Chapter 13

CONCLUSIONS

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I. Introduction

After analyzing national development banks (NDBs) in seven countries, we conclude that overall these banks tend to be successful at what they do. They have been broadly efficient development policy instruments in the various countries studied, helping overcome the major market failures identified in chapter 1 in this volume, and doing so in a flexible way over time.

NDBs have in several cases been innovative in what they do. They have in the last decade gone into new activities, like supporting innovation (China's CDB, German KfW and Brazilian BNDES) and entrepreneurship (Chilean CORFO, as well as Colombia's BANCOLDEX). They have played an important role supporting key new sectors, like renewable energy and energy efficiency, the latter especially in Germany and China, but also in the other NDBs studied. They have developed new instruments, such as far greater use of guarantees, equity (including venture capital) and debt funds, as well as new instruments for financial inclusion, like correspondent stores. They have also started developing new functions, like funding foreign trade in times of financial crises (, like BNDES), encouraging FDI by national companies abroad (, like KfW, CDB and BNDES), and helping attract foreign investors to the country (, like CORFO).

A key question, however, is whether, given major current development challenges NDBs do enough, especially in several of the Latin American countries analyzed in this book, but also more broadly. In particular, is their current scale large enough for the development needs of their countries? Furthermore, do they have the right mix of instruments, to perform the existing challenges?

The studies show that there is a greater need for larger scale of NDB activity in Latin America. This is due firstly because of the low levels of both private and public investment. In the case of private investment, this is linked in part to limitations of private finance, in particular its capacity to fund long-term investment. Furthermore, Latin American countries have less fiscal space, limiting public sector investment. The leverage of public resources provided by NDBs therefore becomes particularly attractive to boost investment.

At the same time, there is a greater need for higher investment in Latin America as the challenges of structural transformation become more urgent, and are linked to the need of a radically different economic model, which is more dynamic, greener –to make growth consistent with the needs of the environment—, smarter –with better innovation and its adaptation, to increase productivity more rapidly—, and more inclusive –to reduce the large income inequality pervasive in the region.

Furthermore, the new development model may become less reliant on international trade, which since the financial crisis has grown more slowly than in the past, thus turning into a less dynamic engine for growth, and it is now also threatened

by protectionist tendencies in some major developed economies. Perhaps most importantly, lower commodity prices than in recent decades (linked to the clear end of the super-cycle of commodity prices) urgently requires investment in new sources of exports and growth. As we discussed in Chapter 1, the uncertainty surrounding investment in new sectors and technologies is often unlikely to be funded purely by private financial institutions, unwilling to take large risks, especially for long maturities.

Therefore, NDBs finance, which has the virtue of being long-term (as over 50% of NDB lending is for over 10 years' maturity) is needed on a significant scale. This has been understood in the highly successful economies of Germany and China, where the scale of NDB assets, in proportion to the country's GDP is fairly large (see the next section). Within the Latin American region, we see different scale and trends. Brazil's BNDES had continued being an important and large institution in recent decades, though its scale seems to be shrinking recently. On the other hand, countries like Chile, Mexico and to a certain extent Colombia have seen the scale of their NDBs fall, though in the latter case there has been some resurgence in their scale in recent years.

As a result, it seems a key conclusion that, in countries like Chile, Mexico, Peru and Colombia, the scale of operations of NDBs should be quite significantly increased, so they can make a more significant impact on increased investment for structural transformation and development. This does not necessarily imply large government resources, as the only public contribution would be an increase in their paid-in capital; then these NDBs could fund their operations on the private domestic

market –fairly developed in some of the Latin American countries studied here, notably Chile— as well as international capital markets.

Although this conclusion on the need for more active and larger NDBs focuses on Latin America, which concentrates the largest number of banks analyzed in this volume, it can certainly be extended to other regions of the developing world, notably Africa. It can be even applied to developed countries, where NDBs can play an important role, as the very successful experience of KfW indicates.

A common insight gained from the case studies is also that the broad context in which development banks operate is key for their success. Thus, good macroeconomic policies –in particular, active counter-cyclical policies, relatively low inflation, fairly low real interest rates, and competitive exchange rates— are essential to the success of NDBs. Thus, for example, BNDES operations have been constrained in recent years by macroeconomic problems. Furthermore, a well-functioning financial sector is another important pre-condition for a smooth functioning of an effective NDB. It is, however, interesting to note that NDBs can help develop a deeper and better capital market. Thus CDB, for example, played a key role in the development of the Chinese bond market. More generally, a number of NDBs have helped the introduction of local currency and/or green bonds in their own local capital market.

A NDB can operate far more effectively if the country has a clear development strategy, ideally linked to a modern industrial policy –or, more broadly, to modern production sector strategies, which should focus on promoting innovative

sectors and guaranteeing their competitiveness in natural resources, manufacturing and/or services, depending on the comparative advantages and accumulated capacities of different economies. Development banks like KfW, CORFO and the CDB operate broadly in the context of a clear strategic direction; in contrast, the Peruvian NDBs seem to operate without such a clear development strategy. Clear policy mandates are particularly valuable if they do not change too much with different governments, allowing continuity and long-term planning for the NDBs and their support for development, as the German example notably indicates.

II. General description and main features of NDB

A set of thirteen national development banks from seven countries of different regions was analyzed in the case studies. Five of these countries are from Latin America –Brazil, Chile, Colombia, Mexico and Peru – and the other two are Germany and China, the most populous and dynamic economies in Europe and Asia, respectively. Moreover, according to the World Bank country classification by income, two of these seven countries, Chile and Germany, are high-income countries, while the other five are considered upper-middle-income countries.

These thirteen national development banks significantly vary in terms of scope of operation, their history, size and main features (see Table 1). Chile, Brazil and Germany have universal development banks –CORFO [1], BNDES and KfW, respectively— with a broad mandate to support an extensive range of activities and sectors, whereas the other four countries –Colombia, Peru, Mexico and China— have a system of specialized development banks with a narrow and specific mandate.

[1] It should be mentioned that in Chile, Banco del Estado, a state-owned bank, does extensive first-tier lending, especially to agriculture. Furthermore, infrastructure is funded via different mechanisms to development banks, both through public and private finance.

Colombia and Peru have four specialized development banks, Mexico has seven and China three. In the case of the former two countries, four development banks were studied in Colombia (FDN, FINDETER, FINAGRO and BANCOLDEX)[2] and four state-owned financial entities that engage in development banking activities with different forms of intermediation in Peru (Banco de la Nación, CFD, Fondo Mivivienda y Banco Agropecuario); and in the latter two countries, only one development bank of their system was analyzed: NAFINSA in Mexico and CDB in China. These specialized banks explicitly promote key relevant sectors of the economy. For example, CDB, FDN and FINDETER are specialized in infrastructure, NAFINSA in SMEs, an area which is also central to BANCOLDEX, while FINAGRO is specialized in the agricultural sector.

Table 1:

Key features of the NDB studied

No.	Development bank	Year of Creation	Country	Region	WB Country classification	Type of DB	Sectors	Second or First-tier	Main source of funding
1	CORFO	1939	Chile	Latin America	High Income	National Development Bank	Numerous sectors	Second-tier	Fiscal resources
2	KfW	1949	Germany	Europe	High Income	National Development Bank	Numerous sectors	Second-tier	Bond issues
3	BNDES	1952	Brazil	Latin America	Upper Middle Income	National Development Bank	Numerous sectors	First and second-tier	Fiscal resources
4	NAFINSA	1934	Mexico	Latin America	Upper Middle Income	Sectorial bank- System of DBs	MSMEs	First and second-tier	Both internal and external debt
5	FDN	1982	Colombia	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Infrastructure	First-tier	Fiscal resources
6	FINDETER	1989	Colombia	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Infrastructure	Second-tier	Deposits
7	FINAGRO	1990	Colombia	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Agricultural	Second-tier	Mechanism of directed credit
8	BANCOLDEX	1991	Colombia	Latin America	Upper Middle Income	Sectorial bank- System of DBs	MSMEs	First and second-tier	Deposits
9	BANCO DE LA NACION	1966	Peru	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Public sector	First and second-tier	Deposits
10	CFD	1971	Peru	Latin America	Upper Middle Income	Sectorial bank- System of DBs	MSMEs and infra	First and second-tier	External debt
11	BANCO AGROPECUARIO	2001	Peru	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Agricultural	First and second-tier	Both internal and external debt
12	FONDO MIVIVIENDA	1998	Peru	Latin America	Upper Middle Income	Sectorial bank- System of DBs	Housing	First and second-tier	Bond issues
13	CDB	1994	China	Asia	Upper Middle Income	Sectorial bank- System of DBs	Infrastructure	First-tier	Bond issues

Both models have their own advantages and disadvantages. On the one hand, there is a perception that universal banks, as it is the case of CORFO, have too many priority sectors and too many instruments. One observer of CORFO commented: 'for

[2] It worth mentioning that Colombia also has Banco Agrario, a commercial state-owned bank to provide financial services in the rural areas.

every problem, there is a separate instrument'. The advantage is that they have the benefits of diversification, which may reduce systemic risk in bad times. On the other hand, there is a perception that specialized banks, as it is the case of Peru, maintain objectives and goals that are not integrated with each other. In Peru, the four banks analyzed are seen to duplicate their efforts and do not take advantage of their possible synergies; therefore, none of these institutions constitutes an effective development bank such as exists in other countries. More broadly, specialized banks do not have the benefits of portfolio sectorial diversification, which may increase systemic risk in times of financial stress.

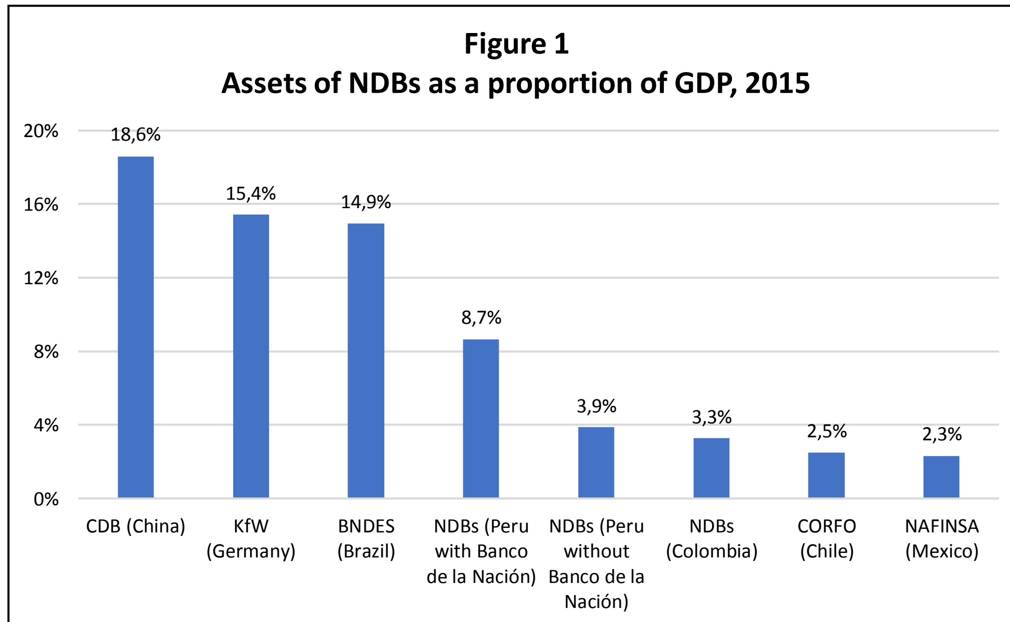
Although all these banks were established in different periods, the universal banks analyzed are older than the specialized ones, except for NAFINSA that was created like CORFO in the 1930s. KfW was founded in 1949 after the end of WWII and BNDES in 1952. In Peru, Banco de la Nación and CFD were the first two development banks created at the end of the 1960s and beginning of the 1970s, while all the Colombian development banks were created in the 1980s and 1990s. The youngest development banks studied are CDB and the two Peruvian banks, Fondo Mivivienda and Banco Agropecuario created after the mid-1990s.

In the case of Colombia, these dates can be misguiding. Thus, it is worth noticing that the first development bank was Instituto de Fomento Industrial (IFI), which was created in 1940, as part of a Latin American wave with the major objective of promoting manufacturing development, and was absorbed by BANCOLDEX in 2002, and the other banks created in the 1980s/1990s were established to administer

the old development funds, which were previously managed by the Colombian central bank since the 1950s.

Unsurprisingly, a common feature that the universal development banks share is their large scale. In general, the three universal banks studied are larger than the specialized banks, except for CDB, which is the largest and most influential development bank in China as well as among the set of banks studied in this book. CDB's assets rocketed up from 1.9% of China's GDP in 1994, when it was created, to 18.6% of China's GDP in 2015. Meanwhile, both KfW and BNDES's overall assets represent about 15% of the size of the German and Brazilian economies, respectively. In the case of the system of specialized development banks, the overall share of all four Peruvian state-owned financial entities studied is around 8% of GDP, while the overall share of all the four Colombian development banks is about 3% of GDP. In the case of one specialized bank, NAFINSA, it has been downsized and its total assets represent at present about 2% of the size of the Mexican economy. CORFO's overall assets, at around only 1% of Chile's GDP is proportionally even smaller, and a much-reduced proportional size of what it was decades ago (Figure 1).[3]

[3] As pointed out, certain sectors-like agriculture and infrastructure are funded through other institutional mechanisms, both public and private, in Chile.



Source: Banscope and NDBs.

As discussed in the introduction to this concluding chapter, in our view the relative size of these development banks is insufficient in several Latin American countries to overcome the challenges faced by their economies and, especially, to make the structural transformation that they require.

These thirteen banks also have different business models to carry out their lending operations. Banks like KfW, CORFO and the Colombian FINAGRO and FINDETER are exclusively second-tier banks that do not directly lend to businesses or consumers and, instead, rely on the network of commercial banks or other financial intermediaries to assess risk, provide the loans and guarantees, and monitor repayment. Meanwhile, FDN and CDB, both oriented to providing financing to infrastructure projects, are first-tier institutions. There is also a set of banks, such as BNDES and the Peruvian banks, that lend through a combination of first- and second-tier operations. NAFINSA and BANCOLDEX also have both operations, but their first-tier credits are very limited.

NDBs offer different financial products, mainly credits, including long-term loans through project finance in the case of the infrastructure projects, subsidized interest rate loans for special projects or sectors, liquidity lines, or credits to help SMEs rediscount their bills. The major exceptions are CORFO and NAFINSA, whose main financial support to the private sector in recent years has been through loan guarantees to financial institutions; NAFINSA has also been innovative in using reverse electronic factoring for supporting SMEs. All banks also provide other non-financial services, including advising, project structuring, technical assistance and training, and portfolio administration.

Regarding their funding strategy, these banks fund their operations in the domestic or external markets with a mix of sources that goes from fiscal resources to loans, bond issues and deposits. BNDES and CORFO are highly dependent on fiscal resources, particularly, transfers or loans from the national government. In the case of BNDES, this growth of public transfers revived an old controversy on the validity of its funding strategy, whose main problem lies in the lack of private long-term financing, as capital markets are underdeveloped, and real interest rates are high in Brazil. KfW and CDB are essentially financed by the issuance of bonds on the capital markets, with both being the largest bond issuers in their countries. The fact that they receive the same credit rating as the government is an advantage on the bond market as they can borrow cheaper than commercial banks. CDB has also contributed to developing the yield curve of benchmark interest rates as its bonds are now regularly issued and highly liquid. Banks like NAFINSA and the Peruvian banks (except for Banco de la Nación) are mainly funded by internal and external loans from

Multilateral Development Banks and other international banks. This situation has been a problem for the Peruvian banks, as they have ended up increasing financial dollarization, due to their high level of dollar-denominated debt. The Colombian BANCOLDEX and FINDETER mainly rely on domestic-term deposits (about 60% of their liabilities), while FINAGRO has a peculiar funding strategy as it benefits from an old mechanism of directed credit, as discussed in the chapter on Colombian development banks.

Although most national development banks are essentially owned by the national government, as part of its transformation process FDN has a different shareholding structure with participation from multilateral development institutions and one international private bank, that has obvious implications for the governance of the institution: while in the traditional solely public development banks the government names the president and usually a minister heads the board, in the new FDN, the strategic investors chair the board and have veto power over crucial decisions.[4]

III. DBs play roles and provide services that cannot be done by markets.

Development banks have played key roles in the development process, by contributing to tackling not just the main market failures in the financial system, but also helping fund structural transformation, via mission oriented finance (see the framework chapter 1 and chapter 10 by Mazzucato and Penna). This is associated with five crucial roles in the development process: counteracting the pro-cyclical

[4] In this regard, FDN follows OECD principles. If boards of development banks cease to be chaired by a minister, this might help avoid possible political capture, an alleged potential source of inefficiency, but has the disadvantage that this might undermine the alignment of the banks' priorities with government strategies, so crucial for them to be valuable instruments for national development plans.

behavior of private financing, promoting innovation and structural transformation, enhancing financial inclusion, supporting the financing of infrastructure investment and promoting environmental sustainability and green growth. The development banks studied, broadly play these roles, and supply the necessary resources to investment, unavailable in the private financing system for those crucial aims.

One possible exception are the Peruvian development banks. Over the last twenty-five years, the Peruvian governments did not give the four development banks a sufficiently large role in tackling the main market failures or in participating in strategic tasks such as diversifying the economy's productive apparatus and closing the infrastructure gap. Therefore, the development activities undertaken by these banks were not significant.

A valuable function of development banks is their counter-cyclical role when private lending falls sharply or collapses, particularly during and in the aftermath of financial crises. Banks such as KfW and CORFO, but also the others studied, have played a relevant counter-cyclical role. In the case of KfW, once the crisis reached the real economy in the fall of 2008, KfW expanded its on-balance sheet loans, and its programs became a major policy tool for the German government when implementing the governments' economic stimulus packages, including, for instance, SMEs lending programs and liquidity lines. Similarly, during the 1982/3 and the 2008/9 crises, CORFO played a counter-cyclical role by increasing its credit to enterprises and guarantees for credits to banks. In both cases, the role played by these banks have been crucial to helping maintain long-term investment, mitigate the business cycle and help prevent financial crises from deepening.

More broadly, there is also a small but growing body of detailed empirical evidence that national public banks provide counter-cyclical finance. Brei and Schclarek find robust evidence in chapter 11 that, during financial crises, national development increased total lending in response to crises relative to normal times, while private banks decreased the growth of lending relative to normal patterns. Indeed, once a crisis occurs, national development banks expanded lending at a higher rate: 10.6% per annum compared to 6.2% for private banks. This counter-cyclical behavior of national development banks is even stronger when considering corporate and commercial rather than total lending.

Given the pro-cyclical nature of private finance, the counter-cyclical role of NDBs should be seen as a complement to counter-cyclical fiscal and monetary policies. Indeed, in the global debate that took place during the North Atlantic financial crises, the counter-cyclical role that Multilateral Development Banks should play became a widely accepted principle –which of course also applies to NDBs. This means not only expanding NDB financing during crises but also moderating it during booms. And it means, of course, that the additional financing extended during crises should follow sound lending criteria. The overextension of credit should thus be avoided. Some analysts have criticized the counter-cyclical role of BNDES during the North Atlantic financial crises because of inadequate lending standards and the large-scale use of subsidized credit funded by the national government.

Moreover, development banks have played a key role in fostering innovation and entrepreneurship in national economies. As Mazzucato and Penna argue in

chapter 10, there is mounting evidence that patient, long-term committed finance, for mission-oriented investment in innovation, has been fostered by national development banks. In fact, NDBs are increasingly providing long-term committed venture capital for innovation projects. Because these projects are risky and uncertain, and nobody knows the 'odds' of success, private finance shies away from supporting them, thus making the role of NDBs crucial. If successful, these projects generate positive externalities, inducing further innovations.

KfW, for example, invests in the modernization of industries and has encouraged the development of new sectors, like renewable energy; CDB, as one of the most active NDBs, has supported and nurtured new ventures and innovations since the 2000s, and BNDES began to experiment with financing programs targeted at high-tech firms and innovation development in the 1990s. BNDES has a venture capital fund CRIATEC, whose results are striking: in its first four-year existence, the value of the CRIATEC portfolio grew at a rate 50% per annum.

CORFO has provided long-term resources to expand the role of risk capital funds and developed initiatives to support the development of non-banking financial intermediaries. Moreover, CORFO created its Start-Up program, which has received international recognition. This program has also encouraged the modernization, improvement, and broadening of the policy mix to support these companies in Chile. For example, relevant regulations have been simplified, and financing has also been expanded to support different phases of the projects. Finally, CORFO has helped design a more detailed industrial strategy. However, it lacks sufficient scale to deliver significant impact.

BANCOLDEX, as a bank for entrepreneurial growth, manages a specific innovation program, iNNpulsa Colombia. The program supports innovation for business growth for firms of all sizes and ages, and in all sectors and regions of the country, and has defined three strategic areas of action: interventions to generate a culture favorable for business growth based on innovation, correction of market failures –in particular by connecting actors active in the supply and demand for innovation—and strengthening regional agents promoting innovation and entrepreneurial development. Among its specific instruments, the national network of 'angel investors', which it co-finances, and different regional initiatives to promote the incubation and growth of firms, promote training in technology transfer and commercialization, and support strategies to promote rapid business growth.

There is also much agreement about the important role that national development banks do and should play in providing access to financing for microenterprises, including family agriculture, and SMEs (MSMEs), especially but not only long-term credit. A common rationale for development banks to provide financing for MSMEs is that these tend to be too small, implying high transactions costs, and risky to be of interest to most commercial lenders. Regarding this, development banks like NAFINSA, CORFO, KfW, BANCOLDEX and FINAGRO, among others, have provided financing to reach different segments of MSMEs and meet their distinct needs, through a series of instruments, mainly second-tier credits, first-tier lending to associations of producers, and guarantees. These products are channelled essentially through different types of financial intermediaries: commercial banks, specialized financial institutions, and micro-financing institutions.

In the case of NAFINSA, 71% of its second-tier credit has gone to an innovative program, Productive Chains, which helps potential borrowers rediscount their bill, through an electronic platform. NAFINSA also provides guarantees to improve the conditions under which loans are granted and to increase the overall supply of credit. These guarantees are *pari passu* and first-loss and, participant firms do not directly apply for the guarantee and neither are aware of the benefit of having such guarantees to avoid moral hazard. In the case of BANCOLDEX, close to half of its rediscounts are destined to MSMEs, which are complemented by the guarantees externally provided by the national or regional guarantee funds. BANCOLDEX also manages the major government program to support financial inclusion, Banca de las Oportunidades. Among the achievements of this program, it is worth mentioning the design and promotion of a program of bank correspondents in municipalities or poor urban neighborhoods where financial institutions are absent. By 2016, all Colombian municipalities had at least one correspondent. FINAGRO is also active in financial inclusion but exclusively focused on small and medium-sized agricultural producers.

Furthermore, national development banks are especially well-suited for infrastructure financing, as they can provide the long-term financing needed for infrastructure investment to become profitable, given the large scale of the initial investment and the long period of time for amortization. Development banks can finance at relatively low cost, as they often have very high credit ratings and can, therefore, borrow relatively cheaply on capital markets and pass on that cost advantage to their borrowers. This role is particularly crucial as the deficit in infrastructure investments has created enduring challenges for many countries. Banks

like CDB, FDN, FINDETER and BNDES are very active in long-term infrastructure financing. Additionally, these development banks have been also important players in the financing networks sponsoring sustainable infrastructure projects.

CDB has been a key player of the development of the Chinese financial market and credit system by reshaping the local government credit system, including through a local government financial vehicle (LGFV) model. As local governments had restricted capacity to invest in infrastructure, in 1998, CDB created a model in which the local government creates a company (LGFV), a legal person registered as a local state-owned enterprise. The local government promises to inject its quality assets to the LGFV, and if these assets—e.g. highways—are profitable, the LGFV can take the future profits as collateral and borrow from CDB. Under this model, loans can be bundled and local government revenues –including those associated with profits from managing land owned by local governments— can also be transferred to the LGFV. Despite its benefits, it seems that LGFV model had opened a Pandora's box as with the explosion of local government debt burden, this model had made financial supervision less effective.

BNDES, as part of the government's initiative to build the market of infrastructure bonds, expanded guarantees-sharing clauses in its financing contracts, equalizing the level of seniority of bondholder to loans it co-financed. Through its subsidiary BNDESPAR, it has also bought stakes in companies that could prospect for new business in the sector. Thus, BNDES ended up assisting the federal and state governments structure concessions for the private sector and PPP.

In the case of the two Colombian banks, FDN has developed a myriad of products –senior and subordinated credits and credit enhancements— to catalyze resources into infrastructure projects, mainly highways, using project finance arrangements. In turn, FINDETER has continued providing rediscount facilities for urban and local projects and has been very instrumental in the implementation of a series of key programs of the national government with a strong regional content.

Finally, in terms of green growth, development banks bring the advantages of accumulated expertise, administrative efficiencies, and convening power. They can help mobilize additional funding, design the necessary policy frameworks, and implement effective projects that can showcase the viability of certain green investments, as in renewable energy. Thus, KfW, BNDES, CDB and CORFO, for instance, have played an important roles in supporting the development and use of green technology.

This has been particularly important in the case of KfW. One prominent aspect of this institution's mandate is the support of the structural change towards a low-carbon economy. This is particularly evident in two areas: energy-efficient housing for consumers, and energy saving and renewable energy promotion for businesses. In energy-efficient housing, KfW contributed to the design of the strategy put forward by the Ministry for the Economy, defined the standards for an energy-efficient house, engaged in monitoring and evaluation, and provided loans at slightly below-market rates. In improving energy savings and the use of renewables by businesses, KfW, for example, has engaged in all stages of the policy cycle of a program targeting SMEs using clean energy.

CORFO helped design a National Strategic Solar Industry program, and as part of it, designed specific credit lines to provide stable funding to producers capable of adapting to local conditions and fostering local value added. BNDES has a technology fund FUNTEC, which targeted resources to very specific technologies, such as alternative energy, specifically bioenergy, solar energy, and thermal energy; nanotech and biotech solutions to address issues of waste disposal, land and water pollution; bio-electronics, specifically *organic* electronics and other innovative integrated circuits; new materials; biochemistry; and electric-drive vehicle. CDB invests significantly in renewable energy projects as well; this was crucial as Chinese solar panels are playing such a central role in solar energy worldwide. The CDB has indeed a track record of funding alternative energy firms to develop their technologies, such as for example the solar company *Yingli Green Energy*, which has a US$ 5.3 billion line of credit opened for it at CDB.

IV. The challenges for development banks regarding financial regulation

The new financial regulation framework, particularly Basel III, might bring significant challenges for national development banks. According to Barros de Castro in chapter 9, although some new requirements in Basel III do not seem to be problematic for development banks, such as the treatment of liquidity risk or of derivatives, there are other issues that might be a source of concern, notably the bias that it generates in private finance against long-term lending, the management of concentration risks of NDBs, and the rules regarding counter-cyclical capital cushions.

Liquidity risks are less relevant to development banks, as they have limited difficulties in managing the maturity mismatch between assets and liabilities. The long-term liquidity risk indicator (NSFR) aims to ensure that banks avoid severe term mismatches under normal conditions, considering the one-year horizon. The core business in DBs risk management is, precisely, managing the mismatch between assets and liabilities. However, NSFR may increase the short-term bias of the private market, and thus reduce long-term lending. This may increase the demand for medium/long-term lending from DBs, especially for infrastructure.

With regard to concentration risk, the problem is more serious, because its treatment has been systematically revised in the direction of greater severity. This is working against the global infrastructure agenda, for which large project finance leads to high levels of portfolio concentration. DBs are seen as a key instrument to overcome the large gap in infrastructure projects, where the risks are much higher. Revising the associated rules is thus essential if they are going to play a key role in this area.

Furthermore, the addition of counter-cyclical cushions should be assessed carefully in terms of their relevance to development banks. As Barros de Castro argues, if it is accepted that DBs should act anti-cyclically, does it make sense to apply the cushions to these institutions? It may simply be dysfunctional for the economy as a whole and work against broader principles of macro-prudential regulation.

It is also expected that Basel IV will diminish the incentives for the development of internal models, moving towards the adjusted standard models. This change decreases the possibility that an institution develops more suitable metrics, reflecting their idiosyncratic characteristics and, in the case of NDBs, their development mandate.

Thus, a dialogue should be maintained between national development banks, national financial regulators and the Basel Committee to enable development banks to have an active role in infrastructure lending and in the provision of counter-cyclical financing. This includes specific regulation of concentration, which should also apply to other banks involved in infrastructure financing. Maintaining the possibility of internal models relevant to the evaluation of risks may also be a critical issue, given the idiosyncratic features of NDBs.

V. The link of NDBs with national development strategies

It is interesting that NDBs not only operate better with clearer policy mandates, but can also help shape development policies, as happened especially in Germany and China, and to a certain extent in Brazil, Colombia and Chile. Thus, KfW helped shape German government policy on energy efficiency, based on its previous experience and technical know-how. More broadly, KfW has impacted how the German government implements domestic economic priorities, and it dynamically engages with the government at all stages of policy design and implementation. It has thus routinely assisted the government in selecting targeted policy areas, designing projects and programs, implementing and financing them, monitoring the progress, and finally judging the results and informing the next iteration of the programs. In this

way, KfW can create and expand the policy space in which it operates, achieving policy synergy for maximal benefit.

Indeed, if countries have a fairly clear development strategy, development banks may often be more effective in funding it than government departments, as NDBs may have more technical expertise and accumulated knowledge, and can leverage public resources. Indeed, well-run NDBs seem to be in a privileged position for funding structural transformation, in that they know more about policy than commercial banks and know more about private financing than government departments. In any case, having good governance of NDBs is essential, which means both an important level of autonomy to manage themselves as efficient businesses, but also clear links with both the public and the private sectors. Well-governed NDBs can make a significant difference in terms of strengthening state capacities in areas such as production sector strategies, infrastructure development, financial inclusion and green growth.

In this regard, it should be emphasized that the nature of financial and other support that NDBs need to give today and in the future is different to that required in the past. In the developing world, NDBs were mainly involved in previous decades in financing ‘catch-up growth’, based on existing technologies, whereas at present NDBs need to play a role in supporting innovation and its adaptation to new firms and sectors. The new kinds of support needed naturally influence or even determine the appropriate instruments NDBs should deploy.

In this sense, the research in our case studies showed new and interesting trends in the instruments NDBs use. In the case of lending, there has been a shift from first tier to second-tier lending. However, first tier lending can still be an important instrument, notably in the case of infrastructure. First-tier lending has the virtue of allowing NDBs a more direct impact on implementing development priorities; however, it is far less convenient for loans or other transactions to many, especially mid-sized and smaller companies.

In several cases, especially CORFO and NAFINSA, but also more generally, there has been a trend towards far greater use of guarantees, with a relative decline for more traditional lending. Though guarantees are clearly a valuable instrument, especially for providing access to companies without sufficient physical assets to offer as collateral and can allow for additional leverage of the development banks' capital, they often need to be complemented by other instruments. This is particularly the case for lending to new sectors or activities, where uncertainty and therefore risk is far higher and private commercial banks may be unwilling to take such larger risks, especially in loans of long maturity. In this sense, KfW –with its continued far greater emphasis on lending, in spite of the high level of development of German banking and capital markets—, seems to offer valuable lessons for Latin American NDBs.

Direct investment by NDBs in companies used to play an important role in NDBs in Latin America, but has been downsized. There is, however, an interesting surge of indirect investment by NDBs, through equity and debt funds in key sectors, like green energy. There are specific important programs to support innovative start-ups and lengthy innovation, where private capital is often too short-term oriented, as

well as new programs to support entrepreneurship, like CORFO's Start-Up Chile, emulated in several other Latin American countries.

An important instrument continues to be subsidies or grants, to sectors that the state considers important to support, either due to externalities –e.g., environmental linked to lower CO_2 emissions— or for achieving greater financial inclusion –e.g., lower interest rates to smaller producers. It is important that such subsidies are transparent and clearly targeted; it may be desirable that they be temporary, if the effects of an externality tend to decline through time –e.g., a cheaper technology introduced for renewable energy that is gradually adopted by other firms.

More generally subsidies can be granted through explicit fiscal transfers, for example to fund high risk R&D, with potentially high development, and even commercial impact. They can also be granted for supporting training and education, to help increase skills. However, grants can also be given through subsidized interest rates, especially to smaller or poorer producers. Combining loans or guarantees with subsidies is easier for NDBs than commercial banks, as they are closer to policy-makers, who can better help design and monitor such schemes.

To conclude, the range of instruments NDBs deploy should be broad. It is both valuable to introduce new instruments but also to rely on well-tested effective mechanisms, such as loans.

VI. Future research questions

We hope to have contributed, through our research in this project and book, to an understanding of the positive role national development banks have and can in the future play in the development process, in low-income, emerging and even developed economies.

There are several outstanding questions for future research. These include:

1. A deeper understanding of modalities to best fund NDBs, in countries of different levels of development and depth of capital markets.

2. Further research on the most effective instruments for NDBs to channel funds, in the face of old and new development challenges, such as for example innovation in renewable energy. Also, what type of loans and credit lines could be used to make NDBs disbursements more counter-cyclical? How best to capture the upside, in loans that support activities with large potential profits? And, more broadly, what financial mechanisms are best suited to promote innovation and entrepreneurship?

3. Are universal national development banks more effective or is it better to have more specialized development banks?

4. What are the elements that make an NDB most effective for fulfilling their development mandate. More specifically, how can governance of NDBs be best further improved?

5. What are the political economy dimensions for generating support for creating NDBs in those countries where they do not exist, and maintaining their scale or even expanding them, where required, to achieve key development objectives? And what is the political economy for ensuring they are well governed and well run?

During the period of strong emphasis on market reforms, NDBs became almost a forbidden topic. The limitations that market reforms (especially in the financial sector) have shown in many parts of the developing world, the persistence of strong adverse distributive trends, the new challenges posed by the major environmental challenges phasing the world, and those posed by strong financial crises, some of global impact, have put the issue of the role of NDBs back in the agenda. Contributing to this emerging debate has been the central objective of this volume.