CHAPTER 10

THE EUROPEAN INVESTMENT BANK AND ITS ROLE IN REGIONAL DEVELOPMENT AND INTEGRATION [*]

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1 THE EUROPEAN INVESTMENT BANK'S ROLE IN REGIONAL INTEGRATION AND DEVELOPMENT

Since its very beginning, European integration was accompanied by the creation of major financial mechanisms. Such mechanisms, and the resulting loans and transfers, were seen as both an economic and a political condition for making economic integration effective and equitable. In this chapter we will focus on the vehicle for these financial mechanisms, the European Investment Bank Group (EIB), which is by far the biggest development bank in the world. We will analyse its main features, functions and evolution, and consider possible lessons for Latin American development banks, including specifically Brazil, as well as considering the creation of a regional development bank for Latin America and the Caribbean (LAC) owned by countries from the region. We will place this discussion in the broader context of a new vision for a development strategy for Latin America.

In terms of economic and political rationale, the creation of the EIB was a response to widely accepted economic analysis that shows that trade liberalisation and economic integration, such as occurred in the European Union, contributes to more rapid growth overall via economies of scale and other mechanisms, but also, due to inherent asymmetries, leads to relatively less rapid growth (or even decline) of relatively poorer areas (GRIFFITH-JONES et al, 2006). Furthermore, economic analysis and experience showed

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that private financial markets were, and are, incomplete. Indeed, one of the most critical market failures was in financing large scale infrastructure projects. Such 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 and, furthermore, the nature of infrastructure projects imply political risks broadly defined, such as changes in the pricing or regulatory regime. Therefore the comfort provided by public co-financing is important for encouraging private investment in infrastructure or, where private investment is not available at all, public banks or the government need to invest or lend for developmentally desirable infrastructure projects. 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 see, this case is as strong, or even stronger, today for Latin America.

In the European experience, the EIB lending originally had two major aims. Firstly, convergence, implying reducing, if not totally eliminating, income differentials within the European Community (and later Union) was critical between countries and regions, particularly those resulting from trade liberalization. Secondly, allocation of major financial resources to facilitate the functioning of an increasingly integrated market, for example by financing interconnection of national networks in transport and telecommunications, was equally important. This need continued as, both when the European Commission (EC) 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. The EIB was created to contribute to fulfil these aims. Whilst other aims have later been added, the aims of convergence and of financing cross border infrastructure remains central.

It is also important to stress that very large, and overall growing, resources have consistently been allocated in Europe since the 1950's for the aims of convergence and pan-European infrastructure. This dynamic was 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 EC, pressed in the mid 50's for the creation of the European Investment Bank, 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. In many of these cases, loans from the EIB were often combined with grants given by the European Commission, in the form of Structural Funds. There is an important difference here with most Latin American countries, where regional mechanisms or other mechanisms based on grants do not exist, though subsidies financed from national budgets can be used at a national level. Furthermore, for "green investment" there should be some grants from global funds, especially for lower income countries, for climate change mitigation and adaptation.

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. Strong institutions, like the European Commission and the European Investment Bank have also contributed to the sustained dynamic of financial transfers, which is an important lesson for other integration processes. 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. It is interesting 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 externalities, such as job creation or environmental impact. Indeed the EIB is both a bank that has to maintain its creditworthiness to keep its AAA rating and hence has facilitated lower financing costs to its borrowers but has also acted as a development bank with a mandate relating to broader European objectives, such as climate change prevention and employment generation.

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 clearly crucial countercyclical role was executed, in common with other public development banks that play a role in providing official lending when private lending collapses. The Global Financial Crisis has implied a much greater recognition - even amongst mainstream economists and conservative politicians - of the importance and value of large public banks to provide long term finance on a significant scale at all times by having 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, Brazilian Development Bank (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 three areas as priority ones for the EIB in the next few years: Convergence, preventing climate change and financing small and medium-sized enterprises (SMEs). New needs that have emerged include financing SMEs, given market failures or incomplete markets for funding these activities and their importance in employment generation and mitigating and adapting to climate change. 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.

It is important to point out that the world economy has changed significantly, especially in the last decade. 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. At

present, developed countries have more limited resources, especially in the period after the Global Financial Crisis. Meanwhile developing countries now have quite significant resources (in terms of domestic savings, but also particularly of foreign exchange reserves) to establish purely developing country owned regional development banks or to significantly expand existing ones. This is of course particularly true for Asia, but is also increasingly the case in Latin America. In Latin America, there are several sub-regional development banks, with the most successful one being the Andean Development Corporation (CAF). However, for example, Mercosur does not have its own regional development bank, even though this may be highly desirable.

It should be pointed out that the EIB lends mainly within the European Union. However, around 10% of its lending is now outside European Union (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 Asia, Caribbean and the Pacific (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), the authors 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 Gross Domestic Product (GDP), and that the EIB should work more closely with regional and national development banks in those regions.

2 EXECUTING THE EIB MANDATE: CURRENT ISSUES AND POLICY

In the period after the acute phase of the Global Financial Crisis, the EIB Group reviewed its operational strategy, as published in the EIB 2010-2012 Operational Strategy. Central to the agenda was assisting the EU in recovering from the crisis. In addition, in the EIB's role to support the policy agenda of the European Commission, key areas for financing were identified. These included continuing to assist in regional convergence, support for SMEs, development of Trans-European Networks (TENs), implementation of "The Knowledge Economy" and Environmental and Sustainable Development.

In this section we will review in more detail the EIBs approach to key areas of relevance to LAC including counter-cyclical responses, regional convergence, SME support and environmental and sustainable development. In addition, the authors will briefly review important issues relating to the pragmatic management of the EIB and its operational soundness and credit worthiness.

2.1 Supporting countercyclical responses & economic recovery

The EIBs broad mandate continues to focus on supporting European Commission policy, including creating stable and positive economic growth. In 2008 and 2009 the EIB played a critical role to help sustain growth and employment in creating an anti-cyclical response to the Global Financial Crisis by expanding lending to €79bn in 2009 from €57bn in 2008, a 41% increase, as illustrated in figure 1 below. This was supported by an increase of subscribed capital from €164bn to €232bn in 2009. This momentum in increasing lending began to level off in 2010 but remained at elevated levels.

Table 1

EIB Financing, 2007-2009 and selected 2010 data.

(In billions €)

Financing	2007	2008	2009	2010 to June*
Aggregate Outstanding Lending	327.1	356.5	410.7	426.2
Projects Approved	56.4	59.2	103.8	-
Signatures	47.8	57.6	79.1	-
Disbursements	43.4	48.6	54.0	-

Source: EIB Annual Reports. *2010 data for the half year to June 2010 is only given where published and is unaudited.

Increased lending was given to those countries most impacted by the crisis, such as those with fiscal deficits and sovereign debt problems. This included lending to Greece which was increased from €1.2bn in 2008 to €1.6bn in 2009 and to €2.0bn in 2010 and to Ireland where lending was increased from €0.4bn in 2008 to €1.0bn in 2009, although none has been announced for 2010 or 2011 (EIB Annual Reports for relevant years). Equally important, the EIB

supported market confidence in relation to creditworthiness of these countries in private markets.

One problem that somewhat weakened the impact of the counter-cyclical response of the EIB was that disbursements increased far slower than commitments, which also occurred to an important extent in other regional development banks, as well as the World Bank (OCAMPO, GRIFFITH-JONES, op cit). In the case of the EIB the slowness in disbursements was mainly due to the fact that almost all EIB lending is project related. This is unlike other Regional Development Banks (RDBs), which have an important part of their lending as programme or sector lending, which, once approved, can be disbursed more quickly. A policy lesson for Latin America may be the importance for national and regional development banks to have mechanisms - such as sector or programme loans - that can be deployed in periods of drought of capital flows and declines of domestic private lending.

Furthermore, in common with the World Bank and regional development banks, the EIBs level of additional financing was dwarfed by the scale of retraction in private market capital flows (OCAMPO, GRIFFITH-JONES, op cit). The EIB counterbalanced this though, by using its increased activity in well targeted areas where the reduction of private capital was most acute. This reduction was so severe because the banking sector sought to reduce risk and withdrew from higher risk lending. For example, in the SME sector, lending decline was particularly acute throughout the region. A significant number of private banks lending to SMEs found themselves either unable to obtain funding or subject to internal risk aversion and actively sought assistance from the EIB, many of them for the first time (Authors interview material[*]). Following a request from the EU Finance Ministers in October 2008, the EIB significantly increased its lending to SMEs to €30bn for 2008-2011 and front loaded it as part of the European recovery programme. This and further discussion of the SME sector is analyzed in more detail in the dedicated section below.

In assessing the overall response of the EIB, key lessons to be considered by other regional bodies and by national development banks is that

[*] During the preparation of the paper the authors interviewed staff at the EIB and EIF to discuss the issues in the paper during March and April 2011. Names of individuals can not be given for reasons of confidentiality.

the effectiveness of the EIB was underpinned by its close links and responsiveness to policy-making, its speed to increase lending and the ability of member countries to rapidly increase its subscribed capital, which facilitated increased lending in combination with retention of its AAA ratings. Pre-emptive measures to facilitate capital increases in the case of financial crisis should be considered for other similar bodies. Indeed having high levels of capital for such public banks in normal times is the best way to allow rapid increases in lending if the economy deteriorates. Existence of instruments that facilitate quick disbursements, such as sector or programme loans or other mechanisms, are important for responding appropriately during periods of sharp contraction of private lending.

2.2 Enabling social and economic regional convergence

As discussed, the origins and historical role of the EIB has been to support social and economic convergence within the European Union. It is interesting that in its initial period (1959-1990) per capita lending by the EIB, taking account years of membership, was the highest for Ireland, Portugal, Greece and Spain, then the poorest countries in the EU (GRIFFITH-JONES et al, 2006) and with some of the poorest regions. Significant levels of these convergence resources have, and continue, to be focused on infrastructure. In fact, if we examine sector distribution of EIB loans since its creation, over 40% of lending went to infrastructure. Most recently this policy has also been applied to new member states and to ‘candidate countries’. Here interesting lessons for Latin American development banks can be drawn, of the significance of lending supporting poorer countries and regions to achieve more balanced and equitable development.

The EIB has also adopted a strong partnership approach to execution in this area with “Cohesion Policy Joint Initiatives,” each with a specific policy focus. Partners have included the European Commission, the European Bank for Reconstruction and Development (EBRD), Kreditanstalt für Wiederaufbau (KfW), the European Commission, according to the relevant mandate. These initiatives all relate to key policy areas discussed in the introduction to this section.

Table 2

EIB Convergence Lending (Signatures), 2007-2009.

(In billions €)

	2007*	2008	2009	Example projects
Total	**13.8**	**17.8**	**23.6**	**Target is 40% of total EIB lending**
Poland	-	2.7	4.2	Road construction; Public & university scientific research
Spain	-	6.0	3.5	Regional broadband & hydro-energy; Solar power projects; Transport construction
Portugal	-	2.1	3.1	Water & sewage; Road construction
Germany	-	1.6	2.5	"Clean" car development
Italy	-	3.5	2.3	Aeronautical development
Other (<10%)	-	1.9	7.9	

Source: EIB Annual Reports. *In 2007 no breakdowns by country between economic & social cohesion and convergence is given.

The key policy lessons for Latin America are discussed in Part III of this paper. However it is important to note that convergence lending is critical to both the historical and current role of the EIB and it has played a major part in completing missing markets, especially in poorer regions, facilitating the integration of these regions into the European economy and generating employment in them. In particular it has had a critical role in financing infrastructure which underpins economic integration via inter-regional trade. EIB loans for major regional projects in transport systems including those such as roads, ports and railway systems have played a key role in integrating infrastructure. Today projects have become more focused on current needs such as development of a "green" infrastructure including, again transport systems, but also energy. The EIB has also assisted indirectly but crucially in these issues through financing research and development of infrastructure systems.

Critical in supporting infrastructure has been the provision of long term finance, including up to 30 year loans. This is crucial as market imperfections are far more important for longer maturities. Another advantage of the EIB is that it imposes conditions limited to project level, such as viability and

importance, as well as broad consistency with European Union policies such as environmental guidelines. This contrasts with other agencies, notably the World Bank who has imposed conditionality, often of a very intrusive kind, at a macroeconomic and sector level.

2.3 Financing growth in SMEs and microfinance

The SME sector is an important contributor to GDP and a major provider of employment opportunities throughout the EU. This is of course similar, and indeed even truer, in Latin America. Critical constraints that can impact the sector include the macroeconomic environment, the institutional environment and cost and access to financing. During the Global Financial Crisis in Europe, the latter in particular was an issue. Access to financing was restricted significantly both by absolute reduction in bank lending and by crowding out by large companies. SMEs unable to access international capital markets borrowed domestically. The EIB put SME lending at the centre of its policy during the crisis with 19% of total lending going to SMEs in 2009. The EIB also executed a strong anti-cyclical expansion in financing the sector as illustrated in Figure 3 below, with a major increase in lending from €6.9bn in 2007 to €10.6bn in 2008 and €16.7bn in 2009 (2010 figures not yet published). The EIB support for SMEs is via lending under the Risk Sharing Finance Facility (RSFF) and via the European Investment Fund (EIF).

Table 3

EIB SME Financing by Instrument, 2007-2009.

(In billions €)

Euro billions	2007	2008	2009
EIB Loans to Intermediaries	5.0	8.1	12.7
EIF Guarantees	1.4	2.1	2.3
EIF Venture Capital	0.5	0.4	0.7
Mezzanine Growth Facility	0.0	0.0	1.0
Total	**6.9**	**10.6**	**16.7**

Source: EIB Annual Reports.

The Risk Sharing Finance Facility (RSFF) is a Joint European Commission and EIB facility to finance research, technological development as well as projects that provide demonstration and innovation investments. The RSFF has a lending capacity of €10bn (EIB website). The facility is for multiple eligible bodies including SMEs and includes companies that are unrated, unlisted or have lower credit ratings than the usual EIB standard. Debt-based financing includes loan or guarantee forms, including mezzanine. Financing is done both directly, in conjunction with other investors, or via guarantees to intermediaries.

The EIF is a specialized fund dedicated exclusively to SMEs (although in its initial phase it also guaranteed large private infrastructure investment). It has a tripartite shareholding structure, comprising the EIB (64%), the EU through the EC (27%) and a number of financial institutions (9% in aggregate). The EIF offers financing exclusively via intermediaries. Instruments focus on guarantees as well as venture capital including equity, mezzanine and other equity or quasi-equity financing.

The EIB is also active in microfinance, both in financing Microfinance Institutions (MFIs) and intermediaries and in providing technical assistance such as direct advice plus engaging in various network organizations and research programs. Various programs also fund microenterprises. The EIB group has funded €126m in various projects in ACP and €29m in the Mediterranean region as well as inter-EU projects (EIB website).

Critical to the success of the EIB approach to SME and microfinance programmes are the following factors. Firstly, they seek to provide low cost and longer term funding. As discussed, this is facilitated by their AAA status which gives end users lower financing costs and maturity advantages. Secondly, the EIB have financed SMEs and Microfinance largely through intermediaries and using guarantees. Conditionality to such facilities imposed on financial intermediaries includes insuring lending is additional to what would have occurred without EIB support. This approach ensures that market gaps in funding to SMEs are closed and that private sector capital is crowded in. In addition this approach is a practical method to disburse financing to multiple small end users as the intermediary remains responsible for managing the

credit risk and relationship with the end users. Thirdly, the EIB have also financed high risk financing in selected areas, most notably high technology research and development (R&D). As noted this is largely completed via intermediaries including venture capital funds. The EIB has also sought to close market gaps in these areas but in this instance through use of other instruments such as equity or mezzanine financing for R&D and similar high risk projects. Finally, technical assistance is considered a key part of the EIB program which seeks to enable SMEs to achieve higher success rates than might otherwise have been the case.

This approach means that the EIB places reliance on the soundness of the intermediaries institutions, including in relation to internal control (for example, for fraud prevention) and risk management. As a consequence the majority of partners have existing relationships with the EIB or are institutions with established reputations and track records.

2.4 Building momentum in environmental issues

As part of the EIBs 2010-2012 Operational Strategy, objectives supporting environmental and sustainable development were set as one of three key aims of the Bank. This follows the mandate set by the European Council which itself reflects the increasing priority that the European Union gives to this agenda. The EIB has operationalised these objectives in two ways. Firstly, it has developed a framework for setting broad standards and guidelines for all of it projects. Secondly, it has significantly extended financing in relevant specific projects related to climate change. Both are based on the EIBs role in execution of European policy in the area including, importantly, the EU Sixth Environment Action Program, the EU Urban and Public Health Strategies and the Treaty of the European Union relating to, as stated in the Operational Strategy, “preservation of the environment, protection of human health, rational utilisation of natural resources and promotion of measures at international level”.

The EIBs overall “Statement of Environmental and Social Principles and Standards” was published in 2009, after extensive public consultations, and

aims to set out the guidelines in relation to important aspects of policy including climate change, biodiversity and ecosystems. In addition it also set standards and definitions for related social issues such as sustainable and indigenous communities and “sustainable” urban built environments. The standards state that these are important aspects of the “non-financial value-added” from the EIB and are applicable to all of its operations. It also extends principles for assessment of projects which have been operationalised in working practises as part of project cycles as discussed further below. In its financing activities the EIB has also sought to make environmental and sustainable projects a core part of lending. Environmental, sustainable communities and energy projects have become a substantial category of lending at the EIB with, between 2005 and 2009, cumulative lending of €113 billion, representing 40% of total lending. In 2010, for climate action alone, €20.5 billion has been financed by the EIB, more than double the € 9.8 billion in 2008. This 2010 figure represents 29% of total EIB lending and includes € 4.1 billion for climate action research and development, €6.2billion for renewable energy, €2.3 Billion for energy efficiency and €7.9 billion in sustainable transport (Authors Interview material).

In examining the financed projects making up this total, a number of key themes become apparent. Some of the projects represent high technology and innovative projects in critical new technologies, especially in establishing an advanced post-carbon economy. These included, for example, projects that are establishing wind and water based power or non-petrol based vehicle technology research and development. Some notable projects in these areas for 2009 are given in Figure 4 below to illustrate these projects and are potentially significant contributions.

Table 4

Example "Cutting Edge" Projects Financed by EIB in 2009.

(In billions €)

Project Description	Country	Private Sector Partners	€m
Research & development of electric & energy-efficient cars & related infrastructure	Germany, France, UK, Spain	BMW, Daimler, Renault, Nissan	1,300
Construction of solar technology production facilities	Germany	Infrastructure Trunow, Wacker-Chemir, Robert Bosch	950
Building operational wind farms & solar power plants	Belgium, Spain, France, Cyprus	SPV, Gemasolar	792
R&D of wind turbines	Denmark	Vestas Wind Systems	250

Source: EIB Annual Reports.

However some projects have less cutting-edge content and finance existing technologies or practises. For example, a number of projects are financing extension or development of established public transport networks or conventional transport systems such as shipping infrastructure. For example, in one of the largest loans in 2009, an €1.1 billion loan was made to the UK "Transport for London" under the environmental policy to build an electric train link in urban London and, similarly, €1.8 billion was financed in Spain on metro and railway development projects (EIB ANNUAL REPORT, 2009). Although such projects seem commendable infrastructure projects and are subject to the previously noted EIBs assessment in their project cycles, they do not fundamentally reshape the overall carbon footprint of transport systems.

It could also be argued that the EIB also finances certain projects that actually are contradictory with to its environmental and sustainable goals. For example, the EIB finances projects related to aviation development such as airport expansion which has been criticised, for example, in the Tyndall Report (2006). Other environmental Non-governmental Organizations (NGOs) have also criticised the EIB. For example, Bankwatch (2007) have argued that too high a proportion of EIB loans are financing further development of fossil fuels. If developing countries are being asked to pursue a more environmentally sustainable path, developed countries should make more efforts in that direction as they have much higher current and historical carbon emissions per capita.

More specifically, EIB funded projects within Europe should have stricter environmental standards than projects that they finance in the developing world. The EIB finances both large and small scale projects and this is to be welcomed as smaller scale projects, in particular, have been incubators for the development of innovative ideas and practices in looking for environmental solutions, especially in climate change. The EIB has financed public projects (such as local city and region projects) as well as SMEs engaged in innovative projects. This includes a number of dedicated credit lines from the EIB to financial intermediaries for climate action purposes in renewable energy and energy efficiency as part of its SME strategy. Similarly, the EIB provides financing to private investment in renewable energy via creation of dedicated equity funds.

EIB lending to developing countries has, according to the EIB reports, a high proportion for environmental and sustainable projects with, in 2010, 33% of developing country financing relating to this area. As well as direct financing, the EIB is also engaged closely with developing countries to provide technical assistance and technology transfer adapting technology developed in its projects in Europe and consider these to be valuable parts of their program. For example, solar power technology developed in Spain has been transferred to Morocco (Authors Interview material).

In addition to traditional lending and financing, the EIB have also been developing innovative instruments to raise funds, support market deepening and crowd-in the private sector. Crowding-in includes direct capital raising from the private sector and engages the EIB in supporting market liquidity and investor confidence for new markets and instruments. For example, the EIB issued an innovative €1.4 billion (Including €0.5 billion in 2010 – Source: Authors Interview material) of “Climate Awareness Bonds”, which are ring-fenced finance raised for the EIB's future lending to projects in the fields of renewable energy and energy efficiency. The bonds are linked to a newly constructed index of corporate responsibility in relation to the environment, thus giving confidence to socially responsible investors. Such innovations, including supporting development of new instruments, is a mechanism that could be tapped by Latin American development banks.

As noted, all projects are subject to appraisals of environmental and sustainability standards as part of the initial and on-going project cycle. In addition, applied technology is also always required by the EIB to be the best available from a climate action perspective.

Projects assessment includes a required economic rate of return which accounts for the cost of carbon which, for 2020, will reach at least €40 a tonne, going up gradually from €26 a tonne in 2006 (with a possible upward revision being studied). This economic rate of return evaluation is done in parallel to a purely financial rate of return using market prices. Furthermore, the EIB has developed recently a rather pioneering evaluation of all large projects to estimate net carbon footprint. The absolute carbon footprint of a project is compared with a baseline which reflects the carbon emissions in absence of the project. Then a net carbon impact of projects is calculated, using advanced models including industry specific ones, for example for roads or shipping. Appraising the economic rate of return builds on the work of Little and Mirlees, which was widely used in the 1960s to evaluate projects with shadow prices that took account of externalities. Such exercises are not done so much at present, as they are time consuming, and it is praiseworthy that the EIB uses such methodology for introducing a climate perspective, in the context of promoting a sustainable development paradigm. According to interviews carried out at the EIB, this calculation of an economic rate of return has been particularly effective in promoting projects in renewable energy that otherwise might not have been financed by the EIB. However, it seems that this methodology has been less valuable for discouraging projects that have high carbon emission impacts. Nevertheless, the fact that this economic evaluation with a shadow price of carbon is carried out, and that more broadly the EIB is committed to minimizing the carbon footprint of its projects, has impacted external proposals seeking financing and internal organizational decisions in favour of lower carbon-footprint projects (Authors interview material). Such an approach could be of interest to LAC development banks.

One issue, however, is that EIB staff numbers committed to evaluating environmental and sustainable activities remains limited. Although specific projects leverage resources by using other EIB staff (e.g. engineers) and

external consultants, staffing levels remain a constraint for mainstreaming environmental approach within the EIB lending (Source: Authors Interview material). External commentators have also noted this. For example, the NGO, Counterbalance (2011), argues that EIB projects are “evaluated almost entirely by economists, with a minimal sustainable development unit that is marginalized within project design and appraisal”. Overall the projects financed and innovative capital-raising promoted by the EIB is to be commended. However to summarise, two key issues exist. A greater level of investment in truly new and cutting edge technologies, including both research and development and production, would add value to the EIBs role versus their current high involvement in projects with lower environmental impact. Secondly, the EIB need to consider the consistency of its stated policy across the organization. For example outside of its dedicated environmental projects it continues to finance high levels of projects that are inconsistent with improving the environmental and, particularly, the carbon footprint of Europe such as conventional road and aviation networks.

Development banks in Latin America could learn from the positive and innovative climate action practices of the EIB, as well as use financial mechanisms like green bonds, but may want to go even further. Indeed, in Latin American economies, which are more dynamic and this dynamism is driven more by structural change than in Europe, there may be more space to pursue a low energy and appropriate technology model. This is discussed in more detail in section III of this paper.

2.5 Managing and maintaining institutional soundness

Critical to the role of the EIB in development is its ability to close market gaps including provision of low cost and longer term financing. Areas where this has been critical has been the ability to provide long maturity funding for infrastructure development and low cost funds to SMEs or for high technology research and development. The ability of the EIB to achieve this depends on its AAA credit rating and related credit-worthiness and institutional soundness. Its credit rating is of course strongly related to its support by the European Union governments, both explicitly through committed capital, and implicitly through its

strong political links to the EU. The EIB Group also continues to maintain a strong capital base with high capital ratios and increased its authorised capital in 2009 from €164bn to €232bn (EIB ANNUAL REPORT, 2009). In addition the EIB has been careful to try to ensure its credit and market risk and internal practises are compatible with its AAA status, and seeks to maintain financial self-sufficiency and covers all operational costs. This is partially facilitated by a lean cost base with a limited number of staff and an approach of partnership with other institutions to compensate for relatively limited and generalised expertise.

These factors were particularly important during the crisis when market gaps in private sector financing increased hugely as risk aversion increased. However the EIB was able to continue to achieve liquidity and access to long term funds through capital market operations with relative ease. This was in sharp contrast to private financial institutions, including many major international banks, where liquidity collapsed during the acute phase of the financial crisis in 2008 and 2009, and in a number of private capital markets where activity ground to a halt. The EIB in fact comments that they were beneficiaries of “the flight to quality” by investors in fixed income markets (EIB ANNUAL REPORT, 2009).

The EIB has sought to build institutional soundness by balancing carefully the inherent risk in its activities with its mandate to take risk which, by definition in market gaps, is higher due to liquidity and hedging constraints. In assessing credit risk, for example, it focuses the majority of its credit portfolio conservatively. However it also takes higher risk in certain areas, such as SMEs and venture capital, in order to facilitate policy.

However risk in these areas is reportedly carefully monitored and remains limited. The EIB also attempts to execute “best practise” for banking institutions in managing risks internally. In 2009, however, the downside of its risk taking was revealed with €103m of write-offs in venture capital investments and €56m of additional provisions in EIF guarantees and securitizations. The EIF credit portfolio also suffered increases in “negative outlook”. However, market conditions in this period were (hopefully) exceptional and were also related to inadequacies in “best practise” within private sector financial

institutions, especially in relation to so–called unlikely events such as a global financial crisis which was inadequately reflected in internal risk management. Excessive “group think” can be a limiting factor within any institution, including public institutions who may mimic behaviour by private institutions.

3 POLICY LESSONS FOR THE LATIN AMERICAN CONTEXT

In this section we will discuss how to apply and adapt the positive experience of the EIB into the LAC context in relation to specific policy areas. In this context, it may be very useful for institutions like the EIB and EIF to organize or be invited to seminars with national development banks in the LAC region to discuss their views in these areas, the problems they have encountered, and how they have overcome them. Such sharing of experiences would seem very valuable.

3.1 The importance of a counter-cyclical policy approach

Globally, opening of trade and financial accounts over the past decades has led to greater exposure to financial crises and the 2007-09 crises impacted developing countries throughout the world. Countries varied significantly both in their ability to get themselves out of the crisis and in their ability to execute counter cyclical policy responses. The latter was impacted by a country’s balance of payment, as well as fiscal, constraints. In addition the strength and resilience of the financial sector was an important factor, determined by issues such as the structural composition of private sector liabilities, the dependence of domestic banks on external financing and the progress on strengthening prudential regulatory and supervisory frameworks (OCAMPO, GRIFFITH-JONES, et al 2010).

Furthermore, in countries like Brazil, where large public national development banks exist, and where these institutions account for a large proportion of total credit, counter-cyclical policy responses were far more effective in lifting total credit than in countries where the role of public development banks had been reduced. The enabling factor was the ability of public banks to inject credit into the domestic sector. This complemented the

counter-cyclical fiscal response. A contrasting example is Chile where the reliance on external financing and retraction of public sector banks roles undermined the effectiveness of counter cyclical fiscal and monetary policy (OCAMPO, GRIFFITHS JONES, et al 2010). So a lesson here is that one important reason why the scale of public development lending should be large is to facilitate greater impact of counter-cyclical lending in recessions and crises.

As discussed above, the EIB was one of the institutions in Europe that participated in providing a counter cyclical response and its counter- cyclical policy was strong. It is recommended that this continues to be built and replicated in the LAC context. To be able to fulfil this role well, a development bank must be large in relation to the total lending market to have a big impact on lending, growth and employment, and it must have sufficient capital to be able to expand lending quickly without needing to get increases of capital that are often slow to get approved. To facilitate this, automatic capital “buffers” can be built into capital approval to allow rapid expansion of lending during crisis periods without the need to seek new approvals. Such crisis planning could be a critical part of a counter-cyclical policy approach for both regional and national development banks.

We also suggest additional approaches to facilitating an anti-cyclical policy to compensate for private capital flows in bad times and increase the “stickiness” of private sector capital crowded in. For example, it may be possible to include as a requirement for guarantees a committed maturity for lending or to limit exit conditions or net portfolio reductions across fixed time periods. Although this is unlikely to be preferred by intermediaries due to the restrictions on them that it imposes, such a condition would be very useful in terms of stabilising lending. This is especially true in lending to sectors which are highly pro-cyclical, such as to SMEs.

We would also recommend flexibility around the RDB and the sub regional development bank (SRDB) participation levels in co-financing arrangements so that RDBs can provide an anti-cyclical role to fill any gaps in financing that occur on the downside of business cycles, by increasing the share of their financing of projects, as private flows dry up. This is what the EIB

Group has in fact done quite impressively in the current crisis, including special treatment for climate action projects.

During the crisis, Latin America suffered a 6.9% decline in GDP growth from 2007 to 2009 but was more resilient than developed countries and some emerging markets especially in Eastern Europe, with a faster recovery led by Brazil (WORLD BANK, 2010). This was, of course, partially due to the fact that the World Bank, Inter-American Development Bank (IADB) and the CAF, as well as national development banks in LAC increased their lending during the crisis to counteract the fall in private lending. However, further active consideration of the mechanisms for a robust counter-cyclical response by development banks will ensure financing is counter-cyclical on a sufficient scale, when private market financing is scarce and ensuring long term stable financing which bridges short term shortages.

3.2 Selecting sectoral policy

As discussed, throughout the EIBs history of supporting development, it has been highly strategic in selecting sectors to focus financing in. The sectors selected have evolved with the long term development of the European Union and with its strategic objectives. Initially, the focus was largely on financing of infrastructure and other areas to develop intra-regional trade and to assist in social and economic integration. These sectors have continued to be important but activity has also evolved into new key areas including SMEs and mitigating climate change. A consistent rationale for selecting specific sectors has been the underlying economic rationale of closing market gaps and filling missing markets. A countercyclical role has been added, when private flows are limited.

In assessing how to learn from the experience of the EIB, LAC needs to consider what are the critical sectors for their policy goals. For example, support of inter-regional trade and infrastructure is already a policy focus in LAC and is supported by BNDES and CAF who provide financing and support to the South American Regional Infrastructure Initiative (IIRSA), a forum for coordination initiatives in this area. However, it is possible that if the emphasis will be on a

deepening of trade integration within Latin America, a greater focus is needed for the regional infrastructure to support and encourage it.

The continual flexibility to change and adapt their focus to remain relevant to both endogenously set policy goals and extraneous economic events and environment is critical. A political forum for allowing this to occur in a timely and appropriate manner – in the case of the EIB, the European Commission – is also important in facilitating this. In the case of national development banks in Latin America, such priorities can be set by national governments. However, at a regional level, these institutions are quite weak in Latin America, for example in Mercosur.

In relation to the focus sectors of the EIB, a number are of relevance to Latin America. Similarly to Europe, the SME sector in Latin America is important for employment and innovation. A similar approach to leveraging financing into the private sector and providing venture capital for research and development and innovative businesses could be adopted as financing is a critical barrier in many countries in the region (WORLD BANK ENTERPRISE SURVEY, 2009).

An important issue to consider is the EIB approach to supporting high-tech SMEs and the developing high-tech sector through private partnerships with key universities and venture capitalists. However, in many LAC countries there is a gap between demand for such financing and the supply of venture capital financing from the private sector, including that linked to universities. A policy approach to innovation and technology through alternative policies such as public support of clustering, technological research and commercialization, as well as more broad dissemination of innovation by government agencies rather than private sector agents might be more appropriate in LAC. Such an approach could ensure a closure of this market gap and accelerate both technical innovation and technology transfer. It could be conceived as being in the framework of a broader industrial policy approach that supports technological innovation in targeted sectors through a number of policy instruments, of which development bank lending is an important one.

In addition, across LAC there is a wide range of micro-finance institutions (MFIs), many of which have increased the scale and the size of enterprises serviced as well as the range of products. Today many are significant formal

financial institutions in the retail and SME sector. In LAC a full spectrum of SMEs should be supported, including MFIs, and replicating the EIBs approach of guarantees and private sector partnerships might be successful. Such financing may also help to avoid the issues that have arisen in other countries, notably in India but also Nicaragua and Bolivia, where MFIs sought to finance increasing scale through private investors and resultant pressures led to inappropriate lending levels and practices. MFIs should be carefully chosen to include well-established and larger, ideally national, organizations, with a track record of institutional soundness.

A further sector of mutual relevance to Europe and LAC is the environment and sustainability. In the global community today the vision of a low-carbon economy and, critically, the technology to make it a reality are rapidly emerging. Most critical for a development bank is infrastructure, including transport and power generation networks, that is consistent with the biophysical limits of countries in fulfilling “strong sustainability criteria”. Ocampo (2011) and UNEP(2011) provide a good definition of a green economy as one that “ not only improves human well-being and lessens inequality but also reduces environmental risks and ecological scarcities”. Clearly it is in the interest of Latin American economies to promote this more sustainable development path, as climate change could undermine future development, and because green technology provides many new opportunities for investment in highly competitive sectors.

Consistent with this type of vision, development banks in LAC are already involved in the building of an environmentally sustainable economy. The BNDES, for example, established principles and guidelines in relation to environmental responsibility and are involved in a number of projects relating to both natural and urban environments. Specific project examples include the Clean Development Fund, which invests in companies generating carbon reductions, the Amazon Fund, a donation based investment fund dedicated to tackling deforestation and conservation of the Amazon forest, which BNDES manage, and the BNDES Rainforest Initiative. Similarly CAF, the Andean Development Corporation, has environmental guidelines that are applied to projects and also support a number of programs and initiatives. This includes

the financing of alternative energy projects as part of the Latin American Carbon and Alternative Clean Energy Program. The authors would encourage LAC development banks to continue and extend their programs and, where relevant, to learn lessons from the EIB.

There is an opportunity for LAC to leap-frog rapidly-dating high-carbon-based technologies and move directly to low-carbon technologies, thus avoiding the transition cost that will be incurred by developed economies. As well as regional and national advantages, there are huge potential commercial opportunities for the successful development of the new technologies and knowledge bases.

Public development banks are ideally placed for financing investment in renewable energy and other climate action activities, as these often are commercially profitable only in the long run and therefore require long term maturity of lending, which often only public development banks can provide initially, though they can also help promote the maturity of private financing. In other cases, such climate action activities are only profitable if positive externalities are considered, and therefore either public investment or subsidies for private investment are required. In this latter case development bank lending, combined with some limited grant element that could come from some of the international transfers for climate change mitigation to developing countries, or from national budgets, seems most appropriate. Again, the EIB approach to financing projects to mitigate climate change, manage and evolve existing infrastructure and economic activities and implement new low-carbon ones can offer valuable lessons for LAC.

As noted, the EIB Group also includes technical advice as a key component of many of its programs especially those for the environment and sustainability, SMEs and microfinance. This should be replicated in LAC, including both support of SMEs and MFIs, to increase success rates in business enterprises and to build institutional capacity and soundness.

3.3 Financial stability and financing techniques

As noted in the previous section, LAC experienced a less severe impact on GNP due to the global financial crisis. One of the factors that contributed to this was the relative robustness of the regions financial systems (CARUANA, 2010). In assessing which aspects of the EIB approach to adopt, careful consideration needs to be given to ensure that the institutional soundness of both development agencies and private sector financial institutions are retained and that potential systemic threats are not created or encouraged to re-emerge. Both issues need to be considered in the context of both “normal” market conditions and under potential future crisis conditions. Within Latin America, differences in the structure of financial markets also need to be considered. A key consideration in assessing what approaches to adopt is the depth of related financial markets and the extent to which the regulatory environment has built resilience and stability in financial markets. For example, in some LAC markets such as Brazil, there have been regulatory restrictions on domestic banks participating in securitizations and off balance sheet transactions (IMF 2008).

The EIB manages a portfolio of lending and related activities encompassing a wide range of complexity of financing techniques and of approaches to engagement with private sector financial markets and, in examining their experience, careful selection of techniques appropriate to the Latin American context is key.

For example, as discussed, a large proportion of the EIB Group support for SMEs is in the form of guarantees provided by the EIF. Guarantees hold significant advantages vis-à-vis other instruments including relatively simpler risk and leverage which, when combined with two key features of the EIB approach, risk-sharing and an incremental lending requirement, enable crowding in of the private sector. An advantage is that, whilst creating contingent liabilities, the instrument is relatively simple to risk manage and typically requires expertise already available within national development banks. However, the contingent liabilities arising from guarantees are exactly that – liabilities – and during periods of economic stress can result in significant losses on a leveraged basis. This is especially the case where guarantees are first loss

or lower tier guarantees. Overall the use of guarantees in LAC seems appropriate provided excessive risk is not being taken.

Other instruments used by the EIB are, however, higher risk than guarantees and a careful assessment of their advantages and disadvantages is required before adoption. For example, more complex products such as securitization are considered to have contributed to the severity of the financial crisis of 2007 and 2008 (STIGLITZ, 2010). They also created a lack of transparency of risk at institutions and this contributed to the panic in markets, especially in the most severe phase of the crisis. As noted, they have already been restricted by some Latin American regulators in the private sector and we would recommend a very cautious approach to their adoption by development agencies in Latin America.

Similarly equity investments have played a critical role in the EIF policy especially in providing funding to early stage SMEs and in high technology innovation such as climate change and the knowledge economy. However, such investments have a higher failure rate due to their innate risk and, again, a cautious approach needs to be taken to the level of risk committed relative to an institution's size. Nevertheless, these instruments have important roles to play in closing market gaps, such as either providing directly venture capital or providing higher leverage instruments in the form of equity or mezzanine debt. Consequently these instruments have a key part to play in policy in LAC, but only in selective instances where their advantages, for example in encouraging innovation, clearly outweigh their disadvantages, such as high risk.

As discussed, the EIB Group also acts through partnerships with financial intermediaries, through mechanisms such as global loans. This includes a broad spectrum of intermediaries such as banking institutions, non-banking financial institutions (e.g. leasing companies) and venture capitalists. This approach carries significant advantage, most importantly crowding in of the private sector as well as risk sharing. The latter in particular reduces moral hazard with intermediaries dealing with end user SMEs. We recommend that this approach should be replicated or continue to be used in order to benefit from these advantages. In fact, institutions like the IADB use this indirect approach when serving SMEs in LAC. However, the approach also entails

placing significant reliance on intermediaries' operational soundness and reliability. Consequently the approach requires careful selection and screening of intermediaries. In relation to the type of intermediaries we would suggest that, given the currently established banking sector engagement in SMEs, the policy approach should focus in Latin America to a great extent on these currently established banking institutions in relevant countries. We consider that a more conservative approach should be taken towards other potential partners including private sector venture capitalists. One of the key issues in considering any venture capital partner should be the stability of their commitment to the investment which should indicate a significant fixed time period. Indeed, as noted, minimal periods of commitment could be required.

Finally, we would reemphasise the EIB Group requirement for guarantees to crowd in using an incremental lending condition. As noted, guarantees are only given above an assessed "normal" level of lending for a given intermediary, thus ensuring the EIB Group crowding in incremental lending from the private sector. We recommend that this approach should be replicated in the LAC context.

4 CONCLUSION

The experience of the EIB shows the valuable contribution that public development banks can make to long and short term development, both nationally and regionally. In its long-term role the EIB experience has supported the process of trade integration within Europe, especially in its initial stages, by supporting investment in regional infrastructure and contributing to convergence of poorer regions as well as broadly supporting financing for development. This is especially the case in its role of closing multiple private market gaps and imperfections. In its short-term role, the EIB during the global crisis confirms again the value of large public development banks for rapidly expanding counter-cyclical lending in times when private lending diminishes, or even collapses. In all these aspects, the positive lessons from the EIB argue for both large and strong national public development banks and developing country owned regional development banks. Indeed, the large expansion of lending by Brazilian BNDES during the global financial crisis confirms this.

The feasibility for developing country-owned regional or sub regional development banks has increased significantly as these countries have seen their savings and foreign exchange reserves grow rapidly. The desirability of such developing country-owned regional development banks to be created (e.g. within Mercosur) or expanded significantly where they exist already (e.g. CAF) is evident for a number of key reasons. Firstly, it facilitates significant scope for greater flexibility and control by allowing greater, or exclusive, voice to developing country borrowers, as well as a greater sense of regional ownership. This allows the organization to be able to rely far more on informal peer pressure than on conditionality, which, in turn, also allows agreement on loans to be far more timely and flexible. The fact that shareholders are also the clients of the banks reduces the complexity of negotiations compared, for example, to the World Bank or other multilateral bodies. Secondly, information asymmetries are far smaller at the regional level, given proximity, cultural similarities and close economic ties and again this would facilitate improved policy-making and execution. Lastly, regional development banks are best placed for supplying regional public goods in fields such as climate change mitigation, as well as adaptation and cross-border infrastructure.

One of the key challenges for a regional or national public development bank is to design its lending strategy and instruments to support a long term vision of a dynamic, equitable and sustainable economic development model. We highlight below three major elements for such a development model. Firstly, establishing the most effective insertion into the new international economy so as to maximize development impact of links with the most dynamic economies. Secondly, combining this insertion with greater deepening of domestic and regional markets. Lastly, it is to meet the challenge of development which takes into account ecological constraints.

Firstly, the key challenge for national and regional public development banks is how best to support a strategy that effectively inserts countries and the region in the new international context of dynamic growth in Asia, and especially in China, compared to developed economies. The challenge for Latin America in particular is to ensure that this insertion is not only, or mainly, limited to exports of commodities but develops higher-value engagement such as, for

example, commodity processing or industrial products. This implies identifying products and sectors in which Brazil and other Latin American countries could have a competitive advantage, especially in high value exports with high levels of productivity. Such a strategy implies both identifying market niches and designing a joint public-private sector long term strategy to support relevant enterprises, sectors and countries. Public national and regional development banks have a very key role to play in such a strategy by providing long term finance especially in new sectors, processes and technologies.

A further broad question relates to the extent to which development strategies should continue to rely, as they did in the recent past, on export-led growth or whether they should evolve to focus more on domestic market growth. This clearly depends on how the world economy will evolve, for which there are two main scenarios. Firstly, a continuation of the rapid recovery of trade that started in mid-2009 and that is a return to the trend of recent decades where world trade is more dynamic than world GDP. Or, secondly, a scenario where trade does not recover and instead is not particularly dynamic. Many observers think that the second outcome is quite likely. In such a scenario, the best development strategy may be a return to *inward*-looking strategies focused on the dynamism of domestic markets. A complement to such policies could be a strategy of income redistribution, which would expand domestic markets. It is also interesting to mention that the Keynesian policies that have been essential for recovery from the Global Financial Crisis in many developing countries are de-facto inward-looking policies. A transition towards more inward-looking strategies is of course easier for large countries, like Brazil. For smaller countries, this would imply that regional economic integration processes may have to play a more important role in the future, to create "expanded domestic markets" (OCAMPO, GRIFFITH-JONES, et al, 2010,op cit). As the early European experience shows us, the role of a large public regional development bank can - and needs to - play key roles in supporting such integration processes. However, Latin American countries should not forego any opportunities that exist for benefitting from trade with the rest of the world, where these are available.

A third element in a new development strategy for Latin America implies achieving a reduction in climate change risks and ecological scarcities both nationally and regionally. In the words of the UN Secretary General Preparatory Report to the 2012 United Nations Conference on Sustainable Development, the aim is an economy that is "low-carbon, resource efficient and socially inclusive." United Nations Environment Program (UNEP) simulations indicate that a 10% reallocation of investment globally to "green investment" could result in significant long-term growth gains as natural resources are retained and replenished. The UNEP also report other advantages important to poverty alleviation and more equitable income distribution, including from the greater labour intensity inherent in "green investments" and gains in small-scale farming. Such an approach would complement the strategy of deepening of domestic and regional markets. In addition "green investments" would reduce the negative risks associated with climate change. Furthermore, investment in research and development and technology transfers will help Latin American countries be able to retain and extend international competitiveness as the competing global economies shift to more efficient low carbon technologies and presents a unique "leap frogging" opportunity to switch directly to cutting-edge technology. As pointed out, critical areas of investments include public transport, renewable energy and sustainable agriculture, especially of small farmers as well as water and sanitation.

A public development bank can play a critical role in such investments as they require scale and long term financing as some of this investment, especially in green infrastructure and energy, will only become profitable after a long period. Through specific finance techniques such as those used by the EIB, private investment confidence will be encouraged by financing from development banks. As Ocampo (2011) emphasizes, national development banks can also help develop longer term domestic markets. As discussed and where the EIB offers valuable lessons, an example is the issue of long-dated "green" bonds in national currencies of Latin American countries by their development banks.

Furthermore, time-limited and transparent subsidies to support introducing green technologies not yet profitable in purely commercial terms

may be ideally implemented by national and regional development banks. This could include channelling global funds dedicated to introducing such technologies into developing countries. Such collaboration with the EIB and the World Bank could be particularly fruitful, benefiting both from grant resources allocated to investment in the green economy and technology transfer. Similarly, Latin American regional development banks could help transfer technologies from relatively more developed countries and regions to poorer ones, thus pursuing both a greener economy and greater economic convergence. Governments may wish to temporarily subsidize new green technologies and invest in research and development to generate, adapt and disseminate green technologies. For this the collaboration with national and regional development banks could be critical.

The role of a national or regional development bank needs to be therefore defined in the context of a vision of a development strategy that will lead to more sustainable, equitable and rapid growth. The scale, sectoral priorities and the instruments of such a development bank need to be designed to serve this vision of development strategy. The potential - and the need for - national or regional development banks to play a critical role in the Latin American context today is clear, as the EIB did and continues to play in the development of the European Union.

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