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**Banking on the State:
The Competitive Advantage of State-Led Financing¹**
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Banking on the State: The Competitive Advantage of State-Led Financing¹

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Abstract

How has the rise of state-led capitalism globally affected national competitiveness? Under the banner of the *Belt and Road Initiative*, China uses its national development banks as a form of overseas industrial policy to capture new commercial markets internationally. This paper develops a new theory of global development finance, contending that China's state-led financing has catalyzed policymaking diffusion about the importance of state banking support for national firms. Building on the globalization literature, we anticipate this diffusion reflects global capital competition and peer emulation. However, diffusion is limited by national financial endowments, catalyzing a process of *micro-emulation*, where national governments use limited resources and knowledge of firm-level ecosystems to target *competitive advantages*.

Employing national development banks as our unit of analysis, we develop an original *Development Finance Institution (DFI) Index* that classifies three different types of state-led financial instruments: export credits, overseas development loans, and state-backed equity investments. We conduct a comparative case study analysis of the BRICS economies, given their growing role in the international financial architecture. We find a generalized expansion of development finance institutions, but also a shift in DFI tool composition away from export credits, and towards overseas development loans and equity investments over time.

Word count: 200 words

In the mid-1990s, China struggled to raise global market financing for the construction of the Three Gorges Dam, a massive hydroelectric power plant and the largest water-supply development in human history. Due to its size and international concerns about environmental sustainability, multinational and bilateral lenders, such as the World Bank and the U.S. Export-Import Bank, balked at providing project financing to the state-owned contractor, China Three Gorges Corporation. Against this backdrop, the China Development Bank (CDB) opted to finance the dam, pioneering its new brand of “development finance,”¹ in which the bank would increasingly occupy the market space between a policy bank and a commercial bank. Over the long run, however, once the dam produced electricity, not only was the project profitable but China Three Gorges Corporation became a global market player, acquiring financial stakes in other global energy firms.²

Similarly, the CDB has catalyzed financial expansions internationally as part of China’s ‘go global’ strategy. Brandishing a balance sheet that was on par with the United States’ Big Four Banks, J. P. Morgan Chase, Bank of America, Citigroup, and Wells Fargo,³ the CDB extended credit lines to national governments through joint development funds and other co-financing initiatives. Whereas Western commercial banks and even multilateral banks had to ensure individual projects were profitable over the short-to-medium term to appease their shareholders, the CDB could emphasize the longer term, as a form of “patient capital.”⁴ Its mandate was to meet state objectives with market-oriented instruments, affording the bank more time to both reach profitability and comply with government guidelines.

China’s miracle growth story was thus in part a reflection of its abundant financial endowment. The country’s high savings allowed the state to direct financing toward infrastructure and investment booms, first domestically and eventually internationally. As a late developer, China effectively used its vast banking system to fund industrial development, funneling household savings into investment projects aimed at spurring growth and development.⁵ As a rising global creditor, China externalized its domestic development model by channeling its banking sector resources into global development

¹ Chinese government and financial officials have also referred to this type of banking as “vendor financing,” “low-profit money,” and “for-profit development.”

² Sanderson and Forsythe 2013.

³ Federal Reserve Statistical Release, March 2019, “Top 25 Safest Banks in China in 2018.” *Global Finance*, November 2018.

⁴ Kaplan 2021.

⁵ Gerschenkron 1962; Pettis 2014.

finance.⁶ With its flagship foreign policy program, the Belt and Road Initiative (BRI), it promises to help close infrastructure and investment gaps internationally with its state-led financing.⁷

Over the last half-decade, China has become the world's largest official creditor, surpassing the outstanding claims of the World Bank and the IMF. Its policy banks account for 1.5 percent of global GDP (2017), one-quarter of total developing country loans, and about one-sixth of the foreign debt of developing countries.⁸ Similarly, from Germany and Denmark to Japan, national development banks across the globe promote international trade and investment, but with loans representing a minuscule fraction of global GDP compared to China. If developed countries channel comparatively fewer resources to their development banks than China, to what extent can middle-income countries hope to use state finance to close the development gap? In other words, is China's financial model replicable, and if so, can other countries emulate China's state-led approach to global financing?

In this paper, we develop a theoretical framework to answer this question. Employing development finance institutions (DFI) as our unit of analysis, we argue that the emergence of China's state-led financing has increased cross-border overseas banking competition and yielded a higher prevalence of state financial activity among rising economic powers. Historically, many middle-income countries had to vie for international capital to attract inward investment and improve their global competitiveness.⁹ However, China's choice to use the national banking system to help promote foreign direct investment, and capture new markets internationally represented an alternative commercial promotion strategy. Given the mixed-market nature of many of these economies – which are characterized by historical legacies of state-led development – China's successful development has reinvigorated the use of such state-led industrial policies, but with important limitations.

This policymaking diffusion, emphasizing state banking support for national firms, operates through two main channels: international and domestic. Internationally, we anticipate that national governments expand their DFI balance sheets, following the growing global presence of China's policy banks in the 2000s. Building on the seminal political economy literature examining the globalization of liberalization,¹⁰ we expect this pattern reflects both global capital competition and peer emulation. Hoping to compete more favorably with China and grow their firms' market presence overseas,

⁶ Chen 2024; Kaplan 2021.

⁷ Chin and Gallagher 2019.

⁸ Horn, Reinhart, and Trebesch 2021; Kaplan 2021.

⁹ Ravi 2021.

¹⁰ Simmons and Elkins 2004; Simmons, Dobbin, and Garrett 2008.

middle-income countries learn from China's successful internationalization. They channel capital from their domestic financial systems into DFIs to provide national firms with cheap financing, and thus a competitive edge globally.

For most middle-income powers, however, there are limits to DFI emulation financially, given their smaller banking systems, yielding a pattern of domestic differentiation. In light of their relative resource constraints, most national governments in middle-income economies must diversify their development finance tools, creating a *micro-emulation* of China's overseas lending strategy. They alter the composition of DFI balance sheets to fit their local political and economic circumstances. Why?

China's abundant financial endowment is a source of *comparative advantage*, allowing its national firms to specialize production in key economic sectors, capture markets overseas, and expand Chinese trade and investment. By channeling finance from commercial to development banks, state-led capital becomes an economic input similar to private capital, labor, and land that helps lower production costs internationally in key strategic sectors. Compared to China's mighty financial arsenal, many middle-income countries lack the financial scale and risk tolerance to fully emulate the Chinese model.

Development banks thus concentrate their resources to support individual firms. By eliciting information from domestic firms,¹¹ DFIs learn how they can cost-effectively support their internationalization, and hone their *competitive advantages* – or firm-level attributes.¹² These attributes include investing in research and development and adopting new technologies to outperform competitors in the global marketplace.¹³ DFIs thus shift the composition of investment tools to help national firms gain competitive advantages through equity investments and mergers and acquisitions.

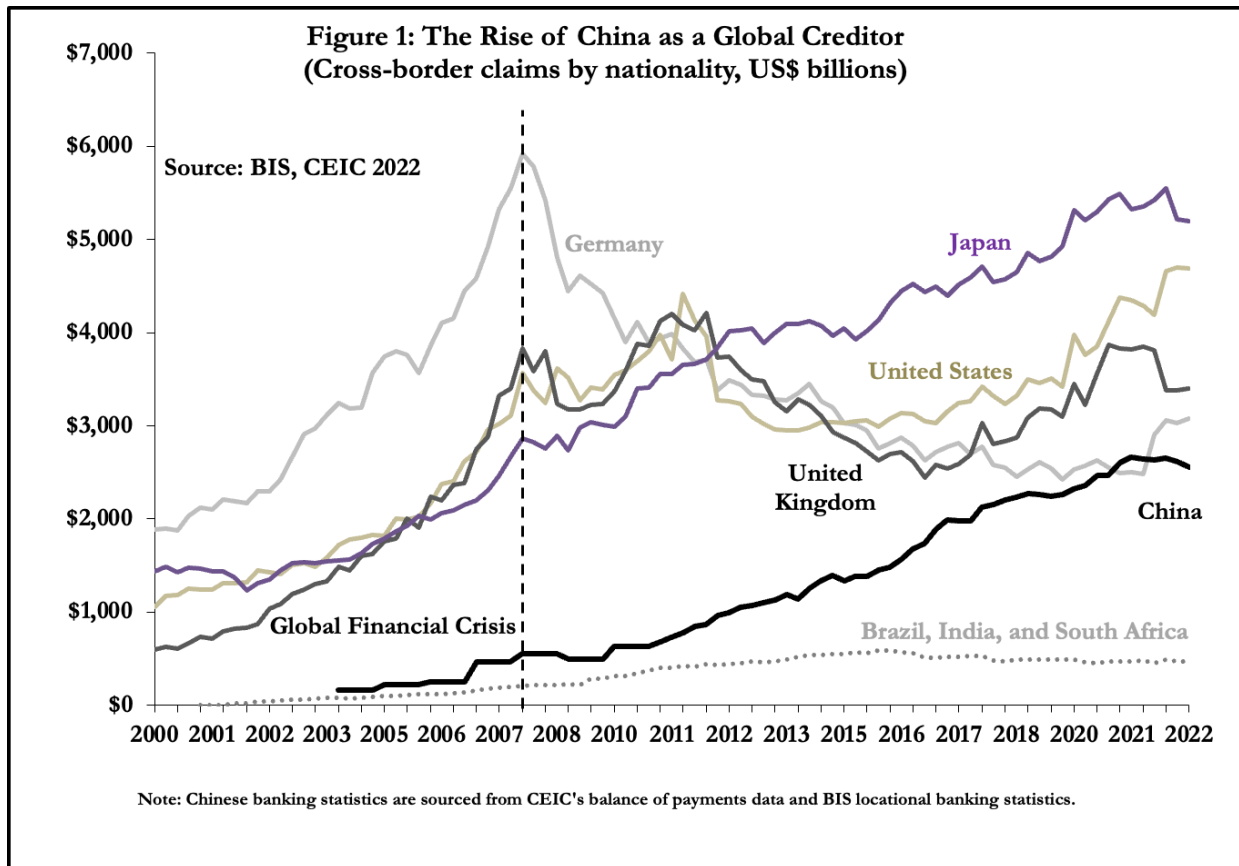
Beginning in the early 2000s, Chinese financiers boosted their cross-border lending to help China become a top 5 bank creditor internationally (see Figure 1). For example, in 2001, the CDB began providing its first credit lines totaling \$45 billion (3 percent of China's 2001 GDP) for overseas infrastructure financing,¹⁴ helping catalyze China's market share in the global telecommunications sector. We anticipate that rising middle-income powers emulate China's success by using their development finance institutions (DFI) with greater frequency.

¹¹ Rodrik 2007; Evans 1995.

¹² Porter 1990, 1998

¹³ Ibid.

¹⁴ Sanderson and Forsythe 2013.



To test these patterns, we conduct a comparative case study analysis of the BRICS economies, given their growing role in the international financial architecture. To assess the extent of diffusion across these cases, we construct an original dataset, entitled the *Development Finance Index* (DFI), that employs national development banks as our unit of analysis. We leveraged twenty years of lending data (2000-2021) from DFI annual balance sheets to build three classifications of financial instruments: export credits, overseas development lending, and state-backed equity investments.

Historically, most development finance institutions have offered *export credits*, a traditional form of trade financing that aimed to promote national exports. However, in the wake of financial crises in Asia and Eastern Europe,¹⁵ they had declined in relevance by the second half of the 1990s. At the same time, China increasingly employed its state-backed policy banks to help facilitate its *overseas development lending*. In the 1980s, Japan had been a forerunner to China in the development-banking space; however, the OECD eventually reformed ODA rules to block Japan from using cheap loans

¹⁵ “Trends and Development in Export Credits,” *International Monetary Fund*, July 1, 2005.

to finance commercially viable projects. Without having to conform to OECD standards, however, China could amplify the scale of its policy bank lending internationally.

We expect other middle-income powers (e.g. Brazil and India) to emulate China initially as it accounts for a larger share of global financial activity over the last two decades, contributing to a generalized expansion of DFI balance sheets. However, these middle-income powers also increasingly adapt DFIs to their domestic needs, using state financing to support firms' overseas *equity investments*. Based on their learning from firm-level ecosystems, DFIs shift away from traditional instruments promoting trade (e.g. export credits) to new tools that support firms overseas by investing in government procurement opportunities (e.g. overseas development lending) and corporate finance projects (e.g. state-backed equity investments).

We also assess the null hypothesis, finding that rising powers that rely more heavily on traditional liberal markets (e.g. South Africa) rather than mixed-market governance models tend to utilize these state-led tools less frequently. Rather than borrowing money from DFIs, multinational firms primarily tap financing through global capital markets. We suspect the lack of such state-led financing tools risks leaving these nations at a competitive disadvantage. In the following pages, we first define the contours of China's development finance model and the determinants of its policy diffusion, before examining the frequency that middle-income powers employ state-led development tools. Finally, we briefly assess the implications of using these tools for firms' international competitiveness.

In crafting a theory of development finance, our paper contributes to the growing scholarships on China's global economic integration,¹⁶ and the use of industrial policy in the contemporary era of globalization.¹⁷ Industrial policy has long been considered a tool for latecomers to close the development gap, and governments are increasingly turning to outward-oriented policies, such as state lending, to maintain global competitiveness.¹⁸ The ability to rely on such industrial policies might be limited, however, by the extent of global economic integration as prior research demonstrates how integrated markets and commodity cycles can weaken the extent of state control over the financial sector.¹⁹ In mixed-market economies, governments have adapted to such financial constraints by using more targeted forms of development financing. Our findings demonstrate that development finance

¹⁶ Chen 2024; Heine, Fortin, and Ominami 2023; Bräutigam and Huang 2023. Stallings and Sanborn 2023; Stallings 2020; Wise 2020; Chin and Gallagher 2019; Helleiner and Wang 2018; Gallagher 2016; Brautigam 2009.

¹⁷ Hankla 2025; Alami & Dixon 2024, Juhász et. al 2023; Klingler-Vidra 2016, Rickard 2012

¹⁸ Juhász et. al 2023; for a detailed composition of development financing, see Figure 3.3.

¹⁹ Epstein 2017, Naqvi 2023.

institutions (DFIs) expanded their overseas presence generally in the 2000s before tailoring their financing to domestic conditions amid growing financial constraints following the 2008 global financial crisis²⁰ and 2014 commodity downturn.

A Theory of Development Finance: Comparative vs. Competitive Advantage

The China Development Bank (CDB) made its foray into global lending by providing about \$45 billion in lines of credit to telecommunication equipment makers,²¹ such as Huawei and ZTE, helping them become key players in the global technological marketplace in the early twenty-first century. They reached this status in part by taking advantage of ‘vendor financing,’ a key element of China’s patient capital. In Brazil, for instance, Huawei used CDB lines of credit to lend money to local Brazilian companies who then purchased Huawei’s telecommunications equipment.²² The CDB, and ultimately the Chinese government, did not judge the success of this banking activity on the profitability of one loan, but rather the extent to which they had created new telecommunications markets for Chinese firms overseas. Over the last two decades, China has expanded its web of commercial ties in the Brazilian telecommunications sector, where today the country’s three largest cellphone operators, Vivo, Claro, and Oi, are using Huawei technology in about two-thirds of their 3G and 4G networks.²³ What explains China’s success in capturing market share, and internationalizing its firms, in such key strategic sectors as telecommunications?

In this paper, we argue that China has a comparative advantage – or a relatively abundant endowment of financial capital – which helps Chinese firms specialize their production in key strategic sectors, and gain access to key overseas markets. Traditional models of comparative advantage employ land, labor, and capital as the key economic inputs determining a country’s specialization profile in international trade and investment. However, we add financial capital for China because the country uses its abundant financial endowment as an input to improve its firms’ competitiveness in strategic sectors. Countries are typically thought to possess export competitiveness in industries where they have a relative factor abundance in labor or capital. By contrast, an abundance of state finance allows countries to increase their export competitiveness abroad by subsidizing the costs of market entry. In

²⁰ See Moschella 2010 for further details about the 2008-09 financial crisis.

²¹ Sanderson and Forsythe 2013.

²² Provaggi 2013.

²³ Fleck, Giovana. “Why Huawei was Almost Excluded from the 5G Race in Brazil.” *Civic Media Observatory*. May 28, 2021.

this sense, an abundance of finance provides a source of comparative advantage (across multiple industries), as it helps firms lower the cost of market entry overseas.

Is such an approach to development finance replicable in other rising and middle-income powers globally, or is it unique to China given the massive scale of its financial system, and banking assets? For example, Brazil and India have banking assets that are about one-twentieth the size of China's total assets, with their banks providing credit to the private sector that was equivalent to 50.0 and 71.4 percent of GDP respectively in 2021 – less than a third of China's bank credit to the private sector, which tallied 178 percent of GDP in 2021.²⁴ Not surprisingly, their development banks thus have significantly fewer resources compared to China's three largest policy banks (the CDB, the Export-Import Bank of China, and the Agricultural Development Bank of China). Brazil and India's development banks²⁵ have total assets of 132.3 billion and 57.5 billion respectively, which amounts to 2.6 and 1.2 percent of Chinese policy banks' whopping 5 trillion in assets (see Figure 2 below).²⁶

In light of these substantial financing differentials, how do development banks from other rising and middle-income powers compete with China's development financing model? Similarly to the spread of liberal ideas throughout the globe previously, a shift to greater government intervention in the international economy reflects both international competition and learning from global peers.²⁷ For rising middle-income powers, China has been a source of both competition and emulation. China's success in internationalizing its firms has helped catalyze policy learning about the merits of development finance, and the role that state capital can have in improving firm competitiveness.

Policy diffusion does not necessarily involve outright emulation; however, given China's abundant financial resources. China possesses both an absolute and relative comparative advantage in its financial endowment, making national-level economic competition challenging for other rising powers. Rather, we anticipate when countries have a more limited financial scale, they will pursue *micro-emulation* by orienting their development lending toward bankable projects, aimed at firm-level profit maximization. In other words, they will use smaller-scale interventions to help firms compete in the international marketplace and maximize their individual firms' profits overseas.

²⁴ World Development Indicators, 2023.

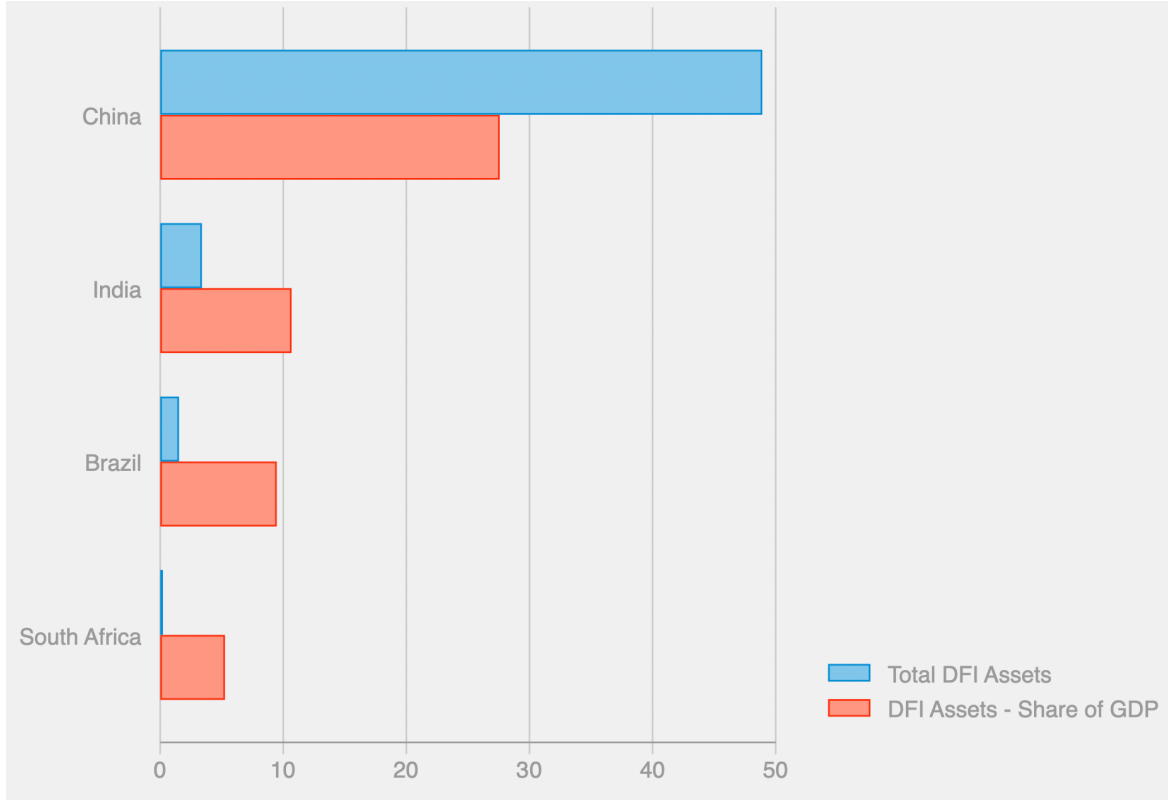
²⁵ Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Export-Import Bank of India, Industrial Finance Corporation of India (IFCI), and the Small Industries Development Bank of India (SIDBI).

²⁶ Xu et. al. (2021); Public Development Banks and Public Financing Institutions Database.

²⁷ Simmons and Elkins 2004.

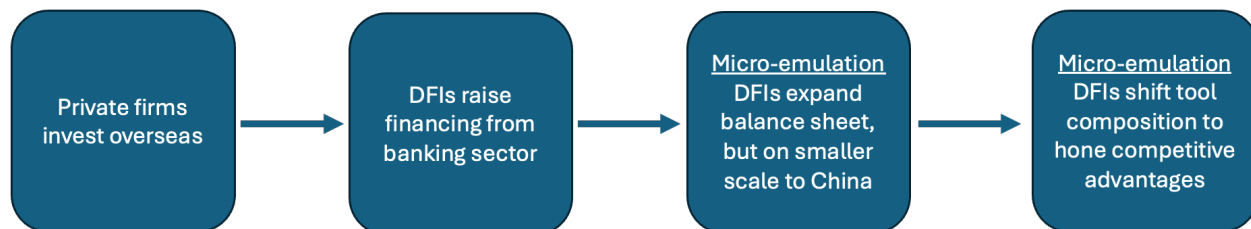
In rising middle-income countries, we thus expect to observe a balance sheet expansion in the 2000s that is similar to China’s development finance institutions (DFIs), but smaller in scale given their more limited banking sector resources (see Figure 3). We also anticipate that middle-income powers will shift the composition of DFI balance sheets to increasingly compete with China on the firm rather than the national level, catalyzing a revival of state-led tools of industrial policy. Based on learning from their firm-level ecosystems, we expect that DFIs will tailor their financing instruments to fit their local economic and political conditions, using more firm-level supports (i.e. targeted development loans and equity investments) to hone competitive advantages.

Figure 2: DFI Assets among BRIC countries²⁸



²⁸ Data from Public Development Banks and Development Financing Database, Peking University.

Figure 3: Causal Mechanism: The Competitive Advantage of State-led Financing



To test these patterns, we conduct a comparative case study analysis of the BRICS economies, given their growing role in the international financial architecture. Brazil, India, and South Africa are all middle-income countries,²⁹ yet they maximize the main independent variable of interest: state-led versus market-based instruments of development finance. We suspect that rising powers that mainly rely on liberal market economies and capital markets (e.g. South Africa) will use state-led development tools less frequently than those with mixed-market governance models (e.g. Brazil and India).

A variety of economic measures suggest Brazil and India are mixed-market economies, particularly relative to their more market-oriented middle-income counterparts (e.g. South Africa). For example, the Wall Street Journal and the Heritage Foundation’s *Index of Economic Freedom* consider Brazil and India to have considerably fewer market freedoms in terms of trade barriers, capital constraints, and financial insulation from government intervention. This relationship is corroborated by the World Bank’s *Doing Business Survey*, which routinely ranks these two BRICs nations outside of its top tercile rankings in contrast to their more market-oriented peers.

The Comparative Case Study Evidence

In this section, we use a comparative case study analysis to test our hypothesis that mixed-market economies are more likely to borrow funds from development finance institutions (DFIs), particularly since China’s emergence as a global creditor in the early 21st century. To gauge the learning process, we track how their DFI balance sheets compare to China in both the size and composition of lending tools since the 2000s. We also examine to what extent these development finance institutions diversify their investment tools beyond standard export credits to include firm-level financial support. To complement this analysis, we also employ primary interviews with national policymakers and firm executives to evaluate how officials learned from China’s state-led lending practices over time, and how they also innovated with firm-level supports to maintain their competitive edge.

²⁹ World Bank’s country and lending group classification.

In this comparative case analysis, we leverage variation in our key independent variable – the size of the financial sector – to examine the variation in how countries deploy this finance for development. For example, with domestic banking assets that are one-twentieth the size of China’s total assets,³⁰ we anticipate that India’s banks will funnel fewer resources towards the country’s development finance institutions (DFIs). With a smaller share of financial resources compared to China, we expect that Indian DFIs will use state-led financing tools to develop firm-level competitive advantages in contrast to China’s tendency to employ its comparative advantage, or abundant financial endowment to support industry and sector-wide lending initiatives. Figure 2 demonstrates this divergence in DFI financing by showing each country’s total DFI assets (in USD million), as well as their share of GDP. Compared to China’s overall development finance assets – which account for 30 percent of its overall GDP – India’s DFI assets only account for about 10 percent of GDP.³¹

We detail below how India’s development finance is deployed specifically to help firms improve their competitive advantages in overseas markets. Drawing from the business literature, we define competitive advantages as firm-level attributes that involve technological acquisition, export access, market distribution, and/or R&D expenditures. We first employ the case of the TATA group below to illustrate this development finance logic before later assessing why DFIs emulated China, and how they shifted their financing tools to achieve these goals.

Development Finance & India’s Competitive Advantage

Compared to Chinese development finance institutions (DFI), India’s DFIs were largely privatized after the 1991 economic reforms, with just a handful of traditional institutions, like the Indian Exim Bank and the Housing Development Finance Corporation – left intact to provide capital for developmentally-oriented projects.³² With more limited financial tools after India’s economic liberalizations in the 1990s, Indian state actors relied much more heavily on the cooperation of private capital to reach industrial policy goals.³³ They supported firm-led expansions internationally, including overseas investments in developed country markets in search of advanced technology and capital.

Aided by the Indian Exim Bank, the TATA group made its first overseas purchase of the Tetley tea company, based in the United Kingdom, in 2000. The Indian Export-Import Bank participated in

³⁰ World Development Indicators, 2023

³¹ Development Finance Index (DFI) 2025.

³² Rangaraj 2017, Naseemullah 2017

³³ Hankla 2025

a leveraged buyout, which at the time was the first and largest overseas acquisition undertaken by an Indian company abroad.³⁴ By facilitating this acquisition, Indian state finance helped the TATA group acquire a strategic asset within the UK to help develop its overseas branding and distribution network and hone its supply chain management in the food and beverage industry.

By acquiring such a well-known British brand, the TATA group was able to market their products to new consumers, access new export markets in the UK, and gain a new global consumer base. Five years after its Tetley purchase, the company already had captured nearly 28 percent of the market share in Britain's tea industry.³⁵ Today, the TATA-owned Tetley tea company is currently the world's second-largest tea brand, with a presence in over 40 countries globally.³⁶

The Tetley acquisition and subsequent support by the Exim Bank exemplifies the process we term “micro-emulation” of the Chinese overseas development model. This is a distinct form of emulation that fosters firm-level competitive advantages, rather than national-level comparative advantages. In China's case, the country's large financial depth is a comparative advantage because it facilitates large-scale infrastructure financing that eases market entry for a broad range of Chinese firms. For example, China's financing of the Santa Cruz hydropower projects in Argentina featured a \$1 billion supply contract for Chinese machinery and equipment that included hydroelectric turbines, bulldozers, dump trucks, and modular housing.³⁷

By contrast, without such extensive financial resources, Indian development finance institutions concentrate on improving competitive advantages, or the global competitiveness of individual firms. By distinguishing such competitive from comparative advantages analytically, we show how the smaller scale of India's financial sector influences the orientation of its overseas development model. Notwithstanding the Indian financial system considerable growth in the recent decades, it remains a fraction of the overall Chinese banking system. Due to its smaller size, the Indian financial sector uses its more limited resources towards supporting industrial policy at the firm level, rather than the national or sectoral level. Our causal chain follows Figure 3 above.

³⁴ India Exim Bank Annual Report, 2001-2002

³⁵ “Tetley to be repositioned in Canada, UK”, *The Economic Times*

³⁶ “Tea Prices and Sustainability, IISD, 2024”

³⁷ Development Finance Index (DFI) 2025.

Micro-emulation: Expanding DFI Presence in Overseas Markets

What are the roots of such outward development finance from developing countries? When did India and its fellow rising powers begin to employ these tools globally? India's Exim Bank –the country's primary development finance institution – was founded in 1982, but its mandate initially did not include directing state finance to help develop Indian firms' overseas presence. Why? Prior to 2000, India had not yet liberalized internationally, and rigid capital controls impeded the outflow of investments overseas. However, the contours of global competition began to change with China's foray into the development banking business in the early 2000s.

Under the leadership of President Jiang Zemin in 2001, the Chinese government officially adopted its 'go global' strategy of internationalizing Chinese banking and investment into its 10th Five-Year Plan. Guided by an influential and illustrious international advisory council that included Henry Kissinger and American International Group chief Hank Greenberg, Chinese policy banks hoped to create new markets for China globally. By directing Chinese state financing into higher-risk infrastructure projects in developing economies, these "policy lenders" were able to gain market share internationally in those credit spaces that were often neglected by commercial banks.³⁸ With their international loans growing at a nearly six-fold pace from the mid-2000s until the 2020 pandemic outbreak, China's policy banks had loudly announced their 21st-century arrival.³⁹

Taking its cue from Chinese policy banks, India's Exim Bank became more active globally following the country's economic liberalization in the 1990s. Notably, the India Exim Bank also grew at a six-fold pace in the 2000s, albeit from a considerably smaller base, with its balance sheet reaching a peak of 0.16 percentage points of GDP in 2017 (see Figure 4) – compared to China Exim Bank's 3.5 percent of GDP tally in 2017. In line with its Exim Bank's balance sheet expansion, the Indian government also catalyzed its firms' foray overseas through policy reforms that simplified outward investment. In addition to dismantling capital controls, the government also liberalized the financial sector and removed investment screening and joint venture requirements for Indian firms overseas.⁴⁰

Given the smaller scale of India's Exim Bank and total development finance assets (see Figure 2 above), policy lenders targeted individual firms rather than broad infrastructure projects. Although China employs its comparative advantage in financial capital to invest in large-scale infrastructure

³⁸ Sanderson and Forsythe 2013.

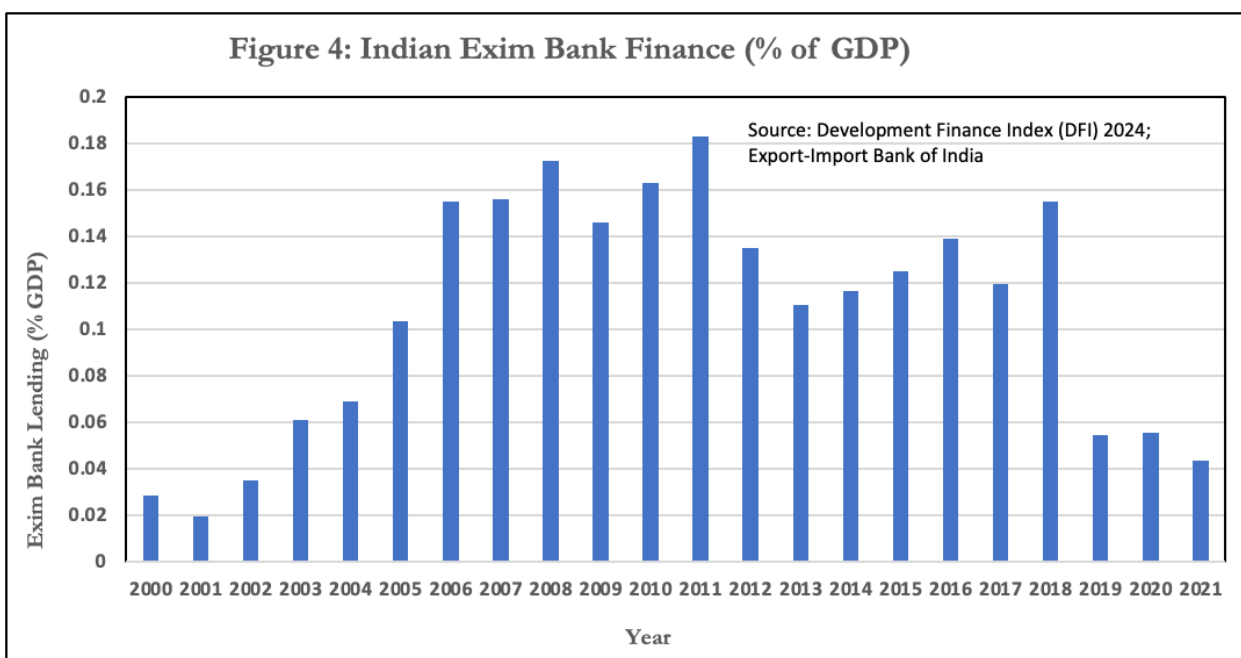
³⁹ Kaplan 2021.

⁴⁰ Pederson 2010, Stephenson & Perera 2017.

projects that help its firms gain market share in key industries (telecommunications, nuclear power, and renewable energy), China’s infrastructure financing is not easily replicated. For India where infrastructure has been a historic stumbling block to development,⁴¹ DFIs instead leverage the strength of the Indian private sector, channeling financial resources to hone firm-level competitive advantages.

In Europe, for instance, Indian Exim Bank’s financing helped facilitate the acquisition of Netherlands-based Vredestein Tyres, which allowed Apollo to modernize its production and compete more effectively with top global brands, such as Michelin Tires.⁴² According to one Indian international investment consultant, India’s market-based approach is distinct from China:

“In China, the state played a large role in expansion. They were playing a longer game by using government companies to open up the market and then create opportunities for private firms to invest. In India, firms have had to figure things out for themselves. If one Indian firm goes in that increases the chances that other Indian firms might be able to break into the market.”⁴³



Micro-emulation: DFI Learning and Shifting Financing Tool Composition

In examining the extent of policy emulation, we employ development finance institutions (DFIs) as our unit of analysis. In other words, Indian development banks are the primary causal agents, drawing lessons from both the international economy and their domestic political economy. Indian

⁴¹ “The Tiger and the Dragon,” *Financing & Development*. International Monetary Fund, 49(3): 2012.

⁴² The Economist, 2015

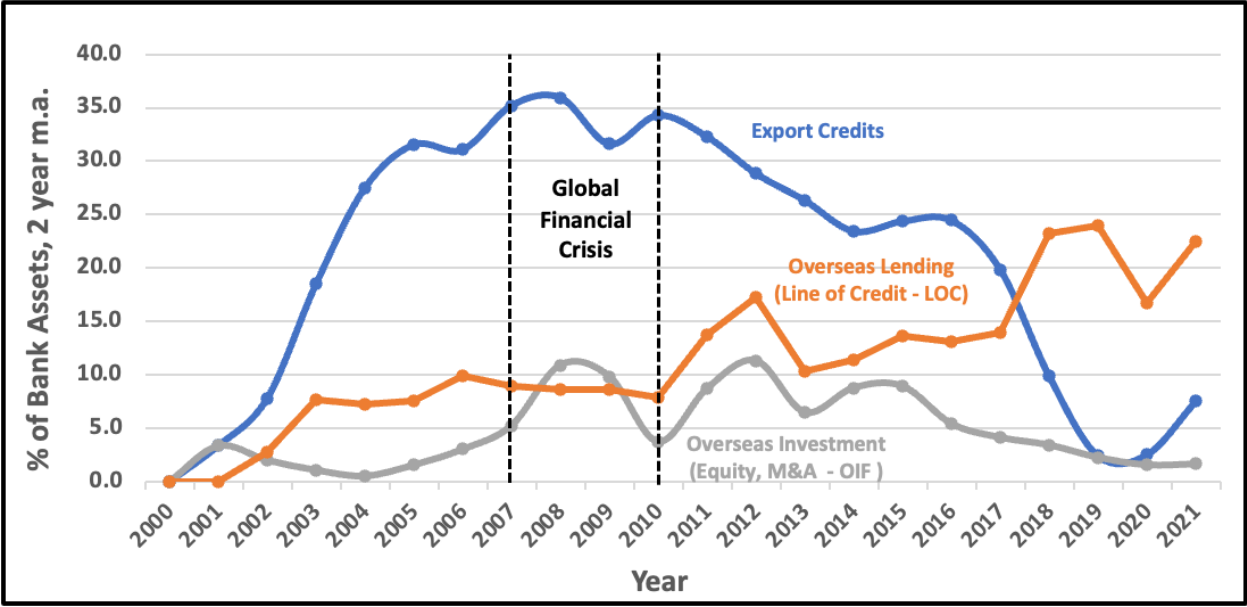
⁴³ Author interview, emerging markets consultant, July 2022

development banks took a cue from China’s initial successes in the policy banking space by expanding their overseas market presence beyond the traditional reliance on export credits. India’s DFIs also learned from its private firms, given that they were early movers in the international marketplace after India’s 2000s reforms. Embedded in an ecosystem of Indian firms overseas, development banks elicited information and learned from the Indian private sector,⁴⁴ eventually shifting their overseas financing tools to reflect their domestic development needs.

Figure 5 demonstrates the evolution of Indian development finance over time. In the early 2000s, the Indian Exim Bank mainly promoted Indian trade through export credits. According to a senior Exim Bank official, the institution has “very humble beginnings.”⁴⁵

“In the early days, the goal was to provide credit for exports, but the problem was that there was little surplus to export. So, now we try to use complementary tools to enhance exports, such as the government and firm loans”⁴⁶

Figure 5: Indian Development Finance Shifts from Trade to Overseas Lending
Export Import Bank of India (% of Bank Assets, 2-year m.a.)⁴⁷



During the 2008 global financial crisis, India curtailed its export credit business, before emulating China’s emphasis on lines of credit (LOCs) by directly lending to national governments in developing countries (see Figure 5). Over time, however, Indian DFIs also adapted their lending portfolio to

⁴⁴ Rodrik 2007; Evans 1995.
⁴⁵ Author Interview with India Exim Bank, London, 2024
⁴⁶ Ibid.
⁴⁷ Development Finance Index, 2025; India Exim Bank annual reports 2001-2018.

better fit the needs of Indian firms. The Exim Bank developed a new LOC joint venture facility and increasingly employed OIF lines to help promote merger and acquisition activity abroad. By the mid-2010s, OIF lending reached levels that were nearly 5 times higher than a decade earlier.

This shift in DFI financing portfolio demonstrates how Indian development banks learned over time, first from China's policy banks and then from India's domestic firms. Similar to their Chinese counterparts, Indian Exim Bank loans tend to operate over a longer time horizon than private financing and often focus on directing finance to critical development sectors – i.e. healthcare, transportation, and public infrastructure. For example, the Indian Exim Bank recently extended \$27 million to two private companies – Kanoria Africa Textile PLC and Arvind Brands and Retails Ltd. – for the development of industrial park infrastructure and denim processing plants in Ethiopia, where China also has an extensive investment presence.⁴⁸

In line with previous scholarship characterizing Indian development assistance as strongly aligning with commercial and political aims (compared to traditional donors),⁴⁹ this article argues that Indian overseas finance is primarily commercial, arising from Chinese competition and aimed at internationalizing Indian firms. In fact, scholars have found that LOCs are primarily distributed in areas where there are already existing Chinese projects.⁵⁰ Indian development bank lending also overlaps with China in many Global South countries, with about two-fifth of its loans channeled to Asia and Africa.⁵¹

Notwithstanding such investment competition, India differentiates its development finance from China based on its private sector emphasis. Its development banks deviate from straightforward global peer emulation and competition by incorporating national trends,⁵² including learning from the outward investment of India's rising multinationals overseas.⁵³ By tapping into the knowledge of their domestic firm-level ecosystems, Indian development banks enhance their firm's competitive advantages internationally, despite their more limited resources and smaller scale of loans. For example, the Indian Exim Bank extended a \$100 million, 10-year credit line to the Africa Finance

⁴⁸ Convergence and Divergence in Emerging Donor Finance: A Comparative Analysis of Chinese and Indian Exim Banks in Ethiopia. *China Africa Research Initiative*, June 2021

⁴⁹ Fuchs & Vadlamannati 2013.

⁵⁰ Bluhm et. al 2024

⁵¹ India Increases Africa Lending to Counter China, *Bloomberg*, July 2023

⁵² Brooks & Kurtz 2012

⁵³ Ravi 2021.

Corporation in 2021 for infrastructure development,⁵⁴ which is significantly smaller than China's billion-dollar infrastructure financing packages. While the LOC is used for capital needs, it's also meant to more generally strengthen India's private sector ties with African pharmaceutical distributors and manufacturers by improving their access to Covid-19 vaccines.⁵⁵ Similarly the LOC joint venture financing mechanism is a cost-effective tool for helping Indian companies develop strategic partnerships with leading global textile firms, including H&M and PVH Corporation.⁵⁶ According to India Exim Bank Chairman, Yaduvendra Mathur, the banks' main aim in using such tools is to enhance opportunities overseas for India's service economy:

"Infrastructure building is something that China has been doing in Africa. With its huge financial resources, China probably has greater capacity to do it than India...India's strength is in services, especially in sectors such as healthcare, information technology, education, and even agriculture-related services. So, we want to help in increasing India's services exports to Africa."⁵⁷

Development finance institutions (DFIs) thus support Indian firms by constructing valuations for overseas acquisitions and providing collateral for foreign borrowing. Projects are evaluated on a commercial basis through such indicators as market share, profit margins, and sales revenues. DFIs also tend to target private firms that have strong export potential, aiming to steadily upgrade India's role in global value chains. For example, the Indian Exim Bank has concentrated investments in Indian automotive firms given that auto components are among India's top ten exports.⁵⁸ Most Indian automotive component companies have adopted a "follow the supplier" model, where they base their overseas investments in markets where they have the best opportunity to become direct suppliers to the original equipment manufacturers (OEM).⁵⁹ The Exim bank, recognizing this pattern, and financially supports domestic automotive firms to help facilitate this value chain upgrading. According to an Indian Exim Bank official:

"We allow firms to have a nimble reaction towards overseas market expansion. For example, while the U.S. is a key consumption market for vehicles, much of the manufacturing is done in Mexico. We help Indian component companies invest in Mexico so they can develop direct relationships with OEM suppliers."⁶⁰

⁵⁴ Africa Finance Corporation receives a US\$100m loan from India Exim Bank to spur post-COVID recovery, *AFC Press Release*, September 2021

⁵⁵ Exim extends \$250 million credit to Africa for jobs, *The Hindu*, November 2021

⁵⁶ Whitfield et. al 2020

⁵⁷ Exim Bank's African credit to boost services exports, *The Hindu*, October 2016

⁵⁸ Atlas of Economic Complexity, India Country Profile

⁵⁹ Author interview with Indian automotive components firm, February 2019

⁶⁰ Author interview with Exim Bank General Manager (Washington D.C. office), October 2019

For India’s private sector, DFI tools are helpful in promoting investments, known as “spring boarding,”⁶¹ or more formally, “strategic asset-seeking” FDI. These overseas investments help firms acquire intangible assets related to technology or innovation in the host country that they lack domestically.⁶² By encouraging outward investment in new overseas markets, Indian firms gain valuable assets – including access to innovation, transfer technology, and managerial skills and knowledge⁶³ – that have positive spillover effects for the home economy such as booting export competitiveness and innovation ecosystems. According to the international strategy chief at an Indian automotive MNC, such international expansion is complementary with domestic growth objectives.

“The purpose of outward investment is to acquire technologies and deploy them in India – it’s really a form of reverse globalization.”⁶⁴

Implications: Indian Development Finance Catalyzes Competitive Advantages

In line with our theoretical priors, Indian development institutions have increasingly employed state-backed credit to help improve their firms’ competitiveness internationally. In most cases, private firms have already achieved market entry overseas, so the lofty scale of financing employed by China – geared toward breaking into new markets – is often less necessary in India. Rather, Indian development banks aim to facilitate overseas acquisitions to gain technological, financial, and managerial expertise so that individual Indian firms can better compete in the international marketplace. India’s development financing presence has thus increased substantially since the 2008 financial crisis, in part emulating China’s state-led tools of development.

The Indian development finance approach appears in line with broader trends in industrial policy worldwide, which show that industry policies have become increasingly granular.⁶⁵ Development finance is thus typically targeted at the firm level, focusing on industries where the Indian private sector is competitive. Rather than adopting traditional, inward-looking tools, Indian industrial policy tends to be outward-oriented, aimed at helping firms develop international competitive advantages.

India’s development finance appears to thus be an important factor in helping spur innovation. Since the 2008 global financial crisis, when the Indian Exim Bank began moving into the M&A business, India has steadily increased its firm-level innovative capacities. The country now ranks 40th

⁶¹ Enderwick & Buckley 2021.

⁶² Meyer 2015.

⁶³ Author interview with Indian IT firm, January 2018; also see Luo & Tang 2007, Witt & Levin 2008.

⁶⁴ Author interview with Indian automotive company, January 2018

⁶⁵ Juhász et al. 2023

in the *World Intellectual Property Global Innovation Index*,⁶⁶ a proxy for global human capital and technological infrastructure. Directing development finance toward strategic asset seeking overseas also helped India enhance its ‘market sophistication,’ with the market capitalization of its information communication technology (ICT) reaching 19th place globally.⁶⁷

Finally, Indian firms have also gained competitive advantages in global markets in services and high-tech manufacturing since the 2008 global financial crisis, which coincided with both China’s financial emergence globally and India’s growing financial support of its firms overseas through its LOC joint venture and OIF M&A facilities (see Figure 5). Today, the information and communication (ICT) sector accounts for nearly 30 percent of India’s overall exports – helping India attain a ranking of 42nd globally in its firms’ economic complexity in the *Harvard Atlas of Economic Complexity* – and signifying a diversification of its production and export base. These trends also indicate that Indian firms are gaining greater market share in technologically complex sectors abroad, which has a feedback effect in also deepening complexities back in the home economy.

Brazil: Honing its Competitive Advantage with Development Financing

We next examine the dynamics of overseas development lending in the case of Brazil. We find that Brazil’s main development bank, *Banco Nacional de Desenvolvimento Econômico e Social* (BNDES), tends to leverage its financing to hone firm-level competitive advantages by facilitating access to technology, managerial expertise, innovation, and distribution centers in overseas markets.

Micro-emulation: Expanding BNDES Presence in Overseas Markets

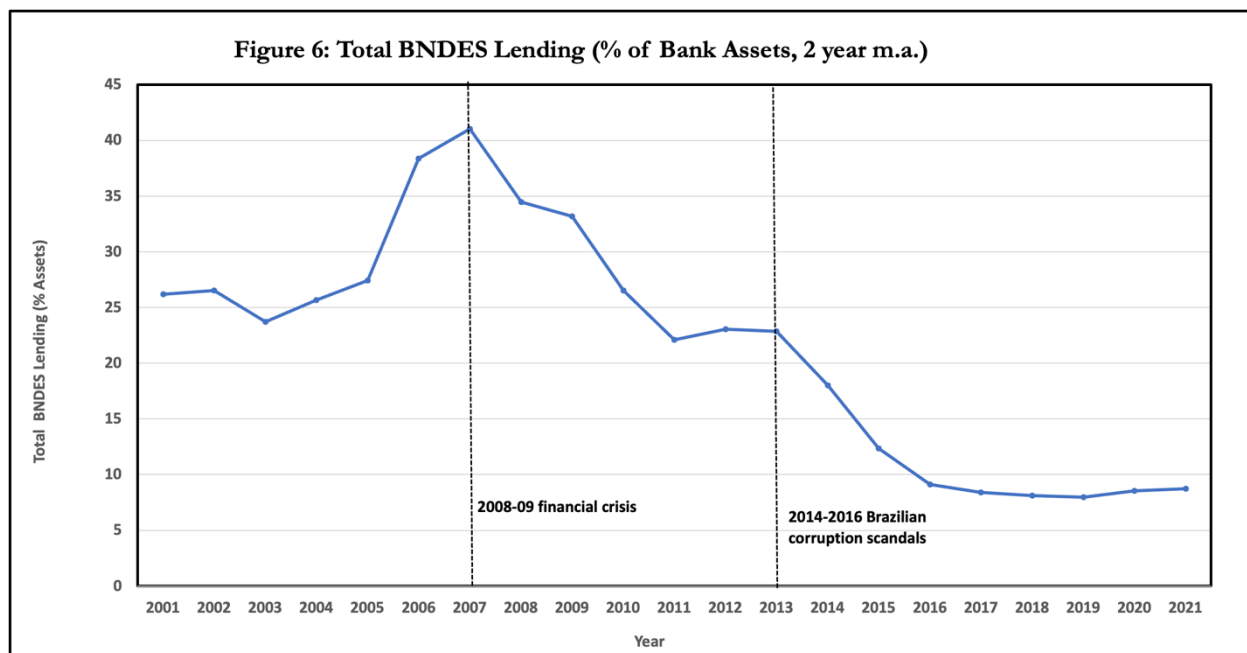
Similar to India, Brazil’s DFIs learn from China’s successful global expansion of its development financing model in the early 2000s. Employing the BNDES as the main unit of analysis, we once again explore micro-emulation; specifically, how the development bank first mirrors China by expanding its balance sheet to support Brazilian firms before later differentiating its financing by adapting its tools to the needs of Brazilian firms (see Figure 3). China employs a comparative advantage, or abundant endowment, of financial capital to improve the efficiency of its production, market access, and trade and investment overseas. Compared to China’s infrastructure financing approach aimed at stimulating entire sectors overseas, Brazil finances the development of firm-level competitive advantages, or specific attributes enabling firms to better compete in the international marketplace.

⁶⁶ World Intellectual Property Organization, 2023.

⁶⁷ World Intellectual Property Report, Global Innovation Index (2022)

The Brazilian financial system has tended to marshal more state capital towards firm internationalization than India, as Brazil’s main development bank, BNDES, currently holds \$132.3 billion in assets, over six times the asset value of the India Exim Bank. BNDES is responsible for a much greater share of Brazil’s economic activity; with overall lending reaching about 1.5 percent of overall GDP during the Bank’s most active peak (2009-2013), or five-fold greater than Indian Exim Bank’s peak lending period (see Figure 2). The BNDES also became increasingly internationalized during this period, with its share of international loans accounting for around 4 percent of the total loan portfolio at the peak of its lending in 2013.⁶⁸

Nevertheless, the BNDES scaled down its resources during the 2008 global financial crisis from its peak lending (see Figure 6) and further unwound its financial exposure following Brazil’s 2014-2016 corruption scandals that increased scrutiny over Brazil’s public funds. Similar to India, we thus observe that Brazil employs its limited financial capital to support statist industrial policies on the firm level, helping develop competitive advantages to gain more of an overseas market presence.



Micro-emulation: DFI Learning and Shifting Financing Tool Composition

Similar to India’s development bank-private sector nexus, the BNDES learned from its domestic firm ecosystem about how to best develop firm competitiveness in overseas markets. In the initial lending phases, the BNDES took its cue from the Chinese overseas finance model by providing

⁶⁸ DFI Index (2025); BNDES annual report 2013-2014

overseas government-to-government loans geared towards providing opportunities for Brazilian suppliers and contractors. However, given that the BNDES accounted for a smaller share of the Brazilian financial system, the BNDES significantly altered its composition of policy tools following the 2014-2016 corruption scandals. Turning away from subsidized loans and instead toward equity investments, the bank began to concentrate its investments on strategic support that was geared at developing firms' competitive advantages. Specifically, equity support was aimed to help firms overcome the competitive disadvantages they faced investing abroad, as equity investments were tailored towards helping firms file IPOs, and fund R&D centers to improve their innovation potential.

The BNDES strategy during this period also reflected learning from other development banks, as notes by the BNDES president at the time, Luciano Coutinho:

“The Chinese (and South Korean) development banks lend more than us, but they only do mono-lines,” or single lending facilities at the time. “We do credit, we support capital markets, and we operate through the private banking sector itself.”⁶⁹

Given that Brazil had a relatively larger banking system than India (see Figure 2), it initially had more resources to draw on to pursue a Chinese-style sectoral approach. As part of its internationalization strategy, the Brazilian government “emulated” the Chinese government initially in terms of its financing tools through the use of state-to-state infrastructure loans. The BNDES would offer a line of finance at a concessional rate to other sovereign governments, in exchange for Brazilian contractors and suppliers to undertake projects abroad. These lines of credit were offered primarily to other developing country governments in Latin America and Africa. Figure 7 shows the composition of BNDES development finance tools between 2001-2021, highlighting the shift toward overseas cooperation (state-to-state) loans following the 2008-09 financial crisis, and then the shift toward equity investment after Brazil's 2014-2016 corruption scandals.⁷⁰

However, there were significant political constraints towards utilizing this policy tool. Critics expressed concern about the strain of using public expenditures to finance infrastructure in overseas markets; this criticism gained strength after Brazil's public corruption scandals. A BNDES bureaucrat discussed some of this criticism in the wake of the *Lava Jato* corruption scandal:

“There was opposition to the idea - that you are financing the infrastructure in countries like Cuba, Angola, Nicaragua, leftist countries - while people are hungry here and the infrastructure is horrible in Brazil”⁷¹

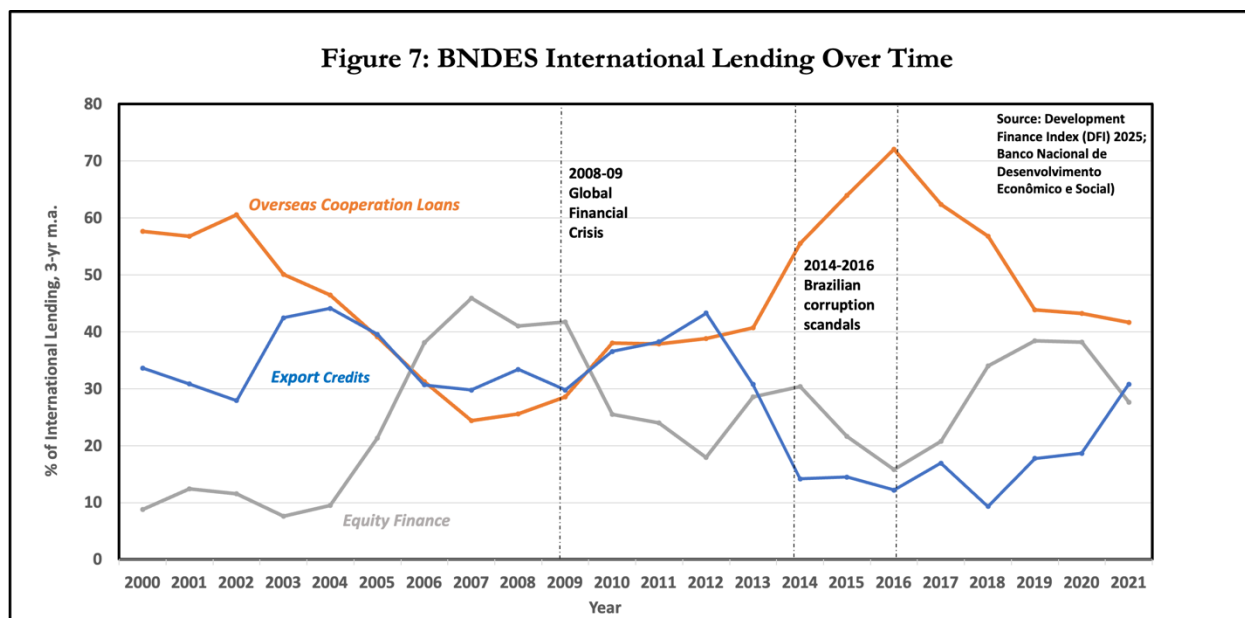
⁶⁹ *Financial Times*, Interview with Luciano Coutinho, BNDES president, November 2009

⁷⁰ Hochstetler 2014

⁷¹ Author Interview, July 2018

In light of this public backlash, the government instead opted to provide other more cost-effective tools to facilitate firms' outward expansion. As a Brazilian policymaker at the BNDES noted:

“The costs for internationalization were different than the costs for domestic investment - it was a more expensive line of credit. So, one of the ways that we found to support these companies was through equity investments, because we knew that the company was going to grow, at the same time the credit was very expensive. So, companies actually preferred to take loans in the form of equity investments.”⁷²



Equity investments were also tailored to support the specific challenges that Brazilian firms faced overseas, after learning directly from firm leadership about their need for policy support. In this regard, the BNDES designed its “national champions” policy to develop Brazil’s industrial base by honing its competitive advantages.

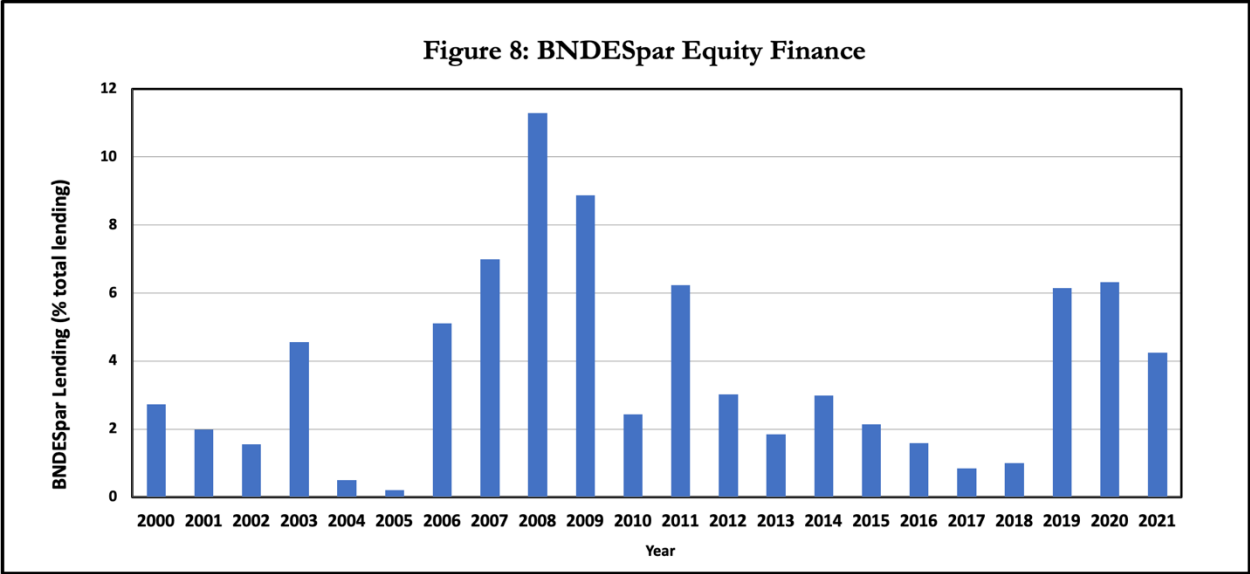
“The underlying economic logic of this new orientation towards Brazilian firms’ internationalization was to shift from the dominant, static “comparative advantages” of the country to the construction of “competitive advantages”. This was to be achieved thanks to a selective state policy that would successfully link the “natural” efficiency of the market to endogenous nuclei of technological progress.”⁷³

To support these goals, the BNDES created an equity investment arm, dubbed *BNDESp*, that invests state equity in minority stakes of firms to help grow their market capitalization. While the largest expansion of the Bank’s portfolio occurred through development lending – loans given with a longer repayment schedule – the *BNDESp* arm offered a more active tool to develop firm-level

⁷² Author Interview, July 2018

⁷³ BNDES policy report, 2017 (Nova Garçon, L. F. (2017). *BNDES: processo decisório por subtração (2003-2014)*.)

competitive advantages. Through BNDESpar shareholding, members of the BNDES would meet regularly with firm directors and provide input into company policies from both a financial and technical perspective. BNDES shareholding involvement, which more than doubled as a share of total lending after the global financial crisis, reached 6 percent of total lending by 2019 (see Figure 8). Increasingly, the Bank used these operations to help Brazilian firms, hoping to enhance their competitive advantages internationally in strategic (oil and gas, food, and mining) and emerging sectors (renewable energy and technology companies). For example, *BNDESpar* infused Petrobras with \$4.3 billion in 2010 to help capitalize its excavation of the pre-salt oil layer off the Brazilian coast and boost the firm’s share of global oil reserves.



In striving to increase their competitiveness in overseas markets, Brazilian firms struggled with three main disadvantages: their scale, innovation, and financial resources. First, they needed to develop economies of scale internally to achieve the necessary size and scale to compete globally. Additionally, they tended to have weak national innovation systems, meaning that Brazilian firms needed to invest more in research and development. Finally, Brazilian firms often did not have strong overseas reputations or assets, making it difficult to access finance from foreign sources.

To address these competitive disadvantages, the BNDES increased its lending in the mid-2000s, particularly in the wake of the 2008-9 global financial crisis under the stewardship of BNDES President Luciano Coutinho, who prioritized overcoming firm barriers to achieving domestic

economies of scale.⁷⁴ Recognizing that many Brazilian firms did not have the internal economies of scale necessary to compete internationally, the government offered specific credit lines for firms to make acquisitions domestically to facilitate local “national champions. This state finance also provided the valuation necessary to participate in cross-border acquisitions, which were key to helping Brazilian firms develop their capabilities to compete in overseas markets.

The BNDES also prioritized improving the innovative capacities of Brazilian firms abroad. Under Coutinho’s leadership, Brazilian enterprises in the information technology (IT) sector became leading recipients of BNDES financing. Even in sectors that were less technologically intensive, the BNDES emphasized the importance of upgrading capabilities in research and development. For example, the Brazilian firm JBS Foods, which received BNDES support, used these funds to establish new R&D centers in Colorado and Belgium.⁷⁵

Finally, the BNDES also recognized that legal and governance structures were preventing Brazilian firms from accessing financial capital in overseas markets. To address this issue, the *BNDESpár* investments were designed to allow firms to file an initial public offering, or raise financing, from overseas stock exchanges. When the BNDES purchased minority shares in firms, the arrangement was typically for a specified period, so that the firms could acquire the technical support to undertake corporate governance reforms. Eventually, the BNDES would reduce its ownership shares in these enterprises, and divest entirely when the firm went public. By offering this shorter-term form of industrial policy guidance, the BNDES was able to help firms access new sources of capital that hone their competitive advantages relative to other global firms.

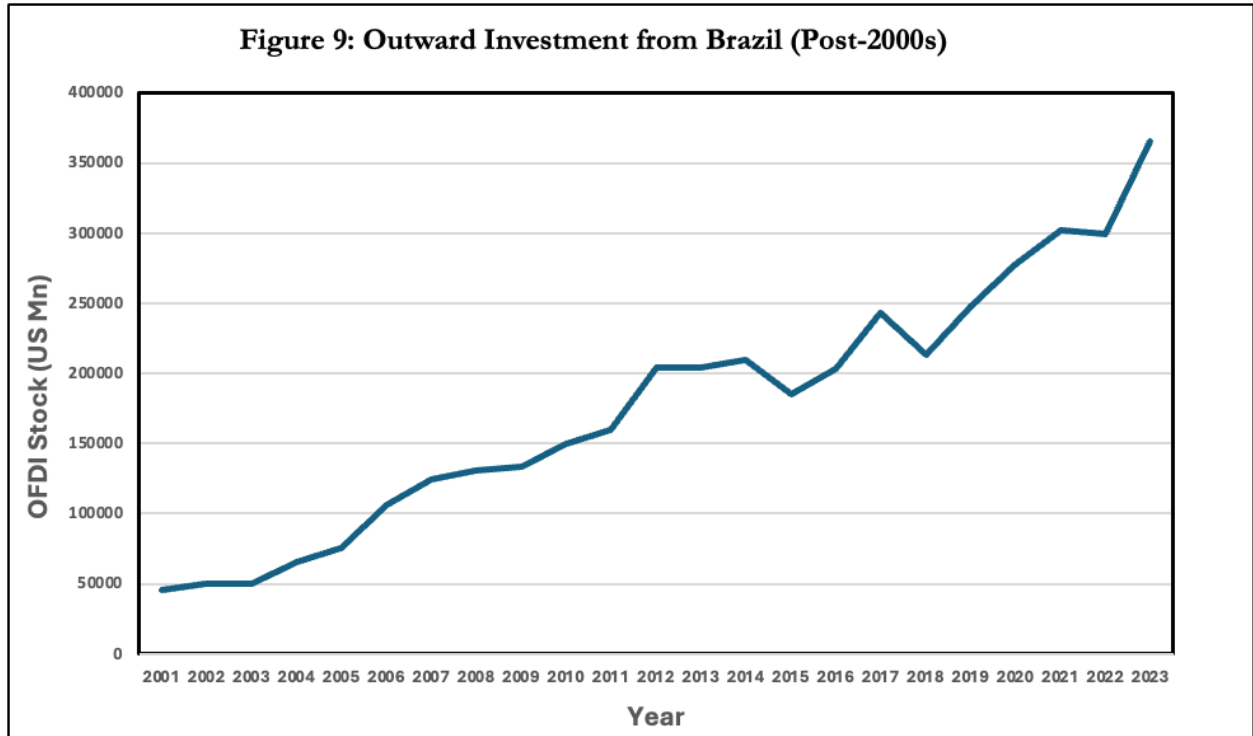
Implications: Brazilian Development Finance Ignites Internationalization

The BNDES policy to support internationalization helped catalyze Brazilian outward investment (see Figure 9), nearly doubling outward investment from 2005-2010. For the nearly two-thirds of Brazilian firms that already had Latin American investments, the BNDES helped expand their geographic scope to markets beyond the region.⁷⁶ BNDES also supported sectoral diversification by investing in multiple industries, including agribusiness, machinery, and information technology.

⁷⁴ As an advocate of internationalization, Coutinho was trained as an economist at Cornell University and wrote a doctoral dissertation entitled “The Internationalization of Oligopoly Capital” a comparative analysis of the internationalization phenomenon in South Korea, the United States, and Europe.

⁷⁵ Sierra 2015

⁷⁶ Ibid.



The case of the IT firm, TOTVS, helps illustrate the main causal logic of our claims. The firm was not only one of the strongest firms in the IT sector domestically, but it also had a presence overseas. Leveraging this position of strength, BNDES funds helped improve 'TOTVS' competitive advantages by acquiring overseas assets, innovation capabilities, and R&D centers. For example, after the IT firm TOTVS invested in Mexico in 2015, BNDES provided financial support to help acquire Bematech, a Brazilian software firm. In addition to growing its scale, TOTVS also received innovation financing for expanding its foreign R&D centers.⁷⁷

These BNDES interventions also helped increase Brazil's export competitiveness in key industries. From 2005 to 2020, Brazilian ICT exports increased from 5.74% - 8.8%, and ICT exports are currently Brazil's third-largest export.⁷⁸ In line with this trend, Brazil's performance on industrialization, according to the U.N.'s *Competitive Industrialization Performance* (CIP) database, also improved but experienced two distinct trends. In the first period of BNDES balance sheet expansion (see Figure 6), Brazil's CIP index scores gradually increased from 2002-2014, helping solidify Brazil's place among the top 35 industrialized countries internationally. Notably, following the confluence of Brazil's 2014 twin economic and political crises, the BNDES' balance sheet contracted, along with its support for

⁷⁷ TOTVS received a \$380 million loan in 2013 as part of a package of financial incentives directed towards innovation.

⁷⁸ Harvard Atlas of Economic Complexity, accessed February 2023

firms internationally. The financing strategy nonetheless paid dividends in the long run, helping Brazil prioritize the IT industry in its outward investment push, and rise in the world innovation rankings.⁷⁹

Finally, although the Brazilian economy relied more firmly on commodity exports rather than manufacturing and services over the past decade, the provision of state finance also appears to have played a role in helping improve the competitive position of Brazilian commodity exports. BNDES targeted sectors in which Brazil had a latent comparative advantage – minerals and agribusiness – to increase firms’ technological advantages in these areas. For example, Brazilian agribusiness firms doubled their market share since the early 2000s, reaching 5 percent of global market share today.

In summary, the BNDES lending model illustrates that the development bank concentrated on enhancing the competitive advantage of Brazilian firms abroad. State-based financial tools - such as lines of credit, internationalization loans, and equity investments - were primarily focused on helping firms acquire attributes (e.g. technological capabilities) that would enhance their overseas capabilities. By eliciting information from Brazil’s private sector about the key areas in which Brazilian firms were less competitive, the BNDES used its state-led financing tools to help firms develop economies of scale, international standard requirements, and research and innovation capabilities. In the next section, however, we consider the case of South Africa, where comparatively state finance has not been employed to support firms or industry overseas. Given the lack of development finance, we find that South African firms are more likely to face a competitive disadvantage in the global marketplace.

South Africa: A Lack of Development Finance

In the prior case studies, we examined how Indian and Brazilian development finance evolved following the internationalization of China’s state-owned banking system. In both cases, notwithstanding significant financial expansion to support overseas investments, their relatively smaller financial sectors compared to China yielded a pattern of micro-emulation. China’s abundant endowment of finance allowed its policy banks to support firms across multiple sectors and industries. While India and Brazil also brought the state back into development finance, their approach used their more limited finances to hone firms’ competitive advantages. In contrast, the South Africa case serves as a counterfactual to explore these dynamics in the absence of micro-emulation.

We argue that the South African public financial system has experienced far less expansion compared to its Indian and Brazilian counterparts, thus making it harder for the government to

⁷⁹ World Intellectual Property Organization, Global Innovation Index (2022)

effectively deploy statist firm-level industrial policies. First, we show that the size of the South African financial system was far smaller than China’s financial sector – or even those in Brazil and India – thus making it challenging to use state capital for internationalizing firms. Secondly, we show that in the absence of state support for South African firms, outward investment patterns differed from those of Indian and Brazilian firms. In the previous cases, we show that development finance helped firms access strategic assets such as technology, intangible capital (brands and distribution networks), and research centers, thus improving their competitive advantages in terms of innovation and export sophistication. Lacking these same levels of development finance, South African firms have gained less market share abroad, particularly in capital and knowledge-intensive industries. This pattern suggests that absent state support, South African firms have competitive disadvantages compared to other emerging market competitors.

The South African Financial System

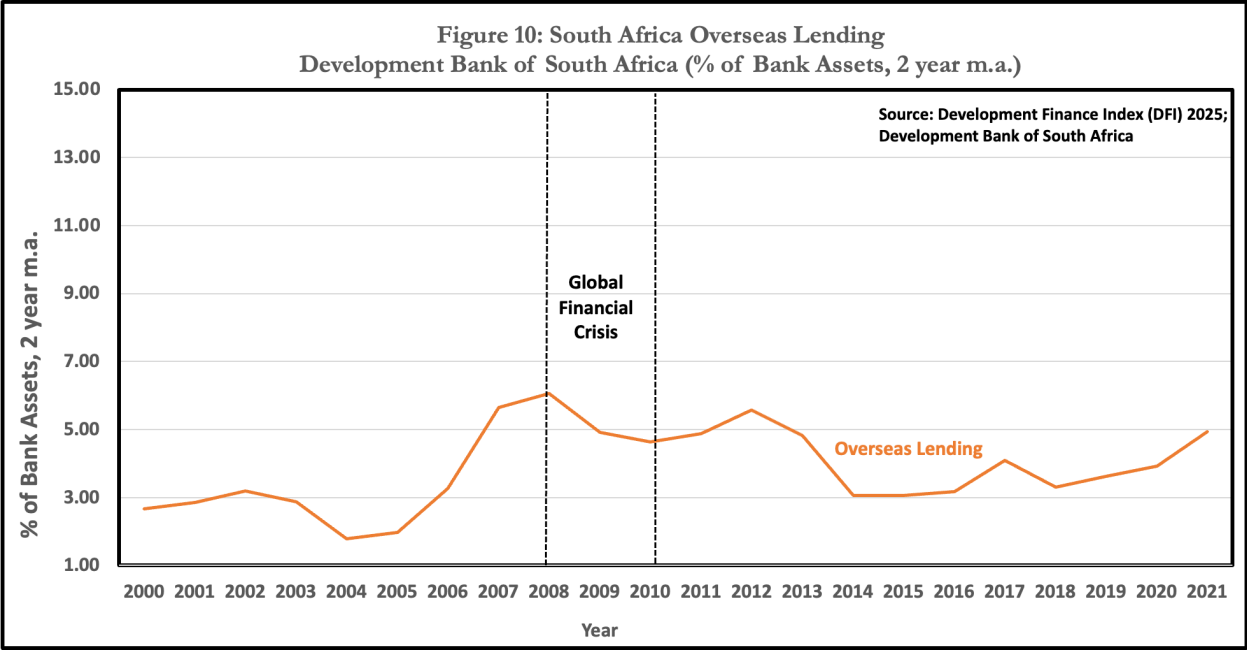
South Africa spends comparatively little on internationalization because of its smaller financial system. Notwithstanding a similar state-led development legacy, the size of the South African banking sector is considerably smaller than India and Brazil’s financial sector, and disproportionately reliant on foreign portfolio capital for funding.⁸⁰ Due to its higher reliance on external finance, particularly following the 2008 financial crisis, South Africa’s financial system was unable to fund the public banking sector.⁸¹ Correspondingly, South Africa has less scope for development financing, including state guarantees for capitalization transfers.

The South African banking system has two key development banking institutions: the Development Bank of South Africa (DBSA) and the Industrial Development Corporation (IDC). The IDC and DBSA’s combined assets total around 5 percent of the country’s GDP, compared to 9.5 and 10.7 percent for Brazilian and Indian development banks respectively (see Figure 2). They also extend a small portion of their lending externally, tallying about 5 percent of their total assets (see Figure 10). Similarly, the IDC spent an estimated 2 percent of its lending portfolio on export finance and credits from 2000-2017, and fewer than 5 percent of its balance sheet assets on international lending. Unlike

⁸⁰ The BNDES receives 40 percent of its funding through a direct tax transfer from the workers fund (FAT).

⁸¹ Naqvi 2023

the Indian and Brazilian cases, the South African government has not adopted such tools as loans facilitating M&A activity or equity financing in support of its firms abroad.



The Limits of South Africa’s Development Finance Tools

During the early 21st century, other emerging markets (e.g. China, India, and Brazil) increased their development finance resources. In contrast, the expansion of the South African public banking sector during this period was quite modest – limited to a small government resource transfer (US\$ 0.75 billion) to the IDC in 2011 – and experienced a correction following the 2008 financial crisis (see Figure 10). Despite demands from both industry leaders and labor unions, the county’s current account deficit and foreign capital dependence constrained the development banking system.⁸²

In terms of its overseas lending, the Development Bank of South Africa (DBSA) is one of the continent’s major development finance institutions (DFIs). While the DBSA invested outside of South Africa sporadically in the 2000s, the DBSA formally expanded its overseas lending to Africa under the umbrella of its “Rest of Africa” initiative in 2013. This initiative intended to address the limited availability of project finance, focusing primarily on early-stage project development, including energy, transport, and water projects that are the core pillars of economic development.⁸³ Between 2000-2020, the DBSA steadily increased its lending beyond South Africa from 20 percent to 35 percent today.⁸⁴

⁸² Ibid

⁸³ DBSA Annual Report, 2013

⁸⁴ See calculations in Figure 4, DFI Index

Beyond the DBSA's expansion in 2013, however, South African development finance institutions offer relatively limited support for promoting firms overseas. Unlike the BNDES or the India Exim Bank, the South African development finance institutions do not directly support cross-border mergers and acquisitions, or the longer-term financing of greenfield investments. The IDC and the Export Credit Insurance Corporation (ECIC) – a wholly state-owned corporation that provides risk insurance for South African companies – provide trade financing and mitigate political risks overseas but they do not explicitly aim to develop competitive advantages. For example, they helped launch the 2016 *Trade Invest Africa* initiative, designed to promote African trade and investment, but mostly using traditional export credit and investment insurance tools rather than equity investments. They have a relatively low-risk appetite for subsidizing outward investments.⁸⁵

The South African case thus suggests that there was some broad emulation occurring as South Africa's primary development banks increased their overseas funding within Africa to promote regional integration and economic development through infrastructure investments. These loans were similar to Chinese infrastructure financing loans but without the subsidization. In contrast to Brazil and India, the South African case has also not exhibited micro-emulation, or adopting state financing tools to local firm ecosystems through overseas equity investments or M&A credit lines.

South Africa: Diminished Diffusion of Development Finance Tools

In this paper, we have shown that in the absence of state finance, the South African investment portfolio is far less pronounced than India or Brazil's investment footprint. South Africa's overseas expansion has been largely concentrated in the African resource sector, limiting its opportunities to learn from firms outside of Africa and develop competitive advantages in technology and knowledge-intensive industries. Compared to Brazil and India, South Africa has also relied on more traditional development financing tools, oriented toward trade rather than investment promotion.

The South African government attempted to use industrial policies to transition away from the country's resource dependence; however, these policies were less successful in the absence of state finance to develop firm-level competitive advantages. In 2007, the South African government enacted its first post-Washington Consensus industrial policy.⁸⁶ Its primary goals were decreasing the country's

⁸⁵ That said, the ECIC can offer limited insurance at a lower rate to firms through the use of an interest make-up scheme (IMU), and the IDC employs medium- to long-term export credits, but to qualify firms must purchase ECIC export credit risk insurance (Shipalana et. al 2018).

⁸⁶ Zalk 2014

reliance on resource exports, transitioning to a more knowledge-based economy, and promoting the inclusion of historically disadvantaged communities in the industrialization process.

Nevertheless, the legislation did target some important industrial development goals, including accessing high-technology markets in developed countries. In 2021, the investment arm of the South African parent company Naspers acquired U.S.-based Stack Exchange, a provider of knowledge-sharing and management platforms for US\$1.8 billion.⁸⁷ By deploying Stack Exchange's platform internationally, Naspers gained access to enhanced software capabilities, and market research about the latest software trends. It also illustrates how South African firms pursue internationalization in overseas markets to acquire knowledge and technology that hone their competitive advantages.

However, without the same levels of state financing as its BRIC counterparts, it's more difficult for South African firms to break into new markets, leaving a smaller investment footprint abroad. Notably, South Africa does not have any companies on the Global 500 list, a ranking of the world's largest companies by revenue. Similarly, the Boston Consulting Group's "Global Challengers" list, only has five South African firms ranked in the top 100 emerging market multinationals, compared with 11 in Brazil, 16 in India, and a whopping 28 in China.

South Africa's comparatively lower overseas investment creates potential competitive disadvantages for its firms in terms of export presence, innovation, and technological acquisition. Resource investments represent the highest share of South African FDI, concentrated in resource-intensive industries in Angola, Mauritius, Mozambique, Nigeria, and Zambia.⁸⁸ However, they are less oriented toward developing competitive advantages in technological, managerial, or knowledge capabilities. Additionally, South African resource firms also have to compete with other global firms receiving significant state support. For instance, while resource-intensive firms in Brazil have become increasingly technologically sophisticated as a result of their overseas presence,⁸⁹ South African resource firms mainly focus on the extractive components of the resource value chain, rather than upgrading to refinery and processing elements like Brazilian firms.

The lack of state support for firms also means that South Africa's export basket remains largely resource-dependent, with gold, diamond, and platinum exports comprising around 30 percent of the country's export basket, considerably higher than 3.5 percent for automobile exports and 5 percent

⁸⁷ World Investment Report, 2022.

⁸⁸ Werker & Cornell 2014

⁸⁹ Sierra & Luong Jones 2015.

for ICT exports.⁹⁰ By comparison, Brazil also has commodity-intensive factor endowments, but its development finance has helped diversify the country's export basket.

Implications: South African Development Financing's Competitive Disadvantage

Consequently, the South African case demonstrates that notwithstanding some limited firm-led overseas investment, the lack of state finance supporting internationalization makes it more difficult for South African firms to develop competitive advantages and capture market share internationally, potentially leading to less industrialization and innovation domestically. Notably, South Africa has trended consistently towards deindustrialization in the U.N.'s *Competitive Industrial Performance (CIP) Index* over the period from 2000-2020, hovering at 52nd among the most industrialized world economies. For innovation indicators, such as the *Global Innovation Index*, South Africa similarly ranks a distant third of the three comparative cases.⁹¹ Notably, with most of South Africa's export-oriented sectors comprised of metals and mining, South Africa also has a much lower rate of overall ICT exports, with only 0.6 percent of its GDP accounting for high-tech (ICT) imports compared to India's whopping 14 percent of GDP.⁹²

The lack of development finance offered to firms in innovation-intensive industries has likely contributed to South Africa's declining competitive advantage in the sector. Notwithstanding other complementary economic and political explanations for South Africa's firm competitiveness, this study has shown that state finance is a key factor in understanding South African firms' relative competitiveness in the international marketplace. While the BNDES and the Indian Exim Bank both explicitly target the IT sector, helping Brazilian and Indian firms establish R&D centers and a technological presence in key overseas markets, the paucity of state financial support has exposed a potential competitive disadvantage for South African firms aiming to acquire technology and upgrading production in overseas markets.

Alternative explanations

We argue that emerging markets are adapting to China's rise by emulating its strategy of internationalizing policy bank lending. Our explanation is rooted in firm-level dynamics, where competition between firms globally has prompted development banks to expand their strategic

⁹⁰ Harvard Atlas of Economic Complexity, South Africa country profile

⁹¹ South Africa currently occupies the rank of 61, which is lower than both Brazil's 54th and India's 40th position.

⁹² Harvard Atlas of Economic Complexity, India and South Africa country profiles

development finance. In contrast to this argument about firm-level competition, alternative explanations for diffusion include international institutional agendas and geopolitical competition.

Policy diffusion, particularly movements towards trade or investment liberalization, are often catalyzed by top-down agendas set by international institutions. In this view, international organizations condition foreign assistance on certain policy choices, using technocratic expertise at multilateral organizations to promote the spread of economic ideas through epistemic communities.⁹³ With overseas finance, however, there is limited evidence that international organizations are promoting this policy diffusion. On the contrary, most international organizations have explicitly prohibited the use of trade and export subsidies, cautioning their distortionary impact on global trading regimes.⁹⁴ The policy diffusion towards supporting outbound investments thus moves against multilateral governance and trading rules, rather than actively adopting these institutional agendas.

By comparison, geopolitical competition offers another possible explanation for the increase in overseas development finance. By internationalizing their financial streams, China's policy bankers have used development finance to secure several political and economic gains, including accessing key markets, internationalizing Chinese firms, and cultivating economic ties with strategic allies. For example, many of India's overseas finance projects are located in strategic areas where China has an overlapping interest.⁹⁵ Despite such geopolitical drivers; however, Indian and Brazilian DFIs have adopted governance approaches that are aimed at enhancing the competitiveness of their private sectors. These patterns suggest that their overseas investments are more of a product of domestic economic governance than state-led geopolitical objectives.

Conclusion

China's economic rise has transformed global development finance. China's more activist approach in promoting its firms abroad has prompted other emerging markets to use financial support to enhance their firms' competitiveness overseas. The scale of China's lending has also encouraged a rise in development finance lending, where policy banks support overseas commercial expansion through the provision of long-term finance to firms and governments overseas. As we illustrated in the comparative case studies, emerging markets have significantly scaled up their policy tools in

⁹³ Chwioroth 2008.

⁹⁴ Gao & Zhou 2022

⁹⁵ Dreher et. al 2022.

support of internationalizing their firms, particularly employing such tools as subsidized loans, equity investments, and export credits to facilitate overseas commercial expansion.

That said, most other emerging market governments beyond China are operating on a limited financial scale, meaning that banking resources are targeted at individual firms, rather than Chinese-style broad-based investment projects that benefit many different firms simultaneously. Although competition with China for greater commercial influence globally is a motivating force for many rising powers, emulation is limited by the size of national financial sectors. For example, in India and Brazil, we show that state finance is deployed at the firm level and is targeted at developing competitive advantages in innovation and industrialization in the global marketplace. In contrast, South Africa's dependence on market-based forms of international capital signifies that the financial sector is less able to marshal state-based capital to support firm internationalization. By implication, the lack of state support leaves South African firms at a competitive disadvantage in international markets, particularly in key strategic sectors that demand financial investments as incubators for high technology and knowledge-intensive capital. In conclusion, these findings offer important insights for the globalization literature about the growing role of state development finance in the world economy.

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