THE EUROPEAN INVESTMENT BANK: LESSONS FOR DEVELOPING COUNTRIES

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INTRODUCTION

Since its very beginning, European integration was accompanied by the creation of major financial mechanisms. Such mechanisms, and the resulting loans and budget transfers, were seen as essential instruments to facilitate the policy objectives of the European Community serving, especially in the initial stages of integration, to create the required economic and political conditions to make economic integration both effective and equitable.

In this paper we focus on the main vehicle for these financial mechanisms, the European Investment Bank Group ("EIB"). We will analyse its main features, functions and evolution, and consider possible policy lessons for developing countries as they seek to build similar financial mechanisms including the creation of a regionally owned and operative development banks. Indeed we will argue that the EIB has been instrumental financially in fulfilling key policy objectives for the European Community and that leveraging such experience into regional development banks within developing economies could be equally critical in achieving policy goals in the 21st Century.

Also of particular relevance to developing countries in this context is the European Community's 2020 growth strategy which seeks to meet the challenges of the 21st Century in terms of a sustainableer and more competitive global economy. Similarly to developing countries, Europe is facing development challenges that requires major structural transformation to ensure continued growth in a sustainable and equitable way. Though Europe faces severe problems at the time of writing, which escape the scope of this paper, it does have valuable mechanisms to implement its development strategy including the facilitation of low-cost, long-term financing via the EIB which avoids the pro-cyclical patterns of private lending. We will argue this is a key lesson for developing countries as the existence of a development bank can provide a valuable instrument to provide stable, low-cost, long-term financing to implement a development strategy, either on its own or jointly with the private sector. As the aims of development strategy and the nature of the economy evolve, the development bank can also evolve, but what should remain constant is its role in serving the particular vision of a development strategy in each of its phases.

We will begin the paper with an overview of the historical evolution of the EIB's role and its inter-connectiveness to European policy goals. As we shall discuss, when the Community was created, and as membership was subsequently expanded, the key objective was supporting trade through the financing of infrastructure and convergence between poorer and richer regions.

We will then go on to discuss more recent objectives. These have included selected areas in support of the development of policy goals of "smart, sustainable and inclusive growth" and we will examine specifics relevant to developing countries. These include financing of critical infrastructure, such as energy technology and networks, urban environments and transport systems, and lending to SMEs to support employment creation and innovation. We will also discuss the role of the EIB during the recent global financial crisis as an instrument for counter-cyclical lending and institutional features of the EIB which have facilitated its success.

Finally, we will draw on the discussions of the EIB in the paper to propose critical policy lessons for developing countries. These will include that the traditional role of a development in closing market gaps such as in long-term, low-cost and stable infrastructure lending and in anti-cyclical financing is as relevant for developing countries today as it was for Europe historically. In addition the opportunity to leapfrog traditional infrastructure into a new sustainable economy could be facilitated by development banks. We will also propose that an optimal structure is a regionally owned and operative development bank as this would allow critical advantages of regional ownership, control and responsiveness and that the current financial situation (Such as reserves and sovereign wealth funds) of many developing countries could be used to establish such regional development banks. Overall we will conclude that the creation and support of regional developments could both replicate the successes of the EIB for Europe and provide a critical role in the development and growth of sustainable emerging market economies.

A HISTORICAL OVERVIEW OF THE EIB'S ROLE

The 1957 Treaty of Rome, which created the European Economic Community, had as its goal "establishing a common market and ... to promote ...a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States" (Article 2). The economic rationale which lay behind these goals was widely accepted analysis that showed that trade liberalisation and economic integration contributes to more rapid combined growth for a region via economies of scale and other mechanisms. However, due to inherent asymmetries, such integration also leads to relatively less rapid growth, or even decline, of relatively poorer areas within such regions (Griffith-Jones et al, 2006). Furthermore, economic analysis and experience showed that private financial markets were, and are, incomplete including one of the most critical market failures from a

development perspective, the financing of large scale infrastructure projects. Such infrastructure projects typically take a long time to build up revenues and become profitable and these periods are often longer than capital or banking markets want to commit for as they perceive risk to increase through time as infrastructure projects imply political risks, broadly defined, such as changes in the pricing or regulatory regime. Such issues made a clear case, both theoretically and politically, to deal with such market imperfections through the creation of a very large public bank. As we will discuss in the final section of this paper, this case is as strong, or even stronger, today for many developing countries.

As a response to these issues, the Treaty included articles to create the EIB "to contribute, by having recourse to the capital market and utilising its own resources, to balanced and steady development ... (and) facilitate the financing of ... (a) projects for developing less developed regions; (b) projects for modernising or converting undertakings or for developing fresh activities called for by the progressive establishment of the common market, where these projects are of such a size or nature that they cannot be entirely financed by the various means available in the individual Member States; and (c) projects of common interest to several Member States which are of such a size or nature that they cannot be entirely financed by the various means available in the Individual Member States". (Articles 130). Thus two major goals were established for the EIB. Firstly, convergence, implying reducing, if not eliminating, income differentials within the European Community (and later Union) between countries and regions, particularly those resulting from trade liberalization. And, secondly, allocation of major financial resources beyond the ability of individual states or private markets, to facilitate the functioning of an increasingly integrated market. This need continued as, both when the EEC was created and as new countries joined, much of the existing infrastructure was geared to meeting domestic needs but the trade integration process led to major new cross border requirements. Whilst other aims have later been added, the aims of convergence and of financing cross border infrastructure remains central to the EIB.

Since this initial creation of the EIB, these core aims have been maintained and driven by the relatively poorer countries, for which a pre-condition to joining the Community was the creation or sharp increase of grants and loans. The first such case was when Italy, before joining the EEC, pressed in the mid 50's, for the creation of the European Investment Bank as part of the Treaty of Rome, largely to help fund infrastructure in the poorer regions of southern Italy. As the European Community expanded, from the original six countries to the current twenty seven, the role of the EIB grew significantly to help integrate the new countries into the common market and to foster

economic convergence. This happened, for example, when Greece, Portugal, Ireland and Spain joined the European Union. A further major impulse to EIB lending was given by the transition to the market by the countries of Central and Eastern Europe, and their later accession of many of them into the European Union.

As well as the EIB as an institution providing loans, the European mechanisms created to support the integration process included both grants, through the Structural Funds, and guarantees to catalyse lending by the private sector. The latter in particular has been prevalent in more recent decades. Grants given by the European Commission are also often combined with loans. For example, in areas like lending to SMEs, or more recently lending for building the sustainable economy, EIB loans are complemented by grants. This policy has been accelerated in recent years, as blending is also seen as an effective way of leveraging the impact of budget transfers.

In relation to grants, these are typically made where there are market failures or externalities, in the latter case implying that the commercial rate of return does not reflect the social rate of return. Indeed, one of the EIBs guiding principles is that, for a project to be financed by the EIB, it has to be both financially and economically sound, but also aims to have a high social return. The latter is to take account of important policy externalities, such as job creation or environmental impact. However the EIB also has to balance maintaining its creditworthiness to keep its AAA rating, and hence has facilitated lower financing costs to its borrowers, and acting as a development bank with a mandate relating to broader European objectives including such externalities.

More recently, new objectives have been added to the EIB, and in general to regional public development banks. Firstly, in the light of the global financial crisis a crucial countercyclical role was performed by the EIB, in common with other public development banks, by providing official lending when private lending were experiencing highly constrained liquidity. The global financial crisis has driven a much greater recognition (Even amongst mainstream economists and conservative politicians) of the importance and value of large public banks to provide such anti-cyclical financing including through the capacity to expand their lending significantly in times of crisis. This is in contrast with earlier recent periods when orthodox economists and conservative politicians supported, incorrectly, a decreasing role for public national and regional development banks. In this sense, the EIB was an exception as it continued to grow strongly since the mid-fifties. Similarly, in Brazil, BNDES resisted the wave of neo-liberalism and remained strong, which

was very valuable in general, but particularly so during the Crisis. (Ocampo, Griffith-Jones et al 2010).

Secondly, and in the wake of the global financial crisis, the European finance ministers defined the priority as addressing the economic and social structural challenges of Europe. New needs include combating climate change through adaptation and mitigation and creating a new high-value, high-employment economy. Addressing market failures or incomplete markets for funding these activities and their importance in employment generation and mitigating and adapting to climate change are central to these issues. The latter has important externalities which imply that private lenders and investors do not channel sufficient resources to high priority activities from an environmental perspective. Furthermore, many actions necessary to combat or adapt to climate change can best be tackled at a regional level, where a regional development bank can play a valuable role. The next section of the paper discusses these policies which are directed at action to tackle such structural challenges in more depth.

Finally, it should be noted that the EIB lends mainly within the European Union. However, around 10% of its lending is now outside the EU borders. This includes mainly the neighbouring countries (Both pre-accession to the EU and Mediterranean countries, especially in North Africa) and lending to projects in the ACP, usually poorer, countries of Africa, the Caribbean and Pacific. There is also lending to the Asian and Latin American countries ("ALA"), which are mainly middle income countries. In a recent study for the European Parliament on the EIB (Griffith-Jones and Tyson, 2010), we have argued that EIB lending to developing countries should be increased, especially to Asia and Latin America where the EIB's role is the smallest in proportion to GDP, and that the EIB should work more closely with regional and national development banks in those regions.

THE EIB ROLE TODAY: SUPPORTING THE NEW ECONOMY

As Europe emerged from the most acute phase of the global financial crisis of 2008 and 2009, it was clear that the steady economic gains of the preceding decade had been damaged with expectations of slower long term growth and structural problems of high unemployment and high private and public debt. Further, fundamental economic and social weaknesses and problems, which had been obscured by the economic growth of the past decade, were exposed. At the time of writing, the acuteness of the European sovereign debt crisis and the risks it poses to future growth make these problems far more severe.

Those major structural issues include problems specific to developed countries, such as declining long-term growth rates, high structural unemployment and an aging population. Other issues included those common to both developed and developing countries, such as how to create a high-value, high wage economy in the face of intensifying global competition from countries such as India, China and Brazil and how to tackle the issue of the fundamental restructuring to a sustainable economy in order to tackle the changes required as the world economy moves from an era of global resource surplus to one of resource constraint, with the increasingly urgent need to address and balance climate and environmental problems with economic growth and stability. The latter includes the continued dependence upon fossil fuels and the inefficiency of resource use which exposes economies to sources of economic insecurity, such as resource access and price shocks, and environmental risk, including severe climate change and continued degradation and loss of the natural environment.

After major consultations and consensus-building on the need to take a collective approach to both recovery and long-term structural problems by the European Union, both within the Union and in its role as a global leader, in 2010 the European Commission issued "Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth" which set out a broad strategy for tackling these issues. Most positive in the strategy is the vision of a new economy for Europe. The vision includes "smart growth" with an economy based on knowledge and innovation, "sustainable growth" with a resource efficient, sustainable and more competitive economy, and "inclusive growth" with a high employment economy and economic, social and territorial cohesion. Related targets for employment, research and innovation, climate change and energy, education and poverty were set. For the environment this included a "20/20/20" target where the target is to reduce sustainable green-house emissions by 20% compared to 1990, increase renewable energy consumption to 20%

of total energy consumption and increase energy efficiency by 20%. Research and development was also set a specific goal of 3% of GNP combined with new measures of intensity. These areas will be discussed in more detail below. However less positively, the strategy document lacks detailed planning and execution and major issues are required to be solved to bring such a vision to fruition.

In terms of execution of the strategy, the European Union will provide the political and legislative structure as well as regional coordination and cooperation. However, in an adaptation of the traditional role of a development bank, the EIB is to act as the vehicle to lead financing of policy initiatives. The EIB president comments "The EIB stands ready to make a major contribution to implementing this strategy" (EIB Annual Report, Activity Report, 2010. p5) and its Annual Report 2010 states "The EIB lending strategy in the years ahead will be aligned with the objectives of the Europe 2020 Strategy" (Ditto p7). In particular, the EIB will seek to fulfil traditional roles in this new context such as providing long-term, low-cost financing, especially for infrastructure, and fill missing markets or market gaps, as well as crowd-in the private sector.

One comment on these aspirations however is that, although the stated strategy for the EIB in 2010 is to be the vehicle for execution of financing of long-term strategic goals for the European Union, the EIB has recently been providing significant responsive financing in its counter-cyclical role to the global financial crisis and during 2008 and 2009 the EIB sought additional capital and expanded lending significantly (Griffith-Jones and Tyson, 2010). This is illustrated in figure 1 below.

Figure 1: Loan Signatures & Gross Assets of the EIB Group 2007 to 2010

Euro Billions	**2007**	**2008**	**2009**	**2010**
Loan Signatures	47.8	57.6	79.1	71.8
Gross Assets	310.8	351.9	367.4	419.8

Source: EIB Annual Report "Financial Report", for relevant years

This response was to the liquidity problems in credit and capital markets as private sector conditions deteriorated, especially for SMEs whom the EIB focused on assisting, and was important in preventing a more acute impact of the crisis during this period. In addition during 2010, in

selected countries and regions hit hardest by economic and financial crisis including Greece, Portugal and Poland, the EIB continued to provide elevated levels of lending in conjunction with other European Union and IMF support. Greece, for example, received E1.6 billion in 2009 and a further E3.2 billion in 2010. Although such lending does not exactly coincide with the strategic vision for the EIB, it remains an important role for the EIB. However, to the extent that the EIB lending is financing investment consistent with long term strategic aims (For example, increased investment in renewable energy), such lending can have both a counter-cyclical and a strategic role. Furthermore, flexibility to allow counter-cyclical responsiveness to short term problems, such as economic and financial crisis, remains a critical role of a development bank.

The paper will now go on to discuss in detail those parts of the strategy with high relevance to developing countries and examine how the EIB is seeking to execute and manage its mandate in relation to them.

“Sustainable Growth”: Clean Energy Technology & Networks

As noted, “Sustainable” growth puts environment issues central to the Europe 2010 strategy and the EIB as critical in supporting financing of them. Financing in the area of clean energy has been increased over multiple years and by 2010 the EIB financed E6.2 billion for renewable energy and E2.3 billion from energy efficiency projects (Source: EIB Annual Report 2010), representing a combined E8.5 billion, triple the amount from 2008. These figures are illustrated in figure 2 below.

Figure 2: EIB Lending for Renewable Energy & Energy Efficiency 2008-2010.

	2008	**2009**	**2010**
Renewable Energy	2.2	4.2	6.2
Energy Efficiency	0.7	1.5	2.3
Total	2.9	5.7	8.5

Source: EIB Annual Report “Activity Report”, for relevant years

This builds on the traditional role of a development bank in providing long-term, large-scale financing for infrastructure projects that would otherwise struggle in private markets to find the scale and term of financing needed. This is particularly true of new technologies in two areas.

Firstly, technologies need significant financing for research and development ("R&D") where investment is high risk due to factors such as failure of some projects as part of the search for successful solutions and lengthy project timeframes with limited interim financial returns. These factors constrain private investment in these areas. In a classic role for a development bank, long-term funding for such R&D can be provided to either fill missing markets or share risk with private sector investors. Often innovation occurs within relatively small or medium sized companies (Specific support of SMEs engaged in innovation in this field will be discussed in the next section) or research institutions.

Secondly, as new technologies become increasingly operational and implementation of them gathers speed and scale, financing is needed for large-scale and long-term investment. In this area the EIB are involved in financing the required large scale infrastructure that has important positive externalities for the European Community as they will enable full scale execution of these types of clean energy projects which are less attractive to the private sector due to their scale or time length. For example, the EIB are supporting development of pan-European energy grids. Such grids are critical to enable optimization of exchange to balance supply and demand for energy through Europe as they consolidate and coordinate multiple individual projects to create a regional sustainable energy infrastructure. Examples of other projects supported by the EIB to date include large and small scale wind and solar power projects, in 2010 in over 50 locations, often with strongly innovative projects or with replication of successful innovative projects to date. For example, projects such as offshore wind farms, having been proven in pilot projects such as in Denmark, are being expanded very rapidly with six megabyte turbines being installed, the largest ever. In addition, energy efficiency projects such as thermal rehabilitation projects for buildings or solar panels on building are being completed and replicated in a number of countries throughout Europe.

"Sustainable Growth": Cities and Transport Systems

Complementary to the development of clean energy, another critical area globally for innovation has been the development of sustainable cities. This issue is particularly relevant to developing

countries with their rapidly urbanising populations and their need to develop infrastructure that will both enable further economic growth and provide a healthy and sustainable environment. In many cities today within developing countries the urban environment suffers from significant problems such as pollution, poor transport systems and lack of sanitation and standards in water, sewage and housing. In Europe, with its more established urban population and advanced infrastructure this issue is also important because current infrastructure is often carbon-dependent, especially in transport and energy, and overall the aging and crowded urban environments are strained and inefficient.

In 2010 the EIB lent E14.7 billion to build sustainable cities including in transport and urban renewals[1]. In transport in particular, again the traditional role of the development bank was critical, in financing large-scale, long-term infrastructure projects to develop and execute clean transport. Public transport, particular intra and intercity rail networks have been financed. In 2010 the EIB financed E7.9bn in urban transport. Rail has been a focus for intra-city transport systems with significant financing of metro systems and light-rail networks in major European cities. These have also been linked to the financing of Trans-European Networks ("TENs"), which have been under construction for a number of years, financed by the EIB, and have focused on high-speed rail networks linking economic centres across the region including convergence countries.

In transport, and questionably against its strategic vision, the EIB also continues to finance traditional road and air infrastructure, although such financing has become less dominant with, in 2010, more financing being provided for rail than for road for the first time (Source: Interview material with EIB staff, June 2011). The assumption had previously been that at least for the medium term there was no alternative to road transport despite its high dependence upon fossil fuels although this has been criticised as insufficiently bold by some commentators (Such as the 2006 Tynall report or Bankwatch, an environmental NGO). However R&D projects are being developed, in association with major vehicle companies, for clean cars. The focus is on electric and low transmission vehicle development and partners have included Renault, BWM, Daimler and Nissan. One area that has yet to be addressed by the EIB however is the infrastructure needed to support electric vehicles, such as national networks of recharging stations including within urban areas. Additionally the EIB have ignored non-mainstream sources of innovation. For example, ground roots movements have developed into citywide cycle networks in a number of major European

[1] 2009 & 2008 comparable figures are not available from the EIB under this definition.

cities including London, Paris and Copenhagen and become an important and totally clean part of the transport system, but have not received EIB support.

In terms of urban renewal, the focus in policy is both on improving efficiency as well as implementing new ideas and financing has particularly focused on updating and upgrading to more environmentally friendly systems. Projects financed have included water and sewage systems with a focus on recycling and reuse. In addition garbage recycling and reduction has been financed. Some of the projects have been highly innovative such as plants for recycling waste into heat and electricity using high technology processes. In 2010 the EIB lent E89 million for such projects. Similarly financing has occurred of "smart buildings" which incorporate energy systems, such as photovoltaic energy production or advanced recycling of heat and energy within the building construction. Such innovations offer micro solutions to the needs of modern cities that, if scaled, can contribute to environmental improvements. However again this remains a limited area for the EIB and its approach could be critized as being insufficiently innovative. More openness to radical innovations would be an area of improvement for the EIB so that it can lead, rather than follow, innovation in environmental issues.

Finally, the EIB are also seeking to lead environment standards for financiers. All projects are subject to an environmental and special impact assessment and must meet minimum criteria against broad standards. In addition as part of project cycles, the EIB are developing more detailed assessment of "non-financial value-add" for projects. This includes using a shadow price of carbon to assess the value of projects, currently using a monetary assessment per tonne as part of the overall rate of return of a project. According to comment from the EIB, these methods have been effective in promoting renewable energy and similar projects that otherwise would not have met required internal rates of return (Source: Interview with EIB staff, May 2011). Although some aspects of this assessment remain underdeveloped in practise, with, for example, the NGO Counterbalance commenting in 2010 that the method is "evaluated almost entirely by economists, with a minimal sustainable development unit that is marginalised within project design and appraisal", nevertheless, this overall approach is to be encouraged as it promotes better organizational cohesion and consistency in addition to the value brought by individual projects in this area. It seems desirable that this type of ecological evaluation that the EIB has pioneered, including explicitly a shadow price of carbon, be extended to other development banks.

"Smart" and "Inclusive Growth": The SME Sector

The agenda of "smart" and "inclusive" growth focuses on building a high value, high employment economy with innovation in multiple fields leading to new commercial activity and employment. Critical as the source of such growth is the small and medium sized enterprise ("SME") sector where innovation is often the source of new and growing enterprises and where expansion of existing enterprises provides new employment.

In developing countries today, both in middle and low income countries, development and expansion of the SME sector is seen as critical to building economic growth that will also provide inclusiveness in the form of high levels of employment and sustainable income within the formal economy. IFIs have focused on the need to develop the sector and policies to date have focus on technical advice and financing. The World Bank Group, having highlighted financing as a critical barrier for SMEs (Beck et al 2008), for example, have created a dedicated department which combines World Bank expertise and IFC financing, commenting "Small and medium enterprises (SMEs) play a central role in developing countries, socially as well as economically" (Source: World Bank[2]).

In both developed and developing countries, SMEs face financing constraints. Such constraints are related to the perceived risk of lending to SMEs by the banking sector and can lead to incomplete or missing markets in normal, as well as crisis, conditions. Internal data at the EIB for example estimates a European market demand of E500 billion to E1 trillion which is only partially met (Source: Interview material with EIB staff, June 2011). In addition, SMEs face constraints due to capacity such as management expertise or business connectivity for trade and marketing.

These issues were particularly highlighted in Europe during the global financial crisis when liquidity was very constricted for SME lending as banks risk adversity was heightened and overall market liquidity was limited. As illustrated in Figure 3 below, during this period the EIB responded as part of their counter-cyclical support by increasing financing to SMEs (Griffiths-Jones & Tyson, 2010).

[2] http://www-wds.worldbank.org/external/default/main?menuPK=64187510&pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&siteName=WDS&entityID=000094946_00101705305566

Figure 3: EIB Group Lending for SMEs 2008-2010.

	2008	**2009**	**2010**
Lending (Euro billions)	8.2	12.7	12.8
Number of SMES	n/a	50,000	115,000

Source: EIB Annual Report "Activity Report", for relevant years

The EIB approach to assisting in relaxing these constraints has been particularly interesting. Firstly the EIB have formed a dedicated subsidiary, the European Investment Fund ("EIF") dedicated to SMEs. Secondly, the EIF uses specialist financial structures and vehicles. For example, they approach SME financing through intermediaries[3], typically banking and other financial institutions and have provided co-financing, typically in the form of guarantees to lines of credit. Intermediaries are required to provide 50% of funding and ensure both that financing is incremental to their base business levels and incorporates pass-through of lower funding costs that are facilitated by the EIB. Such an approach crowds–in private financing as well as leveraging intermediaries expertise and resources to manage the SME credit and relationships, thus allowing scaling of financing across multiple, small recipients without proportional EIB resource usage. In addition, the EIB, in common with other IFIs, provide technical advice and assistance to SMEs and this is considered an important part of the success of their SME program.

The EIB also take an interesting approach to SMEs specifically involved in innovation. For small companies they seek to provide financing for innovative and speculative R&D. Much of the financing is again provided via intermediaries, typically established venture capital funds or similar SPVs with significant private sector investments in addition to EIB funding. The EIB also manage the Risk Sharing Finance Facility which is a joint EU and EIB fund for technological development and targets SMEs with ratings below the usual EIB standard. The EIB also providing financing in this sector in the form of equity and mezzanine debt in addition to loans which is particularly useful in this sector where traditional debt servicing can place constraints on companies with limited cash flows in early stage development.

[3] With some 100% financing introduced since 2008 for total financing of E12.5 million or less.

In addition, and more typically for medium enterprises, the EIB provide direct funding. For example, in 2010 the EIB provided financing in high tech sector for renewable energy, advanced chemical and electrical engineering projects (For example, advanced polymer or semiconductor development) and in bio-technology development.

A final comment on EIB involvement in innovation and the "smart" economy is that they are again important in their traditional role in providing funding for large scale and long term financing that is relatively unattractive to the private sector but that are important enablers. For example, the EIB have provided significant funding of high speed broadband networks in many European countries. Other projects include finance of universities, typically development of physical facilities and campuses.

Institutional Organization and Execution

As an institution the EIB provides an interesting model for a development bank in its design of its organization and in its execution methods which optimise its effectiveness. In terms of its organizational structure, the EIBs shareholders are the European Union members and these members provide capital and funding. The EIB receives its strategic lending mission (Such as direction on type of lending or to which sectors) from its Board of Governors after discussion with Ecofin, the Finance Ministers of the European Union and follows the policies set by the European Commission, with which it actively coordinates.

This includes channelling European Commission budget transfers given for certain sectors or regions which are then blended with loans. Historically grants are largely sourced from the European Commission and member countries and include, for example, structural funds. Specific purpose funds managed by the EIB or EIF have been created for such dedicated grants. The EIB president comments "The EIB intends to continue setting up joint financing instruments with the Commission ... such instruments leverage the EU budget whilst at the same time alleviating the EIBs capital constraints" (EIB Group Activity Report 2010. p5). More recently new private sector partnerships have also been formed to blend loans and grants with, for example, the Bill & Melinda Gates Foundation (Interview material with EIB staff, May 2011).

As discussed, an important part of the EIBs mandate is to provide long-dated, low-cost funds and this is facilitated by its AAA credit rating which is underpinned by a strong capital base. In order to retain the solid capital ratios, capital calls & subscriptions have been made. This included, for example, during the Global financial crisis when subscribed capital was increased from E164 billion to E232 billion in 2009. This strong capital base & AAA credit rating mean that private sector funding, such as through debt capital markets where the EIB are major bond issuers, can be raised at lower rates and passed through to clients. This was true even during difficult market conditions such as the Global financial crisis when in fact the EIB was easily able to obtain liquidity due to being a beneficiary of the "flight to quality" from risk aversion by investors (Source: EIB Annual report, 2009).

In another interesting facet of the EIBs strategy, the EIB has developed new instruments that assist in their mandated goals. For example, the EIB has issued E1.4 billion in "Climate Awareness Bonds" which are ring-fenced funds for lending in renewable energy and energy efficiency. This is particularly attractive for certain investor classes seeking to invest funds into environmental projects. The EIB have also promoted a number of carbon trading funds to help support and development markets in carbon trading under the Kyoto Protocol including in partnership with the World Bank and bilateral agencies. However overall assessment of these initiatives seems to be moderate and carbon trading markets remain to be fully developed.

A final important aspect of the EIB approach that is of particular relevance to developing countries is co-operation between them and other stakeholders. The EIB president comments "The EIBs contribution to the 2020 Europe 2020 strategy will be all the more effective if it based on pragmatic (not bureaucratic) cooperation with the European Commission and other financial institutions" (EIB Group Activity Report 2010. p5). This is not just rhetoric as the EIB has set up formal mandates in a number of areas with other political and development bodies. For example, under the "Cohesion Policy Joint Initiative" the EIB have partnered with bodies on specific policy areas related to convergence of candidate countries including with the KfW, the ERBD and the Council of Europe Development Bank. The EIB cooperates in some instances with development banks in developing countries and it would seem desirable if such collaboration were increased, as the EIB could benefit from the greater local knowledge of national development banks.

LESSONS FOR DEVELOPING COUNTRIES

As the global economy enters the 21st century the challenges for development strategy are large, multiple and complex. In addition to the conventional agenda of macroeconomic stability, poverty alleviation, and infrastructure provision, new & historically unique challenges present themselves. These include aligning trade and export policies with rapidly changing global opportunities and competition, renewed emphasis on regional and national markets in the face of less declining reliability of international trade as a source of dynamism and developing policy & methods to address the need for rapid climate change adaptation and mitigation.

In terms of enabling factors to tackle these issues the 2006 “Commission on Growth and Development” identified three critical factors. These were a stable macroeconomic environment, “capable, credible and committed” government and high domestic savings to finance investment. In relation to the need for financing of investment the Commission pointed to both domestic and foreign private sources, but with both having limitations. These included the structural changes required to mobilise domestic savings and the adverse effects of international private capital flows, including the volatile and often pro-cyclical nature of flows. In addition, many developing countries continue to have shallow and weak financial systems with low savings mobilization and missing and incomplete capital markets. Both constrain the provision of capital for investment at low cost and for long periods.

It is in the context of these formidable development challenges that the need for public development banks in developing countries and consideration of policy lessons from the EIB must be set. We will now discuss specific policy lessons to be considered.

The Role of a Development Bank

The Continued Importance of the Traditional Role

The European Union’s approach to development banking, and especially the EIB, shows the traditional core rationale for public development banks, of providing low cost, large scale financing in areas with missing markets, remains highly relevant. As noted many developing countries have

significant gaps in private markets in critical areas. This includes the traditional areas of basic infrastructure, which needs to be built to enable modernization of agriculture, development of industrial capabilities and facilitation of export markets, as well as social provisions, including health and education. The need to finance, for example, basic transport networks and urban infrastructure (Such as energy, water and sewage systems) is high and requires large scale and long term financing that are unlikely to be sourced from private banks or capital markets.

All these requirements are classic traditional functions of public development banks and remain highly relevant in the context of today's developing countries.

Evolution of the Role in the Sustainable Economy

However the traditional role of the development bank in financing the building of infrastructure needs to be adapted to the context of the sustainable economy. The approach needs to incorporate those environmental externalities and to facilitate the required technology through both technology transfer and R&D. Of particular relevance to developing economies, in relation to externalities, is the opportunity to "leapfrog" by immediate adoption of post-carbon technologies. Not only will this contribute to adaption and mitigation of climate change globally, but will also avoid the transition costs that are being incurred by developed nations today and that would be required to be incurred in instances where carbon-based technologies are adopted instead. However given the high component of public benefit, rather than private benefit, in such immediate adoption, a public development bank can play a critical role in adoption of post-carbon technologies.

Examples of how this can be done can be drawn directly from the EIB. In the instance of direct financing, the approach of large scale financing of technology development and adoption, including private and public investment in regional level infrastructure, could be replicated. A key example would be the planned Pan-European clean energy grids or train networks being financed by the EIB. In addition, the EIB approach of co-partnering with the private sector could be adopted to optimise crowding-in of private sector capital. Relevant examples from the EIB include co-financing with and via intermediaries and providing guarantees, equity and mezzanine financing to venture capital companies and investment funds. It should be noted though that co-partnering needs to be adapted to the developing country context. For example, institutional capacity and integrity of co-partners is important and the EIB approach, with a focus on partnerships with parties with whom they have

established relationships, might be an appropriate constraint. It would also be possible to adopt the EIB approach of indirectly supporting private market development such as, for example, the issuance of climate awareness bonds, which has provided additional funding for this type of investment. However give the critical mass globally required to deepen financial markets in these instruments we are more cautious in this area.

Finally specific EIB execution techniques should be considered. For example, a similar approach to the EIBs policy of assessing environmental impacts of all projects, whilst still in development, should be the standard aspired to by all development banks.

The Importance of a Counter-Cyclical Role

As noted, a critical role for development banks is closing incomplete and missing markets in financing. This is particularly important during financial crisis which, driven by excessive growth, globalisation and liberalization of private financial markets, are highly pro-cyclical and increasing common (Reinhart & Rogoff, 2009). Such cycles of boom and crisis have made financial markets highly dysfunctional in meeting the needs of development financing. This was starkly illustrated in the Global financial crisis when there was a sharp contraction in private capital inflows to developing countries and contraction of national private bank lending within developing countries in 2008 and 2009 (Ocampo, Griffith-Jones, tyson et al 2010). Despite the current proposals for improving regulation of the financial sector nationally and globally, as well as introducing capital controls in particular, it is likely that private finance will continue to be pro-cyclical.

In this context, the public development banks globally responded with counter-cyclical lending and their role in mitigating the impact of the crisis and in stabilizing developing economies is now widely recognized. The approach of the EIB, and other efficient public development banks in general, is to rapidly increase broad lending when private lending falls (Ocampo, Griffith-Jones, Tyson et al 2010). Furthermore, as many previous crises, as well as the recent global financial crisis show, it is not just important to provide additional liquidity during crises, but also to provide significant official long-term finance, when private finance dries up during and after crises. This is important to maintain funding of existing and important new investment projects, both in the productive and social sectors and is crucial for long-term development.

The EIB specifically increased both its overall lending and lending in specific areas. An example of the latter was its co-financing to SMEs via private banks intermediaries which was increased as private lending fell and is a useful precedent for developing countries. As noted earlier, this was facilitated by the large scale of the EIB's capital and by increases in it during crisis periods.

In the context of developing countries there is a role for development banks to both replicate the EIB's and other development banks anti-cyclical provision of financing. Indeed there is evidence that those countries with large public development banks, like Brazil with BNDES, benefited from the fact that development banks were able to increase their lending significantly when private bank lending was falling sharply, and that this contributed significantly to maintaining short term growth in those countries.

One key point to note from the experience of the global financial crisis is that multi-lateral and regional development banks (Including the EIB) were slower to disburse loans than to commit them, which reduced their effectiveness in maintaining credit and growth in critical times. A policy recommendation for developing country development banks therefore is also to prepare emergency lending facilities prior to a crisis, as well as to have sufficient scale of capital available, so as to be able to respond and lend rapidly when a crisis hits falls (Ocampo, Griffith-Jones, Tyson et al 2010)..

Ownership & Financing of Development Banks for Developing Countries

The Desirability of Regionally-Owned Development Banks

The prior section discussed the broad rationale and role that public development banks can play in developing and emerging economies leveraging on specific instances from the EIB. However also critical to the successes of the EIB have been its control and policy-making structures. In particular the close political and economic coordination with the regional political body, the European Commission, has been key in setting the high level strategy and mandate for the EIB. In addition the EIB has been an organization that has been owned and controlled by the regional political body and hence has been both autonomous and dedicated to serving the regions interests. In examining the Precedent of the EIB, which contributed in the past, and continues to contribute so much to the goals of European growth and integration, this paper proposes that these factors have been critical to both its successes in execution and in its ability to evolve and coordinate closely with regional policy making.

When considering the lessons to be drawn from the EIB experience we would propose that a key one is that regional control and ownership allow a number of key advantages which can facilitate the success of a development bank. In particular, we see five key advantages.

Firstly, developing country regional public banks allow a strong voice to developing country borrowers, as well as a greater sense of regional ownership and control. This is illustrated, not only by the EIB but also by existing developing country development banks such as the Corporacion Andina de Fomento (CAF) or Andean Development Corporation, where developing countries are both clients and shareholders.

Secondly, regional and sub-regional development banks seem more able to rely on informal peer pressure rather than imposing conditionality. This permits disbursements of resources to be more timely and flexible. Also, conditionality reflects more the experience of successful developing countries, rather than preferences of developed countries.

Thirdly, regional or sub-regional development banks are particularly valuable for small and medium sized countries, with very limited power to negotiate with large global institutions. Their voice can be far better heard and their needs better met by regional or sub-regional development banks. Furthermore, competition between two or more kinds of organizations such as, for example, sub-regional, regional and global organizations, for the provision of development bank services seems to be the best modality, as it provides small and medium sized countries with alternatives to finance development (Ocampo 2006).

Fourth, information asymmetries may be far smaller at the regional level, given proximity as well as close economic links. Regional development banks, especially developing country ones, may better share successful developing country experiences.

Finally, regional public institutions may be better placed to respond to regional needs and demands, as well as potentially be more effective in providing regional public goods, especially those requiring large initial investments and regional coordination mechanisms. Important examples include financing of regional cross-border infrastructure and coordinating financing of regional-wide projects in areas such as technological innovation or university education (See also Griffith-Jones et al, 2009, for a more detailed discussion of this and the above points).

Overall we see regional ownership and control as being central to the potential success of a development bank in the current economic environment, allowing control and coordination,

flexibility and responsiveness to political and economic goals set by the regional institutional bodies.

Addressing the Challenges of Regionally-Owned Development Banks

However one important point is that the success of the EIB has also been based not only on its formal ownership and control structures but by the overall political and economic strength of related institutions, particularly the European Commission and national governments within the European Union. These institutions have driven the integration process forward. In terms of financing this has included making available budgetary resources for transfers that can be combined with loans. This has contributed to the sustained dynamic of financial transfers. The existence of large financial transfers in Europe facilitates the granting of subsidies for certain activities, even though the EIB loans are based on commercial principles. There is an important difference here with most developing countries, where regional institutions may not be as strong as those within the European Commission or where resources to make grants may be limited.

However the structure and power balances of the world economy have changed significantly, especially in the last decade. In particular there has been significant rebalancing with the relative economic and political power of developed nations declining and those of developing countries, particularly large middle income countries, increasing. This rebalancing has, arguably, been accelerated by the global financial crisis.

This has major implications for creating development banks wholly-owned by developing countries. In the past a key advantage of including developed countries in the membership of regional development banks was their ability to contribute very significant resources that helped capitalize these banks and gave access to global capital markets. However following the global financial crisis, developed countries have more limited resources and it is unclear to which extent developed countries governments will, at least in the short to medium term, have sufficient resources to increase their funding for development and for multilateral and regional banks in particular.

On the other hand, developing countries now have quite significant resources to establish purely developing country -owned regional development banks or to significantly expand existing ones. In particular a new feature of the international financial system is that developing and emerging

countries have a very large proportion of the world's savings and foreign exchange reserves. They can therefore afford to create their own financial institutions, which will help support their own vision of development, rather than relying mostly or only on developed country dominated institutions. Developing and emerging countries' foreign exchange reserves, according to IMF data, went up from less than US $1trillion in December 2001 to US$6.1 trillion in December 2010. Furthermore, these countries have an additional US$3.5 trillion of assets, in their sovereign wealth funds, which are destined for long term investment, (Griffith-Jones, 2011). These comments relating to surplus resources are particularly true for Asia, and for specific countries within the region, notably China, but are also increasingly true for Latin America as well. In Latin America, already there are several established sub-regional development banks, with the most successful one being the CAF, the Andean Development Corporation. However, for example, Mercosur does not have its own regional development bank, even though this may be highly desirable. Furthermore, for "sustainable investment" there should be some grants from global funds, especially for lower income countries that could be channelled for example through development banks' concessional loans. Such resources make the possibility of creating and financing regional development banks much more feasible.

This can be illustrated by some preliminary calculations which show the feasibility of a significant expansion of developing country owned RDBs funded by a very small proportion of total developing and emerging countries' SWFs. For example, one per cent of developing and emerging country SWF assets is equal to US$35 billion and if this small percentage was allocated to paid-in capital to expand or create new developing country regional development banks this could be leveraged into the equivalent of US$84 billion loans annually[4]. This annual lending capacity created would be higher than the combined total lending disbursements by the World Bank, the Asian Development Bank, the Inter-American Development Bank, the African Development Bank, and the external lending of EIB to developing economies even in the peak year of their lending, 2009,

[4] If it is assumed that the ratio between paid-in capital and level of annual loans would be approximately 2.4, similar to the ratio of CAF. This ratio is calculated by dividing CAF annual loans by the level of paid-in capital. This is a conservative estimate to take account of relatively lower ratings of developing countries than those of developed countries. It is thus far lower than the same ratio for the EIB, as that bank has just developed country members, which until the time of writing have higher ratings, though this may change.

which totalled only US$64 billion (see again Ocampo and Griffith-Jones et al, op cit). Therefore if a developing country regional public bank or banks had existed in 2009, it/they could have lent more than all existing MDB and RDBs put together! In normal years, the South-South RDB lending capacity would actually be significantly larger than total current MDB/RDBs lending.

Concluding Remarks

The paper presents a overall positive view of the role and functioning of the EIB, both as a key tool for policy execution in early stages of the European Communities development and integration and today in the context of the needs to restructure the economy in relation to the "smart, sustainable and inclusive" economy and structural changes in the global political and economic landscape. Although there are some points of criticism, for example, a less conservative approach to risk and innovation could have been taken and a more proactive leadership role in economic change adopted in relation to the sustainable economy or a faster response to disbursement in the acute phase of the global financial crisis, these do not detract significantly from that positive view.

Critical enablers of the EIBs success have been numerous. They include its AAA ratings and how this has facilitated the long-dated, low-cost and large scale financing critical to a development banks traditional role as well as its approach to partnering with the private sector and its flexibility in adapting its core role to new circumstances such as the sustainable economy or the global financial crisis. All of these approaches can be directly leveraged into policy making for developing countries as they consider development banks.

However, equally critical in terms of that policy making, has been the political relationship and structure of the EIB. Here its structure with a strong origin and ongoing relationship to the European Commission, that included high level strategy and control that has ensured the operations of the EIB are closely aligned and dedicated to European integration and development, as well as capital support and its facilitation of grants and similar, have underpinned its success. These points are also critical for policy makers to consider as we would strong recommend consideration of the creation and development of regional development banks for developing countries. As noted, given the evolving economic power and resources of developing countries, such a structure is becoming increasing feasible to execute if supported by political will.

In conclusion we would comment that the rationale for developing banking is strong and remains roots in their traditional role of addressing important market gaps and failings including and especially for long-dated, low-cost and large scale financing. This role remains due to the continued need for such financing in infrastructure and social services and given the current weakness of private financial sectors in many developing countries. We also comment that an optimal structure would be regionally owned and financed development banks which would ensure relevance to the broader political agenda and control by developing countries. The establishment of such institutions could be a significant contribution to executing economic development in the coming decades.

BIBLIOGRAPHY

Beck, T., Demirguc-Kunt, A., Martinez P. and Maria Soledad. "Bank Financing for SMEs around the World : Drivers, Obstacles, Business Models, and Lending Practices". Policy Research Working Paper 4785. 2008. http://econ.worldbank.org/

Commission on Growth and Development, 2008. "The Growth Report: Strategies for Sustained Growth and Inclusive Development". Washington DC. World Bank. 2008.

Demirguc-Kunt, A. and Beck T. "Small and Medium Enterprises: Access to Finance as a Growth Constraint". Pp.2931-2943, Journal of Banking and Finance, 2006, Vol. 30.

European Investment Bank. Annual Reports 2006-09. *http://www.eib.org/*

European Investment Bank. EIB 2010-2012 Operational Strategy http://www.eif.org/publications/about/EIF_COP_2010-2012.pdf

European Investment Fund. Annual Reports 2006-09. http://www.eif.org/

Griffith-Jones, S. "Enhancing the Role of Regional Development Banks". G-24 Discussion Paper Series, No.50. July 2008. http://www.unctad.org/en/docs/gdsmdpg2420081_en.pdf

Griffith-Jones, S, Steinherr A and Fuzzo de Lima, A. "European Financial Institutions: A Helpful Inspiration for Developing Countries?" In José Antonio Ocampo (ed.). Regional Financial Cooperation. Brookings Institution and ECLAC, Washington D.C., chapter 1. 2006

Griffith-Jones, S. ,Tyson, J. and Calice P.(2011) "The European Investment Bank and SMEs: Key Lessons for Latin America and the Caribbean". Working Paper for the United Nations Economic Commission for Latin America & the Caribbean. http://www.eclac.org/publicaciones/xml/2/42822/lcl3294pi.pdf

Griffith-Jones, S. and Tyson, J. (2010) "Reform of the European Investment Bank: How to Upgrade the EIB's Role in Development". Working Paper, Directorate-General for External Policy of the Union, European Parliament's Committee on Development. http://www.europarl.europa.eu/activities/committees/studies/

Griffith-Jones, S. And Ocampo, J.A. "Sovereign Wealth FundsA Developing Country Perspective". Working Draft. Initiative for Policy Dialogue, Columbia University. 2011. http://policydialogue.org/publications/working_papers/sovereign_wealth_funds/

Maksimovic, M. And Demirguc-Kunt A. "How Important Are Financing Constraints? The Role of Finance in the Business Environment?"World Bank Policy Research Working Paper, 2006, Vol.3820.

Ocampo, JA. "Regional Financial Cooperation: Experiences and Challenges". In José Antonio Ocampo (ed.). Regional Financial Cooperation. Brookings Institution and ECLAC, Washington D.C., chapter 1. 2006

Ocampo, JA. "The Macroeconomics of the Sustainable Economy". Working Draft. Initiative for Policy Dialogue, Columbia University. 2010.(Unpublished).

Ocampo, JA., Griffith-Jones, S. and Tyson J. et al. "The Great Recession and the Developing World" Initiative for Policy Dialogue, Columbia University. 2010. Forthcoming in J.A. Alonso (ed) "Development Cooperation after the Financial Crisis".

Reinhart, C. & Rogoff, K. "This Time is Different: Eight Centuries of Finanical Folly" 2010. Princton University Press. Princeton & Oxford.

The Treaty of Rome, 1957. The European Community. http://ec.europa.eu/economy_finance/emu_history/documents/treaties/rometreaty2.pdf

UNEP "Towards a Sustainable Economy: Pathways to Sustainable Development and Poverty Eradication: A Synthesis for Policy Makers" 2011 http://hqweb.unep.org/sustainableeconomy/Portals/88/documents/ger/GER_synthesis_en.pdf

World Bank, "World Bank Enterprise Survey 2009" https://www.enterprisesurveys.org/

Acronyms

ALA	Asian and Latin America Countries
CAF	Corporacion Andina de Fomento or Andean Development Corporation
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EIF	European Investment Fund
EC	European Commission
EU	European Union

European Union Member Countries:

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

GDP	Gross Domestic Product
KfW	Kreditanstalt für Wiederaufbau
MDB	Multinational Development Bank
NGO	Non-Governmental Organization
RDB	Regional Development Bank
R&D	Research and Development
SME	Small and Medium-sized Enterprise
SWF	Sovereign Wealth Funds
TEN	Trans-European Networks