

ECONOMIC INSTITUTIONS FOR A RESILIENT CARIBBEAN

Editors:

Moisés J. Schwartz and Diether W. Beuermann



Economic institutions have played an important role in shaping Caribbean societies. But the world is evolving rapidly, and we must examine how these institutions respond to the needs of our citizens in the post-pandemic era. Our economic resilience will shape our future, and this research brings welcome depth to an important discussion. The IDB has, once again, proven its commitment to the Caribbean with this timely publication.

**—Mia Mottley,
Prime Minister of Barbados**

This volume is another great addition to the scholarship on the understudied yet critical problems of economic development and state capacity in the Caribbean, problems that have been exacerbated with the COVID pandemic. Anybody wishing to get a deeper understanding of the prospects for improved economic performance and public services in the Caribbean would learn a lot from this volume.

**—Daron Acemoglu, Elizabeth and James Killian
Professor of Economics, Massachusetts Institute of Technology; coauthor,
*Why Nations Fail: The Origins of Power, Prosperity, and Poverty***

The building of economic institutions plays an indispensable role in the development process. With a strong foundation of economic institutions, economies become more stable, more robust, and more predictable while allowing for greater policy flexibility when this matters most. This book provides a wealth of information on how Caribbean economies are building economic institutions and sowing the seeds of future prosperity.

—Nigel Clarke, DPhil., MP; Minister of Finance and Public Service of Jamaica

The trick in institutional analysis is to balance the specificities of the case, with our understanding of broad principles. This book is a role model for how this can be done. But it is more than that, because it recognizes that you have to satisfy the political constraints too. Another pathbreaking contribution.

**—James A. Robinson, Reverend Dr. Richard L. Pearson
Professor of Global Conflict Studies, University of Chicago; coauthor,
*Why Nations Fail: The Origins of Power, Prosperity, and Poverty***

In an earlier volume entitled “Nurturing Institutions for A Resilient Caribbean” Beuermann and Schwartz traced the historical evolution of a number of important political and economic institutions and its impact on the economic development of six Caribbean states. This refreshingly readable and insightful follow-up edition presents a detailed analysis of the current state of several important economic institutions whose structural weaknesses have contributed to the under-performance of the region’s economies. The Book’s editors and its impressive team of contributors should be congratulated for providing a cogent but practical agenda for addressing the main institutional deficiencies in the public financial management systems of the six studied economies. Empirical evidence worldwide has shown that getting the institutions right usually contributes greatly to sustained economic growth and enhanced living standards. The Caribbean people deserve no less.

—Ewart Williams,
Former Governor of the Central Bank of Trinidad and Tobago

This important volume brings together a series of excellent studies of the economic and administrative institutions in place in a series of Caribbean nations, with an eye to their suitability to meet contemporary developmental challenges. The chapters both analyze the current setting and suggest ways to improve institutional and economic outcomes. Covering a very wide range of policies – from pensions and sovereign wealth funds to monetary policy and financial regulation – the volume is a valuable and informative guide for policymakers and others in the Caribbean and in the developing world more generally.

—Jeffry Frieden,
**Professor of Government, Harvard University; author,
*Currency Politics: The Political Economy of Exchange Rate Policy***

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Financial Development in the Caribbean

Thorsten Beck and Henry Mooney¹

An expansive literature has established the importance of deep, accessible, and efficient financial systems for economic development and poverty alleviation. Even though there is significant heterogeneity in this relationship across countries, the empirical evidence on the relationship between financial depth and economic growth points, on average, to a positive association. There is strong and mounting evidence that deeper and more efficient financial systems help to increase growth and reduce poverty and income inequality. Countries with higher levels of financial development (e.g., as measured by private credit as a proportion of GDP) experience higher per capita income growth rates over the long run. Evidence also suggests that financial deepening can help create jobs, particularly for developing countries, and that financial liberalization can lead to increased labor market participation, especially among low-skilled workers. There is also increasing evidence that financial development can help reduce income inequality and poverty. As in the case of finance and growth, the relationship does not necessarily come through a larger share of the population with access to credit, but rather through financial deepening that results in labor and product market effects that positively affect the poorer segments of the population.

Across the globe, financial systems have different structures (banks, nonbank financial institutions, public capital markets), ownership patterns (private versus government-owned, domestic versus foreign-owned), and institutional and regulatory structures. These differences can be important for the various dimensions of financial development, including financial depth (overall volume of financial services provided to the economy), financial access (the ability of firms or various segments of the population to use financial services), and financial efficiency and stability.

¹ The authors would like to thank María Alejandra Zegarra of the Inter-American Development Bank for her excellent research assistance.

This chapter presents new data, metrics, and methods to assess the level of financial development in the six countries that are members of the Inter-American Development Bank's (IDB) Caribbean Country Department—The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago—referred to from here on as the Caribbean countries. In this context, the assessment focuses on three broadly acknowledged pillars of financial development: depth, access, and efficiency. The analysis looks to determine whether financial sectors in these countries can meet demand, particularly from firms, and what specific factors may act as constraints. Based on these findings, recommendations are put forward that may help support faster financial development in relevant jurisdictions.

To this end, an array of existing cross-country and country-specific data are used and new approaches are developed to (1) consider financial depth, access, and a new measure of adequacy (particularly for firms); (2) assess the level of financial development and the structure of financial systems for Caribbean countries; and (3) develop a new benchmark for countries' financial system structures and performance relative to a global sample, while taking into account country-specific characteristics. Different barriers to further sustainable deepening—both as they relate to policies and structural factors—are also discussed.

The analysis suggests that several Caribbean countries have deficits in terms of financial development. These countries tend to have private credit markets that are considerably shallower than many peers at similar levels of income and development. On measures of access, firms in many of these countries report less use of basic funding instruments (e.g., for either investment or operating capital) than peer countries. In this context, the analysis considers the sufficiency of finance (e.g., relative to demand). A new measure of financing adequacy is developed that suggests that firms in four of the six countries analyzed—The Bahamas, Jamaica, Suriname, and Trinidad and Tobago—are unable to secure sufficient credit.

With respect to the structure of financial systems, the statistical analyses point to a contrasting picture. Banking systems across the Caribbean are smaller than predicted by the countries' socioeconomic characteristics, while insurance (especially life insurance) sectors are substantially larger than predicted. The Caribbean countries with stock exchanges (and available data) host capital markets that are larger but less liquid than predicted. Among the main constraining barriers is the small size of the economies, which impedes the exploitation of scale economies in financial service provision.

These findings suggest the need for further research into structural and other factors driving the deficits identified, as well as some more immediate measures with the potential to support faster financial development. At the

macro level, these include sustainable macroeconomic policies to reduce inflation, stabilize exchange rates, and avoid debt overhang and crowding out of private investment. Within the financial system, there is a need to implement sound regulatory and other reforms to stimulate healthy competition in order to reduce costs and incentivize banks to seek out new clients. There is also a need to create and strengthen institutions for the collection and sharing of credit and risk information. Finally, it is imperative to implement improvements in judicial and other institutions critical to enforcing contracts, protecting property rights, and resolving insolvency.

11.1. Definition and Relevance of Financial Development

Financial institutions and markets fulfill several critical functions in modern economies. They enable transactions across space and over time, thus facilitating the division of labor and specialization in the economy; pool savings and intermediate them to enterprises and households in need of external funding; screen borrowers and their projects and monitor them, thus deciding where a society's scarce resources are being invested; reduce liquidity risk for savers by allowing them ready access to their funds while investing the same resources for long-term purposes; and enable cross-sectional and intertemporal risk diversification.²

This chapter focuses on financial development in Caribbean countries. The concept of financial development has different facets as well as several linked concepts that are important for economic performance. For tractability, the focus is on three broadly acknowledged pillars of financial development—depth, access, and efficiency (see Box 11.1).³

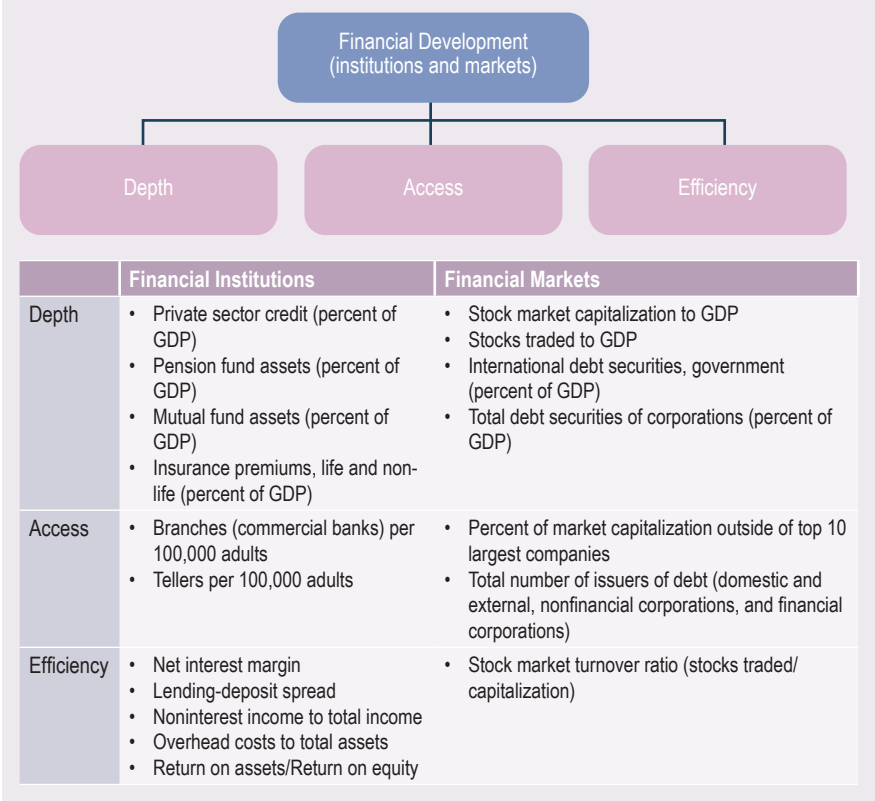
Financial development, in a general sense, describes the degree to which financial institutions and markets in a particular jurisdiction can satisfy the needs of both private and public users, including via financial instruments and services. These instruments and services include, inter alia, savings and credit (e.g., loans), securitized assets (e.g., debt and equity), synthetic instruments (e.g., futures, forwards, swaps, options, etc.), and other financial services (e.g., pensions, insurance, etc.). Financially developed systems are characterized by the availability of short- and long-term instruments and a range of different markets and institutions.

Financial depth generally refers to the size and liquidity of financial sectors relative to the size of the economies that they serve. Relevant measures differ depending on whether the focus is on institutions (e.g., banks) or public

² See Levine (2005) for an extensive discussion.

³ For a broader discussion of related concepts, see Čihák et al. (2012).

BOX 11.1. FINANCIAL DEVELOPMENT—SELECTED SUBCOMPONENTS AND INDICATORS



Source: Based on Čihák et al. (2012) and Mooney (2015), and particularly on inputs to the World Economic Forum’s Financial Development Index.

markets (e.g., debt or equity markets). One important measure—particularly for developing countries—is the amount of outstanding financial intermediary claims on private domestic nonfinancial corporations and households relative to the size of the economy (i.e., relative to GDP). These and related issues are discussed in section 11.3, and particularly in sections 11.3.1 and 11.3.2.

The concept of *financial access* focuses on the degree to which market participants—particularly individuals, households, and enterprises—can make use of financial products and services. Measures of access can include physical accessibility to institutions for individuals, households, and/or small enterprises, as well as metrics capturing the degree to which smaller corporates are able to access securitized funding from debt or equity markets. Related concepts—including financial adequacy—are discussed in section 11.3, and particularly in sections 11.3.3 and 11.3.4.

Efficiency is a broad concept, capturing the degree to which institutions and markets are able to sustainably provide financial services demanded by customers at costs that make them both attractive and accessible, particularly for more vulnerable or marginal groups (e.g., individuals or smaller, less established firms). Related measures include those linked to financial institutions (e.g., revenues, profit margins, operating costs, and returns to their owners and investors), as well as market-related indicators of liquidity (e.g., stock market turnover ratios). Efficiency, particularly as it relates to the proposed financial development frontier, is considered in detail in section 11.6.

Data, diagnostics, and related recommendations outlined in this chapter will focus largely on these concepts outlined above.

11.2. Finance and Economic Development—What Does the Global Evidence Tell Us?

The empirical evidence on the relationship between financial depth and growth clearly points, on average, to a positive role of financial development in the economic development process. There is strong and mounting evidence that deeper and more efficient financial systems help increase growth and reduce poverty and income inequality. While an exhaustive survey of the literature is beyond the scope of this chapter, some of the most relevant findings are outlined below.

11.2.1. Implications for Growth Performance

An expansive literature has documented a positive relationship between financial and economic development—particularly with respect to incomes. Specifically, countries with higher levels of financial development (e.g., as measured by private credit as a proportion of GDP) experience higher per capita income growth rates over the long run.⁴ This relationship is not only a correlation, but holds even after one controls for reverse causation (i.e., faster-growing economies having a higher demand for financial services) and third factors driving both financial development and growth. The positive relationship between financial and economic development is strongest among middle-income countries, while it becomes much more tenuous for high-income countries (Rioja and Valev 2004a, 2004b).

The positive impact of financial development on output growth comes mainly through more effective resource allocation and higher productivity growth, rather than through capital accumulation, and more through

⁴ See Levine, Loayza, and Beck (2000) and Beck and Levine (2004). See Popov (2018) for a survey of empirical literature.

enterprise rather than household credit (Beck, Levine, and Loayza 2000; Beck et al. 2008). This is confirmed by an expansive literature using micro data that shows that financial deepening has positive effects on firm-level innovation and entrepreneurship, with a disproportionately beneficial effect for small and medium-sized enterprises (SMEs).⁵ For this reason, when considering challenges facing developing countries, it is important to focus on the degree to which the private sector, and firms in particular, are able to access financial services. Similarly, the availability of other financial services is also crucial for the development of credit markets—for example, lenders often require would-be borrowers to have insurance against the impact of unforeseen events (e.g., theft, fire damage, natural disasters, etc.) in order to secure funding at reasonable costs.⁶ It follows, therefore, that the benefits of financial deepening are likely to depend on the regulatory climate more generally. That is the larger the entry barriers that it imposes on the private sector, the less responsive will resource allocation and productivity be to the greater availability of credit.

To put this relationship in context, Figure 11.1 shows the positive association between financial development and economic growth with a simple partial correlation. In the absence of data on the efficiency with which financial institutions and markets fulfill the functions discussed above, researchers have used proxy variables for financial development, most notably the ratio of private credit to GDP, which reflects the total claims of financial institutions in a country on domestic households and nonfinancial corporations.⁷ Figure 11.1 shows a positive relationship between private credit and real GDP per capita growth, with data averaged over 1980–2007. The figure also shows considerable variation in the level of financial development across the countries in the sample, a point that will be discussed below. It is important to stress that an extensive literature has shown that the relationship between financial and economic development is robust to controlling for reverse causality and omitted variable bias (see Popov [2018] for a recent survey).

11.2.2. *Other Development-Related Implications*

Emerging research also finds strong positive linkages between financial development and a wide range of other development-related outcomes

⁵ See Ayyagari, Demirgüç-Kunt, and Maksimovic (2008), Beck, Demirgüç-Kunt, and Maksimovic (2005), and Beck et al. (2008).

⁶ See Bernales et al. (2019) for evidence of the deleterious effects of blue-collar crime suffered by Caribbean firms on their future accessibility to external financing and its terms (i.e., interest rates and loan amounts).

⁷ Includes funds provided to the private sector by financial corporations (e.g., loans, nonequity securities, trade credit, etc.).

Figure 11.1. Finance and Growth (1980–2007)

Sources: World Bank and authors' calculations.

Note: One dot represents one country. The figure shows a partial scatter plot of private credit to GDP and GDP per capita growth averaged over 1980–2007, controlling for initial GDP per capita, government consumption, inflation, trade openness, and education.

from across the spectrum. A few key findings of particular relevance for Caribbean countries are worth noting.

Job Creation

There is increasingly significant evidence that financial deepening can help create jobs. For example, at the aggregate level, Pagano and Pica (2012) show a positive and significant relationship between financial development and job creation in developing countries. For the United States, Beck, Levine, and Levkov (2010) and Benmelech, Bergman, and Seru (2011) show that branch deregulation and consequent financial liberalization led to decreases in unemployment and increased labor market participation, especially among low-skilled workers. Giné and Townsend (2004) show for Thailand that financial liberalization has contributed to migration of subsistence agricultural workers into urban salaried jobs.

Income Inequality and Poverty

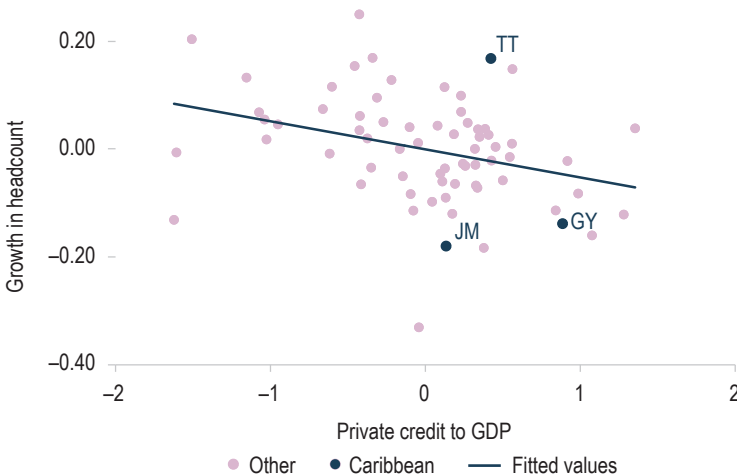
There is also increasing evidence that financial development can help reduce income inequality and reduce poverty rates. Beck, Demirgüç-Kunt,

and Levine (2007) and Clarke, Xu, and Zou (2006) show a negative relationship between financial development and income inequality, while Beck, Levine, and Levkov (2010) show a negative relationship between financial liberalization and income inequality in the United States. Giné and Townsend (2004) and Ayyagari, Beck, and Hoseini (forthcoming) show a negative relationship between financial development and poverty in Thailand and India, respectively. Figure 11.2 shows a negative association between financial development (again measured by private credit to GDP) and the growth of the population share living on less than US\$1 a day, a standard measure of poverty. As shown by Beck, Demirgüç-Kunt, and Levine (2007), this relationship is robust to controlling for reverse causality and omitted variable bias. As in the case of finance and growth, the relationship does not necessarily come through a larger share of the population with access to credit, but rather through financial deepening resulting in labor and product market effects that positively affect the poorer segments of the population.

11.2.3. Link to the United Nations Sustainable Development Goals

Financial development is also considered to be among the most important building blocks for achieving the 2030 United Nations Sustainable Development Goals (SDGs). Indeed, financial development is related to targets associated

Figure 11.2. Finance and Poverty Alleviation (1980–2007)



Sources: World Bank and authors' calculations.

Note: One dot represents one country. The figure shows a partial scatter plot of private credit to GDP and the change in the population share living on less than US\$1 a day (referred to as the "headcount" in the figure) averaged over 1980–2007, controlling for initial GDP per capita, government consumption, inflation, trade openness, and education.

with at least eight (boldfaced in Table 11.1) of the 17 goals. These include SDG-1 on eradicating poverty; SDG-2 on ending hunger, achieving food security, and promoting sustainable agriculture; SDG-3 on improving health and well-being; SDG-5 on achieving gender equality and economic empowerment of women; SDG-8 on promoting economic growth and jobs; SDG-9 on supporting industry, innovation, and infrastructure; and SDG-10 on reducing overall income inequality. In addition, in SDG-17 on strengthening the means of implementation, there is also an implicit role for greater financial inclusion through greater savings mobilization for investment and consumption that can spur growth.

11.3. Financial Depth, Access, and Adequacy in the Caribbean

This section discusses the variation across Caribbean countries in financial depth and access, drawing on an array of different data sources. Two of the

Table 11.1. United Nations Sustainable Development Goals

| | |
|-----------------|--|
| Goal 1. | End poverty in all its forms everywhere. |
| Goal 2. | End hunger and achieve food security and improved nutrition and promote sustainable agriculture. |
| Goal 3. | Ensure healthy lives and promote well-being for all at all ages. |
| Goal 4. | Ensure inclusive and equitable quality education, and promote lifelong learning opportunities for all. |
| Goal 5. | Achieve gender equality and empower all women and girls. |
| Goal 6. | Ensure availability and sustainable management of water and sanitation for all. |
| Goal 7. | Ensure access to affordable, reliable, sustainable, and modern energy for all. |
| Goal 8. | Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. |
| Goal 9. | Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. |
| Goal 10. | Reduce inequality within and among countries. |
| Goal 11. | Make cities and human settlements inclusive, safe, resilient, and sustainable. |
| Goal 12. | Ensure sustainable consumption and production patterns. |
| Goal 13. | Take urgent action to combat climate change and its impacts. |
| Goal 14. | Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. |
| Goal 15. | Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. |
| Goal 16. | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels. |
| Goal 17. | Strengthen the means of implementation and revitalize the global partnership for sustainable development. |

Source: United Nations Sustainable Development Knowledge Platform.

countries analyzed here, The Bahamas and Barbados, have onshore and offshore financial sectors. Offshore financial services are provided to non-residents but provide jobs and government revenue for their respective economies. For example, 0.6 percent of total employees in The Bahamas work in the offshore financial sector, and it contributes 4.5 percent to total government revenue. In Barbados, the offshore financial sector contributes 0.7 percent to total government revenue. It is important to stress, however, that offshore financial centers do not have the intermediation and support function for local economies.

In terms of the regulatory structure, in all six Caribbean countries the central bank is responsible for banking supervision. Except for Suriname, countries have separate supervisory agencies for insurance companies, pension funds, and public capital markets. For a more detailed discussion on financial regulation see Chapter 10 in this volume.

11.3.1. *Financial Depth across Caribbean Countries*

In this context, the ratio of domestic private credit to GDP in 2016/2017⁸—perhaps the most common indicator of sector depth—ranges from as high as 56 percent for Barbados to as low as 33 percent for Jamaica (Table 11.2). Caribbean countries compare poorly with the average for all high- and middle-income countries for which data were available on this indicator, which stood at 149 percent and 99 percent, respectively.⁹ In terms of regional comparisons, Caribbean countries also fare poorly when compared to more advanced regions, including Asia and the Pacific, Europe, and the Middle East and North Africa. Only The Bahamas and Barbados have deeper financial sectors than the Latin American and Caribbean (LAC) average of 49 percent.

Some countries have seen the pace of financial deepening accelerate considerably since the 1990s, while other countries have remained stagnant. The Bahamas and Barbados have experienced considerable private credit growth (measured as a proportion of GDP) since the 1980s, in line with an expansion of offshore financial services. For Guyana, Trinidad and Tobago, and Suriname, market depth has oscillated appreciably over the period owing to fluctuations in both the numerator and denominator of

⁸ Based on World Bank and International Monetary Fund data.

⁹ Income groups are defined per the World Bank's definition. As of July 1, 2018, low-income economies are defined as those with a GNI per capita of US\$995 or less in 2017; middle-income economies are those with a GNI per capita between US\$996 and US\$12,055; and high-income economies are those with a GNI per capita of US\$12,055 or more.

Table 11.2. Income and Financial Depth, 2016–2017 (per capita GDP versus private-credit-to-GDP ratio)

| Country | Per Capita GDP (current U.S. dollars) | Private-Credit-to-GDP Ratio (percent) |
|---|--|--|
| United States | 59,928.0 | 198.9 |
| East Asia & Pacific | 10,333.0 | 149.8 |
| High-income | 42,346.0 | 148.8 |
| Organisation for Economic Co-operation and Development | 38,408.0 | 147.2 |
| Middle-income | 5,229.0 | 98.9 |
| European Union | 33,864.0 | 95.0 |
| Panama | 15,166.0 | 87.1 |
| Pacific island small states | 4,081.0 | 73.0 |
| Small states | 12,125.0 | 69.4 |
| St. Lucia | 10,003.0 | 65.0 |
| Bolivia | 3,351.0 | 64.5 |
| Costa Rica | 11,753.0 | 61.6 |
| Brazil | 9,881.0 | 59.8 |
| Middle East and North Africa | 7,422.0 | 59.2 |
| Honduras | 2,433.0 | 57.5 |
| Barbados | 16,328.0 | 56.0 |
| Belize | 4,957.0 | 54.0 |
| Dominica | 6,951.0 | 53.6 |
| St. Kitts and Nevis | 19,061.0 | 52.5 |
| The Bahamas | 31,858.0 | 52.2 |
| El Salvador | 3,902.0 | 51.5 |
| Grenada | 10,164.0 | 51.0 |
| St. Vincent and the Grenadines | 7,150.0 | 50.2 |
| Colombia | 6,376.0 | 49.8 |
| Latin America and the Caribbean | 9,398.0 | 48.8 |
| Sub-Saharan Africa | 1,599.0 | 47.1 |
| Guyana | 4,586.0 | 45.5 |
| Antigua and Barbuda | 15,825.0 | 45.0 |
| Nicaragua | 2,168.0 | 42.5 |
| Peru | 6,701.0 | 42.5 |
| Paraguay | 5,681.0 | 40.5 |
| Trinidad and Tobago | 16,076.0 | 40.2 |
| Mexico | 9,281.0 | 35.3 |
| Guatemala | 4,471.0 | 33.3 |
| Suriname | 5,379.0 | 33.1 |
| Jamaica | 5,061.0 | 32.5 |

(continued on next page)

Table 11.2. Income and Financial Depth, 2016–2017 (per capita GDP versus private-credit-to-GDP ratio) (continued)

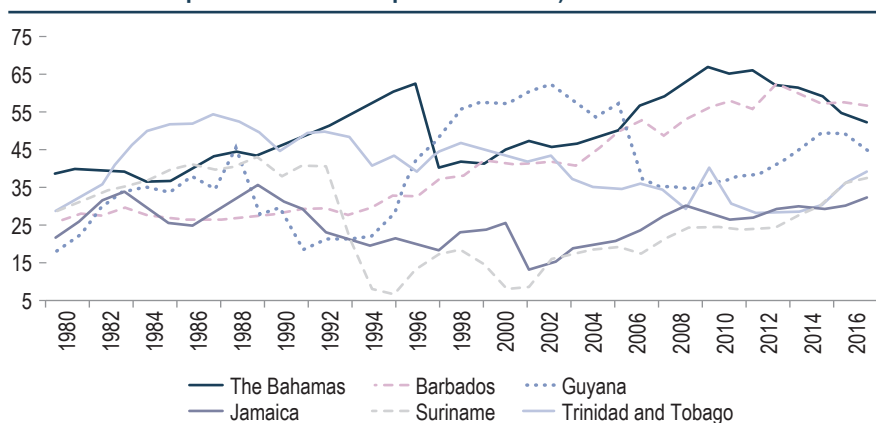
| Country | Per Capita GDP (current U.S. dollars) | Private-Credit-to-GDP Ratio (percent) |
|--------------------|--|--|
| Ecuador | 6,214.0 | 32.3 |
| Dominican Republic | 7,223.0 | 28.7 |
| Uruguay | 16,437.0 | 26.1 |
| Low-income | 767.0 | 20.7 |
| Haiti | 766.0 | 17.6 |
| Argentina | 14,592.0 | 16.0 |

Sources: World Bank, World Development Indicators databases; and relevant International Monetary Fund (IMF) staff reports.

Note: Private-credit-to-GDP ratios reflect the latest available data point from either 2016 or 2017.

this ratio. Credit market development has, however, been stalled since 1980 for both Jamaica and Suriname (Figure 11.3).

Determining the drivers of these and related outcomes is a difficult task, with both similar challenges and considerable differentiation apparent across Caribbean countries. What is clear is that policies and exogenous shocks have influenced financial development in all cases, but that other geographic, demographic, structural, and socioeconomic factors have also had implications. For example, high debt levels and substantial government borrowing have constrained private credit and financial development in several Caribbean countries, resulting in considerable crowding out of private financing in some countries (see Box 11.2 regarding the example of Jamaica).

Figure 11.3. Financial Deepening in Caribbean Countries, 1980–2016 (credit to the private sector as a percent of GDP)

Sources: World Bank, World Development Indicators; International Monetary Fund, World Economic Outlook database; and authors' calculations.

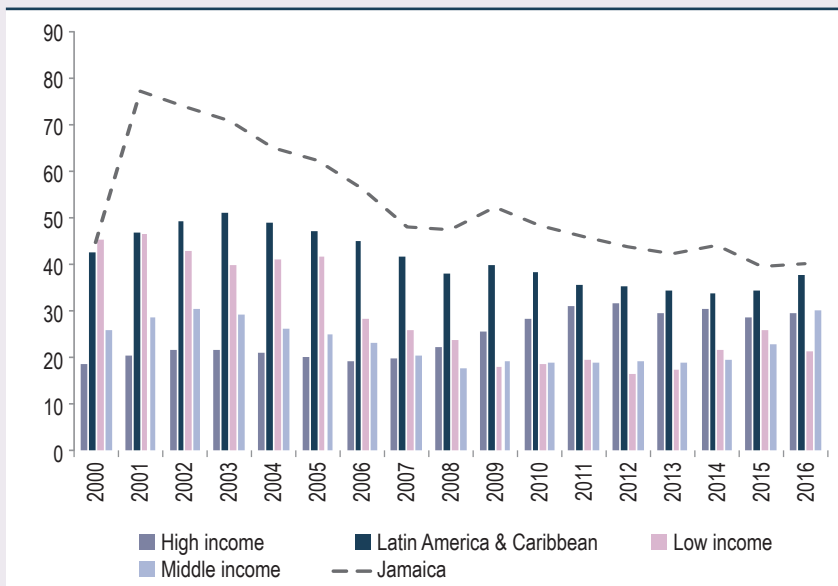
11.3.2. Financial Structure and Nonbank Finance

As noted above, financial systems consist of different segments, with markets tending to be centered on banks and other credit providers at their core, and public capital markets and contractual savings institutions representing more evolved segments of the system. While different segments may serve a variety of clients and purposes, their functions in terms of

BOX 11.2. GOVERNMENT DOMESTIC FINANCING IN JAMAICA: HISTORY OF CROWDING OUT

Lack of fiscal discipline, high public debt, and resulting difficulties in maintaining continuous access to external credit markets forced the Jamaican government to rely for many years on domestic financial markets—particularly the banking system—to meet a large proportion of its funding needs. Given the limited size of the domestic credit market, this heavy reliance resulted in a crowding out of private financing, as banks and other lenders allocated most of their credit capacity to the government.

Figure 11.2.1. Public Sector Financing as a Share of Total Domestic Credit, 2000–2016 (percent)



Sources: World Bank, World Development Indicators database; International Monetary Fund, World Economic Outlook database; and authors' calculations.

Note: Calculated as the percentage of total domestic financing absorbed by the public sector.

(continued on next page)

BOX 11.2. GOVERNMENT DOMESTIC FINANCING IN JAMAICA: HISTORY OF CROWDING OUT *(continued)*

Of the Caribbean countries assessed in this chapter, Jamaica had the highest average share of domestic financing provided to the public sector from 2000 to 2016 (53 percent). This was also much higher than the average for other countries in the Latin America and Caribbean region (41 percent), and middle-income economies (23 percent). From 2001 to 2006, government crowding out in Jamaica reached as high as 77 percent, and averaged over 70 percent between 2001 and 2005. Put another way, there were periods during which as little as about one-fifth of domestic credit capacity was available to the private sector for borrowing and investment. For a broader discussion of related issues facing Jamaica, see Mooney (2018).

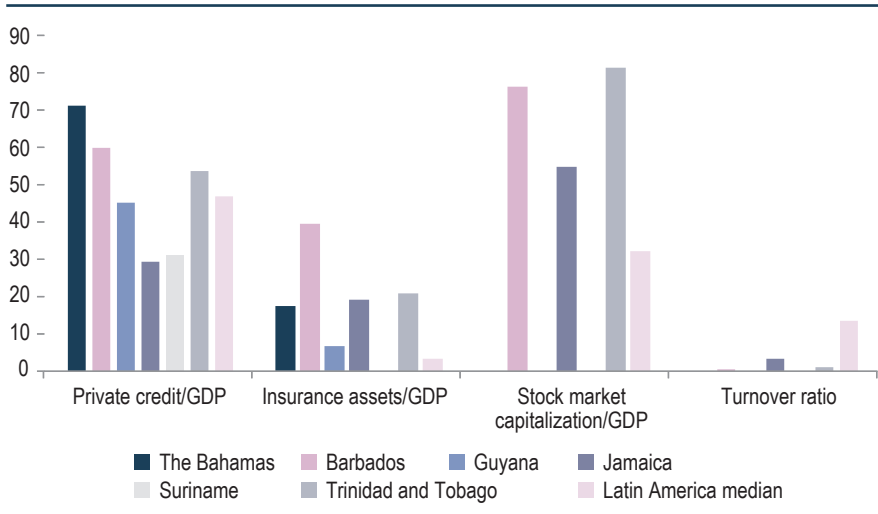
intermediating savings and managing risks for the economy are similar. As economies develop, the structure of the financial system also develops (Demirgüç-Kunt, Feyen, and Levine 2012). At very rudimentary levels of financial development, banks dominate the financial system, focusing on payment, short-term deposits, and short-term lending services. As financial systems deepen, other segments arise, including insurance companies and other private nonbank intermediaries. At a later stage, public equity and debt markets develop.

This sequencing has also been observed to varying degrees for the Caribbean countries, with banks tending to occupy a dominant position in their respective markets (Figure 11.4). All three Caribbean countries for which data were available have stock exchanges of reasonable size (relative to GDP), though they are highly concentrated in terms of the number of issuing firms, and then tend to be illiquid. Specifically, market capitalization (value of all outstanding shares) relative to GDP is relatively high, while the turnover ratio (trading volume relative to market capitalization) is very low. There are few companies listed—as of 2017, 18 companies in Barbados, with a declining trend, 36 in Jamaica, and 30 in Trinidad and Tobago. Private bond markets are even less developed.¹⁰

Four of the six countries have large insurance sectors that are dominated by life insurance rather than general or non-life insurance companies, pointing to the importance of insurance companies in the contractual

¹⁰ Regionalization has often been advocated as a strategy for capital market deepening, which is also behind the Mercado Integrado de Latinoamerica initiative of the Alianza del Pacífico (Chile, Colombia, Peru, and Mexico) that allows for cross-trading. However, according to market participants, this option has not yet resulted in a significant take-up.

Figure 11.4. Finance Development Indicators for Caribbean Countries, 2017 (percent)



Source: World Bank, Global Financial Development Data.

savings industry in these economies. This is also confirmed by relatively high life insurance penetration ratios (insurance premium volume to GDP). There is also a certain interlinkage between banking and insurance sectors in some of the economies. As in other Latin American countries, the financial system is dominated by conglomerates, with separate subsidiaries active in different financial sector segments, raising challenges for consolidated supervision. In Suriname, for example, the largest insurance company (Assuria) is part owner of two of the largest banks, with an investment company as a subsidiary and an important role on the stock exchange.

The importance of the insurance segments within the financial system is also confirmed by the collapse in 2009 of the CL Financial Limited insurance company based in Trinidad and Tobago. Several of its subsidiaries had offered deposit-like annuity products (which offered substantially higher returns than bank deposits), channeling them to over-leveraged sister companies and real estate developments that suffered during the 2008 global financial crisis. The collapse of the company had spillover effects throughout the Caribbean, including in Barbados, The Bahamas, Guyana, and Suriname, though not in Jamaica. This crisis has reinforced the importance of proper insurance regulation and supervision in the region and the stability repercussions of a sizable insurance sector interconnected with the rest of the financial system.

11.3.3. *Financial Access in Caribbean Countries*

Firms from Caribbean countries report strong outcomes in terms of their use of basic savings products. For example, responses to the World Bank Enterprise Survey (WBES) suggest that most Caribbean country firms have established checking and/or savings accounts (99 percent) in proportions that exceed the average for all WBES-reporting firms from 143 countries globally (88 percent), as well as the average for Latin America (93 percent).¹¹ Conversely, indicators of credit utilization suggest deficits in several Caribbean countries. Firms in Jamaica, The Bahamas, and Suriname fall short of global and/or regional averages (Figure 11.5).

While important, these and other measures of usage can only partially answer the question of whether firms have adequate financial access. Moving from the concept of “usage” to “adequacy of finance” makes it necessary to consider the concept of demand.

11.3.4. *“Firm Financing Gap”—A New Measure of Financial Adequacy*

The concept of financial access extends well beyond access to basic credit and should include, inter alia, access to funding via public capital market instruments such as debt (i.e., bonds) and equities (i.e., stock), as well as the use of synthetic instruments for either funding or hedging and portfolio optimization purposes. However, the ability to access loans and lines of credit represents the base of the financial pyramid in most countries. Any deficit in these areas represents a strong indication of broader challenges regarding the ability of the local financial market to satisfy the needs of firms and/or households. Put another way, if firms do not have adequate access to loans and credit lines, they are unlikely to be able to use more sophisticated funding sources with any degree of sufficiency or reliability.

With this in mind, this chapter develops a new measure of credit adequacy based on responses to enterprise surveys. The measure—called the “firm financing gap”—is calculated as the difference between firms reporting having secured a loan or line of credit (i.e., having secured access), and those reporting an external financing need (i.e., desiring access).¹² As the sample of survey respondents is static—that is, the same respondents

¹¹ See the WBES of firms in emerging market economies (www.enterprisesurveys.org).

¹² More specifically, the firm financing gap equals the proportion of firms reporting that they had secured a loan or line of credit minus the proportion of firms reporting having had a financing need. The data used are from the World Bank Enterprise Surveys. In all cases the latest data available are used.

Figure 11.5. Use by Firms of Basic Financial Services (percentage of respondents)

Source: World Bank Enterprise Surveys (WBES) (latest available as of January 2020).

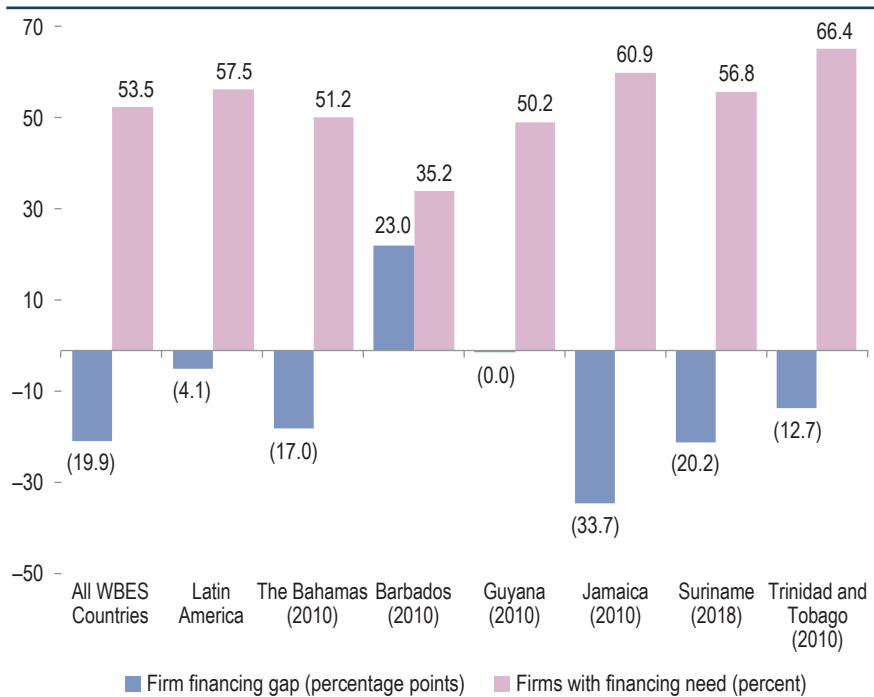
Note: "All WBES countries" refers to the 143 countries included in the WBES data.

to both questions—the proportion of responding firms unable to secure credit, despite a need or desire for funding, can be determined. Note that because of the survey design, this includes firms that chose not to apply for loans or lines of credit, given their perception that their applications would not have been approved. This measure is also likely to overestimate adequacy to some degree, as it will also include firms that were able to secure credit, but whose funding needs may have been greater than what they ultimately secured.

For the firm financing gap measure, a negative result indicates that more firms (as a proportion of respondents) expressed a demand for funding than were able to access credit. A positive number refers to cases where more firms were able to secure access to credit or a credit line than had indicated a need for funding. The latter could, for example, include the case of a firm that had previously secured a standing line of credit but did not have a current need to draw on the facility.

As outlined in Figure 11.6 and in Annex 11.2 (for global results), while Caribbean country firms reported financing needs in proportions similar to global averages, several countries (Jamaica, Suriname, The Bahamas, and Trinidad and Tobago) displayed a negative firm financing gap. Those countries with negative firm financing gaps all displayed gaps greater than the average for Latin American countries (-4 percentage points). This is considerably so for Jamaica and Suriname, with gaps of -34 percentage points and -20 percentage points, respectively. Conversely, Barbados and Guyana displayed non-negative financing gaps (23 and 0 percentage points, respectively), suggesting that at least with respect to credit, firms in these countries had sufficient access to funding, particularly when compared to regional averages and other Caribbean countries. In fact, Barbados was calculated to have the second largest positive firm financing gap of all countries for which data were available, behind only

Figure 11.6. Firm Financing Gaps



Source: World Bank Enterprise Surveys (latest available as of January 2020).

Note: The firm financing gap equals the proportion of firms reporting that they had secured a loan or line of credit minus the proportion of firms reporting having had a financing need. Positive results (i.e., Barbados and Guyana) indicate that more firms had secured loans or lines of credit than had reported a need for financing (vice versa for negative results). "All WBES countries" refers to the 143 countries included in the World Bank Enterprise Survey data. See Annex 11.1 for a list of country aggregates.

Slovenia, which displayed a marginally larger positive gap of 24 percent (Annex 11.2).

11.3.5. *Summary: Financial Depth, Access, and Adequacy in Caribbean Countries*

In summary, the analysis finds that Caribbean countries tend to compare poorly on positive measures of financial sector depth—that is, in nominal comparisons¹³—with similar countries from across the world. While access to basic savings products seems sufficient for firms across all six countries, these same firms report comparatively low levels of credit utilization. Turning from usage to adequacy of finance, a new measure of firm financing gaps developed here suggests that while Caribbean firms appear to have financing needs on par with global and regional averages, some countries have severe deficits with respect to adequacy.

11.4. Impediments to Financial Access for Firms in Caribbean Countries

The data and metrics discussed above point to financial access and adequacy deficits faced by some Caribbean countries. Survey data can also provide important insights into some of the drivers of these deficits. In this context, the World Bank's *Global Financial Development Report 2014: Financial Inclusion* provided an extensive analysis of impediments to financial access and inclusion for both firms and individuals from across the world (World Bank 2014).

11.4.1. *Reasons for Not Seeking or Securing Funding*

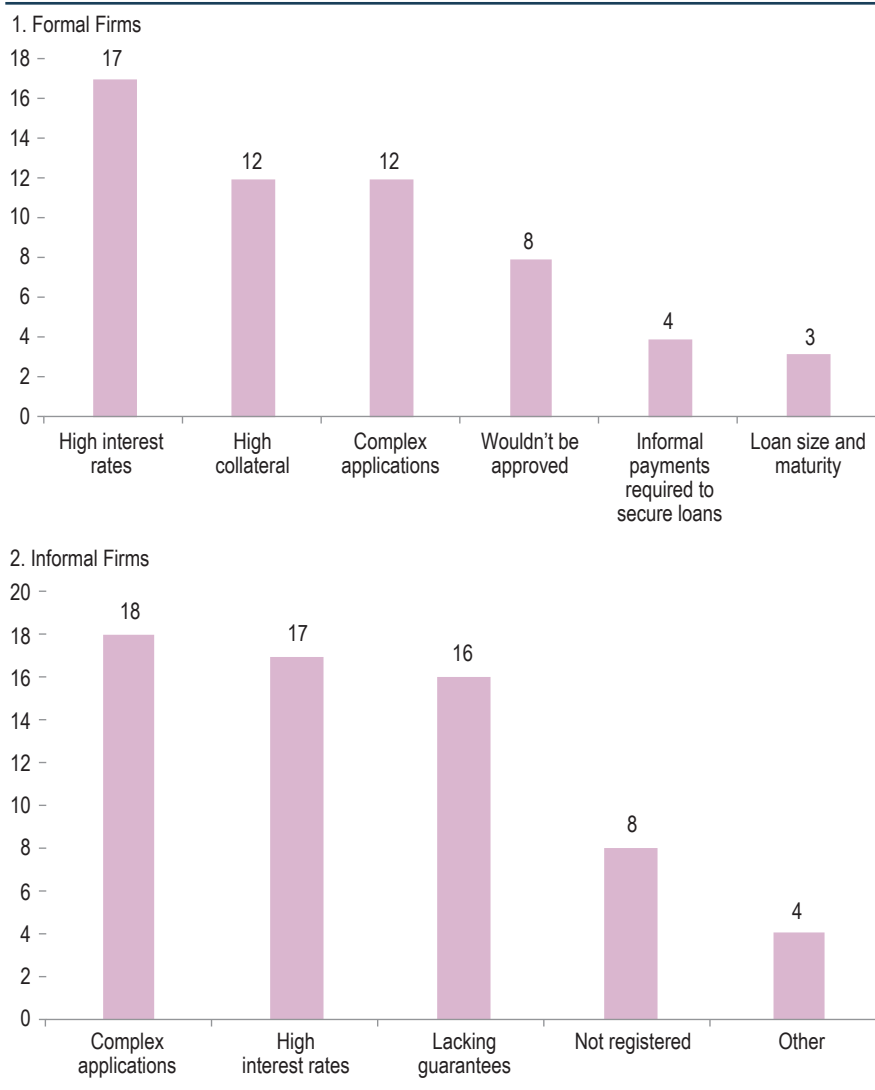
As highlighted in Figure 11.7, the World Bank's cross-country analysis and related survey responses suggest that across the countries surveyed, high costs (i.e., interest rates), complex application procedures, and the need for credit enhancements in the form of security (e.g., collateral or formal guarantees) are among the most common challenges facing firms seeking to borrow.¹⁴

¹³ Note that this analysis is taken a step further in section 11.6 by focusing on normative measures, particularly synthetic benchmarks focused on country-specific characteristics—that is, the financial depth frontier.

¹⁴ Note that responses relate to reasons for not applying for a loan, despite expressing a need or desire for funding.

Other significant barriers to financial access identified by the cross-country analysis included concerns over approval prospects, the need to provide informal payments (e.g., bribes) in order to secure loans, and loan size or maturities that were not aligned with firm requirements. Many of

Figure 11.7. Firms' Reasons for Not Applying for a Loan (percent of respondents)



Source: World Bank (2014).

Note: Respondents could choose more than one reason. The sample includes responses from firms in 13 countries from 2008 to 2011. "Other" refers to all other reasons not otherwise listed.

these impediments are relevant to both formal and informal firms in the Caribbean.¹⁵

11.4.2. *Collateral Requirements and Borrowing Costs*

As might be expected based on the results highlighted above, firms from the Caribbean countries responding to the 2014 Productivity, Technology and Innovation in the Caribbean (PROTEqIN) Enterprise Survey reported access to finance (e.g., collateral requirements or other contractual requirements) and the cost of credit (e.g., high interest rates) as among the most significant constraints that they face in terms of improving firm-level productivity and performance (Figure 11.8).¹⁶ In particular, well over a third of all firms surveyed in Jamaica and Barbados considered access to finance to be either a major or very severe obstacle. In addition, over a third of firms in Trinidad and Tobago, Guyana, and Jamaica felt similarly about the costs of finance. Other significant constraints commonly identified included the macroeconomic environment (e.g., inflation, exchange rates, and interest rates), tax rates and administration, competitor business practices, crime and disorder, electricity, and corruption. It is important to stress that some of these constraints are significantly correlated with the underperformance of the financial sector and thus firms' financing constraints.

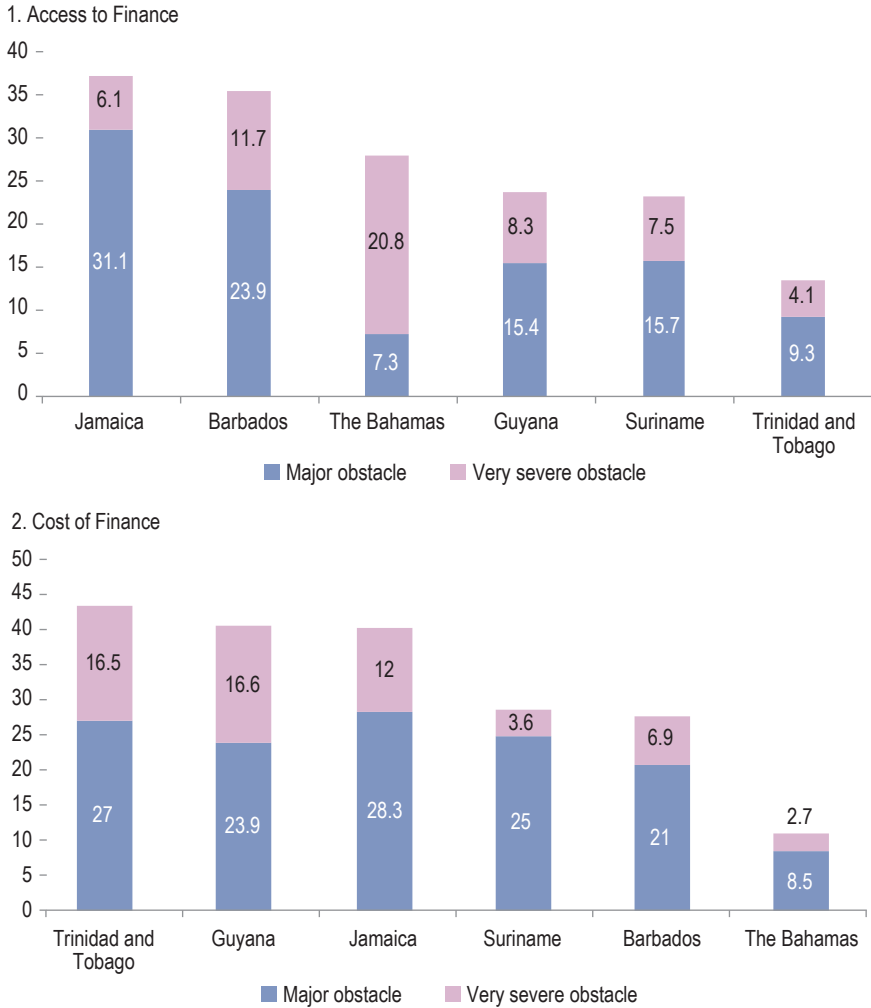
A further disaggregation of these data suggests that these impediments are more acute for small firms¹⁷—in some cases, by a considerable margin. This finding is consistent with broad cross-country evidence, and perhaps not surprising given that larger firms are likely to be better established, have more sophisticated treasury and financial management capacity, and be more likely to have assets to pledge as security—for example, physical and other forms of collateral such as buildings and machinery. Regardless of the underlying rationale, small firms in Jamaica, Guyana, and Barbados appear to consider access to finance a considerably more

¹⁵ Formal firms are generally defined as those that have been registered with authorities and are subject to applicable operating requirements as well as taxation. Informal firms are defined as those operating outside of the formal reporting and regulatory framework within a jurisdiction.

¹⁶ PROTEqIN is a Caribbean enterprise survey first undertaken as part of the World Bank's 2010 Latin American and Caribbean Enterprise Surveys, and last updated in 2014. The project was sponsored by Compete Caribbean, which is funded by the IDB, the UK's Department for International Development (DFID), and the government of Canada.

¹⁷ Small firms are defined as those with 20 employees or less, with large firms representing all other responses.

Figure 11.8. Key Obstacles to Firm Productivity and Performance (percent of firms for each country)



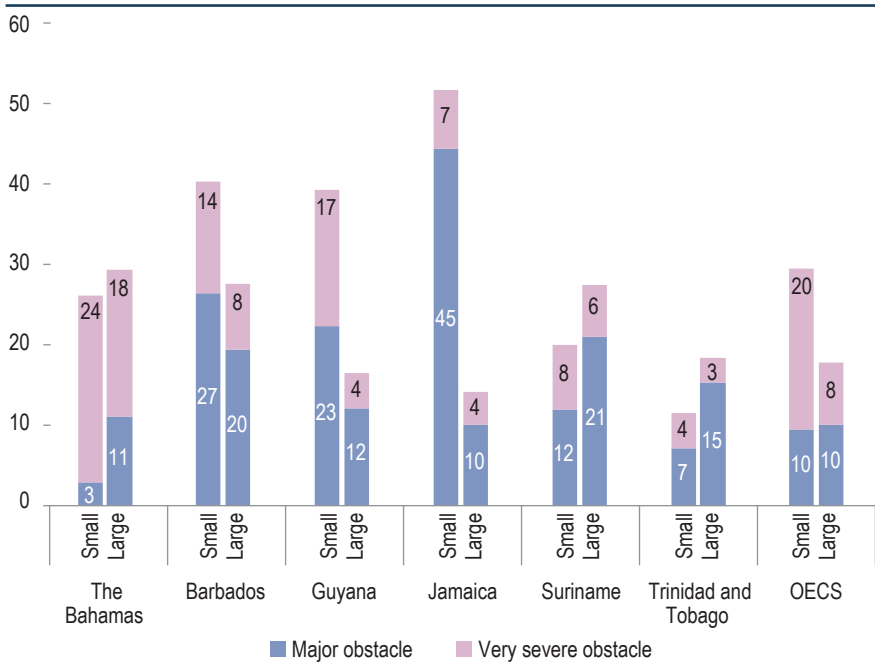
Source: Compete Caribbean, 2014 Productivity, Technology and Innovation in the Caribbean (PROTE-qIN) Enterprise Survey.

Note: Population results based on number of firms sampled in each country.

binding constraint. In the case of Jamaica, more than half of the small firms surveyed—four times the proportion for larger firms—considered this to be at least a major constraint on their ability to expand and become more productive (Figure 11.9).

A key issue reported by firms has been that would-be lenders required them to provide credit enhancements, including in the form of

Figure 11.9. Obstacles to Firm Productivity and Performance—Access to Finance by Firm Size (percentage of respondents)

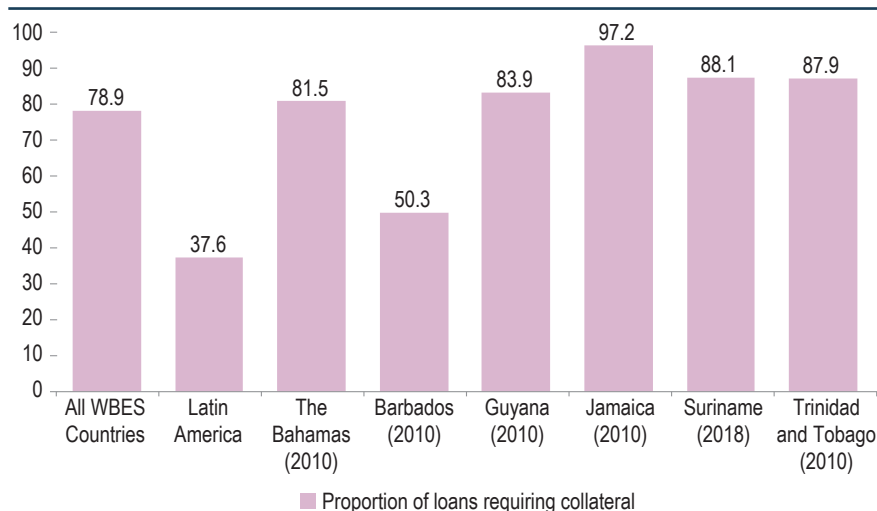


Source: Compete Caribbean, 2014 Productivity, Technology and Innovation in the Caribbean (PROTEqIN) Enterprise Survey.

Note: Organisation of Eastern Caribbean States (OECS) countries included in the composite index are Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. The PROTEqIN survey does not have information for the rest of the OECS countries (i.e., the British overseas countries and territories of Anguilla, the British Virgin Islands, and Montserrat).

collateral or guarantees from third parties, in order to qualify for loans with maturities or cost characteristics that would meet their needs. The World Bank's WBES provides some insights into the magnitude and materiality of these constraints across Caribbean countries. For example, the proportion of loans requiring collateral for firms in Latin America is about 38 percent, compared to over 80 percent for five of the six Caribbean countries analyzed here, and as high as 97 percent in the case of Jamaica (Figure 11.10).

Similarly, small firms in Jamaica, Guyana, Barbados, and Trinidad and Tobago also considered the cost of finance to be a more significant hurdle to firm productivity and performance than their larger counterparts (Figure 11.11). As was the case for access to finance, in Jamaica this difference was particularly striking, with over half of small firms identifying high funding costs as either a major or very severe obstacle, which was more than twice the proportion of large firms reporting the same constraints.

Figure 11.10. Collateral Requirements (percent)

Source: World Bank Enterprise Surveys (latest available data as of January 2020).

Note: "All WBES countries" refers to the 143 countries included in the World Bank Enterprise Survey data. See Annex 11.1 for list of country aggregates referred to above.

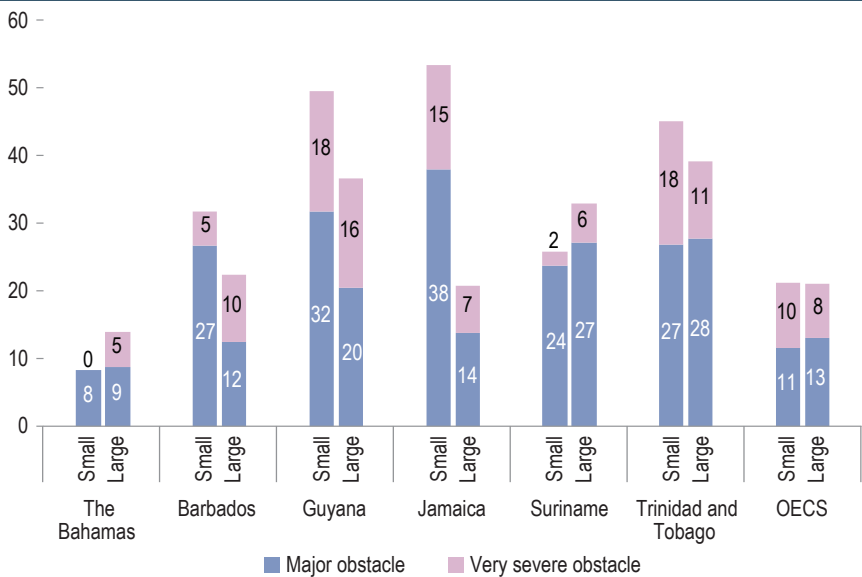
Other indicators related to the cost of credit corroborate survey responses for Caribbean countries. For example, a banking sector characterized by wide spreads between deposits and the interest charged on its loans might suggest that these institutions are not sufficiently incentivized to compete with one another for deposits and customers.¹⁸ As would be the case in any competitive market, this would drive down profits until margins were very thin. Another interpretation of high borrowing costs is the presence of information asymmetries, whereby banks are not sufficiently able to assess counterparty credit quality and thus must charge relatively high interest rates on loans to cover uncertainty regarding risks. Indeed, as will be shown in the next section, credit information sharing is relatively deficient in many of the Caribbean countries.

11.4.3. *Interest Rate Spreads and Return on Equity for Local Banks*

Regardless of the causal factors, bank interest rate spreads were very high in 2016 in several Caribbean countries, including Jamaica and Guyana, with

¹⁸ The interest rate spread is the interest rate charged by banks on loans to private sector customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits.

Figure 11.11. Obstacles to Firm Productivity and Performance—Cost of Finance by Firm Size (percentage of respondents)



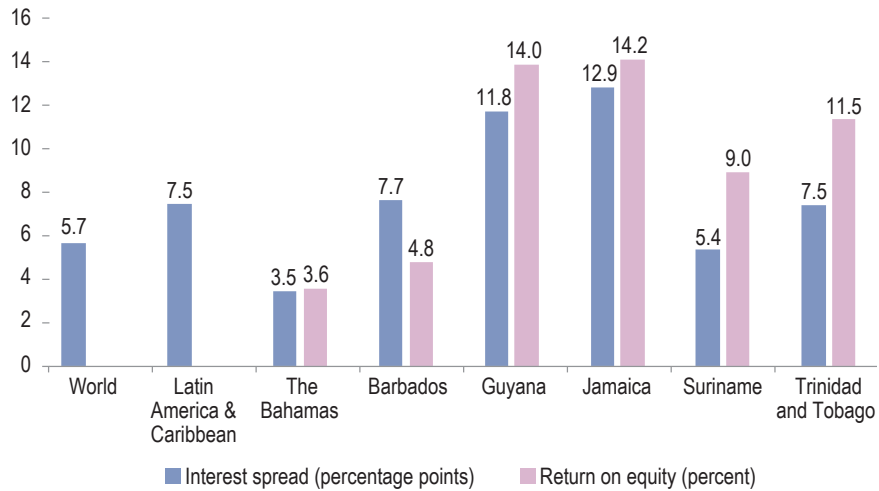
Source: Compete Caribbean, 2014 Productivity, Technology and Innovation in the Caribbean (PROTEqIN) Enterprise Survey.

Note: Organisation of Eastern Caribbean States (OECS) countries included in the composite index are Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. The PROTEqIN survey does not have information for the rest of the OECS countries (i.e., the British overseas countries and territories of Anguilla, the British Virgin Islands, and Montserrat).

spreads of 12.9 and 11.8 percentage points, respectively (Figure 11.12). This is considerably higher than the average for all other countries for which data were available (5.7 percentage points) and the average for LAC (7.5 percentage points). Conversely, banks in The Bahamas and Barbados—both countries with relatively larger and more internationally exposed financial sectors—are characterized by more modest interest rate spreads of 3.5 and 7.7 percentage points, respectively (Figure 11.12). As discussed in more detail below, relatively wide spreads are linked to undersized banking systems (based on a synthetic benchmarking exercise) in some of the Caribbean countries.

Other indicators reinforcing the findings regarding the costs of credit in Caribbean countries are profit margins and returns on equity for commercial banks.¹⁹ One might expect returns on equity to be higher for countries

¹⁹ Defined as the average return on assets (net income/total equity).

Figure 11.12. Cost of Credit: Interest Rate Spreads and Return on Equity, 2016

Source: World Bank, World Development Indicators and Financial Development and Structure databases.

with insufficient competition within the banking sector compared to what would be observed in countries where competition (or other factors) incentivize institutions to drive down prices. By this measure, several Caribbean countries host highly profitable banking sectors, with average returns on equity in 2016 of about 14 percent for Jamaica and Guyana,²⁰ and of 11.5 percent and 9 percent for Trinidad and Tobago and Suriname, respectively (Figure 11.12). Interestingly, the two Caribbean countries whose banking sectors tend to be exposed to greater levels of external competition owing to their status as offshore financial services sectors host banks that are less profitable than global and regional averages—that is, The Bahamas and Barbados, with sector returns on equity of 3.6 and 4.8 percent, respectively.

11.4.4. *Summary: Obstacles to Financial Access in Caribbean Countries*

In summary, many firms in Caribbean countries highlight both access to finance and the costs of finance as significant obstacles to productivity and performance. In several cases, these challenges appear considerably more pronounced for smaller firms. These survey results are corroborated

²⁰ Note that 2016 was used to ensure cross-country data comparability. The Bank of Jamaica reported in its 2017 Financial Stability Report that the return on equity for deposit-taking institutions was 16.1 percent as of end-September 2017.

by nationwide indicators, such as very high proportions of loans requiring collateral, as well as relatively high interest rate spreads and strong bank profitability. Taken together, this evidence suggests that for many Caribbean countries, market deficiencies—ranging from a lack of sufficient competition to severe information asymmetries—have prevented lenders from providing financing in the quantity and/or at costs that are comparable to other regions, or that are sufficient to meet the needs of many local firms.

11.5. Creating an Enabling Environment for Financial Development

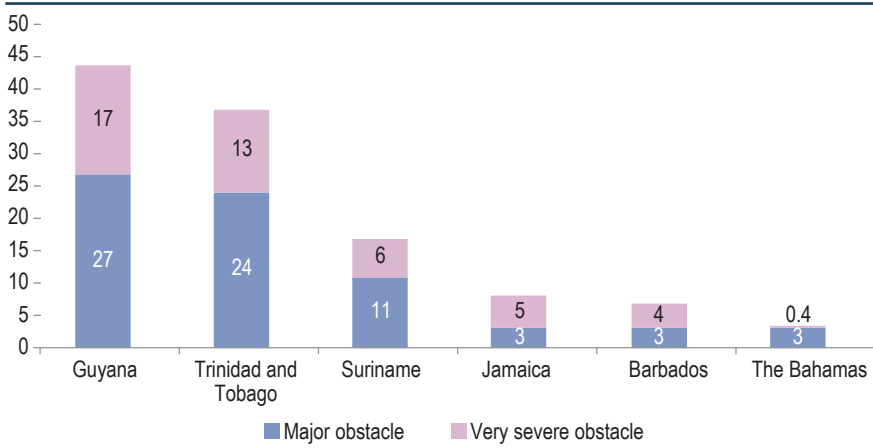
Unlike some other topics discussed in this volume, challenges or structural deficits with adverse implications for financial development can be difficult to map back to specific public policies or actions. For example, in the case of poor fiscal outcomes, reforms can often be undertaken largely by the government itself via reforms of revenue or expenditure policies, improvements in budgetary or financial processes, or legislative and institutional innovations (i.e., establishing fiscal rules or councils). The same can be said for a host of other development-related economic issues within the control of policymakers. By contrast, financial development involves a systemic and complex interaction between both private and public interests and incentives. Nonetheless, public policy can be tailored towards enabling a more favorable environment for financial development. As such, this section outlines some key (although not necessarily sufficient) policies to favor such an enabling environment.

11.5.1. *Importance of Macroeconomic Environment and Stability*

Macroeconomic stability is a necessary condition for financial development, although unto itself it is not a sufficient condition. Cross-country comparisons suggest that macroeconomic stability is critical for financial deepening (Boyd, Levine, and Smith 2001), while specific country experiences suggest that macroeconomic stability is a necessary condition for unlocking the financial deepening process. As an example of the importance of macroeconomic stability, mobilizing deposits and expanding credit in transition economies only took off when disinflation became entrenched (IMF 2012). The broader macroeconomic environment is also important, including fiscal policy and the exchange rate regime.²¹

²¹ See Chapter 5 in this volume for a detailed discussion on fiscal rules and councils and Chapter 9 for a discussion on alternative monetary and exchange rate regimes.

Figure 11.13. Constraints to Firm Productivity and Performance: Macroeconomic Environment (percent of firms for each country)



Source: Compete Caribbean, 2014 Productivity, Technology and Innovation in the Caribbean (PROTEqIN) Enterprise Survey.

In this context, more than a third of firms in Guyana and Trinidad and Tobago responding to the 2014 PROTEqIN Survey reported that instability and uncertainty with respect to the macroeconomic environment—for example, variables such as high levels or volatility with respect to inflation and/or interest rates, uncompetitive exchange rates, etc.—were major or very severe impediments to productivity growth and overall performance (Figure 11.13). In addition, both Barbados and Jamaica have faced severe debt and fiscal crises over the past decade as a consequence of weak economic policies, necessitating emergency adjustment programs involving financial assistance from international institutions, with adverse implications for financial sector performance, investment, and growth.²²

11.5.2. Institutional Frameworks

Other institutional factors can also support faster financial development. In this context, studies increasingly find issues related to contract enforcement and the efficiency of legal systems, as well as the availability of information regarding creditworthiness and financial histories of both

²² See Mooney (2018) for a discussion of how weak macroeconomic and fiscal policies in Jamaica crowded out private financing and held back development of the financial sector over an extended period.

firms and individuals, to be crucial pillars of sound and vibrant financial systems (Mooney 2015; World Bank 2014).²³

Contractual Frameworks and the Rule of Law

The financial system is one of the economic sectors most sensitive to legal institutional factors such as contract enforcement and property registration, particularly given the intertemporal and abstract nature of financial contracts. This includes the rights of secured and unsecured creditors, the quality of court systems, and the efficiency of contract enforcement. The World Bank's Doing Business indicators capture these dimensions in indices that are comparable across countries. Many Caribbean countries rank relatively poorly compared to other countries around the world, particularly with respect to contract enforcement, property registration, and the rights of minority investors (Figure 11.14).

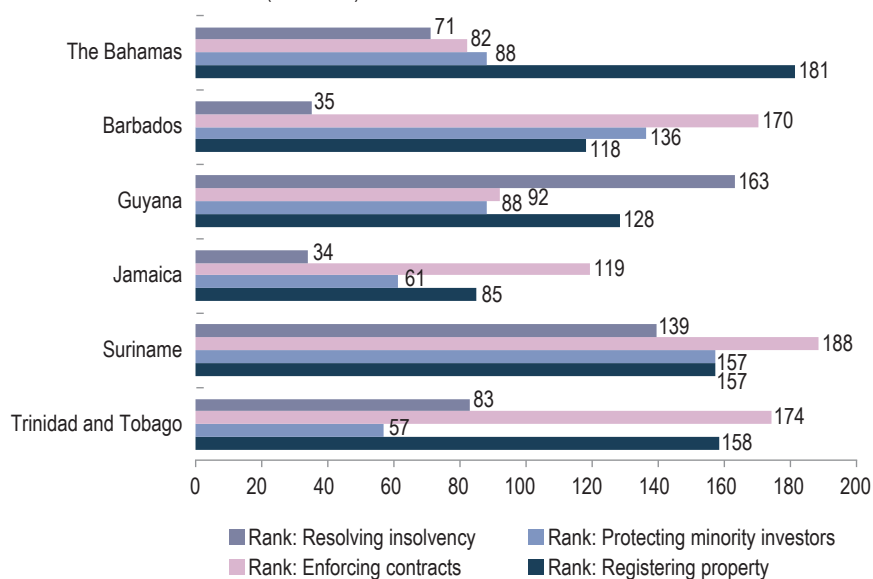
Resolving insolvency. In terms of creditor rights in collateral and bankruptcy law (critical for lenders to enforce their claims vis-à-vis borrowers through the court system), Jamaica scores very high (9 out of 12), despite maintaining some restrictions on secured creditors. The Bahamas, Barbados, and Trinidad and Tobago rank at the regional and Organisation for Economic Co-operation and Development (OECD) average with 6 or 7 out of 12 on the strength of legal rights index.²⁴ However, there is still a lack of integrated and unified legal frameworks for secured transactions, collateral registries, or legal priority for secured creditors in bankruptcy. Suriname and Guyana score very low with 2 and 3 out of 12, respectively. In this context, compared to the other countries, these jurisdictions lack mechanisms to allow collateral to become transferable or used without specific descriptions. There is also some variation with respect to the efficiency of the insolvency frameworks. In this context, the process takes between one year (Jamaica) and five years (Suriname). The costs range from 12 percent

²³ Notice that, as evidenced in the previous section, limited banking competition has resulted in credit rationing and higher interest rates. Therefore, increased competition in the banking sector is key for expanded financial inclusion. Enabling and refining the institutional frameworks outlined in this section will likely contribute to shape an attractive environment for increased banking actors and higher competition in this market.

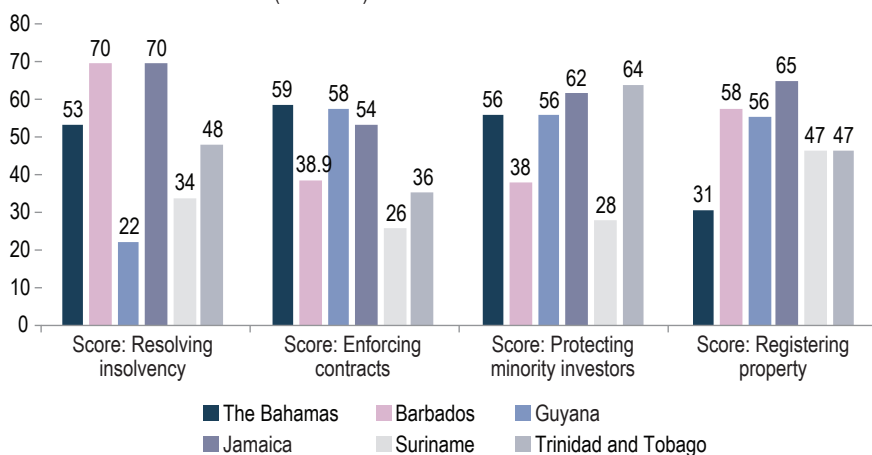
²⁴ The strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. Special emphasis is given to how the collateral registry operates (i.e., if registration of security interests is possible).

Figure 11.14. World Bank Doing Business Indicators: Contractual Frameworks in Caribbean Countries

1. Rank on Selected Indicators (out of 190)



2. Score on Selected Indicators (out of 100)



Source: Latest data available for each country from the World Bank's 2020 Doing Business database (<https://www.doingbusiness.org/>).

Note: Rank out of 190 countries. The scale for scores is from 0 to 100, with higher numbers indicating institutions and policies closer to international best practices.

of the value to recover in The Bahamas to 30 percent in Suriname, and the recovery rates range from 68 percent in Barbados to only 7.6 percent in Suriname. Taken together, these data suggest that there is scope for

improvements across all Caribbean countries in terms of both legislation and efficiency related to the resolution of insolvency episodes.

Enforcing contracts. There is some variation in the efficiency of contract enforcement through the judicial system, as measured by the time and cost it takes to enforce a contract and the efficiency of the judicial process. The process takes from 345 days in The Bahamas to 1,715 days in Suriname. The cost ranges from 20 percent of the value to recover in Barbados to 50 percent in Jamaica. Furthermore, all countries show deficiencies in case management and court automation, though they all have alternative dispute resolution frameworks in place that can help companies manage despite other deficiencies in the judicial system.

Protecting minority investors. There is a large variation across the six Caribbean countries in terms of the protection of minority investors vis-à-vis management and majority shareholders (critical for domestic and foreign investors on stock exchanges), with scores ranging from 35 to 62 (on a scale from zero and 100). Suriname scores very low, with gaps in disclosure, director liability, board governance, ownership control, and corporate transparency. Trinidad and Tobago scores the highest, with the main gap being in corporate transparency. The other four countries score in between, with gaps in corporate transparency, board governance, ownership control, and corporate transparency.

Registering property. In terms of property registration—a critical precondition for using land and/or property as collateral—the six countries show some variation (between 43 and 57 on a scale from zero and 100). Some countries still have a paper-based registry spread over several agencies (The Bahamas and Guyana). Even where computer-based registration processes exist, these are often slow, and coverage is limited.

Systems of Credit Information Sharing

The availability of information regarding credit history, risks, and financial performance is another key characteristic of vibrant financial sectors. Related informational institutions and mechanisms include accounting and auditing standards, and systems for gathering and sharing credit information between banks and with supervisory agencies. In this context, theory and empirical studies have shown the importance of effective credit bureaus and registries in deepening financial systems, enhancing their stability, and increasing access to financial services, especially for

SMEs and households (Brown, Jappelli, and Pagano 2009; Luoto, McIntosh, and Wydick 2004).

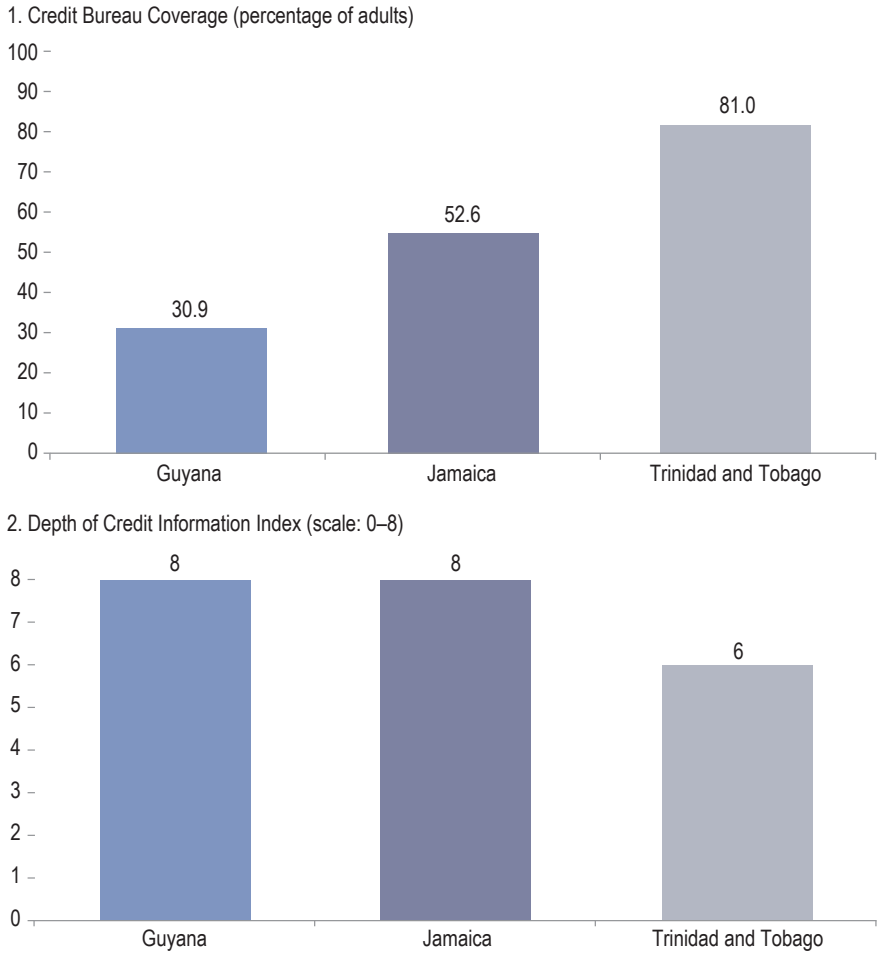
Institutions for credit information sharing. Figure 11.15 shows data from the World Bank's Doing Business indicators regarding the proportion of individuals and firms covered by credit information providers (i.e., data on borrowing histories of individuals and firms). Credit registries and credit bureaus are the two main types of credit reporting institutions that allow for loans taken out by individuals and/or enterprises to be recorded and the information to be accessed by authorized parties. The main difference between credit registries and credit bureaus is that the former are public entities, while the latter tend to be privately owned and operated. According to the latest available data, none of the six Caribbean countries have official credit registries and only three have credit bureaus—Guyana, Jamaica, and Trinidad and Tobago. These countries are home to privately run credit bureaus, although in Trinidad and Tobago the agency only covers individuals.²⁵ In this context, based on World Bank data, only 31 percent of the adult population is covered by credit bureaus in Guyana, while Jamaica and Trinidad and Tobago have somewhat higher levels. Therefore, establishing these institutions in The Bahamas, Barbados, and Suriname, while deepening their coverage in Guyana, Jamaica, and Trinidad and Tobago, is essential to enable a favorable environment for financial development.

Depth of credit information. The depth of credit information index measures the coverage, scope, and accessibility of credit information available through credit reporting service providers such as credit bureaus or credit registries. The index ranges from 0 to 8, with higher values indicating the availability of more credit information. On this measure, both Guyana and Jamaica score 8 out of 8, suggesting comparatively strong outcomes, while Trinidad and Tobago scores 6 out of 8 (Figure 11.15).

Taken together, these and related indicators suggest that Caribbean countries would benefit from stronger institutions and mechanisms for contract enforcement, management and resolution of financial disputes and transactions, and information sharing—particularly the three countries without credit registries or bureaus. As discussed later in this chapter, several of these deficits map back to observable hurdles to credit provision, particularly in the context of high collateral requirements.

²⁵ This is in line with the British and Dutch legal traditions and thus not surprising.

Figure 11.15. World Bank Doing Business Indicators: Credit Information Frameworks in Caribbean Countries, 2019



Source: World Bank, Doing Business database (<https://www.doingbusiness.org/>).

Note: The scale for depth of credit information index is from 0 to 8, with higher numbers indicating institutions and policies closer to international best practices. The Bahamas, Barbados, and Suriname have neither credit registries nor credit bureaus in place.

Structural Impediments

Beyond specific policy areas, there are certain structural characteristics that can foster or impede financial sector deepening, as outlined below.

Domestic savings. The savings of the household, private corporate, and public sectors in the economy—known as domestic savings—are an important

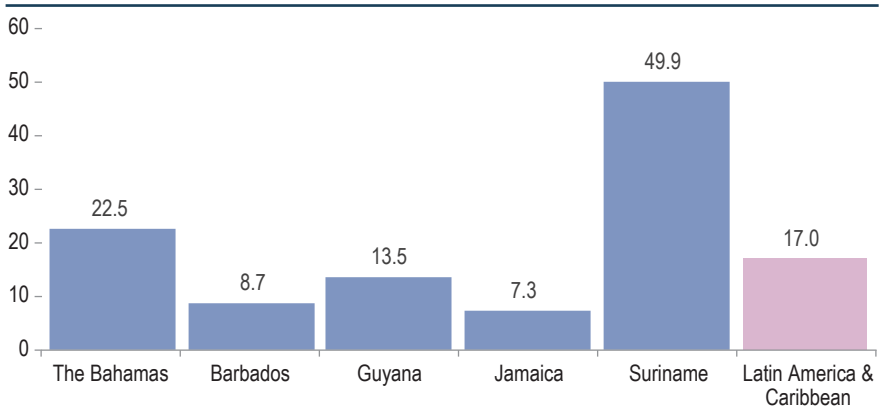
source of funding for banking systems and public capital markets. Albuquerque de Sousa et al. (2016) show that domestic savings are one of the few robust predictors of the success of nascent stock exchanges. While there are many factors explaining savings patterns across countries and over time (such as demographic structure), transforming the pension system into a capital-based system and broadening it beyond public sector employees can be one promising policy reform. Loayza, Schmidt-Hebbel, and Servén (2000) report on several studies, including Chile and Singapore, where pension reforms increased national savings rates, though such a positive relationship does not hold for all countries. Another important policy to increase national savings is fiscal policy, given that the Ricardian equivalence (offsetting changes in private and public savings) holds to a very limited extent if at all (see Loayza, Schmidt-Hebbel, and Servén [2000] and studies quoted therein).

There is a wide variation in gross domestic savings rates across five of the Caribbean countries analyzed here for which data are available. While The Bahamas and Guyana have savings rates in line with the regional average, Barbados and Jamaica have very low savings rates (Figure 11.16). Finally, Suriname has a surprisingly high savings rate—the second highest in the world after Singapore—which is related to high commodity and agricultural exports.²⁶

Natural resource abundance. Concerning country characteristics that can hold back financial deepening, there is increasing evidence of a “natural resource curse” in financial development. It is generally easier to generate short-term profits from natural resources, such as oil, than from fixed assets, such as manufacturing plants, equipment, and machinery. This is because proceeds from natural resources depend less on the creation of a market, human capital, and research & development investments. This in turn reduces incentives to invest in institutions (Besley and Persson 2010). Given that the financial sector is one of the most institution-sensitive sectors in the economy, less developed institutions in natural-resource-rich countries thus have a negative impact on financial sector development. Natural resource abundance can also undermine financial sector development if resource-related wealth is shifted out of the domestic financial system and into either foreign investment conduits and offshore sovereign wealth funds (Andersen et al. 2017), or into nonfinancial wealth, such as real estate. Lower savings rates in resource-abundant countries might

²⁶ Note that data for Suriname reflect the average from 2008–2010, the period for which the latest data were available.

Figure 11.16. Gross Domestic Savings versus GDP across Caribbean Countries (percent)



Source: World Bank, World Development Indicators.

Note: Data are averaged over 2015–2017, except for Suriname, for which data are averaged over 2008–2010. No data are available for Trinidad and Tobago.

further reduce the intermediation capacity of the financial system by limiting the available domestic funding base (Ploeg and Venables 2012). Ultimately, this can hurt the development of the non-resource economy, especially sectors and industries reliant on external finance.

Given the institutional sensitivity of the financial sector, it is not surprising that natural-resource-rich countries have less developed financial systems (Beck 2011; Beck and Poelhekke 2017). One of the reasons for this is windfall gains from natural resource rents not being channeled through the financial systems, but rather being appropriated by governments and/or ending up in offshore accounts. Among the six countries analyzed here, Trinidad and Tobago (petroleum and natural gas) is a major resource exporter. However, Suriname is also an exporter of gold and oil as well as agricultural products. Finally, Guyana will soon become one of the largest oil exporters globally. On the upside, the “natural resource curse” can be overcome with strong institutions such as well-designed sovereign wealth funds, as discussed in Chapter 6 of this volume.²⁷

Economies of scale and scope. Another important constraining factor is the size of economies, as there is evidence of scale economies in financial system development. Fixed transaction costs in financial service provision result

²⁷ See also Chapter 7 of this volume for an empirical application showing the quantitative relevance of well-designed sovereign wealth funds in resource-rich Caribbean countries.

in decreasing unit costs as the number or size of transactions increases. The resulting economies of scale at all levels explain why financial intermediation costs are typically higher in smaller financial systems and why smaller economies can typically only sustain small financial systems (even in relation to economic activity). These economies of scale also explain the limited capacity of small financial systems to broaden their financial services towards clients with a need for smaller transactions. The effect of fixed costs on financial service provision can be reinforced by network externalities, where the marginal benefit to an additional customer is determined by the number of customers already using the service. This is especially relevant for capital market development. In summary, fixed transaction costs can explain the high level of formal financial exclusion in many developing countries. Fixed costs can also explain the lack of capital market development in many small developing economies, including the six countries covered in this chapter.

The consequences of small financial systems are several. First, small banking systems can sustain only a few financial institutions, which might reduce competition. Second, small financial systems are less able to maintain a diversified financial system in terms of different types of financial institutions and markets, and they offer fewer opportunities for risk diversification. Third, even where capital markets are reasonably large, a small investor and listed firm base depresses trading and liquidity.

The situations of the six countries covered in this chapter reflect the challenges associated with small financial systems. First, as discussed above, the financial systems of all six countries are dominated by commercial banks, with public capital markets playing a rather small role. Second, all six banking systems have few banks, ranging from 5 to 10 in number, though there is variation in ownership structures across all of the countries. The banking sectors of Suriname and Trinidad and Tobago are the only two of the six where government-owned banks play a prominent role. Specifically, as of 2013, one of the largest three banks as well as another three smaller banks in Suriname were in government ownership, while 30 percent of the banking system in Trinidad and Tobago was majority government-owned. The other four banking markets were dominated by foreign banks. Specifically, Barbados' five banks were all partly or fully foreign-owned and Jamaica's banking system was more than 80 percent foreign-owned. In The Bahamas, 75 percent of the banking market was foreign-owned, and half of Guyana's banks were foreign-owned. In Trinidad and Tobago, in contrast, only 20 percent of the banking system was foreign-owned, while in Suriname, less than 20 percent of the banking system was foreign-owned. Given the small size of the host economies, the six banking systems had concentrated loan portfolios, correlated across

institutions within each banking system. Some of the banking systems also had a higher share of mortgage loans, such as in Jamaica (72 percent), Barbados (47 percent), and The Bahamas (41 percent).

11.6. Financial Architecture: Benchmarking Finance in the Caribbean Countries

As illustrated in previous sections, the Caribbean countries display considerable differences in terms of financial depth, access, and adequacy of finance for firms. This should not be surprising given the many policy-related, macroeconomic, structural, geographic, size-based, and other differences across these economies. In this context, it is difficult to determine how differences across countries should map to differences in financial sector development and the potential of these countries to improve related outcomes.

In an attempt to clarify this issue, this section will lay out a method to benchmark financial development against a global sample. This will allow for comparing the Caribbean countries to each other and to countries around the world on the basis of their individual socioeconomic and structural characteristics. Traditionally, economists and analysts have worked with country comparisons, either focusing on neighboring countries or similar countries across the globe. A more systematic approach focuses on specific factors that drive financial sector development beyond the policy variables discussed above, and develops a synthetic benchmark. The following sections will first discuss the concept of a financial depth frontier (based on previous discussions in Barajas et al. [2013] and Beck and Feyen [2013]) before presenting the results of the benchmarking exercise for the Caribbean.

11.6.1. *Financial Depth Frontier*

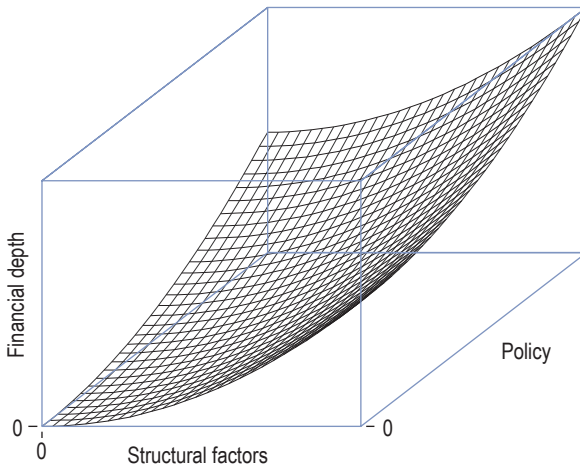
The idea of the frontier is that of a constrained maximum—that is, the maximum feasible and sustainable amount of financial intermediation in an economy given the structure of the economy and the macroeconomic and institutional environment. This concept is based on the observation that uncertainty and market frictions create the need for financial intermediaries and markets. While financial institutions and markets help overcome these market frictions, their efficient operation is restricted by these same frictions. The typical market frictions that interact to affect the process of financial deepening are associated either with information, enforcement, or transactions costs (Levine 2005; de la Torre, Feyen, and Ize 2013).²⁸

²⁸ See a similar discussion in Beck and de la Torre (2007).

In addition to costs, the depth and outreach of financial systems, especially in credit and insurance services, is constrained by risks, particularly default risk. These risks can be either contract-specific or systemic in nature. While idiosyncratic risks are specific to individual borrowers, projects, or policyholders, their management is influenced by the systemic risk environment. High macroeconomic uncertainty and deficient contract enforcement institutions exacerbate agency problems, while the lack of diversification possibilities can hinder the ability of financial institutions to diversify non-agency risks. As systemic risk increases, it enlarges the set of borrowers and projects that are effectively priced out of capital markets. Similarly, it makes insurance policies unaffordable for larger segments of the population. At the same time, the easing of agency frictions in the absence of adequate oversight can create incentives for excessive risk-taking by market participants (by failing to internalize externalities), fueling financial instability.

The efficiency with which financial institutions and markets can overcome market frictions is critically influenced by a number of state variables—factors that are invariant in the short term (often lying outside the purview of policymakers)—that affect the provision of financial services on the supply side and can constrain participation on the demand side. In broad terms, one can distinguish between two types of state variables: (1) structural characteristics of the socioeconomic environment in which financial institutions and markets operate and which impose a limit on their development and (2) long-term policy variables that either foster or limit financial deepening. While structural variables relate to the broader socio-political and structural environment in which the financial system operates (including market size, population distribution, and demographic structure), policy variables such as macroeconomic fundamentals, the available technology, and contractual and information frameworks are directly related to the financial sector and underpin it, as discussed above.

Using the concept of state variables allows for defining the financial depth frontier as a rationed equilibrium of realized supply and demand, variously affected by market frictions. Figure 11.17 illustrates the frontier and the difference between structural and policy variables among the state variables. The vertical axis denotes financial depth in general or the development of specific segments of the financial system. The horizontal axis is a one-dimensional representation of structural variables, as discussed above. For ease of illustration, it is assumed that the structural state variables are linearly related to sustainable financial depth. The structural depth line therefore represents the expected level of financial depth

Figure 11.17. Financial Possibilities Frontier

Source: Beck and Feyen (2013).

given a country's structural characteristics. The third axis denotes policies and institutions conducive to financial deepening, again a one-dimensional representation.

The plane is the combination of structural characteristics and policies/institutions consistent with a given level of financial depth in an economy. Points above the plane are unsustainable levels of financial depth, while points below are inefficient, as they do not exploit the opportunities provided by structural characteristics and policies/institutions in an economy. The separation of structural characteristics and policies underlines an important point, which is that the same set of policies will not lead to the same results in terms of long-term provision of finance across countries with different characteristics. In addition, policies as well as expectations have to be tailored to the structure of an economy.

The concept of the financial depth frontier is the backdrop for the benchmarking exercise, which tries to explain the variation across countries with structural (and thus exogenous) characteristics. Specifically, following Beck and Feyen (2013) and using a large panel of countries over time, the exercises regresses each indicator of financial development on the following explanatory variables:

- *GDP per capita:* Economic development affects financial development due both to demand effects (the volume and sophistication of financial activity increase with income) and supply effects

(larger, richer economies can achieve economies of scale and benefit from more competition and better infrastructure).

- *Total population:* Countries with larger populations can have deeper and more efficient financial systems by better exploiting scale. For example, Borensztein, Eichengreen, and Panizza (2006) show that the lack of capital market development in many developing and emerging markets can be explained by the lack of critical mass.
- *Old and young dependency ratios:* Age dependency ratios—that is, the non-working young and old populations, respectively, as fractions of the labor force—are likely to affect savings and lending patterns and thus the development and structure of the financial system.
- *Transition, offshore, oil exporter, and landlocked country dummies:* Oil exporters have smaller financial sectors than other countries at similar levels of income, reflecting the fact that oil revenues can boost GDP out of proportion with the country's overall level of economic and financial development and provoke the potential “natural resource curse” (Beck 2011; Beck and Poelhekke 2017). Offshore financial centers with intensive cross-border operations can have disproportionately large financial sectors that do not necessarily cater to the local economy. Landlocked countries encounter structural challenges in accessing international markets, which will impact the composition and performance of the real economy and, as a result, financial development. Finally, transition economies have experienced a different financial development path than other countries (World Bank 2017).
- *Year dummies:* Since all available country-year observations are pooled, temporal patterns that “lift or sink all boats” are accounted for. For example, the 2000s saw an increase in financial depth indicators across all country income groups (Beck, Levine, and Levkov 2010), while the 2008 global financial crisis had a dampening effect on financial depth indicators across many countries, especially indicators related to cross-border flows.

To reduce distortions coming from outlier observations, models using quantile regressions as opposed to ordinary least squares are estimated. Based on the benchmark regressions, the gap can be defined as the difference between the predicted and actual values. If the actual level of financial development is below the predicted level (thus an adverse gap),

several additional empirical analyses can give insights into the reasons why. First, what are the macroeconomic and institutional conditions for financial deepening in the country? Second, are there demand-side constraints related to a previous boom-bust cycle and the consequent burden of over-indebtedness for both enterprises and households (which requires an analysis over time)? Third, are there barriers related to market entry or regulatory constraints that prevent the financial system from deepening? Analysis of the market structure and degree of competition in the financial system might be useful in that context.

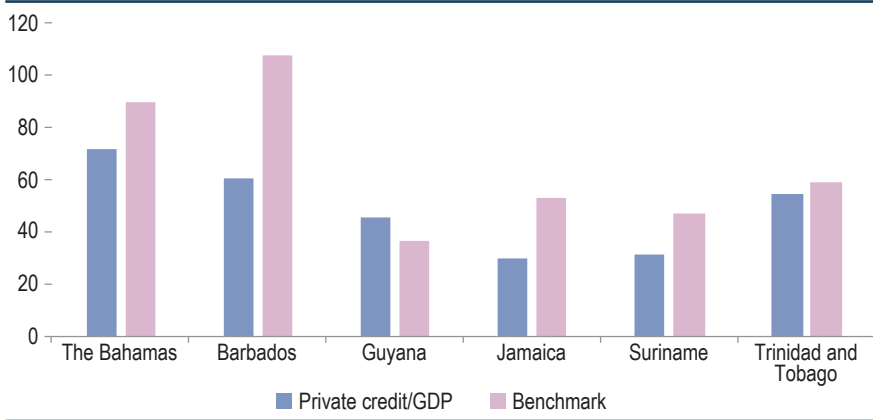
If the actual level of financial development is above the predicted level, this might also be due to several reasons that can be gauged using different data sources. First, a sound and flexible institutional framework might allow the financial system to move beyond its structural depth line. If this movement beyond the predicted level has been a gradual one and in line with improvements in policy and institutional indicators, it might indeed be sustainable. If on the other hand there is a rapid increase in funding to specific sectors, such as household or mortgage credit or in foreign currency rather than local currency, this might indicate an unsustainable expansion. Finally, bailout expectations, as gauged from banks' credit ratings and funding cost differences between systemically important banks and non-systemic institutions, might provide additional indications of overheating.

The following section shows and discusses the actual and predicted value of different indicators of financial development for Caribbean countries (subject to data availability).

11.6.2. *Benchmarking Key Sectors*

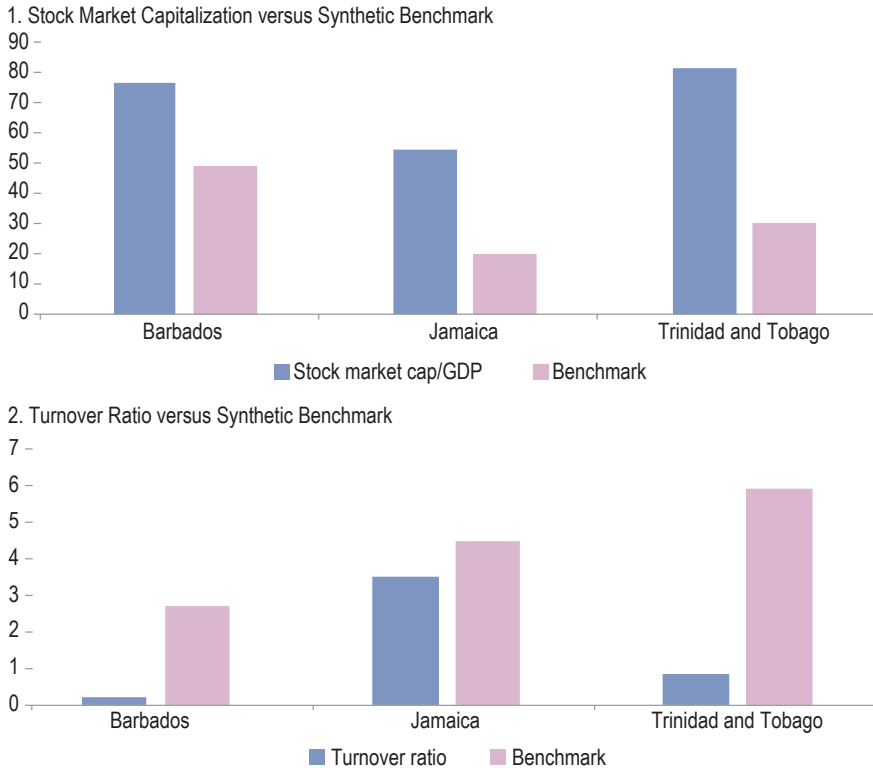
Figure 11.18 shows that, with the exception of Guyana, all countries have private-credit-to-GDP ratios below the predicted level, although the level is very close in Trinidad and Tobago. While this might be surprising for countries like The Bahamas and Barbados that have relatively high private credit ratios, it is important to keep in mind that the benchmark is a synthetic one and thus compares every country to a hypothetical country with the same characteristics, including the income level. The fact that the gap is relatively small for Trinidad and Tobago might be because the predicted value is also relatively small due to its natural resource reliance. Indeed, Caribbean commodity exporters (Guyana, Suriname, and Trinidad and Tobago) show significantly smaller frontiers than Caribbean economies that are more focused on services and tourism (The Bahamas and Barbados).

Figure 11.18. Benchmarking Private Credit to GDP across Caribbean Countries, 2017 (percent)



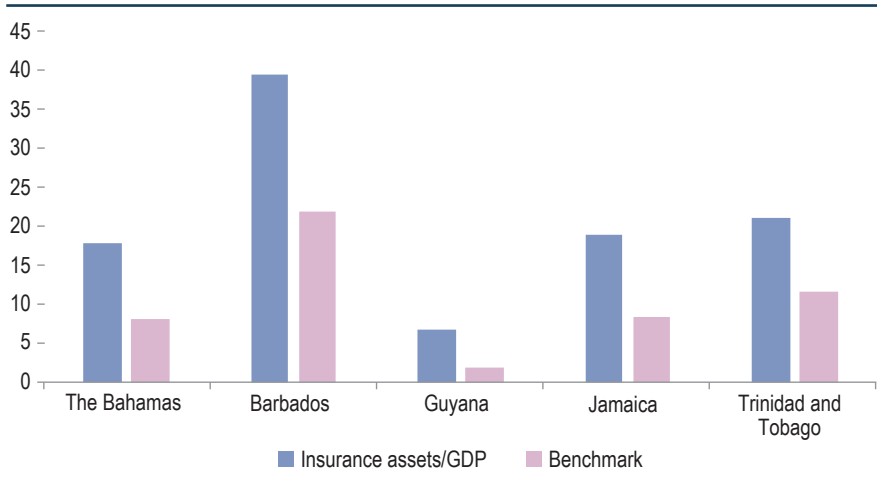
Sources: World Bank, Global Financial Development Data; and authors' calculations.

Figure 11.19. Benchmarking Stock Market Development across Caribbean Countries, 2017 (percent)



Sources: World Bank, Global Financial Development Data; and authors' calculations.

Figure 11.20. Benchmarking Insurance Market Development across Caribbean Countries, 2017 (percent)



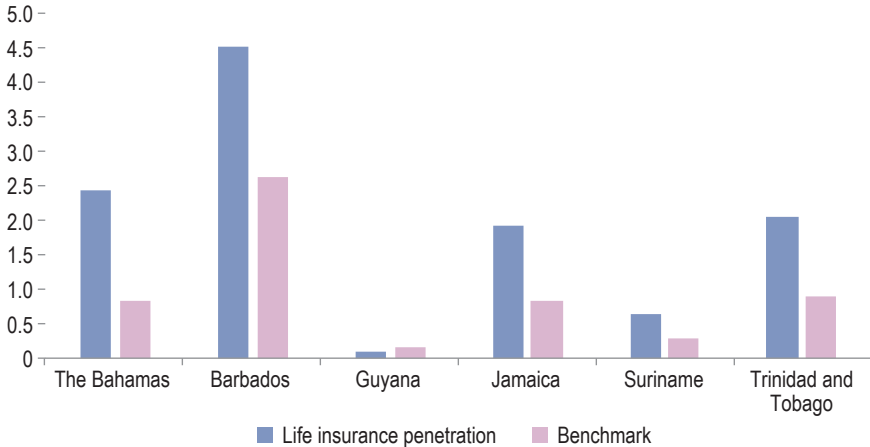
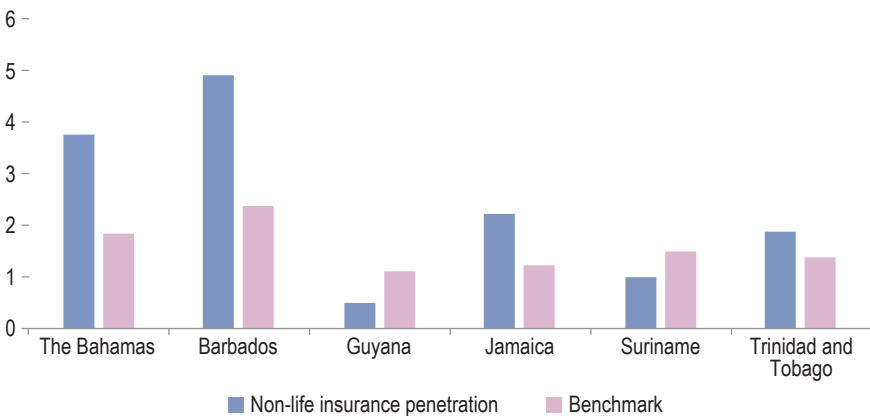
Sources: World Bank, Global Financial Development Data; and authors' calculations.

Note: No data were available for Suriname.

Figure 11.19 shows actual and predicted values for stock market capitalization/GDP and the turnover ratio for the three countries for which data are available. It is striking to see that the size of stock exchanges in all three cases is larger than the predicted value, while the liquidity level is smaller, substantially so in the cases of Barbados and Trinidad and Tobago. This suggests that the actual negative effect of the diseconomies of scale in public capital markets is even stronger than what is accounted for in the benchmarking model.

Finally, Figure 11.20 shows that the size of the insurance sector is substantially larger than predicted by the benchmarking model. Unlike Latin American countries, the countries covered in this chapter have large insurance sectors. This is driven more by life insurance than non-life insurance, as can be seen in Figure 11.21, which benchmarks life- and non-life insurance penetration (premium volume relative to GDP) in the different countries. The gap between actual and predicted penetration is, on average, larger for life insurance than for non-life insurance.

In summary, benchmarked on their socioeconomic characteristics, the Caribbean countries have small banking systems but comparatively large insurance sectors, especially life insurance sectors. Their stock markets are larger, but with lower-than-expected liquidity. The relatively low level of bank intermediation might be related to the deficient contractual and information frameworks discussed above.

Figure 11.21. Benchmarking Insurance Penetration across Caribbean Countries, 2017 (percent)**1. Life Insurance Penetration versus Synthetic Benchmark****2. Non-Life Insurance Penetration versus Synthetic Benchmark**

Sources: World Bank, Global Financial Development Data; and authors' calculations.

11.7. Conclusions and Areas for Further Consideration

Emerging research and cross-country evidence presented in this chapter underscore the importance of financial development for economic growth and social outcomes. This chapter attempted to add to the understanding of these issues, particularly in the context of Caribbean countries. The chapter developed new measures of financial access and adequacy, as well as original methods designed to assess countries' levels of financial development relative to their country-specific potential. In both contexts, the

findings suggest that, in general, the six Caribbean countries analyzed—The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago—have been held back by both inherent deficits (e.g., economies of scale and scope) as well as policy and structural deficits that should be the focus of reform.

In particular, the research documents a variety of outcomes in terms of financial depth, access, and adequacy. Regarding the depth of credit markets (i.e., private credit relative to GDP), which constitute the base of the financial pyramid, most Caribbean countries compare poorly with both regional peers and other countries at similar levels of income and development (e.g., other middle- and high-income countries). Jamaica, Suriname, and Trinidad and Tobago in particular have seen little progress in terms of financial deepening since the 1980s, likely owing to policy inconsistencies (e.g., unsustainable fiscal or debt situations, high inflation and interest rates, and/or uncompetitive exchange rates), and the impacts of large external shocks. In this context, surveys of firms report concerns over the macroeconomic environment as among their most significant challenges to productivity and performance.

The analysis also finds that while the use of savings accounts appears widespread, firm access to basic lending services is constrained in several of the Caribbean countries. Firms in Barbados, Trinidad and Tobago, and Guyana report greater access to loans and credit lines than global and regional averages, while Jamaica, The Bahamas, and Suriname fall short.

Turning from access to the concept of sufficiency, the chapter developed a new measure of financial adequacy—“firm financing gaps”—that highlights severe impediments to firm access to finance in Jamaica and Suriname and strong performance in some other countries. In fact, firms in Barbados appear to have the second best performance on this measure out of 141 emerging market economies for which data were available.

The research for this chapter also focused on some reasons why firms may face challenges in accessing finance. For example, cross-country surveys suggest that high interest rates, the need for security enhancements (e.g., collateral or guarantees), and the complexity of loan applications are among the most common reasons why firms do not apply for loans. In this context, enterprise surveys suggest that impediments to finance such as collateral requirements and the high costs of borrowing are among the most commonly reported challenges to firm productivity and performance in Caribbean countries. These impediments tend to be more acute for small firms. Other enterprise survey results confirm these conclusions, highlighting the fact that, except for Barbados, firms in all Caribbean countries report collateral requirements that are higher than both cross-country

and regional averages. Similarly, in considering indicators linked to the costs of credit, including interest rate spreads and bank profitability in these jurisdictions, the analysis found that Jamaica, Guyana, and Trinidad and Tobago appear to host banking sectors that reap extra-normal profits and charge proportionally high interest rates on loans. These and related indicators tend to suggest the presence of structural deficits preventing local banks in several Caribbean countries from providing funding at more reasonable cost.

The analysis also considered financial depth and development across various segments of the financial market, including the credit sector (e.g., banking), equity markets, and insurance sectors (both life and non-life insurance providers). To this end, an original benchmarking exercise for each of the Caribbean countries compared financial sectors and relevant subsectors against predicted values, with findings that have considerable potential implications for policies and reform efforts. First, apart from Guyana, Caribbean countries have credit sectors below the predicted level (as measured by private credit as a proportion of GDP). This is consistent with the findings regarding less-than-adequate funding for firms in several of these countries. Second, stock market capitalization (as a proportion of GDP) in the three countries for which comparable data were available (Barbados, Jamaica, and Trinidad and Tobago) is larger than the predicted values, while liquidity (i.e., turnover) is less ample than predicted—substantially so in the cases of Barbados and Trinidad and Tobago. This result suggests that the real negative effect of the diseconomies of scale in public capital markets is even stronger than suggested by the benchmarking model. Finally, the size of the insurance sector (primarily life insurance) is substantially larger than predicted by the benchmarking model.

In summary, when Caribbean countries are benchmarked with respect to their structural characteristics against other countries across the world, they are found to have small banking systems but large insurance sectors, especially for life insurance. Their stock markets are larger than one would expect but have lower-than-expected liquidity. Findings of this benchmarking exercise support the above-mentioned conclusions of the newly developed measures of financial adequacy that firms in several Caribbean countries are considerably underserved in the credit markets. This represents a considerable impediment to their performance and productivity growth, hampering prospects of achieving faster and more inclusive aggregate growth. This is particularly so for smaller firms, which are responsible for a large share of employment in many of these countries.

In terms of policies and reform priorities, several potential implications flow from this work, including the following:

- *Macroeconomic stability and policy prudence:* The first priority of any government wishing to create an enabling environment must be to ensure low and stable inflation as well as fiscal prudence to avoid crowding out private credit. Policy predictability will also provide added confidence to those that would both lend and borrow, as well as invest in local capital markets.
- *Availability of credit information:* High collateral requirements and costs of borrowing have been reported as significant impediments to financial deepening and access. Measures such as the development of centralized credit registries and bureaus, as well as other mechanisms for the gathering and sharing of information on risk, would support improved counterparty credit risk assessment and management. This would allow banks to reduce their need for credit enhancements (e.g., collateral and guarantees), extend maturities, and broaden the base of potential borrowers at lower costs.
- *Property rights and insolvency procedures:* Ensuring that country institutional frameworks for regulatory and judicial systems provide both creditors and debtors with greater confidence in terms of property rights, contract enforcement, and the process of resolving insolvency would help accelerate financial development and improve access to credit. These are also areas where several Caribbean countries fall short of international benchmarks.
- *Credit sector competition:* Regulatory and other reforms aimed at stimulating healthy competition in the banking sector are important to ensure that credit can be provided at reasonable costs—one of the key hurdles identified by many firms in the region. If implemented without compromising financial stability or prudential standards, adequate levels of regulation aimed at fostering competition could encourage broader use of credit by individuals and SMEs, with benefits for all sectors of the economy.²⁹
- *Promotion of financial technology with adequate safeguards:* As discussed in Annex 11.3, financial technology (or fintech, for short) is a rapidly evolving field that offers considerable promise in terms of promoting financial development and inclusion. New technologies and consumer practices are facilitating the provision of financial services by traditional market players (e.g., banks), as well as the entry of new models and financing modalities, with the

²⁹ See Chapter 10 in this volume for a detailed discussion on financial regulation and supervision.

potential to both deepen markets and broaden access. Fintech can also help overcome key barriers to financial deepening and access, including as those barriers relate to physical access to banking services, documentation requirements, and lowering costs of finance. In this context, Caribbean governments should prioritize the facilitation of digital financial services, in partnership with the financial industry, while ensuring that regulatory and supervisory capacity is sufficient to mitigate any risks to compliance or consumer protection.

While country-specific issues such as informality, crime and disorder, and others are also clearly relevant, focusing on progress on the five critical themes cited above could help countries move towards their financial possibility frontiers and achieve their full potential in terms of financial sector depth and development. This would, in turn, support broader and more adequate access to finance for both small and large firms, households, and marginalized populations, and help Caribbean countries improve the lives of their citizens in a more inclusive and sustainable way.

Annex 11.1. Country Groupings

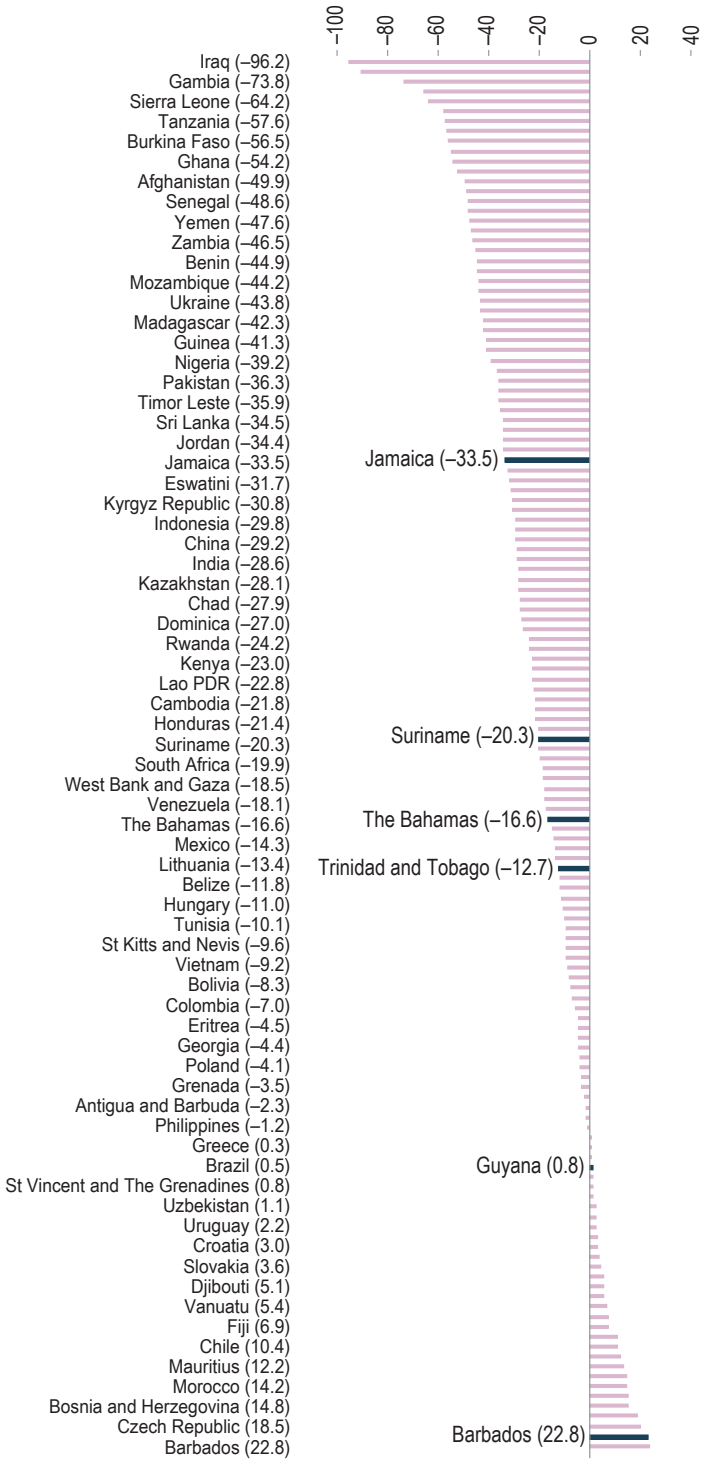
| Caribbean | Latin America |
|---------------------|----------------|
| (6 countries) | (16 countries) |
| The Bahamas | Argentina |
| Barbados | Belize |
| Guyana | Bolivia |
| Jamaica | Brazil |
| Suriname | Chile |
| Trinidad and Tobago | Colombia |
| | Ecuador |
| | El Salvador |
| | Guatemala |
| | Honduras |
| | Mexico |
| | Nicaragua |
| | Panama |
| | Paraguay |
| | Peru |
| | Uruguay |

| Countries Included in the World Bank Enterprise Survey Database | | | |
|---|--------------------|-----------------------|--------------------------------|
| (143 countries) | | | |
| Afghanistan | Djibouti | Lebanon | Senegal |
| Albania | Dominica | Lesotho | Serbia |
| Angola | Dominican Republic | Liberia | Sierra Leone |
| Antigua and Barbuda | Ecuador | Lithuania | Slovak Republic |
| Argentina | Egypt, Arab Rep. | Madagascar | Slovenia |
| Armenia | El Salvador | Malawi | Solomon Islands |
| Azerbaijan | Eritrea | Malaysia | South Africa |
| The Bahamas | Estonia | Mali | South Sudan |
| Bangladesh | Eswatini | Malta | Sri Lanka |
| Barbados | Ethiopia | Mauritania | St. Kitts and Nevis |
| Belarus | Fiji | Mauritius | St. Lucia |
| Belize | Gabon | Mexico | St. Vincent and the Grenadines |
| Benin | Gambia, The | Micronesia, Fed. Sts. | Sudan |
| Bhutan | Georgia | Moldova | Suriname |

(continued on next page)

| Countries Included in the World Bank Enterprise Survey Database <i>(continued)</i> | | | |
|--|-----------------|--------------------|-----------------------|
| (143 countries) | | | |
| Bolivia | Ghana | Mongolia | Sweden |
| Bosnia and Herzegovina | Greece | Montenegro | Tajikistan |
| Botswana | Grenada | Morocco | Tanzania, Republic of |
| Brazil | Guatemala | Mozambique | Thailand |
| Bulgaria | Guinea | Myanmar | Timor-Leste |
| Burkina Faso | Guinea-Bissau | Namibia | Togo |
| Burundi | Guyana | Nepal | Tonga |
| Cabo Verde | Honduras | Nicaragua | Trinidad and Tobago |
| Cambodia | Hungary | Niger | Tunisia |
| Cameroon | India | Nigeria | Turkey |
| Central African Republic | Indonesia | North Macedonia | Uganda |
| Chad | Iraq | Pakistan | Ukraine |
| Chile | Israel | Panama | Uruguay |
| China | Italy | Papua New Guinea | Uzbekistan |
| Colombia | Jamaica | Paraguay | Vanuatu |
| Congo, Dem. Rep. | Jordan | Peru | Venezuela, RB |
| Congo, Rep. | Kazakhstan | Philippines | Vietnam |
| Costa Rica | Kenya | Poland | West Bank and Gaza |
| Côte d'Ivoire | Latvia | Samoa | |
| Croatia | Kosovo | Romania | Yemen, Rep. |
| Cyprus | Kyrgyz Republic | Russian Federation | Zambia |
| Czech Republic | Lao PDR | Rwanda | Zimbabwe |

Annex 11.2. Firm Financing Gaps across the World (percentage points)



Source: Authors' calculations based on the latest available World Bank Enterprise Survey (WBES) data.
Note: The firm financing gap equals the difference between firms reporting a financing need and firms reporting having secured a loan or line of credit. Positive results (i.e., Barbados and Guyana) indicate that more firms had outstanding loans or lines of credit than reported a need for financing (and vice versa). Sample includes all emerging and developing economies included in the WBES database. Not all country labels fit in this figure. Caribbean countries are highlighted. Slovenia (23.7 percent) was the only country whose firm financing gap was greater than that of Barbados.

Annex 11.3. Financial Technology (Fintech): Catalyst for Financial Development and Inclusion

Financial technology (or fintech, for short) is a rapidly evolving field that offers considerable promise in terms of promoting financial development and inclusion. New technologies and consumer practices are facilitating the provision of financial services by traditional market players (e.g., banks), as well as the entry of new models and financing modalities with the potential to both deepen markets and broaden access. While this process also involves risks to consumers and markets, it has proven beneficial across many nations and countries at various levels of development, including as it relates to financial access and inclusion.

Fintech has many potential applications and can take many forms. But taken together, these technologies and practices can help to overcome several key impediments to financial development, access, and inclusion. These impediments include (1) limited physical access to financial institutions, particularly in the least developed countries; (2) cumbersome documentation requirements that have prevented individuals from opening accounts, transacting, and maintaining financial records; (3) high costs of financial transactions that have dissuaded many firms and individuals from participating in financial activities; and (4) limited sources of funding for traditional activities (e.g., credit), which fintech can help alleviate by providing more advanced modalities of finance to support emerging enterprises and innovation (e.g., addressing issues such as crowdfunding, fractional ownership mechanisms, microfinance and microinsurance, etc.).

Though the landscape is evolving quickly, some fintech services that have been prevalent for well over a decade provide encouraging examples. Mobile money and banking, for example, have proven quite positive for many emerging and developing countries. In fact, the greatest gains in terms of financial inclusion and access from these and related fintech applications have been reaped by those countries at the lowest levels of income and development—including several countries in developing Asia and sub-Saharan Africa. In this context, research suggests that fintech holds promise to reduce costs and frictions,³⁰ increase efficiency and competition, narrow information asymmetries, and broaden access to financial services, especially in low-income countries and for underserved populations in Africa (IMF and World Bank 2019). Conversely, however, this rapid

³⁰ Frictions that can be overcome by fintech applications include geographical barriers to access, the absence of collateral, high opportunity costs of holding cash, and market failures.

evolution of technology and its application also holds risks in terms of the ability of regulators to oversee transactions and flows to prevent illicit activity, ensure tax compliance, and protect consumers.

To ensure that fintech adequately supports broader economic development and inclusive growth while also facilitating international payments (e.g., remittances), the International Monetary Fund reports that authorities around the globe are exploring new and innovative regulatory approaches. These approaches include sandboxes,³¹ incubators, accelerators, and innovation hubs that allow for experimentation, innovation, and information exchange while also helping to manage related risks.

³¹ A regulatory sandbox is a framework set up by a regulator that allows fintech start-ups to conduct live experiments in a controlled environment under a regulator's supervision.

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