Trends and Features of Policy-Based Lending at the Inter-American Development Bank

Office of Strategic
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Effectiveness

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Abstract

Policy-based lending is an important element within the toolbox of multilateral development banks to assist countries that need budget support and/or that are embarked on institutional changes or reforms. This Technical Note reviews different aspects of policy-based loans (PBLs) to gain a fresh perspective on their structural and financial features. It examines policy-based loans through the lens of their dual goals of providing beneficiary countries with flexible, liquid, and timely funding to meet their financing needs and of supporting policy reforms or institutional changes in a sector or subsector.

The discussion identifies general trends in policy-based lending in Latin America and the Caribbean, explores the sectoral allocation of the policy-based loans of the Inter-American Development Bank (IDB), and examines how policy-based loans are combined with other instruments as they provide liquidity and support reforms. It also explores how the IDB compares to other multilateral development banks in Latin America and the Caribbean in terms of policy-based lending.

JEL Codes: F53, O19, O54, P21
Keywords: policy-based lending, structural reforms, multilateral development banks, Latin American and the Caribbean.

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Acronyms and Abbreviations	
ADB	Asian Development Bank
CAF	Development Bank of Latin America
COVID-19	Coronavirus Disease 2019
CRF	Corporate Results Framework
G20	Group of Twenty
GDP	Gross Domestic Product
GFC	Global Financial Crisis
IDB	Inter-American Development Bank
IEO	Independent Evaluation Office (IMF)
IMF	International Monetary Fund
INV	Investment Loans
OVE	Office of Evaluation and Oversight (IDB)
PBL	Policy-Based Loan
PBP	Programmatic Policy-Based Loan
SC	Structural Condition
SMEs	Small and Medium Enterprises
TC	Technical Cooperation

Executive summary

Policy-based loans were created at the IDB to provide beneficiary countries with flexible, liquid, and timely funding at favorable conditions to meet their financing needs and to support policy reforms or institutional changes in a sector or subsector. The total amount of PBLs approved has become a more sizable part of every year's operations at the Bank, particularly since 2010. The average size of approved PBLs is becoming larger and the number of approvals has also been increasing. Concentration of PBLs by country within Latin America and the Caribbean has declined. Historically, the largest number of approved PBLs have been for countries that have structural constraints that lead to insufficient markets, (Group C) and countries with the lowest economic and social indices in the Region (Group D); while the largest amounts have been for countries that are considered to have reached and advanced stage of growth and external sector development (Group A), and countries that have large national products and total population, with domestic markets that have great potential (Group B).[1]

With respect to the goal of PBLs to support policy reforms or institutional changes in a sector or subsector:

- New sectors have emerged as policy lending areas. Since the IDB-8 agreement, the Bank has called for greater emphasis on policy areas that had not been covered yet, and by the end of the 1990s the Bank increasingly approved PBLs in the social sector. Overall, the majority of PBLs at the IDB target Reform/Modernization of the State and Social Investment interventions. But in the last decade, there has been a renewed interest in sectors such as Agriculture, Energy, Health, and Private Sector Development for private firms and small and medium enterprises (SMEs). New areas for reforms have also emerged, including Environment and Natural Disasters, Financial Markets, and Water and Sanitation. PBLs have also advanced IDB cross-cutting strategic priorities.
- The evidence suggests that PBLs complement other instruments in country/subsectors where the Bank is already involved. In fact, PBLs are often preceded by technical cooperation (TC) and/or investment loans (INV) within country-subsectors. Moreover, technical cooperation leads the Bank's engagement, usually followed by investment loans and then PBLs. Technical cooperations are present before, during, and after PBL approvals.
- It could be misleading to describe and assess reforms episodes using a single metric. Even in cases where a metric attempts to summarize reforms consistently, interpretation is problematic because policy actions might have very different implications that depend on the specific temporal/geographic context. Considering methodological challenges, attribution problems, and the lack of an accepted and objective methodology to measure the effect of reforms and the nature of their associated policy actions, various multilateral development banks rate their policy-based lending within their own effectiveness frameworks. This complicates comparisons across international financial institutions.

With respect to the goal of PBLs to provide beneficiary countries with timely funding to meet their financing needs:

[1] The Report on the Ninth General Increase in the Resources of the Inter-American Development Bank, AB-2764 defines and describes the country groups. Group A countries are Argentina, Brazil, Mexico, and Venezuela. Group B countries are Chile, Colombia, and Peru. Group C countries are Bahamas, Barbados, Costa Rica, Jamaica, Panama, Suriname, Trinidad & Tobago, and Uruguay. Group D1 countries are Belize, Dominican Republic, Ecuador, El Salvador, Guatemala, and Paraguay. Group D2 countries are Bolivia, Guyana, Haiti, Honduras, and Nicaragua.

- Empirical evidence shows no association between PBL dollar approvals and economic fluctuations in borrower countries. That is, PBLs appear to be a-cyclical. However, PBLs tend to increase in times of greater fiscal needs, notably global crises such as the global financial crisis and the COVID-19 pandemic, especially for smaller and vulnerable countries. In addition, at the domestic level, PBL approvals increase significantly in times of fiscal stress when there is an IMF program and a sustainable macroeconomic framework in place. In those times of need, lending through PBLs increases on average—consistent with one of the goals of the instrument to provide funding and highlighting the importance of IFIs coordination. Countries in fiscal stress that have a weaker macroeconomic framework but have an IMF program that is disbursing, can still receive liquidity support from the IDB through a special development loan.
- The G20 and others have called for greater coordination between international financial institutions (IFIs) such as the IMF and multilateral development banks such as the IDB and the World Bank to maximize their development impact (G20, 2018; Kim and Lee, 2021) so that countries can benefit from their comparative advantages. But while the World Bank is shifting budget support loans away from Latin America and the Caribbean to other regions in the world, the IDB has increased its presence in policy-based lending in the region in both absolute and in relative terms. There is evidence of cooperation in policy-based lending in countries where both the IDB and the World Bank are present, particularly in loans aimed at reforms in the financial system, tax and public spending, and recently, disaster risk management.

Introduction

In 1989, the Inter-American Development Bank (IDB, "the Bank") introduced sector loans as a new lending instrument to serve the region and support sector or subsector policies. The instrument created following the debt crises that affected Latin America and the Caribbean in the 1980s and under the Seventh General Increase in Resources (Replenishment) (IDB-7), had dual goals: to provide beneficiary countries with flexible, liquid, and timely funding at favorable conditions to meet their financing needs and to support policy reforms or institutional changes in a sector or subsector. Most of these loans aimed at supporting macroeconomic reforms, providing resources for balance of payments support and debt reduction (OVE, 2016; IDB, 2018). Only in 1994, with the Eighth Replenishment (IDB-8), did the Bank explicitly call for greater support of policy areas that had been neglected. Sector loans were renamed policy-based loans (PBLs), mirroring the progression from macroeconomic adjustment programs to a new generation of reforms more centered on the general functioning of the public sector, especially in social sectors, adapting to the changing needs of the Bank's borrowing member countries.

In 2016, the IDB's Office of Evaluation and Oversight (OVE) reviewed the instrument and concluded that the balance between the goals of liquidity and reforms had varied and that compatibility between these goals is not guaranteed. Their report (OVE 2016) found that the liquidity motivation had been dominating the reform dimension. Furthermore, the report found that the counter-cyclical role of PBLs had been limited, in some cases by macroeconomic safeguards, and in others, by the relatively small size of the loans.

Policy-based lending has become an important component of multilateral lending. It represents one third of total lending at the IDB between 2011 and 2021. In a 2021 report, the Group of Twenty acknowledged the importance of these "substantive resources in the form of budget support to help address fiscal pressures arising from lower revenues and higher expenditure requirements" (G20, 2021). The G20 report also made a set of nonbinding recommendations to foster coordination in policy-based lending with the International Monetary Fund (IMF) and across multilateral development banks such as the World Bank, as well as other development partners.

This IDB Technical Note reviews different aspects of PBLs through the lenses of their dual goals to gain a fresh perspective on their structural and financial features. Section 1 presents the general trends on policy-based lending in Latin America and the Caribbean. Section 2 looks at the structural features of policy-based lending. It reviews how the widely recognized methodological problems present when characterizing and measuring the impact of reforms and their associated policy measures, could result in misleading conclusions. It then explores the allocation of PBLs by sector and examines how PBLs are combined with other instruments. Section 3 discusses the role of PBLs from the perspective of providing liquidity. It examines the cyclical characteristics of PBLs and explores how they are used in domestic and global crisis. It also discusses how the IDB compares with other multilateral development banks in Latin America and the Caribbean.

I. General Trends in Policy-Based Lending in Latin America and the Caribbean

The total value of PBL approvals has been increasing. Between 1990 and December 2021, the IDB approved 421 PBLs worth approximately US$74 billion (27 percent of total Bank-wide loan approvals of all lending instruments). During 1990–99, the average approvals per year amounted to US$1.24 billion dollars. This increased by 31 percent, to US$1.62 billion dollars per year over 2000–09 and more than doubled to US$3.46 billion per year during 2010–19 (Figure 1, panel A).

PBLs have become a more sizable part of the Bank's annual operational program, particularly since 2010. From 2000 to 2021, the average growth in investment loan (INV) operations (7.45 percent) has been positive but smaller than the growth in PBLs (33.0 percent). This distinction in growth rates has intensified after the Ninth General Capital Increase (IBD-9) in 2010 and the change in the aggregate ceiling for PBLs in 2011 (see Box 1). As a result, the share of PBL operations is one third of overall approvals in the period 2011-2021 (Figure 1, panel B).

The number of approvals has also been increasing. While, on average the Bank has approved 13 PBLs per year, that number has been growing in recent years. Of the 421 approvals between 1990 and 2021, 45 percent have occurred in the last 10 years (190 operations between 2012 and 2021) and only 18 percent in the first decade (75 operations between 1990 and 1999). The highest number of approvals occurred in 2010, with 30 operations (Figure 1, panel C). The average PBL approved is US$0.17 billion, with a median of US$0.18 billion. The average value of approved operations has been above the historical median since 2014 (Figure 1, panel D).[2]

PBLs are also being used in more countries. Between 1990 and 2000, the Bank approved on average a PBL in 6 countries each year. This number increased to 13 between 2010 and 2020 (Figure 2, panel A).[3] By 1994, 20 IDB countries had at least 1 PBL approved; and by 2011, all 26 borrowing countries had at least 1 approval (Figure 2, panel B). The reduction in concentration is also reflected in the amounts approved by country. For example, between 1990 and 2000, more than 75 percent of the amounts approved were concentrated in three countries. This value has been declining to around 50 percent in 2021 and 2022 (Figure 2, panel C).

Historically, most PBLs have been for C&D countries but the largest amounts have been for A&B countries. C&D countries received 64 percent of the 421 PBLs approved between 1990 and 2021. Moreover, in 1993, 1994, and 1997, all PBL approvals involved C&D countries exclusively. However, despite having fewer operations, A&B countries receive the largest volumes of PBLs. Total approvals amount to approximately US$44 billion for A&B countries, but US$30 billion for C&D countries (Figure 2, panel D). On average, larger economies have larger PBLs because the size of the loans takes into consideration a country's financial needs, and these needs are associated with the size of the economy.

[2] The year-over-year growth of the average PBL deal size has been 6.18% in 1990-21, with a more robust average growth between 2011-21 of 12.13%. This contrasts with the growth of the average investment loan, which for the entire period considered (1990-2021) has been 4.4%. While for the period between 2011-21, it has been 4.36%.

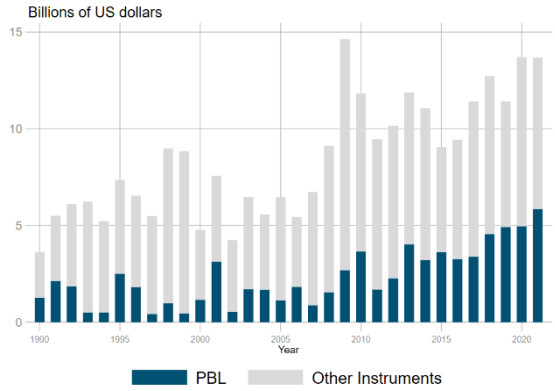
[3] In 11 out of 26 IDB borrowing member countries, the number of PBLs approved in 2010–20 was greater than in the previous two decades combined.

Figure 1. Trends in Approvals of IDB Policy-Based Loans, 1990–2021

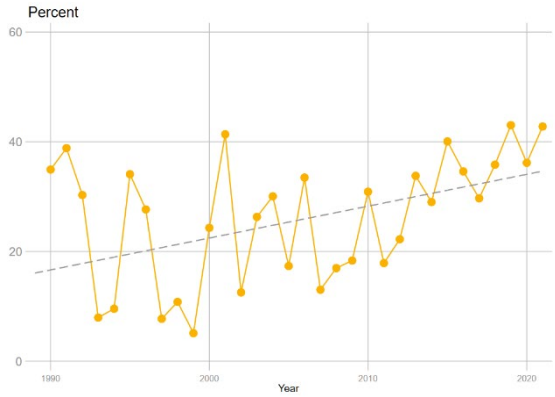
The amount of PBL approvals have increased over time…

… as well as their share in total approvals.

Panel A. Total Value of Approvals



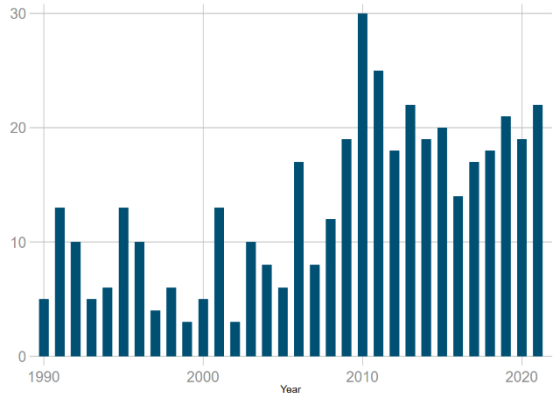
Panel B. Share of PBLs in Total Approvals



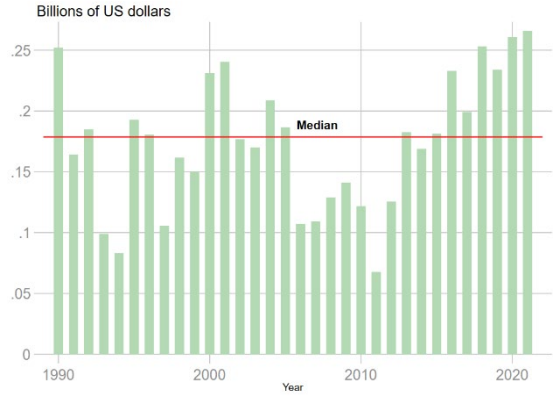
In the last decade, the IDB has increased the number of PBLs approved, …

…and the average size of these operations.

Panel C. Number of PBL Approvals



Panel D. Average PBL Value

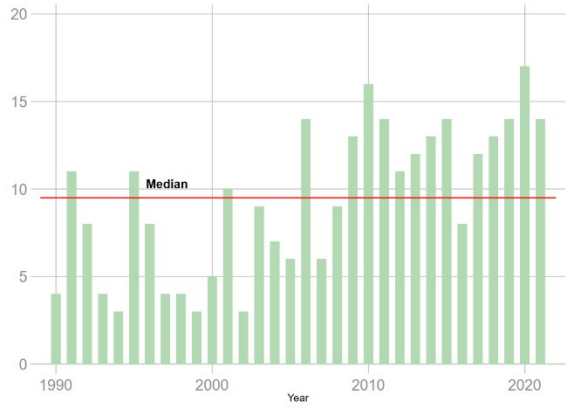


Sources: IDB, and authors' calculations.
Note: IDB = Inter-American Development Bank.

Figure 2. Trends in Country Concentration of IDB Policy-Based Lending, 1990–2021

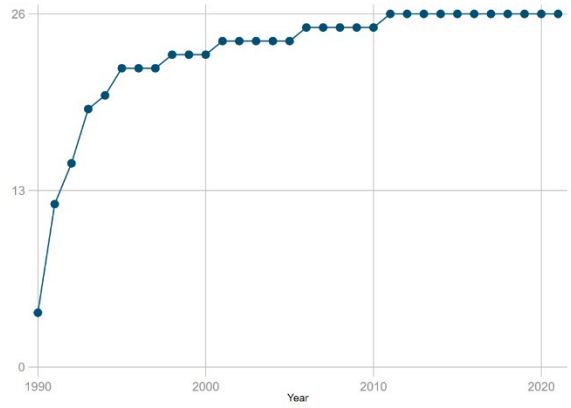
The number of countries with a PBL approved each year has increased…

Panel A. Number of Countries with a PBL



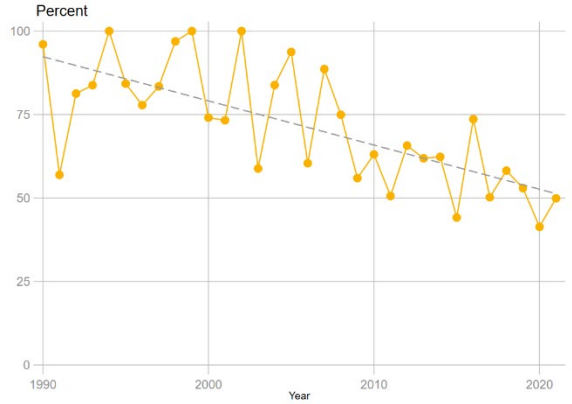
…and by 2011 all IDB borrowing countries had at least one PBL approved.

Panel B. Number of Countries with at Least One PBL Approved



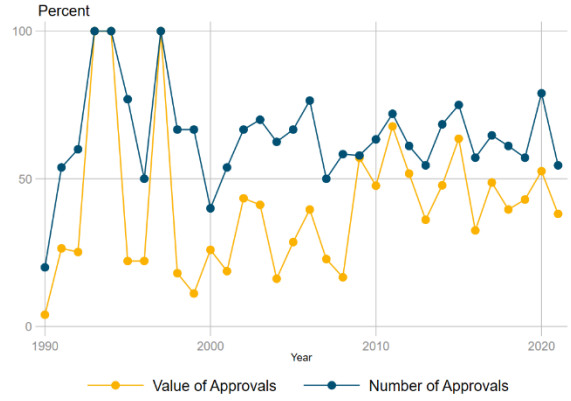
Amounts approved are becoming less concentrated among countries.

Panel C. Share of Approvals Going to the Top Three Countries



Most operations have been approved in C&D countries, while the largest amounts have been approved in A&B countries.

Panel D. Share of Approvals to C&D Countries



Sources: Inter-American Development Bank (IDB) and authors' calculations.
Note: A&B countries are the larger economies in Latin America and the Caribbean. C&D countries are the ones with smaller and less developed economies in the region, also defined as "Vulnerable" in the economic sense.

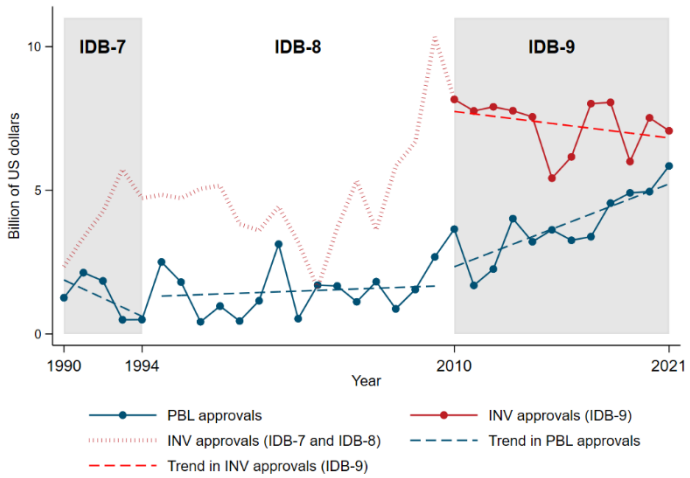
Box 1. IDB Capitalization and Trends in Approvals of Policy-Based Loans

The volume of total approvals of policy-based loans (PBLs) is linked to the IDB resources available. These resources, in turn, are related, among other factors, to the capital paid and due.

The Eighth General Increase in Resources (IDB-8), approved in 1994, raised the subscribed capital base to US$87.6 billion at the end of 1997, increasing the resources available for loans. Despite the rise in credit capacity, PBL approvals remained relatively constant, with some exceptions (such as 2001 or 2007) through 2010, as depicted by the blue dotted line in Figure B1.1. In contrast, approvals in investment projects saw sustained growth that peaked in 2007. This behavior of PBL operations cannot be directly tied to restrictions in credit availability. Starting in 2001, the Bank introduced aggregate ceilings to PBL operations based on total amounts approved rather than shares in total approvals. For example, from 2002 to 2004, the cap on PBLs was established at US$4.5 billion, and the actual amount approved was US$3.6 billion. From 2005 to 2008, the cap was US$9.8 billion, and the approved amount was US$5.2 billion.

Figure B1.1. Trends in Approvals of IDB Policy-Based Loans and Investment Loans, 1990–2021

There is a major change in PBL approvals that coincided with IDB-9..



Source: Inter-American Development Bank (IDB).
Note: IDB-7, IDB-8, and IDB-9 refer to the Seventh, Eighth, and Ninth General Capital Increase, respectively. INV = investment loans. PBL = policy-based loans.

In 2010 the IDB's Board of Governors approved the Ninth General Capital Increase in Resources (IDB-9), adding US$70 billion in paid-in and callable capital to IDB's existing US$100 billion capital base. This process started amid a global financial crisis. In this period, an important change occurred in the trend of PBL approvals (see the blue dashed line in Figure B1.1). PBL approvals tended upward, starting from US$3.65 billion in 2010 and reaching US$5 billion by 2020. This change coincided with a modification in the ceiling for PBL approvals in 2011, to 30 percent of total lending in a four-year cycle.

This period also marks a change in the approval trend of investment loans. The positive trajectory observed before IDB-9 reversed. After a recovery in approvals in 2017 and 2018, recent approvals remain close to the levels of 2010.

II. Structural Features of Policy-Based Lending

A. Thematic Allocation of Policy-Based Loans

Since the Eighth General Increase in Resources (IDB-8) in 1994, the Bank has called for greater support from PBLs in policy areas that were not targeted initially (OVE, 2016). Before the 2000s, PBLs were concentrated in 4 sectors, whereas after 2010, they expanded to 14. Figure 3 displays the approval of PBLs by sector. Each dot depicts an operation approved at a specific date in each specific sector. Each horizontal line (with its respective color) corresponds to one sector. Figure 3 shows that: (1) there is a renewed focus in traditionally supported sectors; (2) some areas are new; and (3) some sectors have always been targeted through PBLs.

Figure 3. Sector Breakdown of IDB Policy-Based Loans Approved from 1990–2021

In addition to areas always targeted through PBLs, some areas are new and some have received renewed focus.

Sources: Inter-American Development Bank (IDB) and authors' calculations.
Note: Each dot in the figure represents a policy-based loan (PBL) operation approved within each sector category. Official sector categories are defined by IDB internal guidelines (OA-123). AG=Agriculture and Rural Development. AS=Water and Sanitation. DU=Urban Development and Housing. ED=Education. EN=Energy. FM=Financial Markets. IS=Social Investment. MU=Multitopic. PA=Environment and Natural Disasters. PS=Private Firms and SME (Small and Medium Enterprise) Development. RM=Reform/Modernization of the State. SA=Health. ST= Science and Technology. TD=Trade. TR=Transport.

In recent years, the scope of PBLs has widened due to a renewed interest in some sectors and the emergence of others. This reflects the idea that countries' needs evolve over time, and so should the Bank's support. Interest has picked up in sectors such as Agriculture (AG), Energy (EN), and Private Sector Development (PS). Before 2009, the last PBL on Agriculture had been approved in 1998. Today projects in Agriculture seek to improve the competitiveness of the sector in countries such as Haiti, Peru, and Suriname. In Energy, the Bank has approved 35 operations since 2007 in 16 different countries, compared to only 4 operations from 1990 to 2006. These operations have aimed to improve operational efficiency and energy sufficiency, and, more

recently, to achieve climate change objectives in the energy sector. Finally, 40 percent of all operations devoted to promoting and developing Private Firms and SMEs (small and medium enterprises) have been approved since 2015. Over the past decade, Environment and Natural Disasters (PA), Financial Markets (FM), and Water and Sanitation (AS) have emerged as new areas for reforms. Currently, more than half of borrowing countries have approved at least one operation to reduce their vulnerability to both natural disaster risks and the effects of climate change. Finally, since 2007 the Bank has approved 17 operations to improve and increase access to water and sanitation.

Over the 1990–2021 period, PBLs targeting Reform/Modernization of the State (RM) and Social Investment (IS) have been the most recurrent. These broad sectors jointly represent 54 percent of the approvals (229 operations) and 61 percent of the total amounts (US$45 billion) (Figure 4). Reform/Modernization of the State (RM) dominates, with 40 percent of the approvals (170 operations) and 47 percent of the total amounts (US$34.8 billion).[4] Social Investment (IS) interventions are the second biggest category by number and by amount, with 14 percent of PBL approvals (59 operations) worth US$10.5 billion. These interventions support countries in reducing poverty, promoting social inclusion, closing gender gaps, lowering labor costs, and fostering citizen safety.

PBLs are also tools that help advance the Bank's cross-cutting strategic priorities: Climate Change and Environmental Sustainability, Gender Equality and Diversity, and Institutional Capacity and Rule of Law.[5] Figure 5 presents data from the IDB's tool for monitoring performance and achievement of its strategic objectives, the Corporate Results Framework (CRF) on how PBLs have supported the cross-cutting priorities of the Bank.[6] It shows the results for the previous and the latest exercise. Ninety-seven percent of the PBLs supported at least one of the strategic priorities of the Bank from 2016 to 2019 (previous CRF), and from 2020 to 2021 (updated CRF), all the PBLs have supported at least one of the strategic priorities. Figure 5 also shows that the level of alignment has increased significantly in all individual cross-cutting priorities between 2016–19 and 2020–21. In keeping with the nature of the instrument, Institutional Capacity and Rule of Law is the principal strategic priority supported by PBLs, with 97 percent of their operations supporting this priority in 2020–21. Over the same period, 59 percent of the PBLs supported Climate Change and Environmental Sustainability, 56 percent supported Gender Equality, and 21 percent supported Diversity.

[4] Within the Reform/Modernization of the State (RM) sector, 41 percent of all PBL approvals are concentrated in three subsectors: (1) Fiscal Policy for Sustainability and Growth (RM-FIS) (analysis and reform of revenue and expenditure policies with the primary objective of ensuring fiscal sustainability) ; (2) Public Expenditure Management (RM-FIN) (management of the public expenditure cycle, including planning, budgeting, treasury, public debt, accounting, and internal control); and (3) Reform and Public Sector Support (RM-PUB) (support for institutional restructuring and modernization of public sector institutions across all sectors).

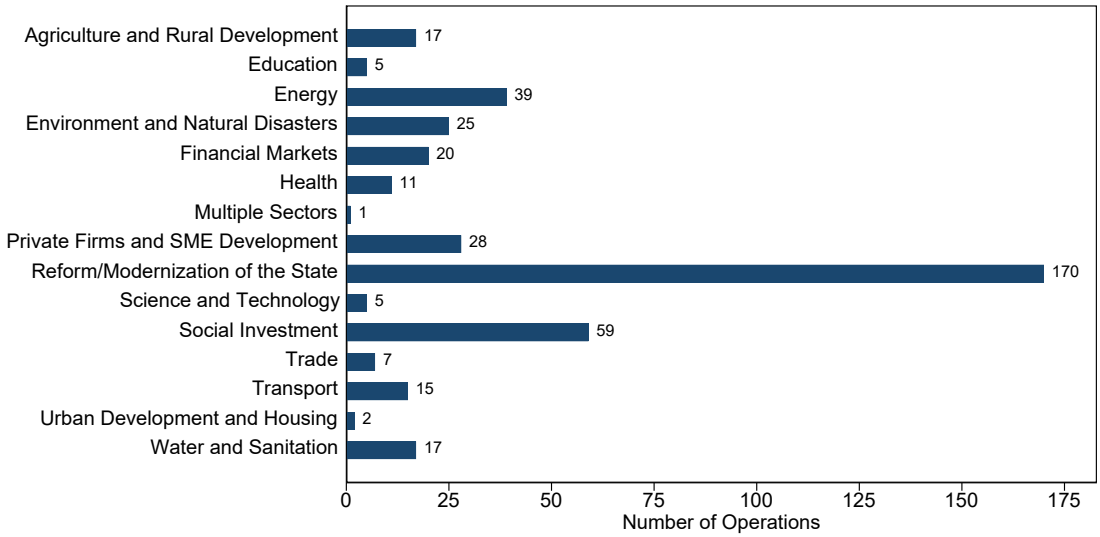
[5] These cross-cutting strategies were established in the Second Update of the IDB's Institutional Strategy in 2019. See this link.

[6] See https://publications.iadb.org/en/idb-group-corporate-results-framework-2020-2023.

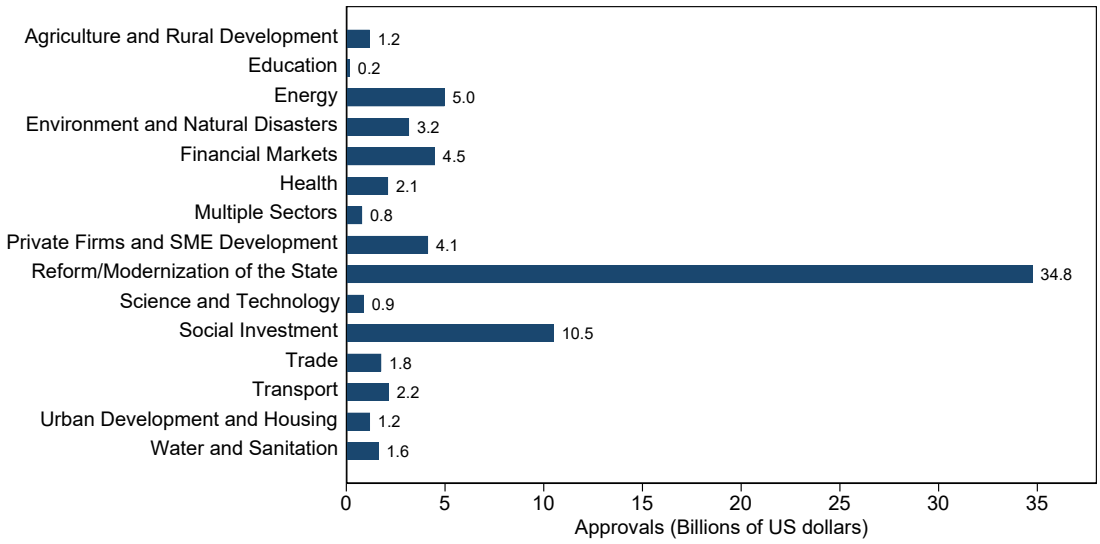
Figure 4. Sector Breakdown of IDB Policy-Based Loans Approved from 1990–2021 by Number and Value of Operations

Operations in Reform/Modernization of the State and Social Investment dominate PBLs by number of operations and value.

Panel A. Number of Operations by Sector



Panel B. Value of Operations by Sector

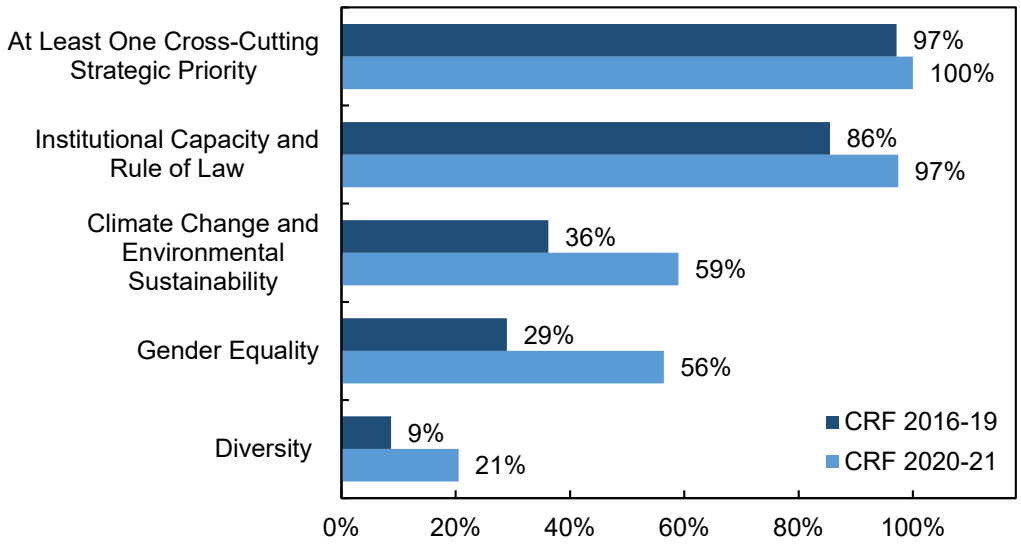


Sources: Inter-American Development Bank (IDB) and authors' calculations
Note: The figure uses official sector codes, as defined by IDB internal guidelines (OA-123).

Figure 5. Alignment of IDB's Policy-Based Loans with IDB's Cross-Cutting Strategic Priorities, 2016–21

(Percent of PBLs aligned to cross-cutting strategic priorities in the previous and updated CRF exercise)

PBLs support the IDB's cross-cutting strategic priorities.



Source: Inter-American Development Bank (IDB) Corporate Results Framework (CRF) database.

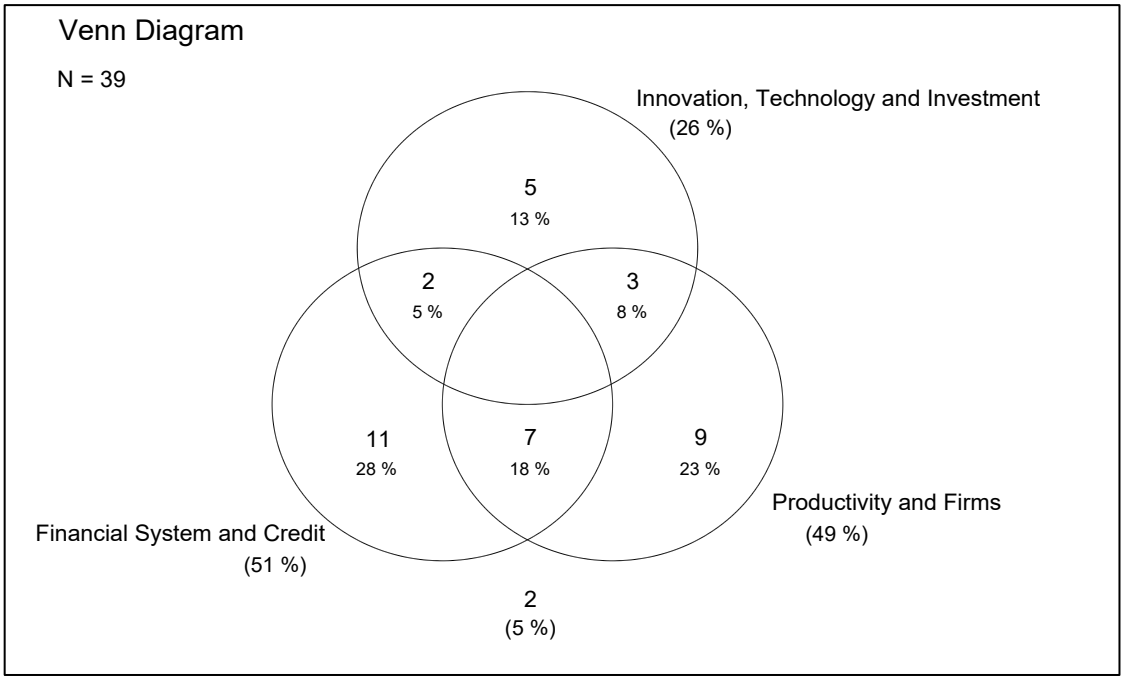
To determine at a more granular level how PBLs are targeted to improve the business environment, it is informative to look at the component level within PBLs. The sectoral analysis conducted so far relies on the self-reported official classification using the Bank's sector and subsector codes. This has limitations because PBL are registered in the system in only one sector; hence it is not possible to disaggregate what PBLs are pursuing using only this information. For example, a PBL might aim at improving power generation, but also seek to offset emissions. These activities would fall into a single sector: Energy (EN). To address this issue, an unsupervised topic model[7] was developed and applied at the component level[8] within PBLs (see Appendix 1 for further details).

[7] The model was trained using Chapter 3 of the latest Country Development Challenges (CDC) reports available for all 26 borrowing IDB member countries. These series of documents are produced at the IDB and discuss the main economic and social challenges that LAC countries face at the sector level, providing a rich set of words to characterize topics in IDB documents. The model was calibrated and resulted in 14 topics. Using the keywords from these topics, a keyword assisted topic model (Eshima, Imai, and Sasaki, 2020) was applied to the PBLs at the component level to systematically break PBLs into topics by classifying their components.

[8] Some older loan documents do not disaggregate the PBLs into components. These cases were not useful for the exercise so were dropped from the sample, reducing it from 421 to 357 observations, yielding 1,096 components. The macroeconomic component present in every PBL was not included because it is repeated in every operation and hence does not provide information to sort PBLs.

Figure 6. Support for Private Sector Reforms through Complementary Components of IDB Policy-Based Loans Related to Firms, Credit, and Innovation, 2010-21

PBLs strengthen the private sector by leveraging the complementarity between various topics.



Sources: Inter-American Development Bank (IDB) and authors' calculations.
Note: The figure covers 39 policy-based loans (PBLs) approved between 2010 and 2021 in three sectors: Financial Markets; Private Sector Development; and Science and Technology.

To illustrate the connections between components within PBLs supporting the business environment, the exercise analyzed the subsample of 39 PBLs officially registered in three sectors compatible with strengthening the private sector (Financial Markets, Private Sector Development, and Science & Technology) during 2010–21. Figure 6 displays the Venn Diagram for the components of this subset of PBLs matched with the identified topics of Financial Systems and Credit; Innovation, Technology and Investment; and Productivity and Firms. The diagram shows that 12 PBLs (7 + 2 + 3) have components that span more than one topic, and that there is no PBL with components in all three topics. This exercise illustrates how PBLs leverage the complementarity between the topic of Financial Systems and Credit and the topic of Productivity and Firms: 7 PBLs have components in both topics. Additionally, 3 PBLs have components related to the topics of Productivity and Innovation, and 2 PBLs have components linked with Financial Systems and Innovation.

B. Synergies between Policy-Based Loans, Investment Loans, and Technical Cooperation

Multilateral development banks have several lending instruments to help countries tackle their development challenges. Their main tools to help countries reach their development objectives are investment loans, PBLs, emergency loans, and technical cooperations. These instruments can be combined and sequenced as targeted areas/sectors progress. For example, at early

stages in emerging sectors, technical cooperations can be useful to build the needed institutional capacity to support a potential reform later. Technical cooperations can also support the design and implementation of a reform. Investment loans may follow, also combined with technical support, to finance specific projects critical to develop the sector. PBLs may be approved to support institutional changes or reforms needed to assure the viability of the sector. There is no one-size-fits-all approach to sequencing and combining PBLs with investment loans and technical cooperation across countries and/or sectors, and the timing depends on a myriad of factors. For example, the novelty of the sector, the experience of the country with the sector, the presence of other actors in the sector, the demand at the time in the country, and the conduciveness of the macroeconomic environment, among other factors, may suggest a different sequence, either frontloading or backloading PBLs.

Although the programming process may be very specific for country, sector, and time factors, it is key to understanding how PBL approvals are related to other instruments to gain a more comprehensive perspective on how the Bank operates in country/subsectors, beyond specific loan objectives. To empirically measure how the Bank's instruments are interconnected, the analysis complements PBL data with 1,850 sovereign-guaranteed investment loans and 6,478 technical cooperations approved between 1990 and 2021 (for further details, see Appendix 2).[9]

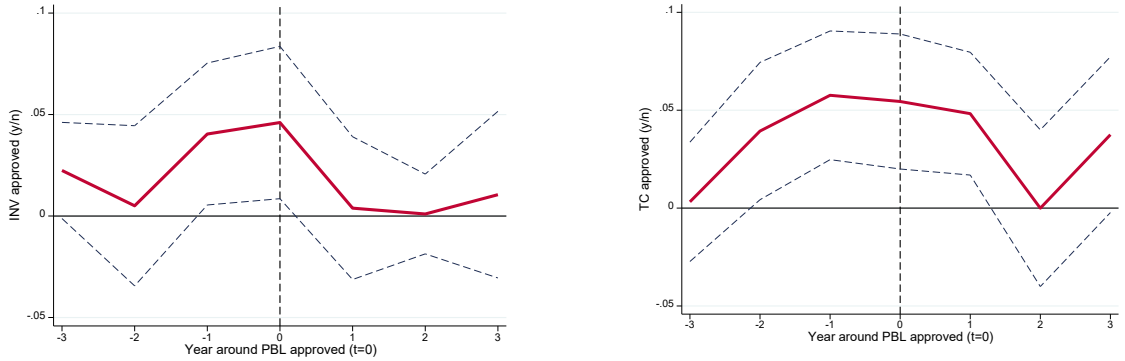
Two empirical regularities are important to highlight. First, investment loans precede and coincide with PBL approvals within country subsectors. Event-studies find that investment loans anticipate PBLs up to 3 years and the anticipation result is statistically significant for one year. It also finds that PBLs and INV approvals are positively associated contemporaneously. After a PBL approval, there is no significant association between PBLs and investment loans up to three years in a country/subsector (Figure 7, panel A). The evidence suggests that PBLs are not systematically used as the first instrument deployed in a country subsector and that instead they follow previous interventions, when the Bank probably has gained deeper understanding and knowledge about the country/subsector, and there is enough institutional capacity.

And second, technical cooperation precedes, coincides, and follows PBL approvals. Technical cooperations are positively associated with PBLs from two years before their approval, and up to one year after approval (Figure 7, panel B). Moreover, the likelihood of approving a PBL is higher when technical cooperation and investment loans (INV) coincide or precede them one year before. Complementarities are especially strong between the programmatic variant of PBLs introduced in 2005 (programmatic loans—the so-called PBP series, a sequence of loans to support a given reform program) and technical cooperations, which usually support policy dialogue, diagnostic work, and compliance with conditionalities (the changes to laws, regulations, or institutions that the country needs to undertake and upon which the release of loan tranches can follow) (OVE, 2004). OVE (2016) has found that the support provided by technical cooperations is especially relevant for two reasons: (1) they provide direct support to the ministries leading the reforms, while resources from a PBP go to the country's treasury; and (2) there is a strong positive association between technical cooperation support and the likelihood of completing a PBP series (for further details, see Appendix 2).

[9] This exercise excludes policy-based grants.

Figure 7. Dynamics of Approvals of Investment Loans and Technical Cooperations around PBL Approvals Year in Country/Subsector

Panel A. Investment Loans **Panel B. Technical Cooperations**



Source: Authors' calculations based on IDB Data Warehouse.
Note: Data cover 1990 to 2021. Event analysis of the probability to approve an investment loan in a country/subsector in a 7-year time window around the year of PBL approval. Country/subsector FE, country/year FE and approval year FE included. 90 percent confidence interval.

In sum, the evidence suggests that PBLs complement other instruments in country/subsectors where the Bank is involved. In fact, they are often preceded by technical cooperation and/or investment loans. Moreover, technical cooperation leads the engagement of the Bank in the country/subsectors, usually followed by investment loans and then with PBLs. Technical cooperations are present before, during, and after PBL approvals.

C. Difficulties in Identifying and Measuring Progress in Achieving Structural Reforms Supported by Policy-Based Lending

Structural reforms are policies that modify the existing institutional and regulatory frameworks in which businesses and people operate with the objective of fostering economic growth in particular and economic welfare in general. A central premise is that structural reforms are justified by the existence of barriers to efficiency, which prevents countries from reaching their growth potential.

The scope of structural reforms has evolved in the past 30 years. The 1990s was a prolific era for reforms in developing economies. The early 1990s gave rise to a wave of reforms focused on openness in both the domestic financial sector and the capital account. But major liberalization waves in emerging markets and developing economies slowed in the 2000s (Li et al., 2021). The deceleration does not mean that the need for structural reform disappeared, but rather that such reforms stopped being considered synonymous with liberalization. This change in paradigm was probably driven by potential disenchantment with the results of market-oriented reforms, the recognition that a vaster array of granular economic transformations could be pro-growth, and the lessons learned from past experience (Bustos et al., 2022).

Identifying and measuring progress in achieving structural reforms is challenging. A critical obstacle is how to identify reforms and their dimensions. Outcomes, such as growth, inflation, or the ratio of foreign trade in the economy, have generally been used to identify them, given the availability of data on such outcomes. However, a change in an outcome variable cannot always be attributed to a change in policy (Lora 1997, 2001, 2012). Moreover, a degree of subjectivity in characterizing reforms is inevitable. For example, a reform index that improves with structural reforms that pursue greater efficiency in the allocation of resources by fostering markets to operate more freely will not give a positive index value to a labor reform aimed at protecting

workers and employment (Lora, 2001).[10] Moreover, when indices are based on multiple policy indicators, subjectivity is also involved in the assignment of weights.[11] Finally, over time reforms have moved away from being equivalent to liberalization, becoming more granular and diverse, making identification even more challenging (Bustos et al., 2022). Hence, measurement challenges limit the ability to assemble comprehensive data sets on reforms and their interpretation could be misleading. A review of the main reform indices adopted by the literature concludes that a sound assessment of the size of structural reforms across countries and over time requires further work (Campos, De Grauwe, and Ji 2017).

Even when an index manages to summarize reforms, interpretation might be problematic because the associated regulations might have very different implications that depend on specific temporal/geographic context. Lora (1997, 2001, 2012) built a structural policies index for the 1985–2009 period for 19 countries in Latin America. Lora highlights that the index tries to evaluate how reforms reduce distortions that limit the operations of markets and the efficient allocation of resources, but that it does not consider other aspects of the quality of economic policies. For example, it does not consider that tax policies can have redistributive purposes. The IMF's Research Department has built measures for a variety of structural reforms summarized in an indicator that spans more than 30 years across advanced and developing countries (Ostry, Prati, and Spilimbergo, 2009; Alesina et al., 2020), but these indicators are not comparable across sectors. According to the IMF, these indicators have limitations because they capture *de jure* regulations, and hence might not capture *de facto* changes (IMF, 2019). Moreover, while useful to study broad reform trends, the overall structural reform index is a simple average of IMF indicators that capture liberalization in five sectors (domestic financial sector, current and capital accounts, trade, product market, labor market) and should thus be interpreted with caution.

In addition, successful reforms take multiple years to prepare and adopt. According to OECD (2010), reform successes followed earlier setbacks, and less successful reform attempts have helped to set the stage for subsequent and sometimes far-reaching reform initiatives, often by deepening policymakers' understanding of the problems involved. However, reform indices cannot capture the dynamic of reforms and their specific trial and error nature, leaving outside the understanding of the milestones necessary for their achievement or simply the role played by different reforms attempts in implementing future ones.

Assessing conditionality is also problematic. Except for the IMF Independent Evaluation Office (IEO), international financial institutions are not quantitively characterizing reforms financed through their policy-based lending.[12] Over the years, the IMF (IEO) has been assessing the role of structural conditions (SCs) of programs in promoting structural reforms. The most recent effort develops score indices to measure the implementation status and quality of programs supported by the IMF (Kim and Lee, 2021). One of the challenges in doing so is that the indices are stated in qualitative terms and thus are hard to quantify.[13] To overcome these issues, Kim and Lee

[10] Assessing the changes in key economic metrics to measure reforms is also subjective. Large changes in an index might be interpreted as a reform (as in Duval and Elmeskov, 2006; Da Silva, Givone. and Sondermann, 2017; David, Komatsuzaki, and Pienknagura, 2020), but the strategy of considering large changes in indices as reforms has the limitation of missing variations that are not large enough (Bustos et al., 2022).
[11] In principle, the weights should reflect the importance of each policy indicator to reach the reform objective, but in the absence of comprehensive empirical studies on this, equal weights are often assigned.
[12] OVE (2016) applied a version of the IMF methodology in their latest evaluation of PBLs.
[13] Structural conditions are also hard to monitor, especially in countries where data transparency, reporting, and capacity constraints are challenging.

(2021) use the methodology of the 2007 IEO evaluation[14] to measure the depth[15] of structural conditions and add an evaluation of the growth/efficiency content and the implementation status. These three dimensions are incorporated in the Structural Conditionality Implementation Score. Kim and Lee (2021) report that more than half (51 percent) of the conditions of IMF programs have low depth and only 12 percent have high structural depth, along the lines found by the IMF Independent Evaluation Office in 2007 (IEO, 2007). OVE (2016) applied a version of the IMF methodology in their latest PBL evaluation and found that one-third of the PBL conditions (31 percent) were of low structural depth and 15 percent were of high depth. Nevertheless, the methodology is not without limitations. OVE (2016) clarified that the methodology it adopted neither tries to measure the Bank's additionality nor the outcomes of PBLs, and that the approach cannot capture what would have happened without PBL support. Additionally, the technique itself was created by the IMF, whose reforms have more elements in common and concentrate on monetary and fiscal issues. In other policy areas, the depth of the reform indicator may not be as important. Moreover, the technique gives *de jure* modifications in laws a high value. However, the effects of these laws frequently hinge on regulations that are not considered to be very profound reforms. In fact, sometimes extremely complicated reforms do not even require laws; instead, they call for challenging adjustments to organizations, regulations, or even incentives. This approach may provide useful information for evaluation, but its value for planning PBLs is less clear. Hence, a mechanical use of the methodology also runs the danger of being misleading.

Given the methodological difficulties, attribution issues, and the absence of an accepted and objective methodology to characterize reforms, multilateral development banks rate their policy-based lending within their own effectiveness frameworks. The difficulty on measuring the influence of PBLs on policy reform outcomes has been acknowledged by many experts, including the Independent Evaluation Group of the World Bank (IEG, 2015) and the Independent Evaluation Department of the Asian Development Bank (IED, 2018). Hence, multilateral development banks evaluate PBLs against their intended development objectives through project completion reports (PCRs) according to a number of core criteria (such as relevance and effectiveness) and non-core criteria (such as Bank performance). Although the methodologies and weights differ, the main principles are broadly similar across multilateral development banks. PCR scores show that PBLs tend to receive higher ratings compared to investment loans at the IDB as well as other multilateral development banks. Most of the IDB's PBLs have been rated as satisfactory overall, but the sample is still too small to draw further conclusions.

Despite the previously outlined difficulties in identifying structural reforms in a systematic, objective and comprehensive way, León-Diaz and Lotti (2022) employs the most complete data set on structural reforms available (Alesina et al., 2020),[16] and tests whether it is more likely that multilateral development banks approve PBLs during structural reforms. The analysis considers all policy-based lending provided by the World Bank, the Asian Development Bank, and the Inter-

[14] A review of the methodology (Background Paper 3, "Data and Findings on the Implementation of Structural Conditionality in the 43 Case Studies") is available in this link.

[15] The depth dimension tries to capture the degree of structural change that a structural condition would bring about if implemented. Conditions are considered to be of high structural depth if, once implemented, they would bring long-lasting changes in the institutional environment. In this category fall measures that involve legislative changes (approval, adoption, or enactment of legislation by a parliament); conditions requiring that certain fiduciary measures be carried out on a regular basis (even when legislation is not needed); and conditions with long-lasting structural impact that may be grounded in pre-existing legislation but might require it to be undone (such as privatization). SCs are of limited structural depth (the middle category) when they entail one-off measures that can be expected to have an immediate and potentially sizable impact but need further actions to have a lasting effect. Low or no structural depth refers to structural conditions that would not generate economic changes by themselves, such as stepping stones for significant reforms.

[16] The structural reforms index depicted in Alesina et al (2020) covers data until 2014, so this is the upper bound of the analysis in Leon-Diaz and Lotti (2022).

American Development Bank to countries in Asia and Latin America and the Caribbean from 1980 to 2014. The index identifies structural reforms in domestic finance, trade, product market (telecommunication and electricity), and labor markets.[17] The study then identifies PBLs whose objectives target these sectors and aggregates this information at the country/sector/year level. Results from different econometric specifications show that when a government implements a structural reform in a sector/year, the estimated count of PBLs approved and the estimated amount of PBLs (as a percent of trend GDP) for the country in the sector of reform increases significantly in that same year. The evidence suggests that when a country implements structural reforms, multilateral development banks are more likely to accompany them through policy-based lending.

III. Financial Features of Policy-Based Lending

A. The Role of Policy-Based Lending during Economic Fluctuations and Crises

In addition to supporting reforms and institutional change, PBLs were created to provide beneficiary countries with timely funding to meet their financing needs. Thus, from a financial perspective they play a role in closing financing gaps. Given that private debt markets are procyclical, lending more in good times and cutting back on lending in bad times, this role of policy-based lending in securing government access to finance becomes very important in downturns and even more so in crises, especially for countries with little or no access to finance. Moreover, the interest rate and term of PBLs are usually more favorable than the financial conditions for similar loans from other creditors at any point in the business cycle. Given these important "insurance" roles of policy-based lending, a thorough assessment of the effectiveness of policy-based lending must also assess the availability of PBLs in times of need.

Systematic evidence suggests that PBL approvals do not move in step with domestic economic fluctuations. PBL approvals are said to be counter-cyclical if they increase when economic activity decreases or falls below its potential. To measure the cyclicality of PBLs, analysis for this Technical Note uses information on PBLs approved from 1990 to 2021[18] combined with country-specific measures for economic activity such as GDP growth and cyclical output. The results show that there is no statistically significant relationship between PBL approvals and economic fluctuations. After factoring out country-specific and time effects, PBL approvals are a-cyclical: that is, they provide a stream of funding that does not change systematically with domestic economic fluctuations (see Appendix 3 for further details).

However, the evidence does show that PBLs provide support when countries face fiscal distress and the IMF is present through an active program. As stated, financial markets are pro-cyclical (Kaminsky, Reinhart, and Végh, 2005; Broner et al., 2013). This is particularly troublesome during domestic crises, when external financing can vanish, leaving governments in emerging and developing economies with few options to close their financing gaps in an orderly way. Furthermore, it is not obvious *a priori* that PBLs will be available for countries in times of economic crises when countries may not comply with the macroeconomic safeguards necessary to have a PBL. To formally analyze how PBL approvals are related to periods of fiscal distress, the exercise includes metrics to capture fiscal crises as defined in Gerling et al. (2018). The results suggest that PBL approvals increase during fiscal crises when an IMF program is in place. These results

[17] The index also identifies structural reforms in external finance. However, analysis for this Technical Note was unable to identify the corresponding PBLs so it did not exploit this part of the information.
[18] The dataset for this exercise includes 385 PBLs. Grant financing products are excluded from the analysis.

highlight the role of PBLs in providing fiscal support when countries are addressing their macroeconomic imbalances,[19] and underscore the complementarity of PBLs with IMF programs (see Appendix 3 for further details).

PBLs provide financial support in global crises episodes, especially for smaller and vulnerable countries. In addition to crisis periods of domestic origin, countries can also face liquidity problems because of the deterioration of global factors beyond the control of local authorities. The latest global financial crisis and the COVID-19 pandemic are recent examples of crises episodes when the epicenter was not located in the region, but nevertheless, the effects were severe and forced a worldwide coordinated response from international financial institutions. As part of the increase in overall lending for these episodes, PBLs played an important role securing government access to finance, especially in smaller countries with tougher or no market access.

During the global financial crisis,[20] total approvals for all IDB lending instruments increased by 67 percent compared to the pre-GFC period, mainly driven by approvals in C&D countries. Compared to the pre-GFC period, total approvals increased 132 percent for C&D countries. They also increased for A&B countries, but by much less (a 42 percent increase). The substantial growth in approvals for C&D countries was due to the use of emergency loans (EME) (Figure 8, panel A).

During the global financial crisis, total PBL approvals increased by 64 percent compared to the pre-GFC period, mainly driven by C&D countries. In C&D countries, PBL approvals increased by 111 percent during the global financial crisis and 10 percent in post-GFC period. In A&B countries, PBL operations increased by 38 percent during the global financial crisis and they continued to grow 8 percent in the aftermath. Investment loans increased by 40 percent compared to the pre-GFC crisis. In C&D countries, investment projects increased by 31 percent during global financial crisis and 20 percent in the post-GFC period. In A&B countries, investment project approvals increased 43 percent during the global financial crisis and decreased 12 percent in the aftermath.

Overall, there was a generalized increase in the volume of approvals for all lending instruments during the global financial crisis, that partially persisted in the aftermath. The counter-cyclical use of the instrument would suggest that approvals should increase during the global financial crisis and decrease in the subsequent period. Unfortunately, it is difficult to evaluate in this context because the post-GFC period coincides with the Ninth General Increase in Resources (IDB-9) and changes in the caps to PBL operations in 2011 (see Box 1).

During the COVID-19 pandemic, although the volume of total approvals increased, PBLs decreased in the A&B Group, in contrast to the global financial crisis. As panel B of Figure 8 shows, total approvals increased by 24 percent compared to the pre-pandemic period.[21] PBL approvals increased by 7.5 percent overall, with a 23.5 percent increase in C&D countries, but a 6 percent decline in A&B countries. Investment loans (INV) increased by 28 percent during the pandemic, with increases in both C&D countries (25 percent) and A&B countries (30 percent).

[19] Avellan, Galindo, and Lotti (2021) find a similar result for overall multilateral development bank lending in crisis episodes.

[20] To analyze changes in approvals and enable comparisons before, during and after the global financial crisis and account for potential seasonality in the approval process, the global financial crisis is defined as the period between December 2007 and June 2009. The period before the crisis (pre-GFC) is defined as the time window between December 2005 and June 2007, and the period after the crisis (post-GFC) is defined as the time window between December 2009 and June 2011.

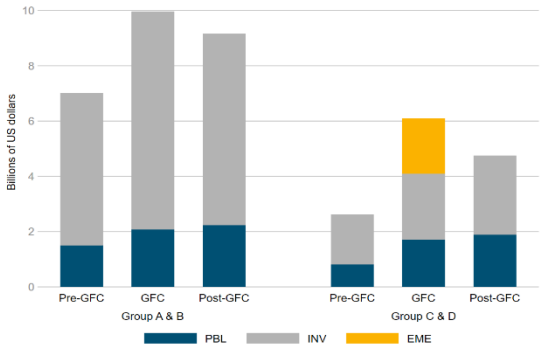
[21] The COVID-19 pandemic is defined as the period between March 2020 and February 2021. In order to control for possible seasonality in the analysis, the pre-pandemic (pre-COVID) period is defined as between March 2019 and February 2020.

Special development loans (SDLs) increased by 145 percent in the pandemic, solely in C&D countries with an active IMF program.

Figure 8. Approvals of IDB Policy-Based Loans, Investment Loans, Emergency Loans, and Special Development Loans during the Global Financial Crisis and COVID-19 Pandemic by Instrument and Country Group

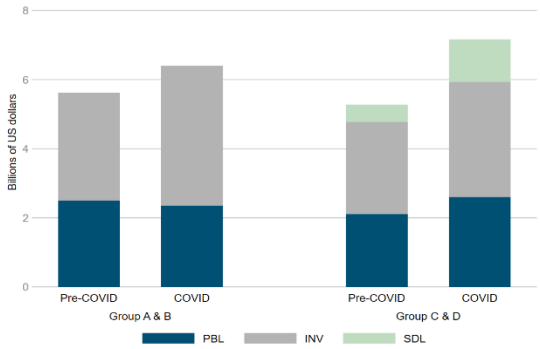
PBLs provide financial support in global crises episodes, especially for least developed countries (C&D).

Panel A. Global Financial Crisis



Sources: Inter-American Development Bank (IDB) and authors' calculations.
Note: The global financial crisis (GFC) is defined as the period between December 2007 and June 2009, the period before the crisis (pre-GFC) as that between December 2005 and June 2007, and the period after the crisis (post-GFC) as that between December 2009 and June 2011.

Panel B. COVID-19 Pandemic



The COVID-19 pandemic is defined as the period between March 2020 and February 2021. The pre-pandemic (pre-COVID) period is defined as between March 2019 and February 2020. Groups A&B refer to the seven countries with the larger economies in Latin America and the Caribbean. Groups C&D refer to the nineteen countries with smaller economies. EME = emergency loans. INV = investment loans. PBL = policy-based loans. SDL = special development loans.

B. Policy-Based Lending and Multilateral Coordination

Coordination between international financial institutions is key to maximize their development impact beyond global crises episodes. The Report of the G20 Eminent Persons Group on Global Financial Governance (G20, 2018) states that "coherent and complementary operations between development partners will help scale up private sector investment." This section explores how policy-based lending from major multilateral development banks that operate in Latin America and the Caribbean are related, to understand how multilateral development banks position themselves in the region as providers of budget support linked to institutional changes and policy reforms.

Policy-based lending has become standard instruments present in the toolkit of every major multilateral development bank. Puerta and Ferreyra (2022) document that Multi-tranche and Programmatic policy-based lending operations are also offered by the World Bank, the Asian and African Development Banks. They also show that the general characteristics of these loans (purpose, eligibility criteria, resource allocation and others) are very similar across development institutions.

Policy-based lending leverages the comparative advantages of multilateral development banks and may complement the overall likelihood of success in IMF programs. A recent report by the

IMF's Independent Evaluation Office (Kim and Less 2021) recommends "more effective and structured collaboration with partner institutions, including on providing technical support." The report finds that about 30 percent of structural conditionality in IMF programs is in non-core areas of Fund's expertise. Policy-based lending usually is aimed at areas complementary to IMF's traditional fields, and because they involve knowledge sharing and capacity building, they can provide the needed inputs to help IMF programs succeed. Given these complementarities, it is important to understand how they are related between the three major multilateral development banks providing policy-based financing in Latin America and the Caribbean: The World Bank, the IDB, and the Development Bank of Latin America (CAF).

Between 1990 and 2021, the IDB, the World Bank, and the CAF approved 832 policy-based operations in IDB borrowing member countries that add up to nearly US$180 billion. While the IDB is the institution with the highest number of PBLs approvals in the region,[22] the World Bank is the institution with the largest amounts approved.[23] The IDB approved 50 percent of PBLs, the World Bank 45 percent, and the Development Bank of Latin America (CAF) 5 percent. Regarding volumes, 54 percent was approved by the World Bank, 41 percent by the IDB, and 5 percent by CAF.

However, during the last decade the IDB has taken the lead as the main source of policy-based lending throughout the region. Between 2011 and 2021, the IDB and CAF expanded their portfolios; both institutions have more than doubled the value of their approvals in PBLs compared to the previous decade (Figure 9, panel A). The share of PBLs constituted 33.6 percent of total approvals at the IDB and the 23.9 percent at CAF between 2011-21. These values were considerably lower between 2001-10, when the share of PBLs represented 24 percent for the IDB and 10 percent for CAF (Figure 9, panel B).

In contrast, comparing the decade 2001-10 and 2011-21, the World Bank has kept its approvals of policy-based operations constant in IDB borrowing member countries (Figure 9, panel A, middle and right grey bars). However, the share of PBLs in its global portfolio fell by half, from 12 percent between 2001 and 2010 to 6 percent between 2011 and 2021 (Figure 9, panel B, middle and right grey bars).[24] This pattern seems to respond more to a shift of the use of PBLs to different regions (particularly to Africa, Middle East and North Africa, and South Asia) rather than a generalized decrease in its use (see Box 2 and World Bank (2022)).

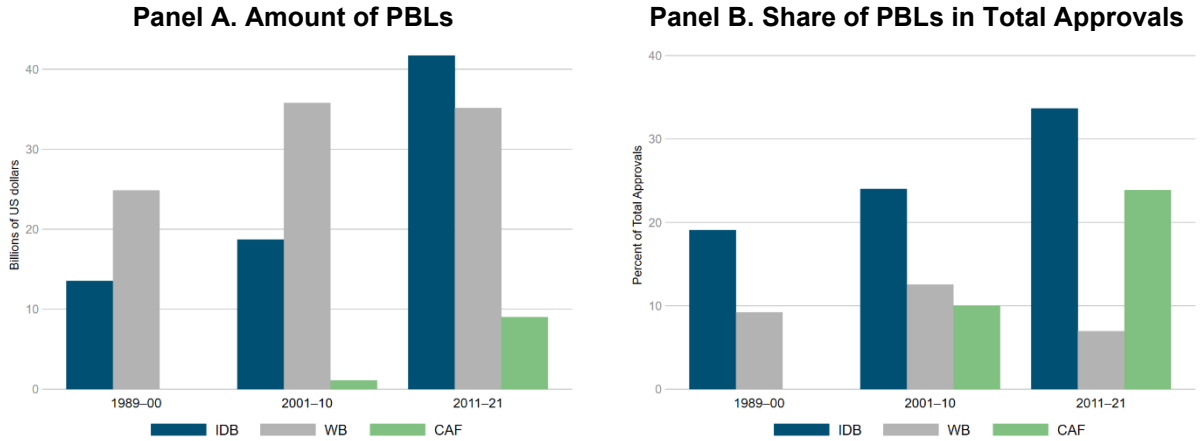
[22] The IDB is the only institution with PBL operations in Belize (BE) and Suriname (SU). In addition, the IDB has more than 50 percent of the number of PBLs approved in almost all the countries of the region. The World Bank leads in Argentina (AR), Bolivia (BO), Brazil (BR), Colombia (CO), Costa Rica (CR), Ecuador (EC), Guatemala (GU), Mexico (ME), and Venezuela (VE).

[23] Five countries account for more than 68 percent of the total the World Bank Policy Based Lending approvals in the region: Mexico (ME), Colombia (CO), Brazil (BR), Argentina (AR), and Peru (PE). In these countries, the amounts approved by the IDB represent less than 40 percent of the total in their historical approvals.

[24] According to the World Bank (2002), the amount of PBL approvals in Latin America and the Caribbean has grown between fiscal years 2011-15 and 2016-21, although at a slower pace compared to other regions like Africa, the Middle East and North Africa, and South Asia. However, Latin America continues to receive the largest volume of approvals compared to any other specific regions.

Figure 9. Policy-Based Loan Approvals by Decade for the World Bank, the IDB, and CAF

While the IDB and CAF have increased the amount of PBLs and their share in total approvals, the World Bank has held the amount constant and decreased the share.



Sources: Inter-American Development Bank (IDB), World Bank Group (WB), and Corporación Andina de Fomento/Development Bank of Latin America (CAF) databases. Total approvals for the case of the WB include its global portfolio, and it is not limited to operations approved in Latin America and the Caribbean.
Note: PBL = policy-based loans.

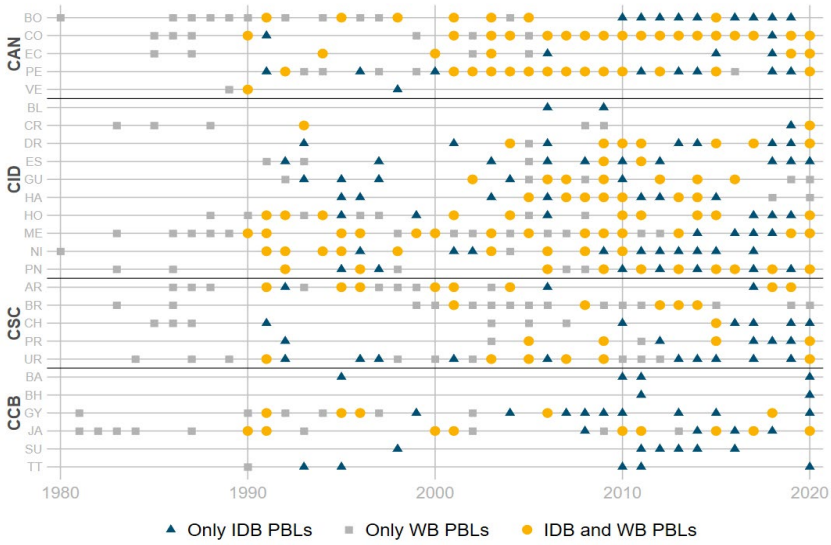
As a result of its leading role in policy lending in the region, the IDB has consolidated its presence in countries where the World Bank is now less active. Figure 10 compares the incidence of operations between the World Bank and the IDB. Three critical periods in the figure can be highlighted. The 1980–90 period stands out for the World Bank being the exclusive financier of reforms in the region. The 1990–2010 period is characterized by an increasing role of the IDB and a high dual presence with the WB in many countries. When the World Bank approved a policy-based lending operation, the IDB had a coinciding PBL (same country, same year) in 57 percent of the cases; in Mexico and Brazil, the IDB always approved PBLs when the World Bank had approved them as well. Finally, the period after 2010 is characterized by the consolidations of IDB presence and a decline in the joint presence of both institutions. During this period when the World Bank approved a policy-based lending operation, the IDB had a coinciding PBL (same country, same year) in 78 percent of the cases; on the contrary, when the IDB approved a PBL, the World Bank had a coinciding policy-based operation in only 40 percent of the cases.

During periods of joint presence, numerous operations have benefited from a coordinated response by multilateral institutions to government needs. Occasionally, this coordination has implied the co-financing of projects. However, coordination between the IDB and the WB has taken many other forms over the years, including: (i) the establishment of mechanisms that ensure homogeneity in the design of policy matrices to avoid duplication of efforts; (ii) the presence of agreements on the conditionalities of PBLs that ensure consistent treatment of borrowers across institutions; (iii) the preparation of joint missions that enhance the dialogue with countries to identify reform areas that require coordinated support; and (iv) the provision of loans that support similar sectoral objectives in the same country/year. An analysis of the loan proposals of 717 policy-based lending operations between 1990 and 2019 provides additional insights on the

extent of cooperation between the IDB and the WB.[25] Joint participation of the two institutions was found in nearly 10 percent of the analyzed loans (corresponding to 78 operations).

Figure 10. Policy-Based Lending by the Inter-American Development Bank and World Bank in Latin America and the Caribbean, 1980–2020

The World Bank has narrowed its approvals of policy-based operations to certain countries and the joint presence of the World Bank and the IDB in policy-based lending overall has decreased.



Sources: Inter-American Development Bank (IDB) and World Bank Group (WB).
Note: Each point in the figure represents at least one policy-based loan (PBL) operation approved by the corresponding institution. Andean Region (CAN): BO=Bolivia. CO=Colombia. EC=Ecuador. PE=Peru. VE=Venezuela. Central America, Haiti, Mexico, Panama, and Dominican Republic (CID): BL=Belize. CR=Costa Rica. DR=Dominican Republic. ES=El Salvador. GU=Guatemala. HA=Haiti. HO=Honduras. ME=Mexico. NI=Nicaragua. PN=Panama. Southern Cone (CSC): AR=Argentina. BR=Brazil. CH=Chile. PR=Paraguay. UR=Uruguay. Caribbean (CCB): BA=Barbados. BH=The Bahamas. GY=Guyana. JÁ=Jamaica. SU=Suriname. TT=Trinidad and Tobago.

Coordination between both institutions has occurred to a greater extent in reforms to the financial system, tax reforms (revenues), and public spending reforms during 1990-10. Figure 11 presents 19 areas in which these efforts were concentrated. In 12 countries, this cooperation contributed to reforms in the financial sector. Most of the reforms undertaken jointly correspond to reforms of the public sector (tax collection, public spending, public sector management). Despite the lesser role of the World Bank in recent years, one area of coordination that stands out after 2010 has been disaster risk management.

In sum, the data suggest that the World Bank is allocating relatively fewer resources to the region for policy lending, focusing on a handful of countries and sectors. Meanwhile, during the last

[25] This analysis provides a lower bound to the extent of multilateral coordination. First, it is focused on the general objectives described in the loan documents, without looking into the specific components of each loan, which may display more specific areas of coordination not observed at the aggregate level. Second, it only looks at coordination among policy-based lending operations by the two institutions, without considering potential complementarities between policy-based lending and other types of instruments, such as investment loans or technical cooperations.

decade, the IDB has consolidated its presence as the region's main source of this type of lending. The joint presence of the World Bank and the IDB in sectors and countries reflects how these institutions accompany the development of countries' agendas and exploit synergies in both the country and strategic sectors, which in some cases translates to explicit coordination in selected reforms.

Figure 11. Multilateral Coordination in Policy-Based Lending between the Inter-American Development Bank and World Bank by Reform Area, 1980–2020

The World Bank and the IDB have increased their coordination in certain sectors and/or countries.

Sources: Inter-American Development Bank (IDB) and World Bank Group (WB) based on the objectives cited in each policy-based loan (PBL) proposal.
Note: Each point in the graph represents a coordinated operation in a specific sector. Andean Region (CAN): BO=Bolivia. CO=Colombia. EC=Ecuador. PE=Peru. VE=Venezuela. Central America, Haiti, Mexico, Panama, and Dominican Republic (CID): BL=Belize. CR=Costa Rica. DR=Dominican Republic. ES=El Salvador. GU=Guatemala. HA=Haiti. HO=Honduras. ME=Mexico. NI=Nicaragua. PN=Panama. Southern Cone (CSC): AR=Argentina. BR=Brazil. CH=Chile. PR=Paraguay. UR=Uruguay. Caribbean (CCB): BA=Barbados. BH=The Bahamas. GY=Guyana. JA=Jamaica. SU=Suriname. TT=Trinidad and Tobago.

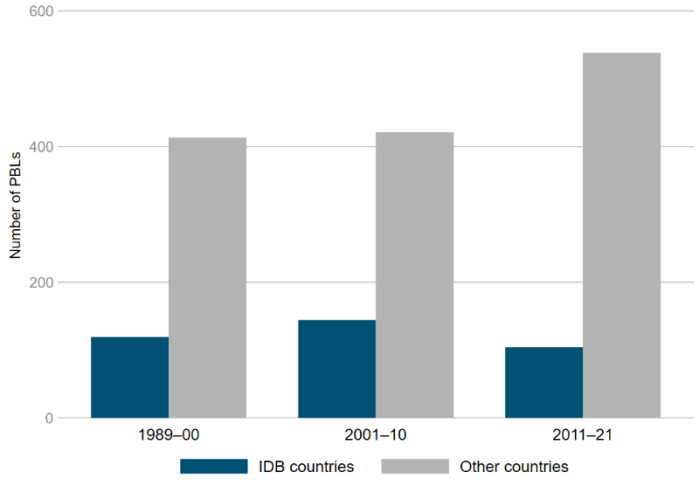
Box 2. Trends in Policy-Based Lending by the World Bank

In the case of the World Bank, the term policy-based lending is associated with the approval of any one of the following type of operations: Debt and Debt Service Reduction Loan, Development Policy Lending, Poverty Reduction Support Credit, Programmatic Structural Adjustment Loan, Sector Adjustment Loan, Special Structural Adjustment Loan, and Structural Adjustment Loan

The number of approvals of policy-based lending operations by the World Bank for borrowing member countries of the Inter-American Development Bank (IDB) has fallen by 27 percent over the past decade. But at the same time, the number of approvals has increased for the rest of the regions in which the World Bank is present, going from 421 in 2001–10 to 538 in 2011–21 (Figure B2.1).

Figure B2.1. Number of Policy-Based Lending Operations by the World Bank, 1980–2021

While the number of the World Bank's PBLs for Latin American and Caribbean countries has decreased, it has risen for other regions.



Sources: World Bank (WB) databases and authors' calculations.
Note: IDB = Inter-American Development Bank.

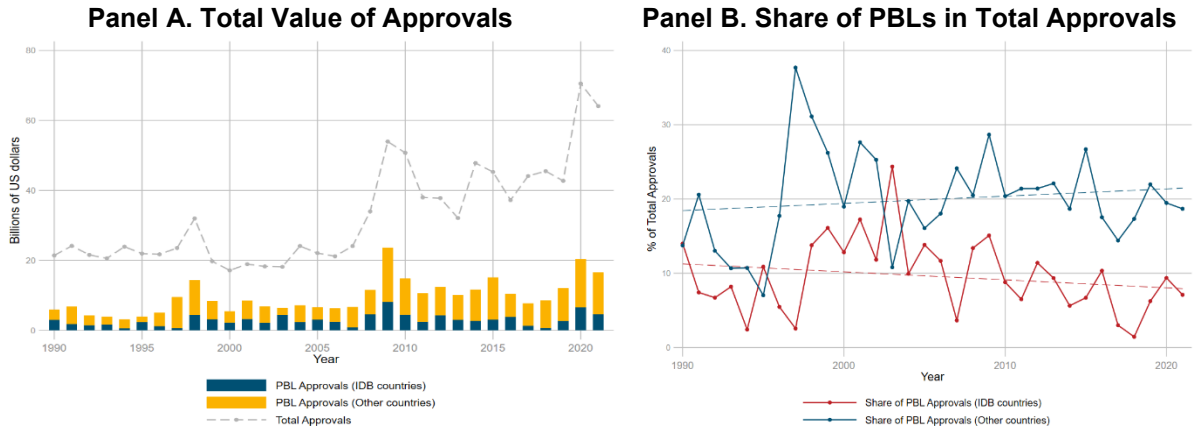
The total value of World Bank approvals of PBLs has also increased (shown by the grey dotted line in panel A of Figure B2.2). Likewise, the total amount of approved PBLs for IDB borrowing countries and non-IDB borrowing countries (represented by the blue and yellow bars) also grew between 2017 and 2021, reaching a maximum of US$20 billion in 2020.

As a share of total approvals (total approvals is the sum of approvals in IDB and other countries), policy-based lending operations to IDB borrowing countries are declining, as shown in panel B of Figure B2.2. In contrast, the trend is relatively positive for the other countries where the World Bank is active. This trend can be explained by a more active presence in Africa, Middle East and North Africa, and South Asia (World Bank, 2002).

Policy-based lending has comprised an average of 27 percent of total World Bank approvals in recent years. But the share of policy-based lending approvals for Latin American and Caribbean countries has fallen. This is mainly due to a redistribution of resources toward other regions, rather than a loss of relevance of the instrument as a part of the World Bank's global portfolio.

Figure B2.2. Trends in Approvals of Policy-Based Lending Operations by the World Bank, 1980–2020

The value and share of policy-based operations approvals have also fallen for Latin American and Caribbean countries compared to other countries.



Sources: World Bank (WB) databases and authors' calculations.
Note: "IDB countries" refers to IDB borrowing countries. IDB = Inter-American Development Bank. PBL = policy-based loan.

IV. Concluding Remarks

Total PBL approvals have been increasing, both in number of approvals and average size of approved PBLs. PBLs have become a more sizable part of every year's operations at the Bank, particularly since the Ninth Capital Increase (IDB-9) in 2010 and the change in the aggregate ceiling for PBL in 2011. They represent one third of total lending at the IDB in the period 2011-2021.

Country concentration of PBLs has declined. While in 1990–2000 the Bank approved on average 1 PBL per year in 6 countries, in 2010–20 13 countries benefitted from PBLs on a yearly basis. Historically, most of the approved PBLs have been for relatively smaller C&D countries, but the largest amounts have been for relatively larger A&B countries.

The scope of PBLs has widened. While before 2000s PBLs covered roughly 4 sectors, after 2010 the Bank has been fulfilling the demand for policy-based lending in 14 sectors. The majority of PBLs target Reform/Modernization of the State and Social Investment interventions, but in the last decade, the thematic scope has broadened to include new areas of reform such as Environment and Natural Disasters, Financial Markets, and Water and Sanitation. PBLs have also advanced IDB's cross-cutting strategic priorities of Gender, Climate Change, and Institutional Capacity. PBLs have supported the business environment with components that combine interventions aimed at innovation, productivity, and financial markets.

The evidence shows that PBLs are part of integral interventions that involve other instruments. Investment loans anticipate PBLs in a country-subsector by up to three years and

they are also more likely to be approved contemporaneously, while technical cooperations precede, coincide with, and follow PBL approvals. The evidence suggests that PBLs are not systematically used as the first instrument deployed in a country-subsector and that instead they follow previous interventions, when the Bank probably has gained deeper understanding and knowledge about the country/subsector.

The literature acknowledges the complexity and subjectivity involved in identifying and measuring progress in achieving structural reforms through different systematic metrics*.* Some indicators have attempted to summarize reforms consistently across time and countries, considering large changes toward liberalization to be structural reforms. But the scope of structural reforms has evolved in the past 30 years. They have become less "macro" in their orientation and more sectorial and responsive to the specific context of recipient countries. Hence, exercises that try to characterize structural reforms systematically across time, sectors, and geographical areas do not capture reforms that are more customized and oriented to particular sectors.

Attribution of reforms is also problematic because many other factors happen simultaneously with PBLs. Moreover, reforms can take long before they are implemented and even longer before they show measurable results, often exceeding the time that PBLs take to be disbursed and evaluated. However, ongoing work indicates that in times of reform in Latin America and the Caribbean, PBLs from multilateral development banks are more likely to be present than in non-reform times.

Given the methodological challenges to quantify reforms and the attribution problems, multilateral development banks rate their policy-based lending within their own effectiveness frameworks. The IDB self-evaluates sovereign-guaranteed operations at the time of project closure through project completion reports (PCRs). PCR scores show that PBLs tend to receive higher rankings compared to investment loans, and most of them are rated as satisfactory overall.

Although PBL approvals have not exhibited an overall significant correlation with the countries' economic cycle, they have increased systematically during periods of stronger fiscal need accompanied by IMF financing. In addition to crisis periods of domestic origin, countries can also face liquidity problems because of the deterioration of global factors beyond the control of local authorities. The global financial crisis and the COVID-19 pandemic are recent examples of external crisis episodes that nevertheless had severe effects in developing countries and forced a worldwide coordinated response from international financial institutions. As part of the increase in overall lending for these episodes, PBLs played an important role securing the government access to finance, especially in smaller countries with tougher or no market access to finance.

Over the past decade the IDB has steadily increased the approval of PBL operations, becoming the main source of policy-based development finance for the region*.* From 2011 to 2021, the IDB and CAF have expanded their policy-based lending portfolios, while the World Bank has kept its approvals of policy-based lending operations constant and has shifted its focus to other regions in the world. As a result, the IDB has consolidated its presence in countries where the World Bank is now less active. There is evidence of a coordination in terms of policy-based lending between the IDB and the World Bank in reforms to the financial system, tax (revenues), and public spending.

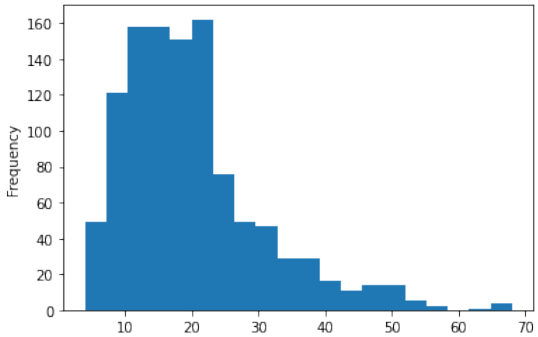
V. Appendices

Appendix 1. Classification of Topics in Policy-Based Loans

To study the areas where PBLs are allocated at a higher level of detail, this exercise disaggregates Inter-American Development Bank (IDB) PBLs into their components and uses techniques of Natural Language Processing (NLP) to classify the policy reforms and institutional changes that IDB has financed in Latin America and the Caribbean. The sample contains 357 PBLs approved from 1990 to 2021, which results in 1,096 components.[26] The average PBL has 3 components, with a minimum of 1 and a maximum of 7. To improve the quality of the topic classification exercise, the data set was first tokenized[27] and lemmatized,[28] and further prepared to retain nouns, pronouns, or adjectives.[29]

Figure A1.1. Histogram and Descriptive Statistics of Components of IDB Policy-Based Loans after Text Processing

Panel A. Histogram of words



Panel B. Descriptive Statistics (Number of words)

Descriptive Statistics	Number of words
Mean	19.9
Standard Deviation	10.5
Minimum	4
25th percentile	13
50th percentile	18
75th percentile	24
Maximum	68

Source: Authors' calculations.

Figure A1.1 presents the histogram and descriptive statistics of the number of words after applying the text processing techniques to the PBL components. The average component contains nearly 20 words, which is a reduction of 62 percent in the average of words in the sample. The minimum is 4 words, and the maximum is 68 words.

One of the most common NLP techniques to identify which themes are discussed in a series of documents is topic modeling, which is an unsupervised machine learning method (Blei, Ng, and Jordan, 2003). An extension of these topic models is the keyword-assisted topic model, which requires the specification of meaningful keywords before identifying the relevant topics (Eshima, Imai, and Sasaki, 2020). This model has been implemented to analyze how the World Bank's

[26] IDB approved 421 PBLs from 1990 to 2021; however, information on components is available for only 357 of them. The macroeconomic component present in every PBL was not included because it is not a source of variation for the exercise. The components were collected in Spanish because most of the documents were originally written in this language.

[27] Tokenization is performed on the corpus to obtain single tokens (words, characters, or numbers). The average of the sample is 52 tokens, with a minimum of 8 and a maximum of 180.

[28] Lemmatizing consists of grouping together the inflected forms of a word so they can be analyzed as a single item, identified by the word's lemma, or dictionary form. In this way, words that have the same or similar meaning can be grouped under the same term. Another advantage of lemmatizing the text is the possibility of identifying linguistic features, such as the types of tokens, which could be nouns, adjectives, verbs, adverbs, pronouns, prepositions, numbers, characters, or the like.

[29] Verbs such as "increase" or "reduce" or prepositions such as "below" or "above" give little information about the topics of the PBLs and so were discarded. Additionally, a Named Entity Recognition model was implemented to identify entities in the text (countries, cities, organizations, and names), and those words were also removed.

economic research and policy priorities influence its policy loan conditions (Cormier and Manger, 2021). The keyword-assisted model (Key ATM) has the advantage that the resulting topics are easier to interpret, and its performance is satisfactory compared to human coders.

To implement the KeyATM, it is necessary to set the number of topics and keywords that identify each of these topics. The number of topics and keywords were obtained by implementing an unsupervised topic model over IDB's Country Development Challenges (CDC) reports (Avellán and Brito, 2022). CDC reports provide a good reference to analyze the text of the PBLs because they are exhaustive in the sense that most areas of Bank expertise are addressed, hence they provide a rich set of words to characterize topics in IDB documents. Table A1.1 presents the resulting topic-identifying keywords. These keywords correspond to the resulting top 10 words with the highest probability of belonging to each of the 14 resulting topics. The topic labels are determined by analyzing the common theme in each set of keywords.

Table A1.1. Keywords to Identify Topics in IDB Policy-Based Loans

Financial System and Credit Access	Productivity and Firms	Water, Sanitation, Transport and Logistics	Regulatory Framework	Fiscal Policy	Institutional Framework	Health
financiero	empresa	transporte	nacional	gasto	gestión	salud
financiamiento	productividad	agua	marco	fiscal	gobierno	atención
mercado	capital	infraestructura	plazo	ingreso	capacidad	enfermedad
crédito	humano	urbano	ley	público	política	covid
comercial	pequeño	calidad	plan	impuesto	público	causa
comercio	brecha	ciudad	regulatorio	tributario	información	pandemia
acceso	innovación	saneamiento	primero	pensión	institucional	personal
producto	grande	vial	lugar	gobierno	implementación	vida
empresa	petróleo	público	política	reforma	coordinación	médico
inversión	factor	mantenimiento	mediano	deuda	proceso	población

Skills and Labor markets	Agriculture	Climate Change	Innovation, Technology and Investment	Gender Equality and Women Empowerment	Education and Social Protection	Energy and renewables
laboral	economía	cambio	inversión	mujer	educación	energía
población	crecimiento	climático	privado	violencia	social	generación
trabajo	valor	riesgo	público	género	educativo	eléctrico
trabajador	económico	impacto	programa	déficit	estudiante	energético
rural	turismo	natural	digital	hombre	niño	costo
hogar	exportación	desastre	tecnología	período	escuela	propiedad
persona	actividad	efecto	infraestructura	caso	aprendizaje	electricidad
mercado	potencial	pérdida	proyecto	afectado	calidad	producción
formación	global	ambiental	eficiencia	delito	pobreza	tierra
empleo	agrícola	vulnerabilidad	política	prevención	docente	renovable

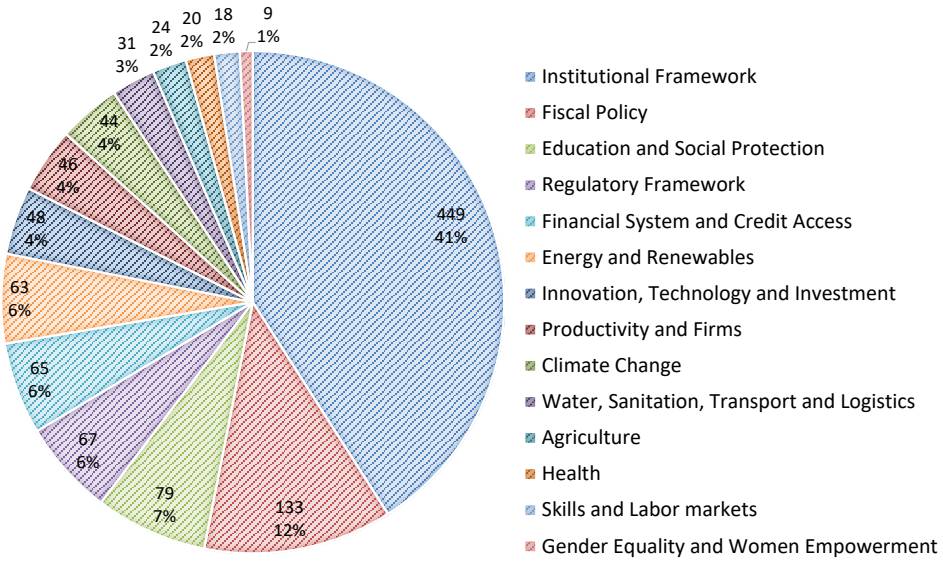
Source: Avellán and Brito, 2022.
Note: The keywords are in Spanish because this was the language used in most of the CDC reports.

Now it is possible to classify the PBL's components into the identified topics using the keywords above with the KeyATM. The KeyATM calculates the probability that each component corresponds to each topic. For example, the component that corresponds to one of the PBLs, *"Financial management and control of public spending. Improve budget and economic management as well as control and transparency of public spending,"* has a 98 percent probability of belonging to the topic "Fiscal Policy." Another example of a PBL component is *"Support for Energy Efficiency. This component seeks to promote the efficient use of energy to achieve a savings goal of 20 percent by 2025 in accordance with the Energy Agenda."* This component has a 70 percent probability of belonging to the topic "Energy and Renewables." With estimates like

these, each component is mapped to a topic based on maximizing the likelihood that it belongs to it.

Figure A1.2 presents the resulting distribution for the sample. The most common topic in the PBLs' components is "Institutional Framework," with 41 percent of the components referring to this theme. The next frequent topics are: "Fiscal Policy," "Education and Social Protection," and "Regulatory Framework." These are followed by three topics that are directly linked to the development and strengthening of the private sector, "Financial System and Credit Access," "Innovation, Technology and Investment," and "Productivity and Firms." These three topics represent 15 percent of the components of the PBLs from 1990 to 2021, corresponding to 28 percent of PBLs in the sample with at least one component belonging to one of these three topics.

Figure A1.2. Distribution of 1,096 Components of IDB Policy-Based Loans Assigned to the Topic with the Highest Probability, 1990–2021

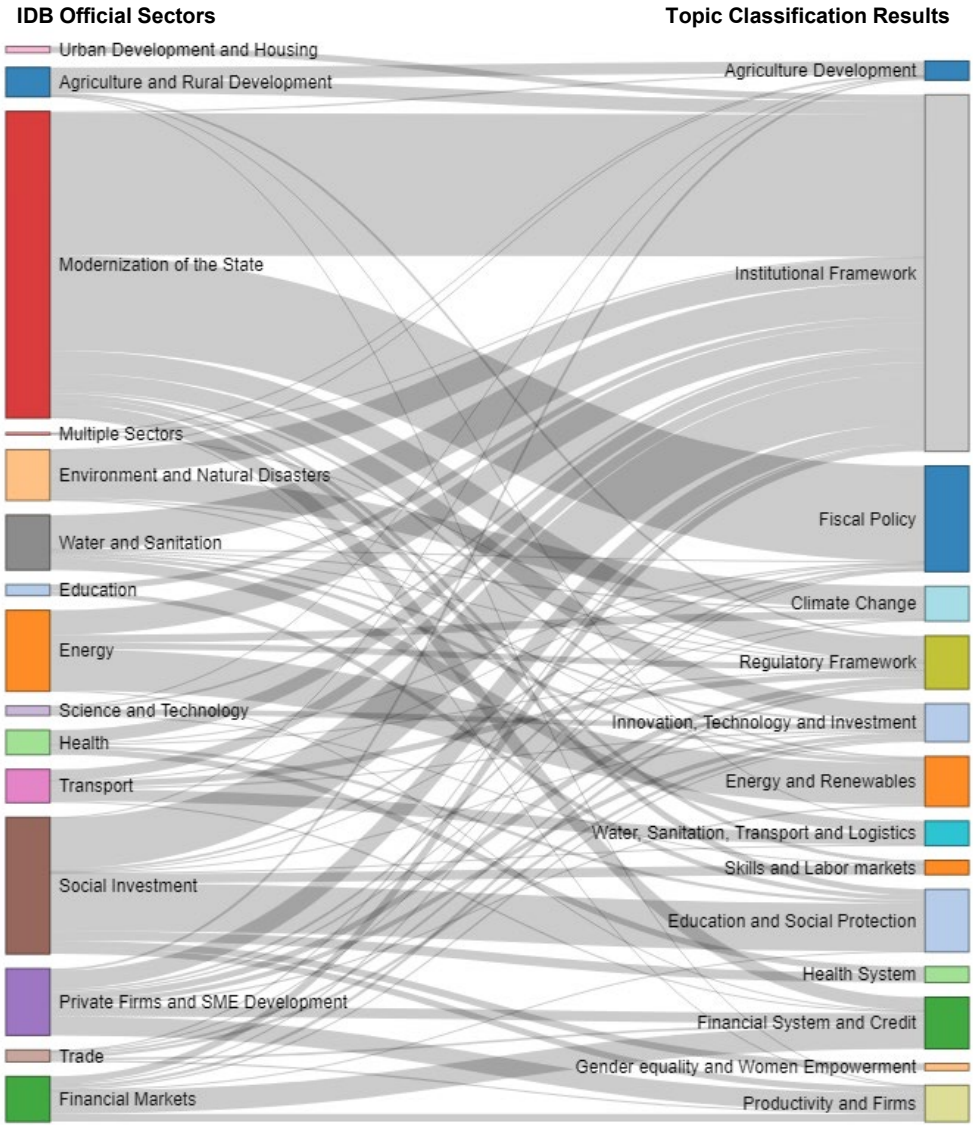


Source: Authors' calculations.
Note: The figure applies to 357 policy-based loans (PBLs) approved by the Inter-American Development Bank (IDB) from 1990 to 2021.

Finally, Figure A1.3 maps the PBLs officially classified by sectors into topics, using a Sankey diagram for the 1,096 components in the sample. The diagram shows the relationship between the components registered as their corresponding PBL using the official IDB sectors[30] to the 14 topics identified by the KeyATM. In the diagram, the width of the arrows is proportional to the number of components related to the sectors and topics. The diagram illustrates that PBLs are rich in terms of the scope of topics they address based on their components. For example, the components of PBLs classified as "Modernization of the State" (the red column on the left) are mainly aimed at improving the Institutional Framework, Fiscal Policy, and Regulatory Framework. PBLs classified as "Social Investment" (the brown column on the left), in addition to their natural connection to the "Education and Social Protection" topic (light blue column on the right), also aim to improve the Institutional Framework of the relevant sector. Moreover, the Institutional Framework topic (the grey column on the right) is strongly connected to PBLs in sectors across the IDB, which is consistent with the purpose of the lending instrument.

[30] Official sector categories are defined by IDB internal guidelines (OA-123).

Figure A1.3. Official Sectors of the 1,096 Components of IDB Policy-Based Loans Mapped to the Resulting Topics, 1990–2021



Source: Authors' calculations.
Note: The left side of the figure represents the 1096 components corresponding to the 357 policy-based loans (PBLs) approved by the Inter-American Development Bank (IDB) in the sample according to their IDB official sector classification. On the right side is the disaggregation of the components according to the topic classification model.

Appendix 2. The Sequencing of Policy-Based Loans, Technical Cooperation, and Investment Loans: A Systemic View

To assess how the Inter-American Development Bank (IDB) engages in different country/subsectors through its various instruments, it is necessary to understand the sequence by which these instruments interconnect over time. Otherwise, one might just observe the aims of a specific operation and fail to see the interlinkages with past and future IDB interventions. Capturing the sequencing in instruments provides a dynamic picture that is useful to understand how the Bank develops the technical dialogue within a country/subsector over time.

To measure how PBLs are linked with technical cooperations and investment loans, the analysis focuses on the universe of 398 sovereign-guaranteed policy-based loans (PBLs), 1,850 sovereign-guaranteed investment loans, and 6,478 technical cooperations approved between 1990 and 2021.[31] The data, that are originally at the operation level, are then aggregated at the country/subsector/year level. Given that there are 26 countries and 31 subsectors, the analysis focuses on 775 country/subsectors observed across time.

Figure A2.1 presents the links between PBLs, investment loans, and technical cooperations. Although as shown in panels A and B, 95 percent of PBLs are not registered with a link to investment loans and 68 percent of PBLs are not registered with a link to technical cooperations in the Bank's systems, significant correlations result when looking at the data carefully. To analyze the dynamics of IDB lending at the country/subsector level, the following equation was estimated:

$$y_{cs,t} = \zeta_0 + \sum_{k=-3}^{3} \zeta_k PBL_{cs,t+k} + \gamma_{cs} + \delta_t + \vartheta_{ct} + \varepsilon_{cs,t} \qquad \text{(A2.1)}$$

where $y_{cs,t}$ is a dummy equal to 1 if at least one investment loan or a technical cooperation is approved in country *c*, in subsector *s*, in year *t*. $PBL_{cs,t}$ is a dummy value equal to 1 if at least one PBL is approved in country *c*, in subsector *s*, in year *t*; γ_{cs} are country/subsector fixed effects (FE), δ_t are year fixed effects, ϑ_{ct} are country/year fixed effects, and $\varepsilon_{cs,t}$ are standard errors clustered at the country/subsector level.

Figure A2.2 reports the estimate $\widehat{\zeta_k}$ from equation (A2.1) and the associated 90 percent confidence interval. The figure shows that when a PBL is approved, an investment loan is significantly more likely to be approved in the same country/subsector (Figure A2.2, panel A). PBLs also seem to be accompanied by technical cooperation approvals before, contemporaneously, and after they are approved in a country/subsector (Figure A2.2, panel B). When focusing on infrastructure, only the contemporaneous association with investment loans remains significant (Figure A2.2, panel C) and the association with technical cooperation while not significant, remains positive in the period spanning from the year before up to the year after the PBL approval (Figure A2.2, panel D).

The results suggest that investment loans anticipate PBLs up to three years and the anticipation result is statistically significant for one year. It also finds that PBLs and investment loan approvals are positively associated contemporaneously. After a PBL approval, there is no significant association between PBLs and investment loans up to three years in a country/subsector. Technical cooperations are positively associated with PBLs from two years before their approval, and up to one year after approval.

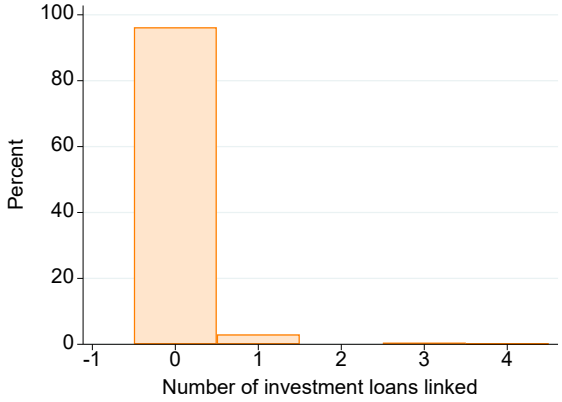
[31] The analysis excludes lending and technical assistance for which information on the approval year or sector is missing, lending under the sector "Other," and the following loan modalities: Global Pre-Investment Operation, Innovation Operation, Performance-Driven Loan, Private Sector Loan, Technical Cooperation Loan (the analysis focuses on grants). The analysis also excludes regional technical assistance.

These findings are in line with the reported complementarity between the programmatic variant of PBLs (PBP series) and technical cooperations, which usually have supported policy dialogue, diagnostic work, and compliance with conditionalities (OVE, 2004).[32] According to the IDB Office of Evaluation and Oversight (OVE, 2016), the support provided by technical cooperations is especially relevant for two reasons. First, while resources from a PBP go to the country's treasury, parallel technical cooperations provide direct support to the ministries leading the reforms. Second, the analysis finds a strong positive association between technical cooperation support and the likelihood of completing a PBP series. As for investment loans, OVE (2016) finds that they have accompanied PBP series to a lesser extent.

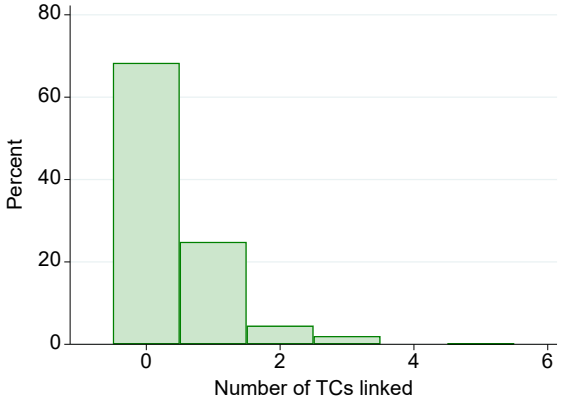
The results also show that on average, when engaging when country/subsectors, PBLs are not the first instrument deployed, and that technical cooperations and investment loans are chosen instead. Possibly, once the Bank has accumulated knowledge about the sector, or when some specific local capabilities skills have been developed, PBLs are more likely.

Figure A2.1. Links between IDB Policy-Based Loans, Technical Cooperations, and Investment Loans

Panel A. Percentage of PBLs by Number of Investment Loans Linked



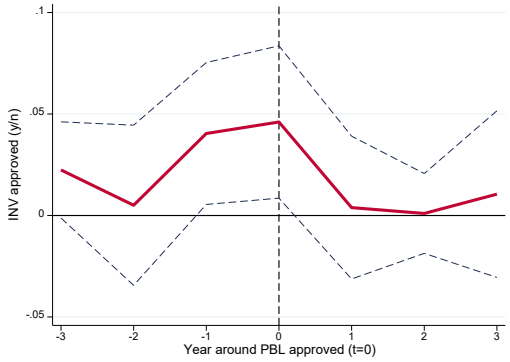
Panel B. Percentage of PBLs by Number of Technical Cooperations Linked



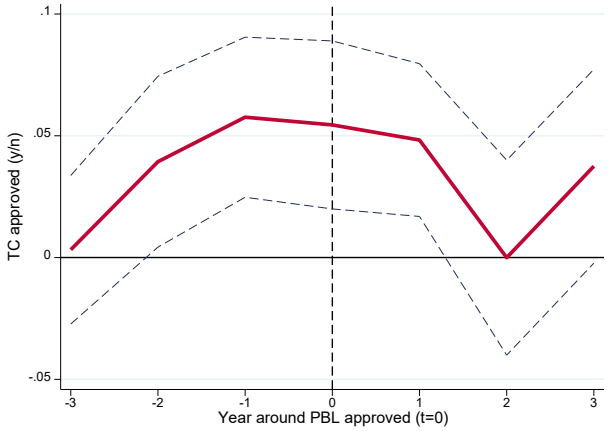
[32] PBP series were introduced in 2005. They comprise a sequence of loans to support a given reform program. PBL conditionalities are the changes to laws, regulations, or institutions that the country needs to undertake and upon which the release of loan tranches can follow (OVE 2004).

Figure A2.2. Dynamics of Approvals of Investment Loans and Technical Cooperations around the Year a Policy-Based Loan is Approved in a Country/Subsector

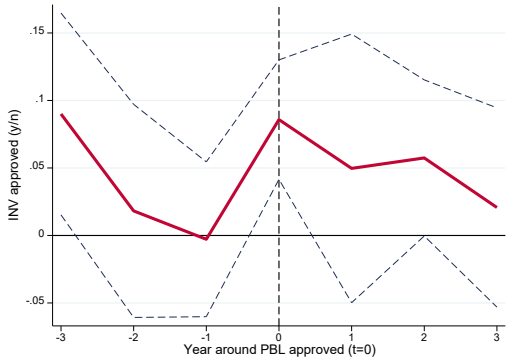
Panel A. Investment Loans



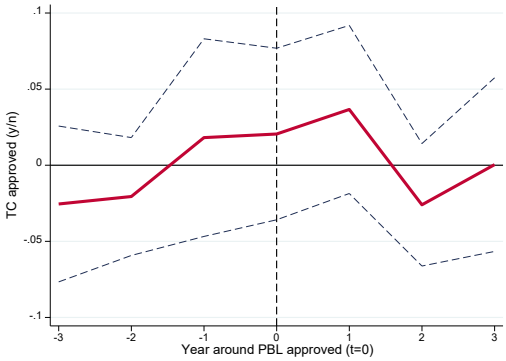
Panel B. Technical Cooperations



Panel C. Investment Loans in Infrastructure



Panel D. Technical Cooperations in Infrastructure



Source: Authors' calculations based on Inter-American Development Bank (IDB) Data Warehouse.
Note: Data cover 1990 to 2021. Event analyses of the probability to approve an investment loan in a country/subsector in a seven-year time window around the year a PBL is approved. Country/subsector fixed effects (FE), country/year fixed effects, and approval year fixed effects as included. 90 percent confidence interval. The eight infrastructure subsectors for panels C and D are: sustainable agricultural development (AG-DEV); agricultural research and innovation (AG-RES); all the remaining subsectors in agriculture and rural development (AG); water and sanitation (AS); energy (EN); environment and natural disasters (PA); integrated risk management (PA-DRM); and transport (TR). INV = investment loan; PBL = policy-based loan; TC = technical cooperation.

Appendix 3. The Role of Policy-Based Lending during Crises and Economic Cycles

Several studies have found international capital flows to developing countries and emerging market economies to be pro-cyclical (see, for example, Kaminsky, Reinhart, and Végh, 2005; Broner et al., 2013). Abrupt swings in capital inflows can be problematic for these countries because they can amplify economic fluctuations and undermine domestic financial stability (World Bank, 2012; Levy Yeyati, and Zúñiga, 2015; Araujo et al., 2017).

A branch of the literature has narrowed its focus to the cyclical properties of a subset of capital flows and has examined whether flows from multilateral development institutions can also contribute to the amplification of business cycles fluctuations or, conversely, smooth them through increasing access to external financing in downturns. The studies have found net flows from multilateral institutions to be counter-cyclical or at least a-cyclical (Dasgupta and Ratha, 2000; Humphrey and Michaelowa, 2011; Galindo and Panizza, 2018; Avellán, Galindo, and Lotti, 2022). These studies, however, have analyzed aggregated multilateral net flows, which predominantly consist of investment loans. Investment loans are the main lending instrument of multilateral development banks. They are meant to finance goods, works, and services to achieve specific development objectives and promote social and economic development (OVE, 2020). However, the long-term development goals that investment lending fosters, and the progress of the projects they finance, are not expected to follow economic cycles (Perry, 2009).

But even when multilateral development banks are found to be a-cyclical, they might still be counter-cyclical at the margin through other lending instruments. For example, with instruments contingent on natural disasters or crises, they are more likely to be counter-cyclical because by design they disburse during a downturn or an adverse economic event. To examine the cyclical properties of policy-based lending, an analysis was undertaken of all PBLs approved between 1990 and 2021 and the following equation was estimated:

$$y_{c,t} = \alpha_0 + \alpha_1 output\ gap_{c,t} + \gamma_c + \delta_t + \varepsilon_{c,t} \qquad \text{(A3.1)}$$

where $y_{c,t}$ is the amount of the policy-based loan (PBL) approved in country *c* in year *t*, as a percentage of the trend of current GDP. $output\ gap_{c,t}$ is the output gap in country *c* and year *t*, computed as the difference between the natural logarithm of real GDP in local currency units (LCU) and trend GDP. A positive (negative) value of α_1 will signal that PBLs are pro-cyclical (counter-cyclical). γ_c are country fixed effects (FE), δ_t are year fixed effects, and $\varepsilon_{c,t}$ are standard errors clustered at the country level.

The estimated coefficients $\widehat{\alpha_1}$ from equation (A3.1) are not significantly different from zero, as shown in Figure A3.1. That is, on average PBLs do not seem to be systematically used as a counter-cyclical instrument, nor they appear to be pro-cyclical.

One of the demand factors that could limit the counter-cyclical role of multilateral development banks is the fiscal cycle of borrower countries. It has been reported that multilateral sovereign lending tracks government expenditures (Avellán, Galindo, and Lotti, 2022). Hence, multilateral development banks can only be counter-cyclical if government expenditures become counter-cyclical.

To examine the behavior of PBLs around crises, the analysis estimates:

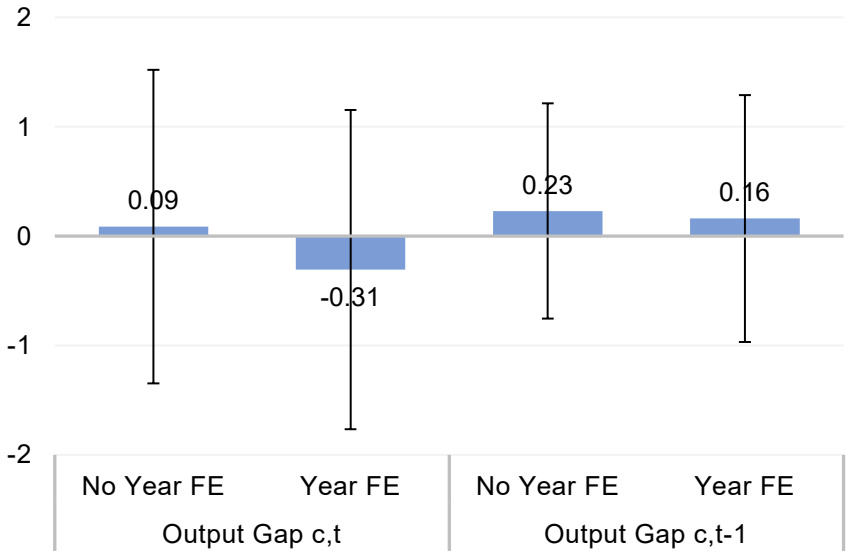
$$y_{c,t} = \beta_0 + \beta_1 crisis_{c,t} + \gamma_c + \delta_t + \varepsilon_{c,t} \qquad \text{(A3.2)}$$

where $crisis_{c,t}$ is a dummy equal to 1 in the presence of a different types of fiscal crises. Information on fiscal crises for 188 countries between 1970 and 2015 comes from Gerling et al.

(2018), who defined these events as periods of extreme funding difficulties that disrupt the usual debt dynamics and push the government to enact special measures. The authors distinguish four types of fiscal crises: credit events; exceptionally large official financing events; implicit domestic public defaults; and loss of market confidence. Credit events happen when governments reduce the present value of the public debt owed to official or other creditors. Exceptionally large official financing episodes occur when a country has a financial arrangement with the International Monetary Fund (IMF) with access above 100 percent of quota and the program objective of fiscal adjustment. Implicit domestic public defaults ensue when countries default implicitly on domestic debt by running domestic payment arrears or printing money, causing inflation to exceed 35 percent per year for advanced economies and small states, and 100 percent for emerging markets and low-income developing countries. Loss of market confidence crises are defined as periods when a country loses market access or the price for market access exceeds 1,000 basis points for the spreads. Once the data on PBLs and on fiscal crises are merged, the data set is left with 25 countries observed until 2015.

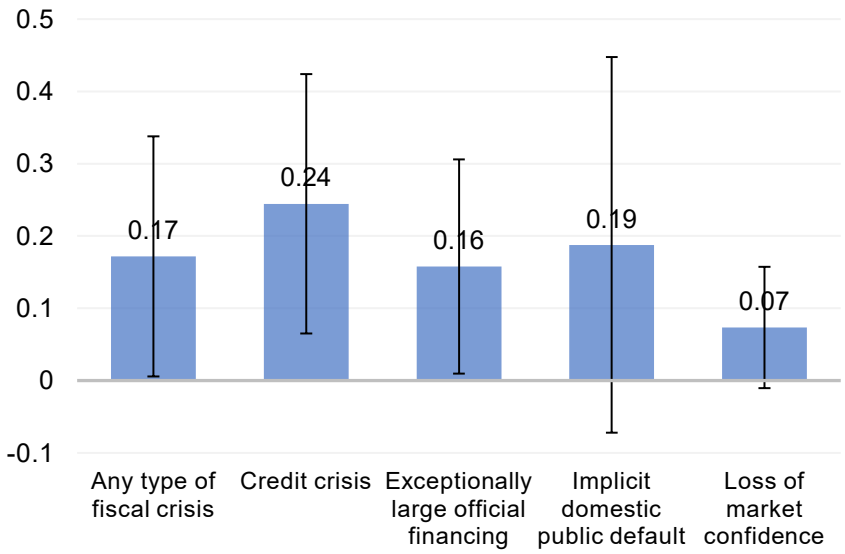
Figure A3.2 reports 90 percent confidence intervals and the estimated coefficient $\widehat{\beta_1}$ from equation (A3.2). PBL approvals seem to increase significantly in fiscal crises where an exceptionally large official financing from the IMF is required and the country engages in a program with fiscal adjustment as an objective. There is also evidence of increases of PBL approvals in credit crises.

Figure A3.1. Cyclicality of Policy-Based Loans



Sources: Inter-American Development Bank (IDB) Data Warehouse, International Monetary Fund (IMF).
Note: Data cover 1990 to 2021. The figure shows the 90 percent confidence intervals and the estimated coefficients $\widehat{\alpha_1}$ from $y_{c,t} = \alpha_0 + \alpha_1 output\ gap_{c,t} + \gamma_c + \delta_t + \varepsilon_{c,t}$, where $y_{c,t}$ is the policy-based loan (PBL) amount approved in country *c* in year *t*, as a percentage of the trend of current GDP. $output\ gap_{c,t}$ is the output gap in country *c* and year *t*, computed as the difference between the natural logarithm of real GDP in local currency units (LCU) and trend GDP. γ_c are country fixed effects (FE). δ_t are year fixed effects. Standard errors are clustered at the country level.

Figure A3.2. Dynamics of Policy-Based Loans around Fiscal Crises



Sources: Inter-American Development Bank (IDB) Data Warehouse, International Monetary Fund (IMF), and Gerling et al. (2018).
Note. Data cover 1990 to 2015. The figure shows the 90 percent confidence intervals and the estimated coefficient $\widehat{\beta_1}$ from equation $y_{c,t} = \beta_0 + \beta_1 crisis_{c,t} + \gamma_c + \delta_t + \varepsilon_{c,t}$ where $crisis_{c,t}$ is a dummy equal to 1 in the presence of a fiscal crisis. γ_c are country fixed effects (FE), δ_t are year fixed effects Standard errors are clustered at the country level.

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