach over US\$240bn.

Furthermore, especially in its initial years, the AIIB is planning to co-finance loans particularly with the World Bank and the ADB (interview material). Therefore, the total scale of infrastructure projects by 2025 in which the AIIB had contributed lending could exceed, possibly quite significantly, US\$240bn by 2025.

As discussed above, the scale of AIIB lending could be significantly enhanced through special or trust funds, mechanisms also used by institutions such as the World Bank and RDBs. Thus if a member country, or countries, wanted to further expand their lending or other financial contribution to infrastructure projects, they could create special funds, a possibility which is specified in the Articles of Agreement (see Section 3). Such special funds could have a general purpose, or perhaps be focused on specific sectors, such as solar energy, for example, or special categories of countries, such as low-income countries. Though such special funds may have less clear governance structures, they do have the virtue of allowing an expansion of financial activity, and especially lending – but also others, such as technical assistance – without requiring further capital increases. Naturally, if the capital of the AIIB was further increased at a later stage, and there are reportedly 20 new member countries interested in joining, this could lead also to potential further increases in AIIB lending.

Some caveats should be added here. To achieve this scale of lending by the AIIB will require sufficient demand for such loans; furthermore, the quality of the projects needs to be of a sufficiently high standard, to both ensure high development impacts and loan repayment, both by projects and countries. When presented projects are not of sufficient quality, they may require technical assistance by the AIIB to improve them. This may be a time-consuming, though valuable exercise. Finally, the need to evaluate such projects, as well as possibly provide technical assistance in the design of some of them – especially the more complex and international ones, and particularly in countries with less expertise in these areas – requires significant numbers of well-trained staff, whom it may take some time for the AIIB to hire.

Finally, there is a technical issue that would restrict the level of activity. As described above, the AIIB's Articles of Agreement specify that total loans and other operations by the AIIB cannot exceed total capital, and the latter presently equals US\$100bn. This 1:1 ratio established in the Articles of Agreement between total capital and loans, also called the gearing ratio (see above), implies a maximum stock of loans of US\$100bn. To allow levels of lending to the above US\$100bn would require some increase of capital (this is very possible if new members were to join, which is allowed in the Articles of Agreement, and a number of countries are interested) or an increase of the ratio between total loans to total capital is approved. This is also feasible, as a 2.5:1 ratio is permitted, but requires the approval of a Super Majority on the AIIB Board.

It is interesting in this context that the EIB, differently from the other MDBs, has a gearing ratio of up to 2.5:1, without affecting its AAA credit rating. This would seem to indicate that having a higher gearing ratio (higher total loans to total capital) does not affect much an MDB rating. Indeed, several expert observers (interview material) have commented that a strict gearing ratio by itself may be somewhat old-fashioned and that rating agencies may give more attention to ratios linking paid-in capital to risk-weighted measures of loans and other transactions, as used by private bank regulators. This would make an increase of the AIIB gearing ratio after it has been operating successfully a couple of years quite feasible, without a negative effect on its rating. Naturally, discussion of this with rating agencies would be desirable.

The initial experience of the EIB and the World Bank, in terms of the fairly low level of their initial lending and the slow start they made in increasing such lending, is interesting in this regard. In the whole of the first decade of its existence (1959–68), for example, the EIB only

lent €9.9bn, expressed in 2014 Euros (based on calculations in Griffith-Jones *et al.* 2005, which have been updated). The lending growth of the EIB accelerated in the second decade of its existence, when EIB total lending reached €43.4bn, also expressed in 2014 Euros. EIB lending has continued to increase significantly, and just in one year – 2014 – the level of its total loans, mainly in the EU, but also in other countries, reached €77bn, ten times what it lent in the whole of its first decade, 1959–68.

Annual World Bank lending was also relatively low and stable in the 1960s. During the 1970s, this rose rapidly, averaging US\$22.2bn per year (in 2013 dollar terms), and rose again to US\$34.2bn per year in the 1980s. The 1990s saw lending remain broadly stable in real terms, before falling sharply in the first half of the 2000s. The sharp increase in World Bank lending triggered by the financial crisis saw Bank lending rise sharply, exceeding US\$60bn in one year at the end of the decade. Although lending then returned to more 'normal' levels, it has subsequently risen sharply, exceeding US\$61bn again in 2014 in nominal terms.

In terms of the growth of lending, the AIIB has the important advantage of being a late-comer, and can benefit from the experience of existing MDBs, the RDBs, as well as the valuable national development bank experience of its member countries, starting with the CDB, the largest national development bank in the world, which has played a major role in the funding of Chinese infrastructure, including in recent years, renewable energy. Also valuable will be the experience of KfW, the second largest commercial bank in Germany, which has also played a major role in the development of renewable energy and energy efficiency, both in Germany and internationally (for the latter, see Griffith-Jones, forthcoming).

The AIIB also has the advantage of today's much larger international capital market, as well as the deep and large Chinese capital market. This is somewhat different to the EIB in its original decade when it faced the still underdeveloped and fragmented European capital markets. Furthermore, most borrowers in the early 1960s preferred not to take currency risks, and therefore borrowed in European currencies; the EIB itself could not then easily swap borrowing in the deeper US market into European currencies, as such instruments were not yet very developed. This is quite different today.

6 The AIIB as a new ‘knowledge bank’?

Development ‘knowledge’ refers to the theories and methodological framework that have guided interventions and development practices during the post-Second World War era. Neoclassical economics, and to lesser extent, anthropologists, have been central to this process. The work of these scholars has created what we call development knowledge today, which has been transformed from an understanding of ‘uncivilised people’ during the colonial era to a systematic understanding of the ‘developing world’, or ‘third world’ as it was formerly known. Despite its academic rationale, contemporary development knowledge is thus the product of constructed academic theories drawn from particular historical experiences. Development economics is no different, and has had a predominant influence on global development thinking, particularly on the World Bank’s development knowledge production.

Much of the lessons from existing development financing institutions, specifically from the World Bank and EIB, that could be useful for the AIIB are discussed above. While important, these insights are only part of the story. To understand what the AIIB, and similar institutions could contribute over the longer term, and why this is so important, we need to take a step back and consider how current development knowledge – particularly that from the World Bank – has been constructed, produced and used.

6.1 Historical foundations of contemporary development knowledge

Historically speaking, contemporary development knowledge was based on the construction of relationships between European and non-Europeans through pre-colonial, colonial and post-colonial times. After decolonisation, the concept of ‘underdevelopment’ replaced earlier, more pejorative, concepts and the responsibility of the ‘developed’ thus became to help others to achieve this status. The relationship between the ‘developed’ and ‘developing’, has therefore always been unequal, not only politically and economically, but also epistemologically, with knowledge about what ‘development’ means being dominated by countries which were part of the ‘developed world’.

It thus became accepted that developing countries could and should learn from the experiences of the already developed countries because the latter were richer, and because their societies were distinguished by economic, social, cultural and political modernity, which contrasted sharply with the traditional value of underdeveloped countries. Therefore, economic development came to be seen as not merely a change of production techniques, but also a reorientation of social norms and values (Hoselitz 1952). Under this transformative development model, developing countries needed to mobilise domestic and foreign saving to create an investment pool from which they could finance their development programme. Given capital scarcity, development assistance would have to be made available. The Bretton Wood Institutions, like the World Bank and the RDBs, began to fill this gap.

6.2 Experiences and lessons of development knowledge production of the World Bank

The development knowledge which has guided the World Bank’s operation has developed historically and contextually. As described in earlier sections of this report, the World Bank’s initial role in financing infrastructure to promote economic development has gradually extended to more politicised, knowledge-related roles with regard to governance and institutions. The politicisation of development knowledge has been driven by the doctrine of ‘modernisation’, which links economic development and political and social cultural change.

This discounts the importance of alternative development experiences, insisting that development can only occur in the context of overall institutional change. This framework has become widely accepted by development experts, and has had a profound influence on development policy and practice exercised by international development institutions like the World Bank.

The Bank's role has thus gradually extended from infrastructure financing to that of a 'knowledge bank' that produces theory, concepts and their practical applications for global development. We do not deny many of the positive impacts on equitable human wellbeing the Bank has had, rather the aim is to draw attention to how historical and contemporary political and economic forces have shaped the World Bank's development operation. In this regard, it is important to note that the Bank's decisions have been shaped by the political and economic agenda of its major shareholders.

The World Bank has aspired to a leadership role in the intellectual realm of development at least since the Robert McNamara era, which was discussed above. The knowledge mission continued during James Wolfensohn's Presidency of the Bank in the 1990s (Van Waeyenberge and Fine 2011), expanding into broader issues of development, with the Bank actively promoting itself as a source of 'global knowledge'. The Bank's knowledge is produced in different ways: academic research by the World Bank research department; applied analytical studies in operational departments; the training programmes of the World Bank Institute; and several important and powerful global knowledge and policy networks. The Bank's development knowledge system produces thousands of publications and papers, and hundreds of books and reports annually, and spends significant funds. These activities make the Bank one of the most powerful knowledge producers in the world, and the key knowledge broker in global development sector.

The World Bank's knowledge production has changed the approach to global development in important ways. First, it has provided the systematic knowledge to develop managerial techniques such as planning and monitoring and evaluation. Second, it has provided the knowledge base for tackling many new challenges such as environment and natural resources management, climate change and social safeguards. Incorporating social justice and environmental standards in its operations and transferring them to recipients is among the most important, positive contribution the Bank's knowledge system has made. Third, the World Bank's knowledge network approach has efficiently disseminated and shared knowledge, influencing the activities of other actors.

It is important that the AIIB can take many of these positive experiences from the World Bank into its own knowledge production initiative. However, beyond these positive lessons, there are also negative lessons the AIIB needs to take from the World Bank in terms of development knowledge production. First is a political and ideological bias. As mentioned above, the Bank's knowledge is produced historically and contextually. It cannot be politically neutral, as is often argued, particularly given the influence of its major shareholders, and that of the financial markets on the Bank. The second lesson is to avoid professional bias. The Development Economics Vice Presidency (DEC), for example, is dominated by economists who are graduates of economics departments of English-speaking, largely US universities, and neoclassical economics is the Bank's 'high scholarly discipline' (Gwin 1994; Wade 1996; Kapur, Lewis and Webb 1997). The third lesson is to avoid methodological bias, including: poor engagement with non-mainstream views, poor coherence and integration, and limited self-criticism.

The centralisation of knowledge, particularly the ability to determine what is, and what is not knowledge, is obscured by the mystique of scientific objectivity, which has also encouraged the bias in favour of particular forms of economics. While neoliberalism has been privileged, there have always been dissenting voices in the World Bank. More recently, it is

encouraging that Chief Economists such as Joseph Stiglitz and Justin Lin have begun to open up the Bank to alternative points of view.

6.3 The AIIB as an alternative ‘knowledge bank’?

In time, the AIIB will have to consider the role of development knowledge in promoting infrastructure for development. If it is to achieve its own objectives, as well as provide valuable lessons for other countries on the development process, it cannot simply adopt the existing knowledge framework. To date, the AIIB has taken seriously many of the practical lessons from existing development institutions but has not paid sufficient attention to the role of knowledge in its operation. The challenge ahead for the AIIB will be how to assimilate the experiences and lessons from the existing institutions and develop alternative forms of development knowledge to guide its operation in a meaningful way. Practically, the AIIB cannot avoid the debate around the role of market and state, for example, which is particularly important in the infrastructure sector. The challenge the AIIB faces in this regard is how successful development experiences as well as lessons from China and other emerging countries can be theorised into a systematic knowledge base.

Whilst the ambition for the AIIB should be to establish itself as an alternative knowledge bank on these core development questions, we would suggest it start with a narrower focus on all relevant aspects of infrastructure. This could include technical and practical aspects, such as project design and implementation, including from an engineering perspective, in different categories of countries. Linking these factors to development impacts could inform technical assistance in poorer countries, helping the development and implementation of efficient projects that maximise development impacts. In this regard, the AIIB could showcase its most successful projects for others, both MDBs, national development banks and private investors, to emulate. Knowledge creation should also cover the most appropriate financial instruments for funding infrastructure in different circumstances, but also cover broader issues such as the best policy framework for encouraging investment in renewable energy, for example. As suggested above, a crucial point is to identify the best way of handling possible trade-offs between environmental standards and meeting the development needs of different categories of borrowers.

Learning from the World Bank experience, the AIIB could not just focus on creation of knowledge, but also its dissemination, for example through a special training institute (like the World Bank or ADB Institutes). It could also use its growing knowledge base to become active in technical assistance.

While the focus would be on alternative and new thinking, this knowledge construction should also build on the many positive elements in existing knowledge in institutions like the World Bank and other MDBs and national development banks, UN bodies and the private sector, as well as by a range of academics and practitioners, both in developing and developed countries. In time, collaborative research may be the best way of achieving this.

7 Suggestions for future research and concluding remarks

In this report we have explored what ‘lessons’ the AIIB can learn from the experience of the World Bank and the EIB. The first lesson to highlight is to focus on developmentally important sectors. By establishing itself as an infrastructure bank, the AIIB will clearly do this. Another important issue in this regard is to focus on maximising ‘development returns’ rather than financial returns, while also ensuring the latter remain positive. As well as selecting projects that will yield positive returns, key to this is to avoid unexpected losses, which requires a robust approach to risk assessment and management.

The second lesson is to provide the right form of finance: in this case, long-term, affordable finance, primarily – though not exclusively – in debt form. We have also suggested that, particularly in its early years, the AIIB should also rely on straightforward, ‘vanilla’ instruments, and avoid the temptation to engage in excessive financial engineering.

A third lesson is the importance of integrating environmental and social safeguards into lending activities. Where the AIIB has the potential to contribute significantly, however, is in developing ways to do this in less time-consuming and resource-intensive ways than can be the case at present. In this regard, the EIB may have important lessons to teach, but all MDBs could benefit from finding a way to achieve the right balance in this area, so that the investment process can be significantly speeded up without sacrificing environmental and social standards. The ongoing World Bank review of policy in this area offers a significant window of opportunity in this regard.

We have also seen that the AIIB has much to contribute, not least as an alternative ‘knowledge bank’ that can draw on a different set of historical experiences and perspectives to the World Bank, which currently dominates this space globally. How this unfolds over time will be crucial to the evolving global development finance landscape.

There is much that we do not yet know, however. Some of the most important potential directions for future research are:

- i. Examine what lessons can be learnt from the experience of national development banks (e.g. CDB, Banco Nacional do Desenvolvimento (BNDES, Brazilian Development Bank), KfW), particularly the role of the CDB in promoting domestic development in China;
- ii. Undertake in-depth research on future options for AIIB as a knowledge bank, particularly how it can complement existing institutions, and make the most of the accumulated knowledge of its members;
- iii. More generally, examine how the AIIB can best work with other actors to maximise development impact, for example in collaboration with other MDBs and the private sector;
- iv. Evaluate which mix of financial instruments is best suited to maximising development impacts in different contexts (i.e. different sectors and countries); and
- v. Increase understanding of the best strategies, modalities and instruments for AIIB activities in the renewable energy and energy efficiency sectors.

No doubt there will be many other areas that the AIIB will wish to prioritise in terms of research. One thing seems certain, however: we are entering a period of significant change in international development finance. It is to be hoped that this will become a golden era of development banks, when their potential to contribute to global and national development goals will finally be realised in full.

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