1. Context

1.1 Effective domestic revenue mobilization (DRM) is essential for developing countries’ abilities to finance their development goals in a sustainable and equitable manner. DRM—the generation of government revenues from domestic activities (World Bank and IMF 2015)—is relevant to at least 2 of the 17 Sustainable Development Goals (SDGs).\(^1\) This evaluation focuses on the World Bank Group’s support to its clients to improve central government DRM, which includes revenue from tax (VAT, direct taxes, excises and customs) and nontax collections (including royalties from extractives).

1.2 Given the financing requirements of achieving the ambitious SDGs adopted in 2016, the international community has identified DRM as a strategic priority. The lack of significant progress on DRM in the past decade suggested the need for renewed attention to the topic. General government revenue as a percentage of gross domestic product (GDP) in middle-income and low-income countries did not increase between 2010 and 2020. Indeed, since 2010, it has decreased for all income groups (figures 1.1 and 1.2). Central government tax revenues exhibit a similar dynamic (figure 1.3). This is especially worrisome in low-income countries (LICs), where DRM is a key policy objective, but where government revenues remain below 15 percent of GDP on average. This level is considered by many to be too low to finance the basic functions of the state and provide essential public and infrastructure services (IMF 2018a).

1.3 In many countries in Sub-Saharan Africa and some in Latin America, government revenues are declining as a share of GDP. In LICs, despite decades of reform and support, including from international organizations, revenue collection lags behind government needs because of narrow tax bases, large informal sectors, and the often-difficult political economy of tax reform. The 19th Replenishment of the International Development Association (IDA19) aims to support IDA countries with tax

---

\(^1\) These are Sustainable Development Goal 10 (reducing inequalities among and within countries) and Sustainable Development Goal 17 (strengthening the means of implementation and revitalizing global partnership for sustainable development), with the latter, under subsection “Finance” (point 17.1), referencing “Strengthen[ing] domestic resource mobilization, including through international support to developing countries to improve domestic capacity for tax and other revenue collection.”
revenues persistently below 15 percent of GDP to increase their tax-to-GDP ratios by one percentage point over the three-year IDA cycle (IDA 2020).

Figure 1.1. General Government Revenue as a Percentage of GDP by Income Group, 2010–20

Moreover, there is little evidence that DRM is contributing to reducing in-country income inequality. Rigorous tax and benefit incidence analyses conducted as part of recent country studies under the Commitment to Equity project show that in many countries, tax systems (and fiscal systems more broadly) do not significantly improve income distribution, even in countries with high income inequality.\(^2\)

---

\(^2\) Commitment to Equity is a global initiative that seeks to assess the distributional impact of fiscal (including tax) systems at the country level. This initiative has collaborated on a number of country studies with the World Bank.
Figure 1.2. General Government Tax Revenue as a Percentage of GDP by Income Level, 2010–20

Note: Estimates for 2020 are based on IMF staff assessment of current policies (January 2021). GDP = gross domestic product.

Figure 1.3. Central Government Revenues as a Percentage of GDP by Income Groups, 2010–19

Note: Central government revenue excludes social security funds. GDP = gross domestic product.

1.5 Recently, DRM has faced challenges aggravated by the ongoing coronavirus (COVID-19) pandemic and the attendant collapse of economic activity in many countries. The pandemic is expected to affect many aspects of DRM, including tax payments and tax compliance. Past crises have revealed that the effect of shocks on taxes
exceeds the impact in scale and duration of the associated economic downturn, with the average tax-to-GDP ratio dropping by 1.3 percentage points (IMF 2018a).

2. Evaluation Purpose and Scope

2.1 The Bank Group has significantly increased and broadened its support to its clients for DRM since 2015 as it has moved beyond the Millennium Development Goals and begun to prepare for adoption of the SDGs. This evaluation’s scope and period of analysis will focus on the shift in the scale and extent of innovation since then. As of September 2019, the Bank Group was actively supporting 87 countries to improve DRM through lending operations and projects, as well as advisory services. The World Bank (International Bank for Reconstruction and Development/International Development Association [IBRD/IDA]) has scaled up support for DRM by means of investment project and development policy financing (DPF) operations, and through analytical work.

2.2 The period of analysis, fiscal years (FY)16–19, was selected because it represents a major shift in the importance assigned to DRM by the international community. After the 2015 deadline for the attainment of the Millennium Development Goals, the Bank Group and the development community recognized that official development assistance was unlikely to be adequate to achieve the newly articulated and more ambitious SDGs. The realization that achieving the SDGs would require a more concerted effort on DRM was reflected in several reports and statements, including Financing for Development Post-2015 (World Bank Group 2013), Sustainable Development Goals (United Nations 2015b), From Billions to Trillions (AfDB et al. 2015), and the Addis Ababa Action Agenda (United Nations 2015a). The period also included IDA18 (July 2017 to June 2020), which committed to a shift toward more ambitious and broader policy, institutional, and financing initiatives to help low-income client countries achieve their development goals. Subsequently, IDA19, with its historic $82 billion financing package, placed greater emphasis on DRM (IDA 2017, 2012), and the IDA Results Measurement System has tracked the number of countries that have raised their revenue-to-GDP ratios above 15 percent and the number of IDA countries that have had substantial Bank tax engagement and have achieved an increase in the number of registered taxpayers.

3 “We commit to enhancing revenue administration through modernized, progressive tax systems, improved tax policy and more efficient tax collection. We will work to improve the fairness, transparency, efficiency and effectiveness of our tax systems, including by broadening the tax base and continuing efforts to integrate the informal sector into the formal economy in line with country circumstances. In this regard, we will strengthen international cooperation to support efforts to build capacity in developing countries, including through enhanced official development assistance.” (United Nations 2015a).
2.3 This evaluation aims to assess the relevance, effectiveness, and coherence of Bank Group–supported strategies and interventions over FY16–19 to help clients improve DRM. The evaluation covers World Bank activities, lending, and knowledge generation, as well as International Finance Corporation (IFC) interventions in royalties management. It focuses on the period since the adoption of the Addis Ababa Action Agenda (United Nations 2015a) and SDGs; the portfolio includes all active projects and operations during that period, including some that were initiated as early as 2009–10 but remain active. This evaluation does not assess aspects of DRM related to the Bank Group’s global public good support to DRM (for example, Organisation for Economic Co-operation and Development [OECD]-led work on base erosion and profit shifting via the Platform for Collaboration on Tax (IMF et al. 2019), anti-money-laundering initiatives, and combating the financing of terrorism and illicit financial flows). International tax issues, including base erosion and profit shifting (BEPS), will be addressed to the extent that they feature in the Bank Group’s interventions at the country level.

2.4 The evaluation will also assess the extent to which the World Bank identified the distributional implications of its support to DRM in country interventions. Where Bank Group–supported activities were expected to have negative distributional implications (from the standpoint of poor households), the evaluation will assess the extent to which mitigating measures or policy advice were provided or project design was adapted.

2.5 This evaluation benefits from ongoing and past Independent Evaluation Group (IEG) evaluations and learning products.

- An IEG desk-study learning product, Tax Revenue Mobilization: Lessons from World Bank Group Support for Tax Reform (World Bank 2017c), covered FY07–15 and analyzed, among other things, evidence from project-level World Bank self-evaluations and IEG validations, including in countries with heavy engagement on tax reform. This evaluation will also benefit from the background work prepared for the IEG evaluation World Bank Support for Public Financial and Debt Management (forthcoming).

- This evaluation will canvass several IEG Country Program Evaluations, including the 2015 cluster Country Program Evaluation World Bank Group Engagement in Resource-Rich Developing Countries (World Bank 2015) and the ongoing evaluation Addressing Country-Level Fiscal and Financial Sector Vulnerabilities: An Independent Evaluation of the World Bank’s Contribution, as well as a cluster of five Project Performance Assessment Reports for operations focusing on tax revenue and administration.
2.6 The evaluation will be informed by a theory of change linking Bank Group inputs with intermediate and higher-level outcomes (see figure 2.1). It will consider issues such as nontax revenues, tax incentives and exemptions, commodity-linked royalties, transparency, and collaboration with the IMF in country contexts. As part of a broader literature review, the evaluation will canvass relevant publications from the IMF and its Independent Evaluation Office, OECD, and other international initiatives such as the Platform for Collaboration on Tax (IMF et al. 2019).
Figure 2.1. Theory of Change for Domestic Revenue Mobilization

Source: Independent Evaluation Group

Note: World Bank interventions interact with influencing actors at all stages of the results chain but are especially important in translating domestic revenue mobilization reforms and intermediate outcomes into final results.
3. Evaluation Questions

3.1 The evaluation will cover DRM-related activities of IBRD, IDA, and IFC, including lending, advisory services and analytics (ASA), and knowledge products. The Multilateral Investment Guarantee Agency will not be covered because of a lack of significant activities in this thematic area. Findings and insights from earlier evaluations that cover DRM before 2016 will be used as benchmarks in assessing the Bank Group’s more recent performance (Junquera-Varela et al. 2017, World Bank 2019).

Evaluation Questions

Three evaluation questions have been identified:

1. **Relevance**: How relevant were Bank Group strategies, activities, and interventions to enhancing DRM in World Bank client countries? Were Bank Group interventions appropriate to individual country conditions?

2. **Effectiveness**: To what extent has the Bank Group been effective in supporting client efforts to broaden tax bases, improve tax structures and equity, and strengthen tax administration? In achieving results at the country and intervention levels, what worked, what did not work, and why?4

3. **Coherence**: Were Bank Group interventions to support client DRM internally consistent and complementary? Was complementarity with development partners pursued and achieved?

4. Evaluation Portfolio

4.1 During the evaluation period, the Bank Group devoted considerable attention to supporting and strengthening DRM through both lending and nonlending activities. On the World Bank side, this work included investment project financing (IPF) and DPF with DRM-related prior actions. IPF lending in support of DRM has increased substantially, especially in LICs, accompanied by increased ASA focused on tax policy and administration. IFC advisory services (AS) that support DRM were very limited.

4.2 Preliminary portfolio analyses of Bank Group interventions show that the majority of operations supporting DRM were concentrated in lower-middle-income

---

4 Achievement will be gauged at the country level using results indicators in country strategies and interventions. Also, broader indicators (for example, revenue-to-GDP ratio in low-income countries and other indicators of revenue performance) will be used to gauge outcomes in groups of countries compared with long-term averages before the evaluation period (pre-2016).
countries and LICs with a regional concentration in Sub-Saharan Africa. In the tax policy and administration portfolio, there were 91 lending operations (IPF and DPF), 50 ASA projects, and 8 IFC AS projects (table 4.1) totaling $6.7 billion. Between FY16 and FY19, the World Bank supported 38 IPFs (including trust-funded projects) in over 28 countries (including one multicountry project), totaling $1.5 billion. India had the highest number of IPF projects (5 in total), but Pakistan received the largest investment ($533 million for 4 IPFs). Sub-Saharan Africa had a large number of tax administration IPFs, but by value, the South Asia region has the largest total share, at almost 50 percent. The portfolio also included 36 DPF projects with 315 prior actions in 24 countries totaling $4.6 billion. Of these prior actions, 67 (21 percent) were DRM-related. Indonesia had the highest number of DRM-related prior actions (11) in two operations valued at $1.3 billion. IFC advisory projects related to royalties in the extractive sector covered 7 countries, totaling $10 million. For additional detail of the preliminary review, see appendix B.

Table 4.1. Overview of the Bank Group’s Portfolios Supporting Domestic Revenue Mobilization, FY16–19

<table>
<thead>
<tr>
<th>Source of Financing</th>
<th>Commitments Approved During Evaluation Period</th>
<th>Active Portfolio at the Start of the Evaluation Period</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Projects (no.)</td>
<td>Commitment ($, millions)</td>
<td>Projects (no.)</td>
</tr>
<tr>
<td>IPF</td>
<td>31</td>
<td>1,488</td>
<td>13</td>
</tr>
<tr>
<td>DPF</td>
<td>36</td>
<td>4,607</td>
<td>0</td>
</tr>
<tr>
<td>Trust funds</td>
<td>7</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>ASA</td>
<td>50</td>
<td>14</td>
<td>n.a.</td>
</tr>
<tr>
<td>IFC AS</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: IEG.

Note: n.a. = not applicable. ASA = advisory services and analytics; DPF = development policy financing; IFC AS = International Finance Corporation advisory services; IPF = investment project financing.

For evaluation purposes, a DPF programmatic series is counted as one operation. For additional detail on the preliminary review, see appendix B.

5. Design and Methods

5.1 The evaluation’s design will feature a multilevel analysis: corporate level, country level, and intervention level. Cross-cutting analysis will feature a literature review and analysis of the reference portfolio of lending and nonlending interventions, which will serve as a benchmark for case-level analysis and will inform country case study selection. Semistructured interviews with stakeholders will be used to obtain World Bank, client, and other stakeholder feedback, as well as additional qualitative evidence. The evaluation will also include a nonparametric data envelopment analysis to calculate “efficiency scores”—gaps between the actual and potential levels of government revenues across countries for which data are available—as comparative and
benchmarking evidence on DRM across countries (see Khwaja and Iyer 2014, and appendix C). Coherence will be analyzed using document reviews aided by manual analysis of qualitative information; if needed, this may be supplemented by additional qualitative analysis and text analytics (for example, to identify the motivations and drivers of results in Bank Group or joint Bank Group–IMF programs as articulated in project reviews, and whether the lens of tax equity was applied in designing tax revenue interventions). Tax equity issues will be approached from the standpoint of the extent to which the Bank Group was aware of, and took into account, the distributional implications of supported DRM interventions. The evaluation will also assess the adequacy of revenue data and tax transparency.

5.2 An important component of the evaluation is case study analysis. The “case,” for the purposes of this evaluation, will be assessed at the country and intervention levels. The country-level case looks at Bank Group strategy for DRM in a specific country; the intervention-level analysis looks at a common type of intervention (for example, a tax administration project, a tax advisory project, or a DPF). The country-level case study analysis will draw on Bank Group–supported strategies, relevant diagnostics (Country Economic Memorandums or Public Finance Reviews), lending with DRM content and ASA or project/AS interventions. Uniform templates will be used and applied systematically across both country- and intervention-level analyses. Intervention-level analysis will focus on a limited number of intervention types to provide deeper and more granular analysis of the causal factors that determine outcomes.

5.3 The evaluation will select a purposive sample of case studies using indicators of DRM. The evaluation will undertake up to seven case studies, which will be selected drawing on indicator-based filters to rank countries in terms of DRM. The ranking will prioritize LICs and lower-middle-income countries because they face greater challenges in financing achievement of the SDGs. See appendix D for details. Based on the DRM theory of change framework (figure 2.1), the team will develop a template for extracting cross–case study information and create protocols for individual case studies. Two pilot case studies will be conducted early in the evaluation to test the approach and set the standard for the remaining studies.

5.4 Due to the COVID-19 pandemic, all case study interviews and consultations will be conducted remotely and, potentially, supported by surveys. The evaluation will use data and results from IEG validations, existing surveys, and publications (for example, Enterprise Surveys and OECD’s International Survey on Tax Administration) that may support certain DRM interventions (for example, those related to taxes, royalties, or transparency). An online survey of stakeholders may also be implemented on a purposefully selected sample, validated by a management reference group. For example, online surveys of operational staff and task team managers could gather responses
related to ex ante internal constraints to revenue mobilization, portfolio management constraints, and the extent to which the internal constraints could be addressed. Interviews with clients and stakeholders will pose questions on the relevance of the DRM interventions to their priorities, to what extent Bank Group support has been effective, and on lessons from experience.

5.5 This evaluation, although focused on the performance of the World Bank and IFC, will pay attention to country-level collaboration and coordination between the World Bank and the IMF in areas of overlapping or complementary mandate on DRM (World Bank 2017c). Collaboration with other development partners will be addressed where relevant to individual country case studies.

5.6 The evaluation will use three main sources of data and information. First, Bank Group data, documents, and information in country strategy–related documents (for example, Country Partnership Frameworks, Completion and Learning Report Reviews, Country Program Evaluations), projects (Implementation Completion and Results Report Reviews, Project Performance Assessment Reports, Expanded Project Supervision Reports, review meeting minutes), and knowledge products (Systematic Country Diagnostic, Public Finance Reviews, Country Economic Memorandums, Public Expenditure and Financial Accountability reports) relevant to DRM. Second, it will use data and information collected in internal and external stakeholder interviews. Third, it will use data on government revenue, tax administration, and tax transparency for comparison and benchmarking purposes in case studies. It will use quantitative government revenue data from the IMF’s Fiscal Monitor (2016, 2018a) and Government Finance Statistics databases, and relevant OECD data.

6. Evaluation Limitations and Mitigation

6.1 There are several limitations of the proposed methodology. A general limitation of the case study approach is that generalizability may be limited. Poor quality or availability of data in some countries may limit the granularity and precision of the analysis but may also point to data issues that need to be addressed in the future. In addition, it may be difficult to find unambiguous and objective benchmarks on some qualitative dimensions of DRM (for example, trust in government, informality). The COVID-19 pandemic has imposed travel restrictions that may limit the quality of stakeholder feedback typically obtained by IEG teams through field missions, with implications for stakeholder availability. This underlines the importance of supplementing interview data and information with other data sources and techniques, possibly including econometric analysis (where permitted by data availability and quality).
6.2 The evaluation team may use online surveys that may be limited by response rates. The evaluation team will consider online surveys to gather quantitative and qualitative data. There may be challenges in ensuring comparative insights and lessons with sufficient external validity. The team will consider complements such as social network analysis and social media analysis to gauge the broader stakeholder views on select interventions.

7. Quality Assurance Process

7.1 The Approach Paper and evaluation will undergo standard IEG quality assurance, including internal IEG and Bank Group management review and external peer review. This evaluation will be peer-reviewed by the following experts on DRM:

- Ben Dickinson, head of the Global Relations and Development Division in the OECD’s Centre for Tax Policy and Administration.

- Ruud De Mooij, head of the Tax Policy Division, Fiscal Affairs Department, IMF. He will be supported by Victoria Perry (deputy director, Fiscal Affairs Department, IMF).

- Nora Lustig, director of the Commitment to Equity Institute and professor, Tulane University.

- Wilson Prichard, associate professor, Munk School of Global Affairs and Public Policy and Department of Political Science, University of Toronto, and CEO, International Center for Tax and Development (ICTD), Institute of Development Studies, U.K.

7.2 Jeff Chelsky, IEG Economic Management and Country Programs manager, and Oscar Calvo-Gonzalez, IEG Human Development and Economic Management director, will provide guidance and quality assurance to the team.

8. Staffing and Resources

8.1 This evaluation will be co-task-managed by Željko Bogetić, lead economist, and Raghavan Narayanan, senior evaluation officer. Core team members include Felix Oppong (economist), Daniel Nogueira-Budny (public sector specialist), Anna Sengphet Lattanavong (research analyst), Dung Thi Kim Chu (program assistant), Soren Jensen, Dominik Naeher, Amshika Amar, Johan Manuel Lopez, Saniwattan Nikki Tan and Aline Weng (consultants). The team may include additional staff and consultants with specialized expertise and experience in different areas of DRM. The evaluation will benefit from the input of IEG advisers on methodology Jozef Vaessen and Qihui Chen.
8.2 This evaluation will be sent to Bank Group management for review in the fourth quarter of FY21 and submitted to the Committee on Development Effectiveness in the first quarter of FY22. The proposed budget of $752,000 includes $37,500 for outreach and dissemination.

9. Outreach and Learning

9.1 An evaluation outreach strategy will be designed for both internal and external audiences. In addition to the final report, a multidimensional outreach plan may be developed. Key internal audiences and stakeholders include the Executive Board’s Committee on Development Effectiveness, IDA Deputies, Bank Group management, and country economists and staff from the Equitable Growth, Finance, and Institutions Practice Group and IFC AS. External audiences include development partners (for example, IMF and OECD). The learning agenda will be supported through key engagements with operational staff.
Bibliography


Table A.1. Evaluation Design Matrix

<table>
<thead>
<tr>
<th>Evaluation Aspect</th>
<th>Dimensions</th>
<th>Total Portfolio Level</th>
<th>Country Level</th>
<th>Intervention Level/Outcome Area Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background and descriptive analysis</td>
<td>Literature review, portfolio analysis, theory of change review, statistical analysis of country data and indicators of DRM, and tax administration</td>
<td>Review and comparative analysis of project-level validations (ICRRs) PPAR evaluations of tax-centered operations SSIs Manual qualitative analysis, which may be supplemented by qualitative analysis of interview data to compare and seek patterns across cases Statistical analysis, including DEA, to calculate efficiency scores on DRM across countries at the beginning and end of the evaluation period. Regression</td>
<td>Review of key country strategies, diagnostics, knowledge products, and SSIs with stakeholders in headquarters and during field missions Template-based comparative analysis and narrative synthesis across cases to strengthen external validity</td>
<td>Characterization of typical interventions and their design and use in different country contexts Review of documents and SSIs for typical interventions</td>
</tr>
<tr>
<td>Relevance</td>
<td>Alignment of DRM interventions with SCD-CPF Client-driven, demand-driven approach in country context Policy coherence of different DRM interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Strategic CPF pillar performance Project-level performance ASA influence on government’s policy and World Bank strategy and projects Collaboration and coordination on DRM issues with the IMF at the country and intervention levels</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17
<table>
<thead>
<tr>
<th>Evaluation Aspect</th>
<th>Dimensions</th>
<th>Total Portfolio Level</th>
<th>Country Level</th>
<th>Intervention Level/Outcome Area Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherence</td>
<td>Focus on case study–level coherence among different interventions (and key Global Practices) targeting DRM, and among World Bank and IFC interventions</td>
<td>Analysis to correlate efficiency scores with structural and policy variables and a variable capturing Bank Group engagement</td>
<td>Template-based comparative analysis and narrative synthesis across cases to strengthen external validity</td>
<td>Note: Typical cases at intervention levels are identified using frequency distribution statistics of the general portfolio for World Bank tax-focused projects and IFC tax advisory services and document review of the content of those projects. Preliminary indication is that tax administration projects and IFC tax advisory services meet criteria for typical projects</td>
</tr>
</tbody>
</table>

*Note: From a total portfolio with a significant degree of thematic coherence, a purposive sample of up to six case studies, each at country level and typical intervention level, will be selected. Selection criteria for countries will be active engagement in DRM and regional and income diversity. Typical interventions will include tax administration projects and IFC tax advisory services.*


*Note:* ASA = advisory services and analytics; CLRR = Completion and Learning Report Review; CPF = Country Partnership Framework; DEA = data envelopment analysis; DRM = domestic revenue mobilization; ICRR = Implementation Completion and Results Report Review; IFC = International Finance Corporation; IMF = International Monetary Fund; PPAR = Project Performance Assessment Report; SCD-CPF = Systematic Country Diagnostic–Country Partnership Framework; SSI = semistructured interviews.
Appendix B. Preliminary Review of IBRD/IDA, Trust Fund, and IFC Advisory Services Portfolio Relevant to Domestic Revenue Mobilization

Portfolio Identification Methodology

The analysis is based on ongoing and approved International Bank for Reconstruction and Development/International Development Association (IBRD/IDA) lending and trust-funded projects that were active or approved between fiscal year (FY)16 and FY19. Advisory services and analytics (ASA) are excluded. The identification of the portfolio for this evaluation followed a two-step process:

i. The first step included identification of a universe of projects—IBRD/IDA lending and nonlending, such as ASA and International Finance Corporation (IFC) advisory services (AS)—with specified criteria, such as relevant theme codes and status of ongoing or approved projects within FY16–19.

ii. The second step involved a manual review of the objectives to remove false positives.

The evaluation will cover the growing body of evidence on domestic revenue mobilization (DRM) by evaluating relevant Bank Group activities between FY16 and FY19 and building on the findings in previous evaluations on DRM covering the pre-2016 period.

For IFC, only advisory projects (AS) are relevant because IFC investment lending is not eligible to support government activities, including on revenue management. The Independent Evaluation Group (IEG) will select only IFC AS that relate to royalties from the extractive sector.

DRM Tax Policy and Administration Portfolio

IEG used the World Bank theme taxonomy to identify DRM tax policy and administration lending and nonlending projects. The key themes under Level 1 theme codes “Economic Policy” and “Public Sector Management” include activities related to DRM. Two key themes were identified: (i) tax policy; and (ii) domestic revenue administration. (See table B.1.) Only projects with either of the themes were selected (table B.2).
Table B.1. Themes Used in World Bank Portfolio Identification

<table>
<thead>
<tr>
<th>Theme Level</th>
<th>Theme Level Name</th>
<th>Theme Code</th>
<th>Theme Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Economic Policy</td>
<td>114</td>
<td>Tax Policy (Core Theme)</td>
</tr>
<tr>
<td>40</td>
<td>Public Finance Management</td>
<td>412</td>
<td>Domestic Revenue Administration (Core Theme)</td>
</tr>
</tbody>
</table>

*Source: World Bank Business Intelligence (December 12, 2019).*

Table B.2. IBRD/IDA and Trust Fund Projects with a Focus on Domestic Revenue Mobilization Tax Policy and Administration

<table>
<thead>
<tr>
<th>Theme Code</th>
<th>Theme Name</th>
<th>Lending</th>
<th>ASAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Universe Total</td>
<td>189</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Tax Policy</td>
<td>54</td>
<td>35</td>
</tr>
<tr>
<td>412</td>
<td>Domestic Revenue Administration</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Final Portfolio</td>
<td>91</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

*Source: The IEG Evaluation team using World Bank Business Intelligence (December 20, 2019)*

*Note: ASA = advisory services and analytics; IBRD = International Bank for Reconstruction and Development; IDA = International Development Association.*

Finally, as a validation check, the team manually reviewed project objectives, prior actions (PAs) and summaries to root out any false positives.

IFC AS with Tax Policy and Administration Theme Portfolio Identification

For IFC, IEG used two criteria to select relevant AS activities. The team identified eight projects by using the following criteria:

- The team selected active and closed projects with implementation dates between FY16 and FY19.

- The team used keyword searches for “royal/royalties” in the project title and objectives to capture projects related to the extractives industry on royalties management.

Table B.3 shows the universe total of the IFC AS portfolio by primary product business area code.

Table B.3. IFC Advisory Services Portfolio with Focus on Tax Policy and Administration, FY16–19

<table>
<thead>
<tr>
<th>Product Business Area Code</th>
<th>Code Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>INR</td>
<td>Infrastructure and Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
<td>2</td>
</tr>
<tr>
<td>EFI</td>
<td>Equitable Growth, Finance, and Institutions</td>
<td>1</td>
</tr>
<tr>
<td>FIG</td>
<td>Financial Institutions Group</td>
<td>1</td>
</tr>
</tbody>
</table>
Product Business Area Code | Code Name | Total |
---|---|---|
CAS-PPP | Country Assistance Strategy–Public-Private Partnership | 1 |

**Source:** International Finance Corporation iPortal (November 8, 2019).
**Note:** FY = fiscal year.

As a validation check, the team reviewed objectives and project summaries to eliminate false positives.

**Findings**

**Overview of Tax Policy and Domestic Revenue Administration Portfolio**

IEG identified 91 IBRD/IDA projects totaling $6.7 billion, including ongoing projects approved prior to the evaluation period and exited during it (table B.4). The projects span over 56 countries. The portfolio had 55 IPF projects valued at $2.1 billion. There were 36 DPF operations with 67 DRM-related PAs (that is, 21 percent of all PAs) totaling $4.6 billion (figures B.1 and B.2).

**Figure B.1. Tax Policy and Domestic Revenue Administration Portfolio**

a. Percentage of Tax Policy and Domestic Revenue Administration Portfolio for IPF and DPF Projects, FY16–19

b. Percentage of Tax Policy and Domestic Revenue Administration Portfolio for IPF and DPF Projects by Commitment ($, billions), FY16–19

**Source:** Independent Evaluation Group staff estimates based on World Bank Business Intelligence (July 2020).
**Note:** FY = fiscal year; IPF = investment project financing; DPF = development policy financing.
Table B.4. Source and Volume of Bank Group Support to Domestic Revenue Mobilization, FY16–19

<table>
<thead>
<tr>
<th>Source of Financing</th>
<th>Commitments Approved During Evaluation Period</th>
<th>Active Portfolio at the Start of the Evaluation Period</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Projects (no.)</td>
<td>Commitment ($, millions)</td>
<td>Projects (no.)</td>
</tr>
<tr>
<td>IPF</td>
<td>31</td>
<td>1,488</td>
<td>13</td>
</tr>
<tr>
<td>DPF</td>
<td>36</td>
<td>4,607</td>
<td>0</td>
</tr>
<tr>
<td>Trust funds</td>
<td>7</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>ASA</td>
<td>50</td>
<td>14</td>
<td>n.a.</td>
</tr>
<tr>
<td>IFC AS</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Independent Evaluation Group staff estimate from World Bank Business Intelligence (July 2020).
Note: ASA = advisory services and analytics; DPF = development policy financing; IFC AS = International Finance Corporation advisory services; IPF = investment project financing.

Investment Project Financing on Tax Policy and Domestic Revenue Administration

IEG identified 55 investment project financing (IPF) operations, including ongoing projects approved prior to and exited during FY16–19, spanning over 43 countries (including one multicountry project) with a value of $2.1 billion. During FY16–19, the World Bank approved 38 projects totaling $1.5 billion in 28 countries, including one multicountry project. The total commitment of IPFs increased from $103 million in FY16 to $702.2 million in FY19. By value, the operations are heavily concentrated in the South Asia region and in lower-middle-income countries (figures B.3 and B.4). Per country, although India has the highest number of operations (5), Pakistan received the largest commitment of $533 million for 4 projects.
Trust Fund–Financed Projects

Of the 55 IPF projects, 11 (20 percent) are trust fund–financed projects, including ongoing projects approved prior to and exited during FY16–19, with a value of $75.23 million spanning more than 10 countries. Between FY16 and FY19, the World Bank approved 7 trust fund–financed projects totaling $32.5 million in 6 countries. Pakistan received the greatest commitment of $15 million for 2 projects.

Development Policy Financing for Tax Policy and Domestic Revenue Administration Portfolio

During FY16–19, the World Bank approved 36 development policy financing (DPF) operations totaling $4.6 billion spanning 24 countries. These DPF projects had 67 PAs that were DRM-related (21 percent of all PAs) (Table B.5). Indonesia had the highest number of 11 DRM-related PAs in DPF operations valued at $1.3 billion. Africa had 36 DRM-related PAs in 22 DPF projects (Figure B.5). Indonesia had the highest number of DRM-related PAs in 2 operations (figure B.6).

Table B.5. Overview of DPF Projects with At Least One DRM-Related Prior Action, FY16–19

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Total</th>
<th>Total PAs</th>
<th>PAs with DRM-Related Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPF projects with at least one DRM-related PA</td>
<td>36</td>
<td>315</td>
<td>67 (21 percent)</td>
</tr>
</tbody>
</table>

Note: DPF = development policy financing; DRM = domestic revenue mobilization; PA = prior action.
Figure B.3. Number and Total Commitment of DPF Projects with At Least One Tax Policy and Domestic Revenue Administration Prior Action by Region, FY16–19

Source: Independent Evaluation Group staff estimate from World Bank Business Intelligence (July 2020).
Note: AFR = Africa Region; DPF = development policy financing; DRM = domestic revenue mobilization; EAP = East Asia and Pacific; FY = fiscal year; LAC = Latin America and Caribbean; MNA = Middle East and North Africa; PA = prior action.

Figure B.4. Number of DRM-Related Prior Actions by Country, FY16–19

Source: Independent Evaluation Group staff estimate from World Bank Business Intelligence (July 2020).
Note: DRM = domestic revenue mobilization.

IFC Advisory Projects

IEG identified eight IFC AS that focused on royalties in the extractive industry. The total commitment is $10 million spanning seven countries. Peru received the highest investment of $4.1 million for one AS project (figure B.7).
Figure B.5. Total Commitment of IFC Advisory Services Projects, FY16–19

Source: International Finance Corporation iPortal (July 2020).

Appendix C. Nonparametric Data Envelopment Analysis Outline

Research Questions

The analysis will focus on the following questions:

1. How do domestic revenue mobilization (DRM) outcomes differ across countries? That is, what are the actual and relative levels of mobilized domestic revenues in each country during the evaluation period?

2. How well do countries perform on DRM given national conditions and available resources? That is, how do they perform considering differences in economic “fundamentals” that have been shown to influence DRM?

Methods

Descriptive Analysis

- We will answer the research questions based on a descriptive analysis of different indicators of DRM outcomes (see “Data Needs” for a list of possible indicators and a description of the selection criteria).

- In addition, we may construct a composite measure of DRM outcomes that aggregates information from different indicators into a single variable to facilitate the subsequent analysis. Whenever necessary, disaggregated results will be reported separately for each indicator.
• To capture developments over time, the analysis will cover the following three 4-year periods: the evaluation period (fiscal years [FY]16–19), 2008–11, and 2012–15.

• The results will be presented for groups of countries (based on income levels and possibly regions) rather than for individual countries. Additional results at lower levels of aggregation, including for individual countries, will be reported where they are of interest (for example, positive outliers or case study countries).

• Appropriate benchmarks (regional, income level) will be used to put country-level statistics into context.

Data Envelopment Analysis

• To answer question 2, we will estimate each country’s performance relative to its potential level of DRM using a data envelopment analysis (DEA) approach.¹ For this purpose, we will identify a set of “input” variables (described in the paragraph on “data needs,” below) that capture the national resources and characteristics needed to facilitate DRM. We will combine these input variables with one of the previously identified indicators of achieved DRM outcomes (or, alternatively, the constructed composite measure of domestic revenue mobilization) as the “output” variable to estimate the world’s production possibility frontier for DRM in each of the time periods considered.

• Accounting for differences in available national resources and characteristics, we will then calculate the relative performance of each country (called an “efficiency score” in the DEA context) as the distance between the country’s actual level of DRM and its potential level, according to the estimated frontier.

• Two different frontiers will be considered. The first one will be estimated based on all countries (subject to data availability) and will provide an upper-bound estimate for the efficiency scores. The second frontier will be estimated based

¹ Data envelopment analysis is a well-established, nonparametric method for estimating production possibility frontiers based on linear programming (see Charnes, Cooper, and Rhodes 1978; Coelli et al. 2005). This method is especially suitable for analyzing efficiency, represented by the distance of a pool of observations from the maximum performing units of observation (“the efficiency frontier”), and for analyzing public-sector performance where data on prices and costs are difficult to obtain. Data envelopment analysis has been applied to a wide range of topics in economics, including public-sector efficiency (Afonso, Schuknecht, and Tanzi 2005, 2010; Gupta and Verhoeven 2001), health and education (Bogetic and Chattopadhyay 1995; Clements 2002; Herrera and Pang 2005; Ray 1991), agriculture (Latruffe et al. 2004), and regional integration (Naeher 2015; Naeher and Narayanan 2020).
exclusively on low-income and middle-income countries. By excluding high-income countries, the efficiency scores resulting from the second frontier should provide more accurate estimates of the revenue mobilization potential in less developed economies.

- The results from the DEA will reveal whether any countries perform on, or very close to, the efficiency frontier, despite ranking low according to absolute levels of mobilization outcomes (and vice versa). For example, a country may have a relatively low level of revenue mobilization as well as low levels of the national conditions and resources needed to facilitate revenue mobilization. Such a country may perform well given the resources available to it, but this nuance will not be reflected in its ranking in terms of mobilization outcomes. The DEA will make such cases visible by assessing each country’s performance relative to its estimated potential and assigning efficiency scores accordingly.

- The variables used as inputs in the DEA will seek to capture the fundamental economic structure and strengths that determine a country’s potential for domestic revenue mobilization (see also Khwaja and Iyer 2014). A list of potential variables to be used is provided below in the section “Data Needs.” The final set of included variables will be identified in accordance with the existing economic literature. Other relevant factors, such as institutions, tax policy, and informal sector activities, will be considered in a post-DEA regression analysis.

Data Needs

- Three different sets of variables will be needed to perform the DEA and the subsequent regression analysis. For each of these analyses, we will select the empirical indicators and data sources based on (i) the existing economic literature, (ii) the definitions underlying the IEG evaluation framework for this evaluation, and (iii) data availability.

Scope and Limitations

- The analysis will include all Bank Group client countries for which data are available. If needed, special consideration in interpreting the results will be given to countries chosen as case studies in the evaluation.

- The results of the nonparametric frontier analysis (that is, the DEA) are descriptive and should not be interpreted as identifying causal links or providing forecasts of future developments.

- Nevertheless, the analysis will generate useful results that will complement findings from other parts of the IEG evaluation:
- A comparison (ranking) of countries in terms of achieved absolute levels of DRM outcomes.

- An estimate of the potential level of DRM and associated performance of each country relative to its available national resources and conditions. This estimate can be used to (i) obtain insights about which enabling economic factors for revenue mobilization are particularly strong or weak in certain countries, (ii) review the “frontier” countries and those with the highest untapped potential, and (iii) help evaluate the World Bank’s achievements in targeting countries with certain characteristics and needs (for example, countries that are performing relatively well despite low absolute levels of DRM).

Bibliography


Appendix D. The Selection of Case Studies

To select case studies, we ranked countries using relevant indicators for the benchmark period (2012–15) that preceded the evaluation period (fiscal years [FY]16–19). Countries were ranked from highest to lowest in terms of average government revenue during 2012–15 as a percentage of gross domestic product (GDP).

Additionally, to focus on domestic revenue mobilization (DRM)-relevant projects, we only selected investment project financing (IPF) and development policy financing (DPF) projects with at least one DRM-related theme. The resulting portfolio is as follows.

DRM Tax Policy and Administration Portfolio

IPF Portfolio: 55 projects in 43 countries, including 1 multicountry project (figure D.1).

Figure D.1. Investment Project Financing Projects: Number of Countries by Average Revenue-to-GDP Ratio, 2012–15

Source: International Monetary Fund Fiscal Monitor database (August 2020).
Note: Avg. = average; GDP = gross domestic product.
Figure D.2. Investment Project Financing Projects: List of Countries by Average of Revenue-to-GDP Ratio, 2012–15

<table>
<thead>
<tr>
<th>Country</th>
<th>Avg. Revenue to GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somalia</td>
<td>3%</td>
</tr>
<tr>
<td>Madagascar</td>
<td>10%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>11%</td>
</tr>
<tr>
<td>Colombia</td>
<td>12%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>14%</td>
</tr>
<tr>
<td>Sierra Leone, Dem. Rep.</td>
<td>15%</td>
</tr>
<tr>
<td>Guinea</td>
<td>16%</td>
</tr>
<tr>
<td>India</td>
<td>19%</td>
</tr>
<tr>
<td>Chile</td>
<td>19%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>20%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>21%</td>
</tr>
<tr>
<td>Bangladesh, Dem. Rep.</td>
<td>22%</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>24%</td>
</tr>
<tr>
<td>Mongolia</td>
<td>29%</td>
</tr>
<tr>
<td>Armenia</td>
<td>31%</td>
</tr>
<tr>
<td>Bhutan</td>
<td>33%</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>33%</td>
</tr>
<tr>
<td>Argentina</td>
<td>35%</td>
</tr>
<tr>
<td>Congo, Rep.</td>
<td>35%</td>
</tr>
<tr>
<td>Romania</td>
<td>39%</td>
</tr>
<tr>
<td>Serbia</td>
<td>41%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>43%</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund Fiscal Monitor database (August 2020).
Note: One additional project was for “world.” Hence, the number was not counted on the figure above. Avg. = average; GDP = gross domestic product.

Figure D.3. Investment Project Financing Projects: Average Revenue by Number of Countries per Income Level, 2012–15

Source: International Monetary Fund Fiscal Monitor database (August 2020).
Note: One additional project was for “world.” Hence, the number was not counted on the figure above. Avg. = average; GDP = gross domestic product.
DPF projects with at least one DRM-related theme: 36 projects in 24 countries.

Figure D.4. Development Policy Financing Projects: Number of Countries by Average Revenue-to-GDP Ratio, 2012–15

Source: International Monetary Fund Fiscal Monitor database (August 2020).
Note: Avg. = average; GDP = gross domestic product.

Figure D.5. Development Policy Financing Projects: List of Countries by Average Revenue, 2012–15

Source: International Monetary Fund Fiscal Monitor database (August 2020).
Note: Avg. = average; GDP = gross domestic product.
Proposed Country Case Studies

Based on these indicator-driven country rankings, we selected the following countries, which represent low, medium, and high groups under DRM portfolios. We propose conducting case studies in the following countries:

- Madagascar (low revenue-to-GDP at 10 percent)
- Guatemala (low revenue-to-GDP at 11 percent)
- Pakistan (low revenue-to-GDP at 14 percent)
- Chad (medium revenue-to-GDP at 19 percent)
- Kenya (medium revenue-to-GDP at 19 percent)
- Rwanda (high revenue-to-GDP at 23 percent); and
- Colombia (high revenue-to-GDP at 29 percent).

All missions will be executed remotely, recognizing the challenges presented by the coronavirus (COVID-19) pandemic.
**Intervention-Level Analysis**

From among the core portfolio, using a frequency distribution of different types of interventions, we identified tax administration projects and advisory projects as typical interventions for International Bank for Reconstruction and Development/International Development Association (IBRD/IDA) and IFC.

To assess interventions, we will follow these steps:

1. Once country cases are selected, we will inspect the portfolio to make sure that each country case does indeed include at least one typical intervention for IBRD/IDA and IFC.
   
   a. If YES, we will proceed to identify a specific tax administration and advisory project to study at the intervention level based on the project’s relative importance to the country’s DRM engagement.
   
   b. If NO, one or more selected country cases do not have a typical IBRD/IDA or IFC intervention, we will choose a typical intervention for that country’s DRM portfolio.

2. The evaluation team will draw on existing evaluative evidence for these projects (Implementation Completion and Results Report Reviews, Project Performance Assessment Reports [PPARs], Expanded Project Supervision Reports). This initial desk review will assess the project relevance, effectiveness, and coherence.

The case study will follow a specific format. Each case study will feature a few common interventions identified in the portfolio review and will trace the influence of these interventions on relevant outcomes. Studies will feature up to two in-depth reviews of interventions per country. This assessment will provide a more granular view of what works and does not work—and, potentially, why—at the intervention level.

Finally, the team will benefit from supplemental material from other evaluations that can be compared and contrasted with insights from case studies. Evaluations of five projects with significant tax components are being prepared as part of a cluster of tax-focused PPARs. To the extent that some of the countries in these PPARs overlap with the country case studies, they will also inform the evaluation of those country cases. Finally, the team will also benefit from revenue analysis made as part of the country/intervention case studies prepared for the Independent Evaluation Group evaluation of Public Financial and Debt Management.