FUTURE OF DEVELOPMENT BANKS
Stephany Griffith-Jones

This is a common framework of analysis for the seven case studies. The cases are going to be: two from outside the region (KfW in Germany and CDB in China) and five case study from the region (Brazil, Peru, Chile, Colombia and Mexico). The Peruvian case will not be presented during this kick-off section.

This framework paper has been written collectively by Stephany Griffith-Jones and Jose Antonio Ocampo, with a lot of inputs from Felipe Rezende and Alfredo Schlarek, two young scholars. The project will be focusing on second tier national development banks mainly.

The first point I want to make is there has been renewed support for development banks, in the wake of the 2007/09 North-Atlantic financial crisis. This is very clear for example in Europe, where new development banks have been created in countries like France and Ireland; and where the European Investment Bank (EIB), a big regional development bank, has considerably increased its resources (capital expansion). Yesterday and today, a sharp increase of the Juncker Plan has been announced by 200 billion euros, extending it for another two years. KfW's capital has also increased in a significant way. Furthermore, the creation of the new BRICS's development bank, where Brazil plays an important role, and the creation of the Asia Infrastructure Investment Bank (AIIB), which is a massive bank, where currently 57 countries have joined as member, and that it is targeting to lend 150 billion dollars up to 10 years. And there are also other Chinese and Asian initiatives. We have a very big push for infrastructure of development banks.

Part of the origin is that since the crisis, we have seen the limitation of a purely private financial system. Private banks are extremely pro-cyclical, rationing credit during and after crises (this have been particularly the case for SMEs and for long-term lending, for example, for infrastructure). Private banks, sometimes even in good times, are not willing to finance SMEs or long-term infrastructure, areas that are very uncertain, and I think is very understandable, specially after crisis. We have seen this after every crisis in East Asia and Latin America and now we are seen this in Europe. There are instances where the private sector does not want to lend and therefore, there is an important role for public development banks.

More broadly, we have defined in this paper at least five crucial roles that national development banks can play in the development process:

- promoting innovation and structural transformation, which are inherent to dynamic economic growth
- supporting the financing of infrastructure investment, which is also crucial for economic growth;
- counteracting the pro-cyclical behavior of private financing;
- enhancing social inclusion (notably financial inclusion in the case of development banks);

- supporting environmental sustainability and “green growth”.

The idea is that in the case studies, each country author will be choosing the areas that are crucial for the development banks.

It is interesting to stress that institutions like the World Bank, which in the past were quite critical of national development banks (encouraged NDBs in Africa and Latin America to close or reduce their scale), have, since the 2007/09 crisis, become increasingly supportive of these institutions. Thus, the World Bank has carried out a global survey of national development banks which concludes that “DBs with clearly defined mandates, high corporate governance standards, strong risk management capability, proper regulation and supervision, and a strong management team have been successful.” There is a shift in the international discussion toward development banks.

The development banks, even though there have been these cycles of ideas, have been creating independently of economic cycles and the cycles of ideas. In the financial literature we have this idea that financial institutions should diversify (have a diversified portfolio). Having a more diversified financial structure may have several advantages, including for competition and financial stability: Firstly, it may encourage competition between different types of financial institutions, which could lead to them being more efficient, for example in reducing the spreads they charge. Secondly, a more diversified financial system, especially if not having inter-connected risks, could lead to less systemic risk and therefore contribute to financial stability, making the financial sector more resilient to crisis. Further research on this topic would be valuable. Thirdly, if different varieties of financial institutions have different strengths. Having a more diverse system could make it more likely that the financial sector functions needed to help achieve inclusive growth are achieved, than if the structure of the financial sector are determined spontaneously, or dominated by one type of financial institutions, be they small or large, private or public, national or foreign.

One important feature that is often not stressed enough is the value that development banks can provide long-term loans. There is also, especially in Latin America, the state vs. market debate. I think development banks are actually mixed institutions, they are owned mainly by governments but work (collaborate) closely and effectively with the private sector. They get funding in the local or international capital markets, co-finance with the private sector and lend to private actors. They are public institutions and perform public targets; and are successful in the way the collaborate with the private sector and are useful for allocating funds for strategic targets (fulfil this target when you have new challenges, such as green growth).

Finally, it is a very good way if the country is fiscally constraint (e.g. Latin American and European countries right now). Development banks are a very useful way of using fiscal resources because you get a lot of leverage. For example, when the capital of the European Investment Bank was increased by 10 billion euros, it is estimated that it led to provide loans by 180 billion.

I want to stress the importance of having good development banks. They have to have a good governance, transparency, accountability, clear aims, provide the right incentives, be carefully monitored. It is not only about lending a lot of money; it is to be fully equipped to perform its functions.

FEATURES:

- Typically, DBs are institutions owned, administered, and controlled by the government (state). The government provides the strategic direction of the DB and appoints their senior management and board members
- NDBs often lend to SMEs, internationalization of national companies, green economies infrastructure, innovation. Clear commitment to these sectors.
- In terms of lending conditions, NDBs lend mainly long term (long term maturities over 10 years).
- As a proportion of GDP, the largest national development bank is KfW (Germany), the second one is the Chinese Development Bank (CDB) and the third largest is BNDES (Brazil). If you look it as a share of the financial sector, BNDES is actually the largest development bank, because capital markets are less developed in Brazil than in these two other countries.
- These big national development banks have a very low delinquency rate. They have relative small losses with the exception of Spanish ICO (that is probably worsened significantly by the Eurozone debt crisis).
- In term of funding is interesting that a very large proportion of these development banks borrow in international and national capital markets and from other financial institutions. And 50% receive Government's contributions.

These give you a flavor of some of the main features of the development banks. So now I want to talk a little bit about the different roles:

The first role I want to talk is countercyclical lending, that is very important for maintaining level of investment, allowing continuity of productive investment, so the development process is not interrupted. Luna-Martinez and Vicente (World Bank) have provided evidence that the NDBs increased their lending from US$1.16 trillion to US$1.58 trillion dollars between the end of 2007 and the end of 2009 (36%) across all the countries.

There is also an evidence, pointed by other authors, that when a NDBs is bigger, the impact of its countercyclical role is magnified. For example, when a development bank is relative small, represents 10% of financial credit, even if you increase credit by 30%, you will not compensate the pro-cyclical reaction of the private sector. One argument in favor of big development banks is that they can perform better their countercyclical role.

The second role is the promotion of innovation and structural transformation (dynamic economic growth). Many prominent authors have shown the key role that development banks can play to promote specific sectors, increase productivity and boost innovation. There is an important role, particularly now, in catalyzing research and development and also in cumulating knowledge.

A third role is enhancing financial inclusion. NDBs can play a role in providing access to credit to those who do not have sufficient access, to improve employment levels and income distribution. You have people who are poor or companies that are too small that do not have access to credit, creating a kind of vicious circle where people/companies who are small and weak will not be able to grow and develop. This has to be carefully done. As we saw from the subprime crisis, it is not only an issue of throwing money to people that cannot afford it, this has to be properly. The Canadian Development Bank is very successful lending to SMEs. So there are an important number of positive experiences with good incentives and with a structure of lending that allows the SMEs to pay (probably not lending directly, but throw rediscount facilities to financial intermediaries). It does not mean that always have to be NDBs, small private banks, community banks, cooperative banks can also do it.

A forth role is infrastructure. Rogerio Studart and other colleges have emphasized on the value added of infrastructure and the role that NDBs can play in reducing costs, identifying risk projects, leveraging, and so on. NDBs can coordinate with private actors. When you have crisis/recession, long-term funding dries out from the market, and even in good times. For that reason, it is very important to have national development banks.

Finally, the last role if financing the provision of public goods (green economy), where countries like Brazil have a lot of potential. KfW is widely seen as having played a positive and leading role in the growth and structural transformation (e.g., to a green economy) in the most successful European economy, Germany. KfW plays a catalytic role is precisely what a development bank should do, to kick-start a major structural transformation, by funding and show-casing new technologies and sectors. Thus KfW Germany successfully crowded-in private financing.

Other roles that development bank can play include for example helping develop and deepen financial markets, promote entrepreneurship, and promote internationalization of national companies. Though very important, given the need for focus in our study and the number of roles we are already looking at, we will not develop them here, but just highlight their importance.

BRAZIL
Brazil needs transformational investments: is BNDES ready?
Rogerio Studart

The question about the future of development banks should start with the future of the nations. Today I want to talk about the future of Brazil and what BNDES can do. The structure of the presentation is the following:

- Part I –: Transformational investments and the role of national development banks (part of the recent study done with Brooking and Boston University - GEGI)
- Part II – Brazil: one of the most significant transformation Brazil needs to take is infrastructure investments
- Part III – BNDES as an agent of structural transformation: strengths (capabilities) and challenges have (the case of sustainable infrastructure)

Definition; NDBs should be seen/defined as mission-oriented institutions that can promote transformational investments and help overcoming development bottlenecks and other social challenges.

<u>PART I:</u>

We will build on the findings of a recent Brooking/GEGI study, based on the following questions:

- to what extent are NDBs playing a significant role in domestic development finance?
- to what extent they are involved in infrastructure?
- to what extent are they committed to sustainability?

We looked at six NDBs cases: China, Brazil, India, South Africa, Korea, Germany, Algeria, Angola and Nigeria.

Why do we choose sustainable infrastructure (anything that it is related to energy production, transportation or mobility that is at the same time related to infrastructure, but also raise sustainability)?

- Infrastructure investments have one of the highest income and job multipliers among all the potential investments
- Sustainable infrastructure investments are technology-intensive, creating a frog-leaping effect on several parts of industries
- Help overcome known development bottlenecks - in energy provision, transportation and urban mobility, increase productivity and competitiveness, achieve inclusive and sustainable growth
- Are considered to be a key element to accomplish the 17 sustainable development goals

At the same time, it is very complex to get the involvement of both public and private agents in sustainable infrastructure. Infrastructure project are very complex to finance. These investments carry significant risk-management challenges in life cycle, particularly during pre-completion. When you add to that to the technology requirements for sustainable infrastructure, the complexity of the risks that you are taking become quite overwhelming. So you have a double challenge there: one to deal with the asset type of infrastructure and the other with the technology transformation related to sustainable projects.

If you want to look in any case or in the particular case of Brazil, the country is facing a crisis that is not only short-term, it is also long term and has dynamic causes. In this sense, you have to be able to focus on transformational projects that at the same time have high macro-multiplier, increase productivity and competitiveness, introduce innovation and have externalities.

Some conclusions that can be extrapolate from the Brooking/GEGI study to our analysis of NDBs and BNDES are:

- NDB are mission-oriented institutions; therefore, their strategies and policies should be integrated into a national development strategy, articulating with focal ministries and agencies. In Brazil, we are struggling with this.
- NDBs should have significant comparative advantages (irreplaceable) in:
    - Project origination and development
    - Better understanding potential social and environmental risks
    - Understanding technological and financing constraints
    - Promoting projects that that greater local social and development impacts
- NDBs normally deal with transformational investments (e.g. infrastructure) but some recurring market failures (e.g. SMEs)
- NDBs' mandates should evolve according to changes in societal needs. It is not always the same; need to mainstream exit and market enhancing strategies. KfW is a good example.
- NDBs can facilitate innovative financial engineering, coordinating with private financial institutions and promoting the development of new instruments.

<u>PART II: BRAZIL: WHY INFRASTRUCTURE?</u>

Brazil has significant short-term challenges, as is facing an important crisis right now, that have long-term roots, it is a crisis of dynamics related to:

- Downward trend of industrial investments that generates a lagging factor productivity
- Very sophisticated, but short-term private financial institutions; shallow capital markets; and public financial sector
- <u>*Major issue:*</u> significant infrastructure and logistics gaps, contributing to near-to-the-ground factor productivity and low competitiveness (it has never been properly addressed)

The decline of public investments in infrastructure led to enormous gaps. Furthermore, private investment in infrastructure has never taken off. The causes for that are complex. Infrastructure has become a significant bottleneck for sustained growth, for productivity and business, and for competitiveness, you can see that if you look at any index.

PART III: BNDES AND STRUCTURAL TRANSFORMATION: STRENGTHS AND CHALLENGES

BNDES is one of the largest and most efficient NDBs in the world. BNDES has had a great performance in comparison with other international NDBs. BNDES expansion in the recent past has been extraordinary. If you analyze, BNDES's mandate, it has been an overlapping, which means that there is a policy failure that indicates that when BNDES enters in one sector, it can never leave. This policy failure is associated in first place with the incapacity of a creation of a reasonable yield curve. We still have one of the highest short term interest rate, that make very difficult to develop any private capital markets. The second policy failure is the problem of no private long-term credit. The third policy failure is the fact that the funding became increasingly dependent on semi-fiscal sources. The forth policy failure is the attempts to crowd-in private resources moving, but slowly. Infrastructure bonds have performed relatively well. Local issuers have already sold more than 15 billion reais ($3.8 billion) of the instruments in the local market. This amount, while significant, is minor when compared to total country-wide investment needs.

One of the challenges of BNDES in supporting transformational investments to be addressed in the paper is the engagement in national and subnational development strategies. The problems defining strategies at the subnational level are even worse than at the national level. We have a problem because national and subnational governments still to define it (where we want to be); the private sector is divided and incapable of putting together; and public opinion still divided. The second challenge for BNDES is the involvement in project origination and development. Need of build internal capabilities for project origination. The third challenge is to face the funding structure and selectivity. In this matter, dependency on semi-fiscal resources create "political economy" challenges, domestic interest rate structure is still inhospitable and international funding is too risky given currency risk. The forth challenge is leveraging and "crowding-in" capacities, as private long-term sources are scarce, institutional investors are still concentrated in short-term bonds and now some in trouble and regulation in Brazil is extremely biased towards a risk-averse investing behavior and it has become even worse with Basel III.

MEXICO – NAFINSA
Mexico's modernization of development banks: NAFINSA's lights and shadows
Juan Carlos Moreno

INTRODUCTION:

Mexico has a long tradition of development banks. Seven major development banks were created in 1933-63:

- Banco Nacional de Obras y Servicios Públicos (BANOBRAS) in 1933
- Nacional Financiera (NAFINSA) in 1934
- Banco de Comercio Exterior (BANCOMEXT) in 1937
- Banco Nacional del Ejército, Fuerza Aérea y la Armada (BANJERCITO) in 1947
- Banco del Ahorro Nacional y Servicios Financieros (BANSEFI) in 1949
- Sociedad Hipotecaria Federal in 1963
- Financiera Nacional de Desarrollo Agropecuario, Rural, Forestal in 1926

Development banks in Mexico traditionally focused on two general goals: i) strengthen the domestic financial market and promote financial inclusion and ii) stimulate the structural transformation of the economy.

The original mission of NAFINSA, from 1940 until the mid-1980s involved building up the stock market, promoting financial inclusion, provide financial support at favorable conditions for capital formation in key industries and infrastructure. It worked mainly with SOEs and the Federal Government, and also acted as financial agents of the federal government; However, the Oil Bust in 1981 changed everything in development policy and in DBs in Mexico.

Neoliberalism brought a modern wave, in which development banks must play a subordinate role in regard to commercial banks; they should act as 2nd tier banks, complement of commercial banks; and intervene only to correct for market failures that could not be solved otherwise. A key policy change was to set capital preservation as top priority. DBs should be self-sustainable, and not put any pressure on fiscal resources. Organic law of DBs were changed to reflect the new mission, vision and instruments.

HISTORY OF NAFINSA:

In 1940-47 the most important public works projects of NAFINSA were irrigation, roads and bridges, dams etc. In 1948-54 investment in electricity and transport were predominant. In 1970-82, NAFINSA undertook numerous industrial projects, and was in charge of several large companies.

With the Debt Crisis of 1982, NAFINSA´s mission changed radically: it sold or divested its industrial forms, and ceased its key role as promoter of industrialization. The trust funds it had, devoted to such objective, were dwarfed, merged or eliminated. The New Organic Law limited its activities and stated that it could participate directly in investment projects only as minority partner (up to 15%) and form less than 3 years.

In 1989-92, its mandate was radically changed to first of all, preserve its capital and its sustainability, and then to promote financial inclusion, acting as 2nd tier bank, to focus on MSMEs, and was subjected to multiple regulatory and supervision constraints, most important it was set to comply with each and every rule as the commercial banks, later even ordered to comply with Basle III standards.

From the 1990s, in the context of its new mandate, NAFINSA gave greater emphasis to indirectly fund SMEs in commerce and service sectors, and not only in industry as before. Its aims were to give financial services to sectors that previously had no access to the formal banking system.

MEXICO'S RECENT FINANCIAL REFORM - 2014

The main justification of the reform was the fact that the financial intermediation is extremely low in Mexico; international comparisons put it in a lamentable place; even more regarding finance for private commercial-business purposes. Finance should be a handmaiden of economic growth.

The purpose of the reform was to i) increase competition in the banking sector; ii) promote much more credit through development banks; iii) boost credit through private financial and non-financial institutions; iv) maintain a sound and prudent financial system; and v) make more effective financial institutional regulation.

A key concern is that the reform should help to consolidate the macroeconomic stability of the country; while at the same time remove credit insufficiencies and rationing role as binding constraints on Mexico´s economic growth.

The main changes for NAFINSA introduced by the reform are the following:

- Need for new Mandate: The old mandate was misaligned with the objective of promoting credit given that its key function was to preserve and maintain the value of the capital. Thus credit stalled and was misdirected. The new mandate changes this, stresses that NAFINSA should aim to boost financial inclusion and funding to productive activities aimed at boosting productivity and economic development, considering capital sustainability. It is now not the top priority.

- Greater Flexibility: Gives more options to operate by giving more autonomy to the Director, reducing redundant supervisory instances. Allowing acquisition of securities of other credit institutions, or as collateral, as well as lending to maintain the operation of a production plant, over and above the previous limits as % of capital or in years of intervention. Eliminates constraints/consultations on hiring of services and improving human capital.

<u>NAFINSA TODAY:</u>

NAFINSA's financial perform is good in comparison with the other development banks. Some relevant indicators are:

- Capitalization index (2013) = 13.88
- Coverage Index (2013) = 248.39
- Operating efficiency (2015) = 0.90
- ROE (2016) = 4.95
- ROA (2016) = 0.33

A frequent classification of NAFINSA's financial support is by guarantees, credit and productive chains. In 2014, 50.5% of the portfolio were guarantees, 37.5% credit and 12% productive chains. NAFINSA provides credits and guarantees, -to promote financial inclusion of MSMEs- acting as 2nd tier bank with commercial banks and, to a lower extent, with non-bank financial intermediaries. Currently (2014), only 8.5% of its support is done in first-tier operations; mainly on large scale public work projects with the government. The vast majority of NAFINSA financial support is targeted to the private sector (97% in 2014). Additionally, NAFINSA's credits and guarantees are allocated more to services, then to commerce and, in a minor proportion to industry.

NAFINSA's total portfolio of direct and induced credit grew very rapidly between 2011 and 2014 (more than 35% in real terms). Its allocation of direct credit increased 85% (nominal), and guarantees by 60% (nominal), but the factoring program of production chains fell 31% (nominal).

The "Cadenas Productivas¨(supply chain), a flagship initiative of NAFINSA since 2001, declined in recent years as a number of the First Order Companies (Large private firms) –with typically very high levels of operations-left it. In part this was due to the surge of similar programs for Microfinance from commercial banks also based on electronic factoring.

A few years ago, the authorities regulated that entities in the Federal Administration should pay their SMEs suppliers through NAFINA´s "Productive Chains" program. At the end of 2014, 40% of the Federal Procurement Program thus related payments operated through this window.

In terms of microcredit NAFINSA has several programs: Entrepreneurs; Financing Program, Supporting Women Micro-entrepreneurs, Comprehensive Modernization Microenterprise, and the Business inscribed to the Fiscal Regime. This last program aims at extending the formalization of SMEs. None of these programs involved large amounts of funding, and may serve nearly as pilot, case studies for future operations at a greater scale.

NAFINSA has also been a key financial agent in securing funds from international financial organizations and donors in the external capital markets. Recently it floated a Green Bond signaling its return to the world markets, for the first time in 18 years. The rates and contracting fees, however, have and may be subject to critical assessment.

NAFINSA launched the “Programa Nacional de Franquicias” that allows SMEs to participate in a franchise with an interest-free loan through a financial institution that covers up to 50% of the costs to be reimbursed in 36 months. Between 2007 and 2011, the program resulted in 1,627 franchise outlets. Also a program of investment guarantees was created, to boost investment in innovation-oriented SMEs or in high value added activities over a period of 3 to 5 years. However, despite these initiatives, funds for venture capital have not reached a significant scale. The corporate culture, market concentration, and legal framework are not yet sufficiently in tune with such efforts; a pending task for the long term.

NAFINSA’s STRENGHTS:

In its new role, NAFIN has proven to be profitable, compliant with all indicators of sustainability even operating with the same regulations as commercial banks. It adjusted its practices to the shift brought about by the market reforms in Mexico in favor of open markets and the retrenchment of the State in economic affairs.

NAFINSA’s experience in boosting credit to MSMEs proves that as DB it can play an important (supportive cast) role -in collaboration with the private commercial banking system- to promote development by compensating for market failures in financial intermediation, not to mention as a financial agent of the Federal Government.

But what is its impact on financial and much more on economic development?

NAFINSA’s CHALLENGES:

Mexico remains as the country in Latin America with one of the lowest ratios, as a proportion of GDP, of banking loans to private activities (19%). Its domestic financial market is very shallow, highly concentrated and characterized by an acute exclusion of micro, small and medium sized firms, informal, with low technology and few workers.

More than 90% of firms in Mexico have no access to loans from the commercial or DB sector. Lack of finance is identified by the business sector and the academic community as a major obstacle to boost investment and growth.

The task ahead of NAFINSA (and DBs) to significantly improve finance’s availability, cost and orientation so that it stops being an obstacle and becomes an instrument to spur economic growth in Mexico is daunting.

Can NAFINSA, even with the most welcome changes introduced by the Financial Reform of 2014 become once again a key policy instrument for Mexico´s structural transformation conducive to high and long term economic expansion?

For this to happen, one condition beyond NAFINSA’s sphere of action should occur: The Mexican government should seriously consider adopting a new development agenda, different from the current one that is centered in keeping macroeconomic fundamentals as necessary and sufficient conditions for development.

CHILE
The case of Chile´s CORFO
Stephany Griffith-Jones

INTRODUCTION:

Chilean Corporation for Production Development (CORFO) was launched in 1939, which turned it into one of the first NDBs in the world, except for cases such as BGK in Poland and Ziraatbank in Turkey. In Latin America, it was certainly one of the first NDBs. At the time, the incipient project of Import Substitution Industrialisation (ISI) blended with the catastrophic consequences of the Chillán earthquake, set the stage for CORFO´s creation. In the initial period, it was an overarching and powerful institution that used to participate in the funding of over 30% of the investments in equipment and machinery, 25% of public investments and 18% of the gross capital formation.

CORFO created and played an important role in many of the key enterprises, central to Chile's development. These included in the initial years the enterprise for electricity distribution (ENDESA), steel production (CAP), sugar beet processing (IANSA), oil exploration and extraction (ENAP) and national airline (LAN). In the 1960s, it continued creating key enterprises, like that of telecommunications (ENTEL) and public TV (TVN).

In the Popular Unity government, CORFO played an important role in nationalizing enterprises, whereas during the military Government, it did the reverse, - playing a key role in privatizing many companies. Also during the 1982/3 debt and banking crisis, CORFO played an important counter-cyclical role, by both increasing significantly its credit to private enterprises as well as guarantees for such credit to banks.

When democracy returned, CORFO was in a very weak financial position, with $1.6 billion of liabilities linked to the privatization process and over $700 million of impaired loans. There were then voices that raised the possibility of dissolving CORFO, but the view prevailed that CORFO should continue to play a key role in supporting private investment, for achieving productive development. CORFO managed to improve its financial position, and focus on its new tasks. Furthermore, its credibility was enhanced both by a series of independent evaluations of impact, as well as clear guidelines and challenges posed to CORFO by the Ministry of Economy.

In terms of modality of operation, following suggestions made by the World Bank, CORFO switched from giving credit directly to becoming a second tier institution providing credit and increasingly guarantees, through financial intermediaries.

Currently, it implements the long-term strategic goals determined by the fairly recently created National Council for Innovation and Competitiveness (CNIC), which advises the Executive and Legislative branches of Government. (Ministerio de Economía, 2015). Several Ministers sit on the Board of CORFO. Thus CORFO is closely linked to the development aims of the Government, whilst having also a close dialogue with the private sector.

In 2015 CORFO had assets worth U$S 6,272 million, which represent 2.61% of GDP. When analysing its composition, we can note that total stock of debt granted by CORFO to private companies, U$S 1,162 million, represents only 0.48% of the total domestic credit to the private sector. This makes CORFO significantly smaller in scale, compared to the size of the Chilean economy, and to total domestic credit to the private sector, than NDBs in other countries, such as KfW, CDB and BNDES. However, CORFO´s main financial support is not pursued through loans, but through loan guarantees to financial institutions, which in 2015, represented about 0.5% of the total credit to the private sector. Indeed, CORFO issued in 2015 guarantees for U$S 1.2 billion, net flow which is even larger than the total loans´ stock.

CORFO has recently determined three areas of intervention: productive diversification, support to innovation and entrepreneurship and foreign and national investment promotion.

AREAS OF INTERVENTION:

Structural Transformation and Economic Diversification

The Total Factor Productivity (TFP) growth rate in Chile dropped from an average of 2.4% in the 1990s to 0.5% in the 2000s. In addition, export sophistication index significantly decreased during the last years. These figures illustrate that Chile needs to develop dynamic competitive advantages to achieve sustainable growth. The need for such a strategy has received increased support, especially by the present Bachelet Government; the urgency of both increasing productivity but also diversifying the Chilean economy has been made clear by the sharp fall in copper prices and the apparent end of the "commodities super-cycle".

It is seen by the Chilean Government that CORFO should play a key role in coordination of private companies, catalyse appropriate finance and identify market gaps, as well as opportunities. In this context, the Chilean government launched in 2014 *´Chile Transforms´*, where CORFO is responsible for 37 *´Strategic Schemes of Intelligent Specialization´* and grants support, including subsidies to 10 sectors, selected as engines for development: advanced manufacturing and mining, solar energy, food, tourism, fishery and aquaculture, intelligent industries, construction, logistics and creative economy. In 2015, 3 of the programs were being implemented, 33 were in diagnosis stage and 1 being validated. The budget was of U$S 10.6 million, executed in 97%.

Innovation and Entrepreneurship

Leapfrogging into higher value-added activities in Chile entails taking full advantage of previous productive capabilities and enhancing them through the creation and diffusion of new technological opportunities. However, the reverse trend seems to have been taking place during the last decades, when the percentage of innovative firms plummeted from 37.9% in 2004 to 16.6% in 2014 and the expenditure in Research & Development (R&D) lagged behind many developing and developed countries' level, at only 0.39% of GDP.

To tackle this obstacle, and in consideration of the constraints that uncertain innovative projects and start-ups with no track record face in the traditional financial market, the vast majority of

CORFO´s programs focus on these areas. The main programs to support entrepreneurs are *´Seed Capital´*, demanded by over 5,200 firms and granted to 118 for over U$S 4 million in 2015; *´Start Up Chile´*, demanded by over 5,900 firms and granted to 272 for U$S 7,9 million and the *´Scheme for Regional Entrepreneurship and Innovation´* demanded by over 250 projects and granted to 80 for over U$S 2,5 million. The budget for innovation financial support exceeded U$S 60 million and was fully used, which entailed a 98% increase with respect to the average in 2010-2013. A significant 80% of the 680 approved projects were from SMEs. Also, CORFO stimulates the creation of technology centres and technology transfer programs, that in 2015 had received support for over U$D 33 million.

The above- mentioned schemes are in large proportion given as subsidies, granted through public tenders. Subsidies disbursed by CORFO in 2015 totalled over U$S 192 million. However, second-tier loan granting was recently a considerably smaller amount. The loans were only 15% of the subsidies´ figure, at US $28 million; further, only 50% of the assigned resources had been executed in 2015. Part of the explanation is that overall there is much funding available in Chilean private markets for long maturities at relatively low costs. This seems, however, not to be the case for innovative enterprises and for start-ups, due to uncertainty, typical of new activities. For this reason, loans by CORFO to banks seem to be less necessary than in other countries, except for innovative companies and sectorial diversification. CORFO financially supports Risk Capital Funds, especially for start-ups.

Also the banking system is fairly concentrated in Chile, which leads to excessive spreads on borrowing, and very high return on equity of banks. CORFO and other institutions are designing measures to deal with these market gaps and imperfections.

Foreign and National Investment Promotion

CORFO works in cooperation with the Council of Foreign Investments (CIE), to attract foreign capital to the Chilean market and encourages local investments by granting loan guarantees, by financing Reciprocal Guarantee Institutions (IGR) and operating through financial institutions. The first mechanism had more than 10,000 beneficiaries and U$S 93.7 million and the second over 66,000 operations that implied over U$S 1,170 million in guarantees, in 2015 which reportedly enabled loans for over U$S 2,000 million. The second mechanism consists of three programs: FOGAIN to cover loans for investment and working capital, COBEX to cover export operations and Pro – Investment.

The non-performing rate on CORFO loans in 2013 was of a negligible 0.7%. The impact of guarantee granting is remarkable, as the funds are allowed to extend collateral for eight times its value, implying a leverage of 8.

COUNTERCYCLICAL ROLE:

The 2007-2009 North Atlantic crisis constrained growth in Latin America and restricted long-term financing in the private sector. The Chilean government decided to increase fiscal expenditure by 15%. This is clearly illustrated when examining CORFO´s annual budgets, which almost duplicated from 2008 to 2009. Chile increased seven times the guarantees for SMEs between 2007 and 2011 and the budget of the credit programs to support SMEs through loans rose by U$S 500 million in 2010, whilst support for innovation doubled during the period.

CONCLUSIONS:

- CORFO, despite its high level of non-performing loans in the late 1980s, was resilient to policy recommendations that advocated for its dismantling.
- CORFO's mandate changed and it stopped granting direct loans, to perform as a second-tier bank.
- Currently, it focuses mainly on innovation and entrepreneurship, by granting subsidies through public tenders, which ought to be presented in specific time periods. CORFO has emphasized strategic collaboration with the private sector.
- The main instrument of CORFO is not its loan granting, but its loan guarantees, which indirectly enabled loans for over U$S 2,000 million in 2015.
- It is noteworthy that CORFO activity is, in proportion to the size of the economy, and to total size of the credit to the private sector, much smaller than some of the other NDBs, including in developed countries, such as German KfW.
- The need for larger scale may be particularly true given the growing consensus for the need for productive diversification and innovation in Chile, to achieve more dynamic, sustainable and inclusive growth, as well as higher productivity increases.
- CORFO has a vast range of programs. Though most of them seem very effective, a question can be asked if it may not be more effective to streamline them somewhat, to allow greater focus.

COLOMBIA
The Colombian development banks
José Antonio Ocampo and Paola Arias Gómez

INTRODUCTION:

Colombia has four specialized development banks: BANCOLDEX, FDN, FINDETER, and FINAGRO. In 2015, their assets represented 2.9% of the Colombia's GDP and 4.5% of the assets of the Colombian financial sector.

The oldest development bank, IFI (Instituto de Fomento Industrial) had been created in 1940, as a basic instrument of industrial development. It was merged with BANCOLDEX (Banco de Comercio Exterior) in 2002/03, which had its origins in the export promotion fund PROEXPO managed by the central bank (Banco de la República), which was split in two institutions in 1992: BANCOLDEX, a second tier foreign trade bank, and PROEXPORT, a non-financial export promotion entity. After the absorption of IFI by BANCOLDEX, the latter's mission was expanded to help finance the industrial sector.

FEN (Financiera Energética Nacional, and prior to that Financiera Eléctrica Nacional), the predecessor of FDN (Financiera de Desarrollo Nacional), was created in 1982 for energy sector financing. In 2000, when the energy sector was financially strong and had an adequate regulatory framework, the Government began the process of reducing FEN's capital. Taking advantage of the broad range of financial transactions that the inactive FEN could conduct, the Government decided in 2011 to change FEN's name, objective, and structure. Its name was changed to FDN, a first tier bank, with the aim of promoting infrastructure project with private participation.

FINDETER (Financiera de Desarrollo Territorial), a second tier bank, was created in 1989 with the objective of promoting urban and regional development, and since them, it has kept its mandate.

FINAGRO (Fondo para el Financiamiento del Sector Agropecuario) and the National Agricultural Credit System were created in 1990. In this system, still in place, FINAGRO grants second tier loans to financial intermediaries to provide financing to agricultural producers. It was based on the transfer of the Agricultural Financial Fund FFAP, created in 1966, managed by the central bank, and transferred to FINAGRO during its creation. Under the old and current system, 15% of credit must be allocated by banks to agriculture; if they fail to do so, they must buy FINAGRO bonds that are used to finance its rediscount facilities.

MARKET FAILURES:

a. Infrastructure

The infrastructure gap in Colombia is large and requires long-term solutions. Different indicators show the critical situation that the country faces in this area. According to the World Economic Forum, Colombia is ranked 110 in the quality of infrastructure out of 140 countries. Additionally, the infrastructure gap is one of the most problematic factors for doing business in Colombia.

Aware of the need to remove the infrastructure bottleneck, the Government of Colombia has been working since 2011 on an action plan to have a credible institutional framework and Public-Private Partnership (PPP) program to develop mainly toll-road projects. The Program, known as the Fourth Generation, or 4G, road program, will build over 8,000 kilometers of roads with an estimated capital expenditure investment of US$17 billion. The 4G program hopes to overcome the problems faced by previous "generations" of PPP, going back to the 1990s.

The actions that the government has recently implemented include the reform of the FDN, from the inactive FEN into FDN, to promote and mobilize resources for the PPP infrastructure projects, by addressing market failures that undercut infrastructure financing. These market failures are mainly associated with the difficulty to mobilize resources from different sources.

In this sense, FDN is currently offering financial products such as subordinated debt and credit enhancements and is investing in debt funds, with the aim of minimizing project risks, providing long-term financing and facilitating the participation of local banks, local institutional investors and foreign financial institutions. In addition, FDN is playing an important role establishing project finance best practices, standardizing capital markets products, enhancing capacity in the industry and promoting regulatory changes to increase the market available for infrastructure financing. As of July 2016, ten projects under the 4G road program had reached or were near preliminary financial closure and FDN is expected to help to mobilize resources for all of them. FDN also offers advisory services about project structuring, project management and sectoral studies to state and local governments.

Complementarily, FINDETER has been working on promoting the regional and urban infrastructure of Colombia. This development bank has provided financial and technical support to public and private entities involved in the development of sustainable infrastructure in the regions. FINDETER offers financial products such as rediscount facilities, guarantees and administration funds, as well as its expertise in project structuring and technical assistance to private companies and state and local governments.

b. Business development

BANCOLDEX was a very successful foreign trade bank, which contributed significantly to the diversification of Colombian exports. However, its role in that regard had been decreasing due to the capacity of private banks to finance foreign trade without using BANCOLDEX's discount facilities. In turn, IFI, had played a very important role in the industrial diversification of Colombia, but its role in that regard had declined since the mid-1970s, when the country essentially abandoned its state-led industrialization strategy.

As a result of major changes in the overall environment in which it operates, BANCOLDEX has been in a process of transforming itself since 2015 to become the Colombian development bank dedicated to business growth and, therefore, to respond to regional business needs and help the industry to contribute more assertively to Colombia's GDP.

According to its new vision, there are two types of business growth. The first is the flat or vegetative growth represented by the businesses with growth at single digit levels. These businesses reflected a real average contraction of -2.2% a year in Colombia. On the other hand, dynamic growth is led by firms that have been able to sustain double-digit growth rates. These businesses demonstrated an average growth of 21.7% and also contributed more to the economy. In fact, the companies with a dynamic growth, which represent around 21.6% of the total of the companies operating in Colombia, pay around 63.2% of the total income tax.

In order to offer businesses adequate tools to growth quickly, profitably and sustainably, BANCOLDEX created six growth platforms: i) entrepreneurial scaling up for companies that have double digit growth and companies with potential to do so; ii) global flows for exporting firms and technology importers; iii) extraordinary growth for start-ups and scale-ups; iv) investment and transformation for capital and venture capital funds; v) international expansion for Multilatinas and companies with the potential for international expansion; and vi) dynamic ecosystems for companies facing difficult challenges in terms of productivity.

BANCOLDEX offers rediscount credit lines and other financial products as document discounts and purchase of invoices in addition to business training, consulting and formation programs for entrepreneurs, in addition to providing financial and non-financial support to the development of capital and entrepreneurial funds.

c. Financial inclusion

In 2015, the financial inclusion indicator reached 76.3% (24.9 million adults with access to at least one financial product). Despite the fact that these are some of the highest levels in Latin America, their meaning is somewhat questionable, as the most widely used service is the payments system rather than savings and borrowing facilities. In this context, the Government has decided to continue working to increase access and the use of financial products under a National Strategy of Financial Inclusion, which includes the participation of different public sector entities.

One of the main components of the strategy is to increase access to financial services in rural areas. In this regard, FINAGRO has played a crucial role through the provision of credit to smallholders through its rediscount facilities, including rediscounting lending by microcredit institutions who have access to its second tier facilities. However, the coverage of traditional facilities is not very high and the poorest smallholders in particular have no credit coverage. For this reason, FINAGRO has most recently promoted the Rural Microfinance Fund to enhance access to the base of the pyramid and services to all rural residents. This Fund seeks to provide resources to non-traditional intermediaries like NGOs, associations and cooperatives, which have not yet been integrated into the National Agricultural Credit System and cannot access to rediscount lines, as well as to offer technical assistance to the development of specific products, the incorporation of new technologies, and institutional strengthening of microfinance institutions.

Complementary, BANCOLDEX has a growth platform to support microenterprises, and is currently studying the possibility of creating a new and specialized unit for financial and social inclusion. BANCOLDEX also manages the program Bank of Opportunities (Banca de Oportunidades) that has the objectives of promoting access to financial services for low-income families, micro, small and medium-sized businesses and entrepreneurs, improving the level of financial inclusion and expanding the coverage of financial products and services to all municipalities. This program has developed the following instruments: i) subsidies to costs to grant a determined amount of resources to intermediaries for an activity or product that is not profitable, ii) co-financing projects to provide funding to pilot projects that have not been standardized, and iii) technical assistance to conduct relevant studies and strengthen cooperatives and NGOs.

CORPORATE GOVERNANCE:

One of the first steps in the FDN's process of transformation was to change its corporate governance through reducing Government ownership from 100% to 67%, by the subscription of new share capital by the multilateral institutions, IFC and CAF, and the Japanese commercial bank, Sumitomo Mitsui Banking Corporation (SMBC) in 2014 and 2015. FDN incorporated private sector standards and procedures, following OECD principles of corporate governance. In this regard, FDN's board was expanded from 5 to 9 members and the government's representation reduced—with even fewer seats in the future—as its corporate structures were rebuilt to give the government a passive voice.

This is in contrast with the other development banks, which remain almost entirely public sector institutions and its board is controlled by the government, though generally with the participation of private agents. BANCOLDEX hired IFC in 2015 to evaluate its corporate governance practices adjusted to its new mission and is currently implementing the recommendation made by IFC with an action plan. Additionally, BANCOLDEX is exploring the possibility of changing its shareholder composition as well as becoming a first tier bank.

FUNDING:

The four development banks have their own funding strategy. In general, there are three main sources of funding in foreign and local currency: i) deposits, mostly saving accounts and certificate deposits, ii) bond issuances, and iii) external loans with development and international banks. In 2015, FDN had no financial liabilities as its only source of funding was its capital. It is expected that FDN will soon begin to issue bonds as the entity starts to fulfill its current disbursement projections. FINDETER and BANCOLDEX have a similar composition of their funding instruments: FINDETER's funding was 66% certificate deposits, 20% credit with international entities, and 14% bonds issuances, meanwhile BANCOLDEX's funding was 50% deposits, through certificate deposits, 40% external loans, and 10% bond issuances. Lastly, FINAGRO's resources come from mandatory investments that financial intermediaries are required to make (TDAs).

CHINA
CDB: Born Bankrupt, Born Shaper
Qiyuan XU

CDB facilitates growth through not only infrastructure financing, but also institutional improvement.

BORN BANKRUPT IN 1990S:

Starting point: We will explain the story of the bankruptcy in 1990s. According to the budget law, the was a ban on deficit for local governments, they could not issue bonds or borrow money from markets, so the local governments have very strict constraints. Therefore, infrastructure investment was very poor in the regions. On the other side, CDB was founded in 1994 and in 1997, the non-performing loans NPL ratio was more than 40%, extremely high. At this time, CDB was supported by the Central Government, which ordered commercial banks to buy the bond issued by CDB. Commercial banks were not healthy either. The situation for them was also very bad (NPL ratio was 20%). Bad debts were explained because SMEs were vulnerable and SOEs and large ES were in overcapacity. CDB could not lend money to local governments; the Central Government assigned the key projects in the national level. Then, CBD was just a machine of allocating funds. CDB could not choose the projects to finance; it could only obey the arrangements from the Central Government. In 1997/98 was the South-East-Asian financial crisis (also in Japan and Russia) and China suffered from capital outflows.

Local governments were forbidden to run deficits because the public system was in chaos at the end of 1980s, they had issued to much bonds without constraints, with zero interest rate. Who buy bonds with zero interest rate? They forced the staff to buy these bonds. Additionally, private financial system was in disorder. CDB helped to solve the problems of local governments and ALIBABA contributed a lot to solve the problems of the private financial sector.

CHANGES IN LAST TWO DECADES:

- NPL ratio was more than 40% in 1997 and then 8.8% in 2000 and 1.8% in 2002. NPL ratio has kept at a very low level over the last years.
- CDB's assets in terms of USD dollar have increased considerably. Total assets were $1,849 billion dollars in 2015, which is equivalent to 17.7% of the Chinese GDP (IN 1994, when the bank was founded, this ratio was less than 2%). So now this is a very large program.
- Capital adequacy ratio is also healthy now.
- ROA declined during the financial crisis (2007/08), but now is also stable.
- Tangible and intangible infrastructure were very poor in China during 1990s, but in 2000s infrastructure developed very quickly and CDB also launched many changes for the financial sector. In 2010s, because of the push from CDB, there are more aggressive financial reforms.

CDB AS A SHAPER TO FINANCIAL SYSTEM:

Let's go back to the starting point. In 1990s, CDB could not lend to local governments (no deficit allowed); local governments had limited investment in long-term infrastructure projects; and CDB could only invest in the assigned key projects by the Central Bank.

In 1998, CDB did an agreement with a small city, creating LGFV model, in which local governments create a company (LGFV), a legal person with corporate and governance structure, injecting capital to the new company. The local governments make some authorizations and issue some guarantees (that are very meaningful), as LFGVs obey and serve local governments. CDB finances package to LGFVs and LGFVs repay the package, as they (LGFVs) are investing in infrastructure projects and getting revenues from these projects. There are three different kind of infrastructure projects: i) private goods with high revenues; ii) public good with (moderate/small) revenues; and iii) public good without revenues. CDB provides information for supervision and concept for credit (credit rating) to the local governments. Commercial banks and shadow banks, as they found that LGFV are profitable, are now providing financing package to LGFVs (banks are crowding in).

In January, 2015, the Central Government published a new budget law, since then local governments now can issue bond and borrow money from the market, and the LGFV model disappeared. The new picture is the following: private goods with high revenues are transferred to SOEs or nor SOEs; public good with small revenues are operated by a franchise company in PPP; and public good without revenues are financed by local governments. In order to finance public goods with small revenues and public good without revenues, local governments issue bonds in the capital markets, that are bought by commercial banks and CDB. CDB usually buys long-term bonds, and also provides some intellectual support to the local governments in terms of planning (Planning Bureau). CDB helps the cities and providences to make their plans more feasible. CDB also advices Central Government in planning.

CDB AS A ROLE OF COUNTER-CYCLICAL:

Fiscal policy 1: Loans for infrastructure investment, growth rate

CDB provides loans for infrastructure investment. In 2006 and 2010 the growth rate of these loans were negative, meanwhile it was more than 80% in 2009.

Fiscal policy 2: Capital injections to a company/project

In some cases, infrastructure projects, even though they are very good, cannot have enough liquidity in the near term. Commercial banks and CDB can only lend to company/projects with enough liquidity (20% of liquidity). In this sense, CDB established the CDB Development Fund that inject capital to the company/projects in order to help them to meet the liquidity conditions, and then, CDB and commercial banks can provide loans to them. When CDB inject one million, the company/projects can borrow money for 5 billion (there is a kind of leverage).

Monetary policy 1: contributions to construct primary interest rate in two ways

CDB's interest rate itself as a kind of bench mark in the market, as floating rate bonds based on Shibor, 74% of them are issued by CDB.

Monetary policy 2: PSL as a tool of liquidity release and as a guide to long term interest rate

The Central Bank injects liquidity to CDB through Pledged Supplementary Lending PSL to lower the long-term interest rates, in this sense, CBS operates as a channel of the monetary policy. Interest rates in the global markets are very low right now, but this is not the case of China, where interest rates are high. PSL interest rate (less than 3%) is lower than other market rates, such as the corporate bond AAA yield rate (around 3.5%).

CONCLUDING REMARKS:

CDB was born bankrupt in 1990s and realized a tremendous leap in 2000s. A most important contribution, is to revamp the financial market with institution innovations. The innovations (LGFV) caused new problems, which lead to substantial fiscal reforms in China. With its significant role in the market, CDB exert its counter- cyclical tools to facilitate fiscal-and-monetary policy effects. Now CDB is facing the pressure to promote green development, industrial upgrading, inclusive finance...

ALEMANIA – KFW
National Promotional Banks as Active Financiers: The Case of KfW
Ulf Moslener, Matthias Thiemann, and Peter Volberding

INTRODUCTION:

KfW is Germany's state-owned national promotional bank (NPB) and as of 2015, it is the 2nd largest NPB in the world (following the China Development Bank) in terms of total assets. Its mission is to support the German government implement or expand policies that would otherwise go unfunded by the private market. Recently, the largest programs are in green technology, energy efficiency, SME financing, and export financing.

Originally, KfW was founded in 1948 as part of the Marshall Plan funds. Early projects focused on the housing, agricultural, power, and heavy industrial sectors. In 1950s, it started its first export financing program and SME program. The first environment program came very early in 1984. KfW became a very important actor in the reunification of Germany and later with the Central and Eastern European projects. It also played an important role in funding infrastructure and industry programs in the former GDR. In the last 10 years, KfW has developed a variety of new financing programs for student loans, environmental protection, SMEs, energy efficiency and more recently, helping the government with the refugee policy.

KfW is composed of five primary units:

- Förderbank (Domestic Promotional Bank)
- Mittelstandsbank (SME Bank)
- IPEX (Export Bank)
- Entwicklungsbank (Development Bank)
- DEG (Private Development Finance Bank)

KfW is, as many other banks here, is owned by the German Government: 80% Federal Government and 20% State Governments. All existing and future obligations are fully guaranteed by the Federal Government, for that reason, it has an excellent credit rating. It is supervised by the Ministry of Finance primarily and, as of 2013, BaFin (German Financial Supervisory Authority).

KfW is very large. In 2015, KfW had assets of €503 billion and issued €79.3 billion in new promotional business volume. To fund its promotional business, KfW raised €62.6 billion on the international capital market: USD (45%), EUR (37%), GBP (7%), AUD (4%), JPY (2%), others (5%); issues a wide range of benchmark bonds, public bonds, and private placements; and issued first negative interest rate benchmark bond in October 2015. Its business model is based on primarily on-lending through domestic German commercial banks and taking no deposits (purely second tier bank). KfW is exempt from corporate taxes and profit distribution.

Total assets have steadily increased from about €200 billion euros in 1999 to €500 billion euros in 2015. KfW has been fairly profitable historically. During 2007 and 2008, it had negative profits, but since then profits have stabilized at a positive high rate (around €2.17 billion in 2015, more profits that commercial banks like Deutsche Bank).

COMPONENTS OF KfW: DOMESTIC

KfW Förderbank (KfW Promotional Bank)

KfW's largest "unit," comprised of municipal and private client bank/credit institutions. Total 2015, lending volume was €30.1 billion. It provides financing for the following sectors: 55% for housing investment (energy-efficiency and Home Ownership Program); 9% for education and social development (student loans, and continuing professional development); 16% for infrastructure (loans for municipal projects and social infrastructure - refugee housing); 16% for promotional institutions of German states; and 4% for individual Bank Financing (refinancing of export loans and Products for European/global SME and environmental projects). Last year, for example, it provided €100 million global loan for the Polish State Development Bank for SMEs.

KfW Mittelstandsbank (KfW SME Bank)

The second component is the SME bank, which had a lending volume of €20.4billion last year. Projects are focused: 50% on SME financing (entreprenEUR Loan and ERP loans for start-ups and young companies); 4% on innovation promotion (ERP Innovation Program R&D and EntreprenEUR Loan Plus); and 46% on environment (environmental protection, energy efficiency projects, renewable energy projects and offshore wind energy).

A brief overview of KfW domestic business model, KfW raises money on the capital markets at a very good rate because of the Government backing (AAA rating). It has a promotional mandate and, sometimes, either KfW or the German Government provide interest subsidies for specific projects. KfW refinances loans from customer's banks and these banks provide loans to customers. KfW makes its money from the payment of interest rates.

COMPONENTS OF KFW: INTERNATIONAL

KfW IPEX-Bank

It had a total lending volume of €20.2 billion in 2015. Its objective is to provide financing for German exports and foreign investments in Germany. KfW IPEX-Bank operates on a commercial basis and competes with private banks.

KfW Entwicklungsbank (KfW Development Bank)

It had a lending volume of €6.7 billion in 2015. Its objective is to provide financing to governments, public enterprises, and commercial banks in developing countries. It uses market rate loans, subsidized loans/blended finance, and concessional aid and grants. It is particularly active in SME financing and microfinance.

DEG (German Investment and Development Corporation)

In 2015, DEG had €1.1 billion in loans. Its objective is to promote the development of private enterprise in developing countries through loans and minority equity stakes. DEG is operationally similar to the IFC.

KfW's funding has been relatively stable. The majority of the funding is from the domestic units (KfW Mittelstandsbank and KfW Förderbank).

<u>KfW AS AN ACTIVE FINANCER:</u>

We argue that KfW is defined by three important characteristics:

- Economic objective, government backing: Designed to compensate for market failures and promote socially- beneficial projects that are underfunded; KfW is financially backed by the German government; and it also cooperates closely with commercial banks.
- Access to policymakers and regulators: KfW can achieve policy synergy with the government through a "carrot and stick" strategy; for example, the federal government may increase the stringency of environmental regulations (the stick), but KfW will simultaneously provide a new subsidized financing instrument (the carrot). It can also provide essential market and on-the-ground knowledge to policymakers.
- Technical expertise: unlike the commercial banks, KfW has in-house experts (financial sector and engineering) that provide more detailed knowledge of economic trends. KfW also serves as an advisor to new economic and promotional legislation. KfW employs experts with specific sector knowledge in agriculture, energy, natural resources, and engineering, to name a few. This substantively distinguishes KfW from the commercial banking sector, as it allows KfW to make more technical decisions on its investments rather than relying on the market generally. This ultimately gives KfW better information about its investment and, by extension, is better able to implement its economic welfare objectives. This knowledge also increases the likelihood that a particular project will be more successful. KfW's stamp of approval can effectively signal to other private investors that the project is viable. KfW also serves as an advisor for the Government.

<u>PROMOTIONAL POLICY CYCLE:</u>

KfW has a policy mandate and coordinates with German government; leverages market for funds and distribution, and scales back or modifies project after market creation or when the objectives have been achieved. In this way, first is the coordination with the Government, second is to provide the right incentives to the market and then they have strategies for exiting or modifying the projects. We can see how this works with green financing and a couple of other examples.

Green financing

Since the early 1980s, KfW has been an active promoter of green technology—in efficiency, renewables, and protection. In 2015, approximately 37% of total lending (€26.6 billion) went to environment-related projects. Most funding goes to domestic energy efficiency projects. KfW also aims to provide subsidized financing to achieve the German government's ambitious Energiewende initiatives. In 2015, KfW issued €3.7 billion in Green Bonds.

2008 FINANCIAL CRISIS AND AFTERMATH:

It plays an important role on providing countercyclical financing. Exemplifies the double-edged sword of being a government agency.

KfW was responsible for poorly-performing assets. In 2001, IKB asked KfW to purchase the 33.2% share package from Allianz/Münchner Rück in order to prevent a pending divestiture. In 2007, KfW assumed 70% of the losses from the total risk protection, and provided liquidity guarantees, resulting in the raising of KfW's balance sheet risk provisions to €4.95 billion. KfW's annual net loss in 2007 was over €6 billion.

Additionally, KfW provided an important countercyclical role. It implemented a multiyear economic stimulus plan for German enterprises (€40billion) and for energy efficiency and infrastructure measures (€10 billion) at minimal losses from the Domestic Promotional Bank/SME Bank; and implemented KfW Special Program, which invested €14.1 billion. KfW estimated that by 2012, its financial activities had saved 370,000 jobs.

SME PROGRAM:

SMEs are disadvantaged because they lack direct access to capital markets, they have a weak bargaining position, and have an inability to diversify risk. KfW provides long-term loans, equity investments, and consulting for SMEs. In 2015, 40% of new domestic commitments went to SMEs. The largest program is the KfW EntreprenEUR Loan (Unternehmerkredit), which started in 2003. Under this program, KfW has issued over 200k individual loans (max €25 million per project and loans of 5, 10, or 20 years). In 2007, KfW assumed 50% of the risk from the commercial on-lending banks.

Furthermore, EntreprenEUR Loan Plus was designed to promote improved financing for innovative SMEs. The conditions are the following: up to €7.5 million per project; up to 100% of eligible investment costs; interest rates from 1%; lasts 7 years in total, up to 5 years for working capital. In order to access to this program, firms must prove innovativeness (e.g., received a patent or EU/national research grant). KfW and the EIB each bear 25% (total of 50%) of the risk from the on-lending commercial bank. Total commitments are up to €500 in the next few years.

NEW DIRECTIONS FOR KfW:

KfW has highlighted three focus areas for the future: climate change, demographic change and globalization and technical progress. Additionally, it is working on further development of new financial instruments such as securitization and new structured funds for climate change/SMEs.

KfW has also increased coordination with EIB and European NPBs, you can see that with the growth of collaboration in joint funds and participation in the Junker Plan.

REPLICABILITY OF KfW:

To what extent is KfW's model exportable to other contexts? We offer a few cautionary notes:

- Requires a strong legal framework. It is necessary to avoid investment being made for political—rather than economic or social—objectives; as well as reduce opportunity for corruption
- Requires a functioning financial sector. KfW heavily relies on financial markets to both raise and distribute capital; it cannot serve as a replacement for financial market development
- Requires technical capacity. Determining a "market failure" is inherently difficult, and implementing projects across sectors is information-intensive. It also needs policy clarity from the government to choose which areas are the most important.

Countercyclical Role of National Development Banks
Alfredo Schclarek Curutchet

This is a work that I am doing with my colleague Michael Brei. I will start talking about the data we are using for our study: Bankscope data.

BANKSCOPE DATA:

- This is a database for banks all over the world, but we selected 251 banks from Latin America and the Caribbean, of which 32 Development banks, 193 Private banks and 26 Public commercial banks.
- The data is available between 1995 and 2014. We have 4,141 observations.
- Some of the development banks that are included in the database are: BICE (Arg), Banco de Desarrollo Productivo (Bol), BNDES (Bra), Banco Regional de Desenvolvimento do Extremo Sul (Bra), Banco de Desenvolvimento de Minas Gerais (Bra), FINAGRO (Col), FINDETER (Col), Bancoldex (Col), Financiera Energetica Nacional (Col), and Nacional Financiera (Mex). We are including almost all of the banks we are having case studies.

LENDING PATTERN:

Some of our preliminary results are the following:

If we analyze the ratio total loans/total assets, we can observe that development banks and private banks have kept almost a similar ratio (58% as an average for development banks and 54.8% for private banks), meanwhile public banks have a bit lower ratio (44%).

Public banks lend more to the governments (public sector) than development banks and private banks. The ratio Gov. securities/total assets is 21.5% for public banks, 14.8% for development banks and 12.3% for private banks. Maybe this fact is explaining why the ratio total loans/total assets is so low in the case of public bank.

Going a little bit more specific, we are going to see more differences. Development banks have a higher corporate and commercial loans (47.2%) than private (31.8%) and public banks (21%); and private and public banks have a higher rate of consumer and mortgage loans than development banks. Private banks are lending 17.5% to consumers and 7.6% to mortgages; public banks are lending 11.4% to consumers and 7.6% to mortgages; and development banks are lending 3.7% to consumers and 4.9% to mortgages. We see here that development banks are very important for corporate and commercial loans.

We also found that the average interest rate is lower for development banks (14.6%), than for public banks (20.4%) and private banks (21.7%). The difference is quite substantial.

FUNDING STRUCTURE:

If we analyze the ratio equity/ total assets, we see here that development banks are funded themselves more with equity (28%) than private banks (12.4%) and public banks (10%). If we analyze long-term funding (long-term funding/total assets), there is also a very big difference. Development banks are funded with long term funding (36.6%), meanwhile this ratio is only 7.2% for private banks and 5.9% for public banks. To sum up, development banks are funded themselves throw equity and long-term funding, while private (65.2%) and public banks (57.5%) are mainly funded with deposits. If we see short-term funding, almost all three type of banks have a similar ratio.

COUNTERCYCLICAL BEHAVIOR DURING CRISIS:

These are some preliminary results of the dynamic panel regression we run:

- In crisis time, clearly development banks and public banks are lending more than private banks (significant in all the specifications). In normal times, development banks are lending less than private banks. In this sense, development banks and public banks have been acting in a countercyclical way, in comparison to private banks.
- Development banks and public banks´ objective is not only to maximize profits given risk but also to avoid crisis and lending crash.
- Development banks and public banks are more likely recapitalized; governments have more resources than private bankers during crisis.
- Development banks and public banks suffer less deposit withdrawals and rollover problems of ST instruments; governments have higher credibility during crisis.
- Development banks have better funding structure (more equity and LT funding, less deposits): lower need increase deposits at Central Bank during crisis. The average cash and deposits at Central Bank/Total assets is lower in development banks (3.1% in normal times and 3.9% in crisis), than in public banks (6.2% in normal times and 9.1% in crisis) and private banks (7.3% in normal times and 9.1% in crisis).

CONCLUSIONS AND POLICY IMPLICATIONS:

- Development banks have a high proportion of corporate and commercial lending, at lower interest rates.
- Development bank’s funding structure is special: more equity and LT funding, less deposits
- Development banks behave countercyclical during crisis due to: i) objective function in crisis period: stabilize economy, not to maximize profits given risk; ii) possibility of recapitalization from the governments, that have more capital than private banker during bad times; iii) less withdrawals and roll over problems, as governments have higher credibility; and iv) funding structure: less need for increase in deposits at central bank.

ROLE OF PUBLIC BANKS IN LONG TERM FUNDING
Felipe Rezende

ORGANIZING PRINCIPLES:

Development banks cannot be seen in isolation; we need a theoretical framework to explain why drives investment and also need a theory of crisis. Investment is driven by NPV (the nominal return to investment) can be too low or negative. This year, BNDES is a good example. Its concessions have been declining this year in 32% according to the Central Bank data. They also have a Domar Problem, which is related to the fact that a constant investment is going to give you a constant demand, but this constant investment is going to give you more capacity over time, in which one of the point is that crises are periodical due to the inherently instability of market economies, that is, booms and busts arise endogenously as a result of their normal operation.

NDBs should not be seen in isolation. Its success also depends on the coordination between national economic policy to foster development and its funding, -usually provided in part by NDBs. Funding for development requires a theory of instability. Ensure the provision of a safe payment system and store of value and provide sufficient financing at a reasonable cost for productive investment.

MINSKY'S TWO MASTERS OF THE FINANCIAL SYSTEM:

That brings to us Minsky's idea of two irreconcilable Masters (Kregel's contribution). "One master requires assurance that the financing needed for the capital development of the economy will be forthcoming and the second master requires assurance that a safe and secure payments mechanism will be provided." One master requires leverage and taking risks to promote the development of the system, but the second requires a safe and sound payments system. Then the question is how to reconcile two contradictory masters? One of the possible answers to this contradiction is enhancing the role played by NDBs, because NDBs can leverage and take risks (that will be in the government's balance sheet) and then the private sector can take the other operation activities that are not that risky.

MAJOR POST-CRISIS CHALLENGES:

Prior to 2007-2008, the liberalization of the capital markets was a best practice, but that changed. One challenge that we have now is the global stagnation and low investment, we have labeled that as the "Secular Stagnation". Furthermore, public investment has been declining, exacerbated by public policy shifts towards austerity (cuts in discretionary public spending), and there is a short-termism of financial markets and corporations (corporations in the United States are not investing, they are buying shares). At the same time, you have growing investment needs (SDGs, low carbon economy, etc). We need to do these things in the future.

This low investment is causing massive infrastructure gaps. For example, the OECD estimates US$70 trillion is needed by 2030 and developing countries will need to invest an additional $1 trillion a year through 2020, in addition to what these countries have today (G20, Feb. 2013). That is in spite of ultra-low interest rate (ZIRP) environment (or even negative rates- NIRP) in many markets.

We also have more turbulence. We have a lot of volatility on global credit markets, global growth and there is a lower potential output after the crisis (concerns about EME). How to break the cycle?

IMF survey is asking for an Infrastructure Push. Infrastructure has emerged as a distinct asset class. The OECD is also reporting that institutional investors held over US$70 trillion in assets as of December 2011. Many of these investors are moving towards socially and environmentally responsible investment strategies. Also growing rapidly are Sovereign Wealth Funds (SWFs), with assets under management at end 2011 exceeding US$5 trillion.

The question here is if there is appetite for new infrastructure allocations among institutional investors? Blackrock survey suggests appetite is falling, as the challenges facing the sector have increased. Additionally, the IMF report said that the initial hopes that the privatization wave of the 1980s would fuel a private-sector funded greenfield infrastructure investment boom have fallen well short of expectations. It did not work in the way it was expected and now you have a growing mismatch between investment expenditures (and available financing) and investment needs. How to reconcile it? Looking ahead.

So here, we have the environment:

- Ultra-low interest rate (ZIRP) environment or even negative rates- NIRP. And for most of the countries here (in the graph), you have a sharp reduction in overnight deposit rates and public debt has increased (government bonds with negative yield). We have an increasing sovereign debt.
- Public investment has been declining since the aftermath of the Global Financial Crisis (Japan, Canada, United States, Euro area, etc.), due mainly to austerity fever.
- In spite of low/negative interest rate, we still have a lot of market volatility and turbulence (roils global credit markets). United States, Europe and EMEs are increasing high-yield corporate credit.
- Investment has been declining across all sectors in Europe (household investment, corporate investment, private consumption, etc).
- Declining US domestic capital formation % of US GDP since 1980. Investment has been declining for several decades, contributing to these massive infrastructure gaps.
- Infrastructure investment rates have declined since the 2007-2008 Global Financial Crisis GFC, even for developed economies.
- As a result, you have a lower Potential Output after the GFC for all these nations.
- It has also been a sharp declined in the quality of infrastructure (existing stock) in G7 economies like United States and Germany from 2006 to 2012.

MASSIVE NEED FOR INFRASTRUCTURE IN THE EMERGING AND DEVELOPED WORLD:

There are massive needs in terms of transportation, water and sanitation, power and telecommunications; and then you have to invest in these needs at least $49.1 trillion dollars. Infrastructure investment will continue to shift to emerging markets: 60% of the investment needed will be in EMEs. That is the challenge.

PAVING THE WAY:

We need to look at the effect of it. There is a positive correlation between infrastructure quality and GDP per capita. Even though we cannot prove causation, there is a good idea of what infrastructure can bring to the economy. Then in these graphs (slide 22) we can see the relation between investment in infrastructure in Brazil and the quality of infrastructure (overall infrastructure, ports and railways), using the ranking that is done by the WEF.

Then if you see how EMEs finance infrastructure investment, you will see that public funding of infrastructure accounts for about 70% of total infrastructure expenditure (DB are included). So there is a limitation for private finance. If we look at the required annual spending by actor to close the gap, NDB will need to invest $1 to $1.5 trillion yearly.

WHAT HAVE WE LEARNED?

China has spent more in infrastructure annually during 1992-2011 than the other G20 countries combined. NDB should be part of the infrastructure framework.

Then we have the BNDES case. Most of the funding comes from the government (using non-capital markets financing). 87.7% of BNDES' total liabilities and shareholders' equity are represented by federal government resources.

We need NDBs to finance infrastructure projects because you need funding and you also need expertise with the know how to do these things. Human capital is an important component to close these infrastructure gaps (we need qualified staff to do this).

In Brazil this is our yield curve for fixed rate government securities (slide 29/30). We have high and volatile interest rates. In Brazil it was said that we needed this high interest rates because the public debt was also very high. However, we have seen that countries with way higher debt-to-GDP ratio, have much lower interest rates; and this is because the central banks intervene to reduce these rates.

Public investment: Crowding in or crowding out?

Public investment has "a significant and long-lasting effect on output. They also typically reduce the debt-to-GDP ratio. The level of private investment rises in tandem with GDP" and “the effects of public investment on output and debt tend to be stronger when there is economic slack, when public investment efficiency is high, and when public investment is debt financed” IMF. “Public investment booms in emerging market and developing economies are associated with higher output”

Given that, there is a growing consensus to increase public financing and close the investment gap, IMF WEO OCT 14/15. “debt-financed projects could have large output effects without increasing the debt-to-GDP ratio if clearly identified infrastructure needs are met through efficient investment”. However, the conventional belief public-sector financing capacity influences the narrative.

This requires monetary sovereignty. Bernanke explained the process of buying DBS in 2009: “It is not tax money. The banks have accounts with the Fed, much the same way you have an account at a commercial bank. So, to lend to a bank we simply use the computer to mark-up the size of the account that they have with the Fed.” This also can be done with NDBs. Additionally, central banks should try to provide low and stable interest rates (announce targets for 2-yr, 5yr, 10yr yields).

The G-20 is no longer debating growth versus austerity

Austerity failed where it was implemented. There is consensus towards the use of fiscal policy to support growth: China, Japan, UK, US, and even Wall Street; and the failure of monetary policy (ZIRP, NIRP, QE) to support growth. “Today, the G-20 is no longer debating growth versus austerity, but rather how to best employ fiscal policy to support our economies” U.S. Treasury Secretary Jacob J. Lew G-20 speech 2016. There is commitment to use all policy tools to generate sustainable full employment, which requires coordination between fiscal, monetary, and development policies to full employment and stability. Macroeconomic support is essential for DBs to be successful.