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# MAKING PUBLIC DEBT PUBLIC—ONGOING INITIATIVES AND REFORM OPTIONS—BACKGROUND PAPER

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The Staff Report, prepared by IMF staff and completed on June 22, 2023

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#### **EXECUTIVE SUMMARY**

This Background Paper provides technical information to accompany the main paper on Making Public Debt Public: Ongoing Initiatives and Reform Options. This material, presented in three chapters, covers the following issues:

- Empirical evidence of benefits of public debt transparency
- Sound practices in public debt management that promote transparency
- Review of international data standards and public debt databases

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#### INTRODUCTION

1. Public debt transparency can provide significant benefits to borrowers and creditors. Increasing debt transparency, however, requires closing significant country data gaps and addressing adverse incentives. This background paper delves deeper into the benefits of public debt transparency already briefly described in the main paper and expands on two elements that can be used to enhance debt transparency: (i) sound debt management practices and (ii) an overview of public debt-related international statistical standards and a review of publicly available debt databases and information available therein.

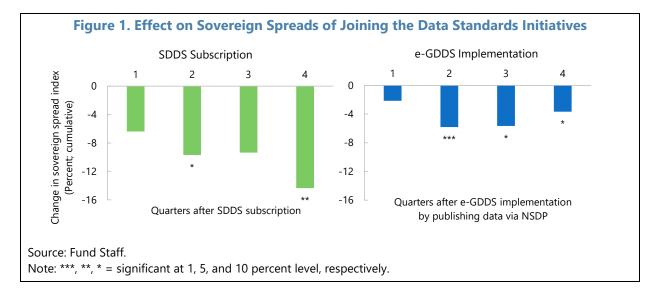
## EMPIRICAL EVIDENCE OF BENEFITS OF PUBLIC DEBT TRANSPARENCY

#### A. Better Data Dissemination Practices Lower Financing Costs

- 2. Greater data transparency reduces information asymmetries and uncertainty about economic developments and prospects, which in turn should translate into lower riskiness markets attach to more transparent countries, reducing their financing costs. The question of whether transparency is rewarded by financial markets has been a focus of many studies which indeed find a favorable effect of transparency on countries' financing conditions as evidenced in lower sovereign bond spreads (see, for example, Cady, 2005; Cady and Pellechio, 2006; Glennerster and Shin, 2008; Moretti, 2011; and Choi and Hashimoto, 2018; Kubota and Zeufack, 2020; Gonzalez-Garcia, 2022).
- 3. One way to assess the countries' level of data transparency is through their participation in the IMF Data Standards Initiatives—a global data transparency framework which sets standards for data dissemination. The dissemination of government debt data, along with other key macroeconomic and financial data, has been an essential part of the IMF Data Standards Initiatives since their creation in 1996. Depending on which of the three tiers of the Initiatives countries participate, the framework prescribes or encourages dissemination of government debt, with various disaggregation.¹ Encouraging all the countries to publish more granular public debt data with detailed creditor breakdowns has been the focus of the latest Tenth Review of the Data Standards Initiatives, approved by the IMF Executive Board in 2022.
- 4. Results from a recent IMF study provide further evidence of a significant improvement in sovereign financing costs as countries enhance their data dissemination practices through implementing the IMF Data Standards Initiatives. In particular, Gonzalez-Garcia (2022) shows a

<sup>&</sup>lt;sup>1</sup>In particular, the framework prescribes quarterly dissemination of general government gross external public debt (by maturity and instrument) for the countries subscribing to the Special Data Dissemination Standard (SDDS) and of total general government gross debt (by instrument, currency, and residency of creditors) for the countries in the highest tier, SDDS Plus. Countries in the first tier, Enhanced Data Dissemination System (e-GDDS), are encouraged to disseminate quarterly public and publicly guaranteed external debt (by maturity).

significant reduction in sovereign spreads (measured by the JP Morgan EMBIG spread index) in the quarters following countries' subscription to the Special Data Dissemination Standard (10–14 percent reduction in the spread index) or publication of data by countries participating in the Enhanced General Data Dissemination System through a dedicated data portal, a National Summary Data Page (4–6 percent reduction) (Figure 1). Furthermore, these favorable effects manifest more significantly in countries with relatively weaker governance as they would likely set to benefit the most, including through a signaling effect from increasing transparency through data dissemination.



#### B. Public Debt Transparency Promotes Diversified Investor Base

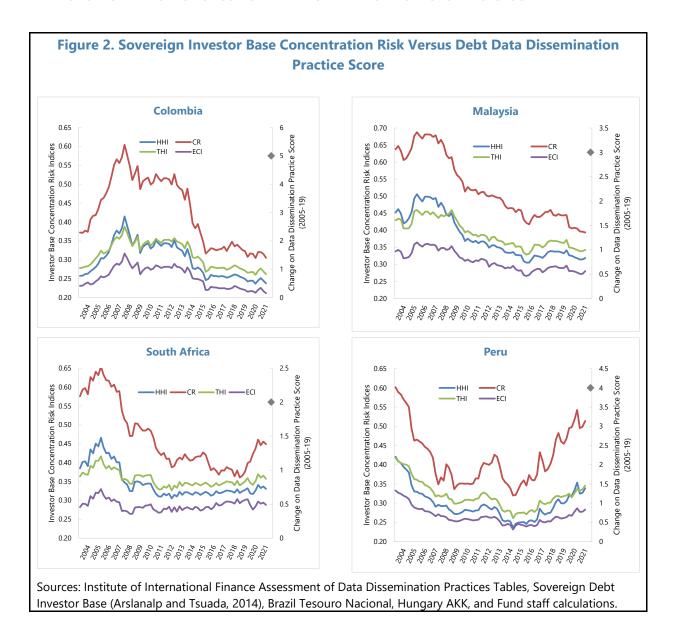
Information on public debt management practices, which are primarily the responsibilities of debt managers, can be used to measure the benefits of public debt transparency. Debt managers influence the composition and characteristics of public debt portfolio; the extent to which they adhere to sound debt management principles is reflected in the resilience of debt portfolio to shocks, including the degree of diversified investor base. This section presents evidence of strong link between public debt transparency and diversified investor base.

- 5. Sound public debt management practices help to build resilient debt portfolios, reducing vulnerability to domestic and external shocks. While public debt managers have limited role in influencing fiscal risk indictors, such as public debt to GDP or interest payment to revenue, their main influence is in building debt portfolios that can absorb shocks. For example, a debt portfolio comprising mainly domestic currency securities of long maturity, with wide investor base will be more resilient to shocks than a debt portfolio with shorter maturity or a portfolio with large foreign currency component.
- 6. Public debt mangers that borrow from international capital markets to meet the government's financing requirement exhibit high transparency. Tapping the international capital market requires detailed dissemination of information through publications of prospectus. Similarly, to attract foreigner to the domestic debt markets, countries have to disseminate timely, accurate and comprehensive information. In a well-functioning domestic market, issuance of

securities is a recurring activity, thus information needs to be easily accessible and current. In return, such market can allow debt managers to lengthen maturity and rely on fixed rate domestic security thus reducing refinancing, interest, and exchange rate risk. For example, Brazil and Hungary, whose debt portfolio carries low market risk—and therefore less vulnerable to shocks—are amongst the top scorers on public debt transparency as reported by the Institute of International Finance (IIF).2

- Progress in the sovereigns' diversification of their investor base is mirrored by 7. improvement in public debt transparency. Applying concentration risk measures, Herfindahl-Hirschman Index (HHI), Concentration Risk (CR), Hall and Tideman Index (THI) and Entropy Concentration Index (ECI) to the sovereign investor base, improvement in the diversification of the investor base is closely linked to better performance in public debt transparency (Figure 2). Indeed, in some cases, a unit of improvement in public debt transparency (based on IIF ranking on debt data transparency), is associated with reduction in the concentration of the investor base by 2.5 - 7.3 percent.
- 8. In summary, evidence supports the notion that strong public debt transparency practices result in resilient public debt portfolios. Sovereigns that borrow regularly from international capital markets need to have in place strong public debt transparency. Regular publications of debt management strategy, annual borrowing plan, debt management report, investor presentation, debt bulletin, issuance calendar and debt statistics are highly encouraged. Organizational and legal documents, such as borrowing powers, governance framework and institutional structure should also be publicly available.

 $<sup>^{2}</sup>$ The stock of domestic currency stands at 95 and 80 percent of total, and average time to maturity are 4 and 5 years, for Brazil and Hungary, respectively.



## SOUND PRACTICES IN PUBLIC DEBT MANAGEMENT PROMOTING TRANSPARENCY

9. Sound governance mechanism that supports prudent sovereign debt management requires transparency in public debt management operations and accountability of the institutions involved. Transparency in the public debt management framework, which is broader than reporting on the indebtedness position, helps to enhance the credibility of a sovereign borrower and mitigate investors' uncertainty, both during normal times and crisis periods (IMF and World Bank, 2014). This Chapter considers the key channels for enhancing public debt transparency through legal framework, overall fiscal framework, institutional arrangements, organizational

structure, operating framework, and management information system used for public debt management.

- 10. The power to borrow on behalf of the government as defined by the legal authority to borrow is not absolute and is often subject to controls and transparency safeguards to promote discipline and accountability (Awadzi, 2015).<sup>3</sup> Transparency safeguards include legal obligations for reporting and audit of public debt management thereby making governments less likely to over-borrow or borrow in risky instruments. Such legislative oversight would compensate for the delegation of authority from the legislation to the executive without requiring the legislature to approve individual government borrowing decisions (Roy and Williams, 2010).<sup>4</sup>
- 11. Legal obligations should include adoption of sound practices on the operating framework of public debt management and on its reporting. Reporting should include regular submission of public debt statistics and annual publications of public debt management strategy (DMS), borrowing plan (ABP) and report on previous year's public debt management operations along with an evaluation of its outcome. Publication of periodic "in-year" public debt statistics typically include information on debt position of the government and its explicit contingent liabilities, portfolio composition and risk indicators, terms and conditions on new borrowings, auction results, collateral and fees.<sup>5</sup> For disclosure on new borrowings, a National Gazette or Council of Ministers' legal documents could be used where such officially published information is catalogued and identified for long-term record-keeping and cross-reference purposes (Maslen and Aslan, 2022). Publication of DMS, ABP and issuance calendar enhances predictability of public debt operations while the annual report to the legislature strengthens accountability of public debt managers (IMF and World Bank, 2014). A host of transparency requirements are essential in the primary and secondary market segments of domestic public debt (IMF and World Bank, 2021).6 In addition to dissemination of public debt related information through publications, transparency in the broader sense could also include periodic consultation with market participants and analysts on public debt management policies and future reform plans.

### 12. The transparency and accountability framework can be further strengthened by public disclosure of external audit reviews conducted impartially by the supreme audit institution,

<sup>&</sup>lt;sup>3</sup>The control measures include legal restrictions on the sources from which the government may borrow, purposes of borrowing, debt ceilings, and annual borrowing resolution.

<sup>&</sup>lt;sup>4</sup>Reliance on ex-ante transactional approval by the legislature may, however, be necessary in countries with weak political and economic institutions to preserve debt sustainability, especially for non-marketable external loans.

<sup>&</sup>lt;sup>5</sup>The coverage of public debt statistics should include borrowing, liability management operations such as buy backs / debt exchanges, restructuring, loan guarantees extended, on-lending operations and derivatives position. Information on cost and risk aspects of explicit contingent liabilities (including deposit insurance schemes and credit guarantees) should be disclosed in the public accounts (IMF and World Bank, 2014).

<sup>&</sup>lt;sup>6</sup>For issuance of government securities, the adoption of market-based pricing in auctions is predicated on a strong commitment to transparency and non-interventionalist policies by the public debt manager. Transparency that improves predictability in the timing and amount of issuance enables better planning for investors to manage their balance sheets. On the other hand, dissemination of pre and post trade information in the secondary market through market quotes and transactions improve secondary market liquidity (IMF and World Bank, 2021).

typically the Auditor General (IMF and World Bank, 2014; World Bank, 2021). Audited annual financial statements on public debt are the principal means by which governments report to their legislature on its debt position. Specifically, a financial compliance audit examines the reliability and integrity of the government's reported indebtedness including an assessment of the risk of material misstatement, whether due to error or fraud. Compliance audits also helps to determine the adherence of public debt management operations to the domestic laws and regulations.

- 13. Institutional arrangements that are based on transparent allocation of mandates and responsibilities for public debt management among the key stakeholders (for e.g., between the public debt management office, ministry of finance and the central bank) helps to resolve conflicts between public debt management and fiscal and monetary policies, especially when the central bank acts as an agent of the government for issuing securities (IMF and World Bank, 2014). Transparency about roles and instruments is important for market participants to reduce the risk of misinterpreting policy signals and implementation. Clarity in roles and responsibilities also enable public debt managers to have the operational independence to execute their public debt management strategies while ensuring adherence to internal controls and due diligence.
- 14. As part of organizational structure, consolidation of public debt management functions in the same authority as a public debt management office (DMO) could enhance efficiency in debt management operations resulting in better transparency through comprehensive and timely reporting on government debt. Reflecting the functions of a modern DMO, the establishment of a sovereign investor relations office could serve as a key vehicle for promoting public debt transparency through comprehensive dissemination in investor friendly formats and communications with a wide network of stakeholders within and outside the country (Knight and Northfield, 2020). When public debt management responsibilities are dispersed across several official entities, transparent reporting on overall public debt portfolio and operations must be closely coordinated through regular exchange of information within the institutional framework. This is facilitated through the formation of a separate middle office which has the responsibility of monitoring the overall public debt portfolio.
- 15. The incentives for governments to use some entities for off-budget fiscal activity could be reduced by requesting fiscal reports from all the public sector, including all corporations that governments can control by directing to spend or borrow, (IMF, 2014; IMF, 2019). Targeting a broader category of public sector debt to be reported is usually done to monitor wider coverage of contingent liabilities, including indirect contingent liabilities stemming from unguaranteed debt liabilities of the subnational governments or public sector enterprises. For such arrangements, the ministry of finance, the public debt manager, the central bank, or a statistical agency should be given legal powers to obtain relevant public debt and guarantee information from

<sup>&</sup>lt;sup>7</sup>Stakeholders comprise domestic and non-resident investors, primary dealers, credit rating agencies, international financial institutions, public and the press.

<sup>&</sup>lt;sup>8</sup>Monitoring of stocks and flows on loans would require close coordination with induvial creditors and disbursing units, especially if the entities spending the resources are located outside the Ministry of Finance. It is good practice for disbursement requests to be processed through the DMO (World Bank, 2022).

sub-national governments and other parts of the public sector for publishing a consolidated public sector debt position on a regular basis.9

Public debt transparency through comprehensive, timely and accurate reporting could 16. be supported by the development of a consolidated and updated government debt database in a debt management information system (DMIS). The DMIS should have the core functionalities to capture the creation of a debt instrument that include commitments and any enhancements or cancellations; and cover all relevant cash flows across the "loan cycle" that include disbursements, prepayment or buybacks, debt service payments, fees, exchanges, and arrears. Development of a public debt database that ensures a high degree of integrity based on strong internal controls require an organizational separation between the front office that records the initial debt creation and the back office that confirms the debt liability. 10 Straight-through-processing capabilities of the DMIS that allows for automatic settlement, payment and registry of debt related transactions further mitigates scope for operational risks. The DMIS should be fully integrated with the government's accounting system to ensure consistency between public debt statistics and fiscal accounts.

### **REVIEW OF INTERNATIONAL DATA STANDARDS AND DATABASES ON PUBLIC DEBT**

#### A. Summary of Provisions of Relevant International Data Standards

- 17. International statistical standards provide a single coherent framework for reporting public debt stocks and flows across economies (Table 1). The Government Finance Statistics Manual (GFSM), External Debt Statistics (EDS): Guide for Compilers and Users, 2013, and Public Sector Debt Statistics (PSDS) Guide for Compilers and Users are the main international standards for debt statistics. The frameworks in the manual and guides are derived from the System of National Accounts 2008 (2008 SNA) and Balance of Payments and International Investment Position Manual (BPM6).
- The definitions of sectors, instruments, and residence are consistent between the different statistical manuals (Table 1). For external public debt, the methodology is aligned with BPM6, in which external debt includes all liabilities as defined in the SNA 2008 (excluding equity liabilities and investment fund shares, and financial derivatives and employee stock options) that are owed to non-residents; the total amount of such liabilities is presented as the gross external debt position. In turn, external government (public) debt as reported in the EDS will conceptually be the same as external government or public debt reported in GFS/PSDS. Metadata should specify valuation and coverage of debt instruments as well as information on country specific data sources

<sup>&</sup>lt;sup>9</sup>Reports on public sector debt should consolidate intra-sectoral flows and stocks by eliminating all material transactions/flows and crossholdings of assets and liabilities among institutional entities.

<sup>&</sup>lt;sup>10</sup>Similarly, for recording payments, the staff member preparing the payment order should be different from the one clearing the payment, with both reporting to distinct hierarchical lines.

and compilation practices. The PSDS Guide and GFS Manual provide methodology for reporting domestic public debt.

	Revised Public Debt Management Guidelines, 2014	Fiscal Transparency Code (2018 Handbook)	Public Sector Debt Statistics (PSDS) Guide / Government Finance Statistics Manual (GFSM) 2014	2013 External Debt Statistics (EDS) Guide	
Debt Data	Monthly/quarterly reports on: Outstanding debt stock Composition of debt liabilities by currency denomination, maturity, and interest rate Domestic and external debt statistics	Fiscal reports (budget execution reports, fiscal statistics, annual financial statements) that include a balance sheet containing all debt and liabilities.	Summary table with gross debt at nominal and market value, by: type of instrument; original and remaining maturity; currency of denomination; type of interest rate (fixed/variable); residency of creditor (domestic/external) Additional information in detailed tables, such as: creditor classified by institutional sector debt service payment schedules of outstanding gross debt Memorandum tables could present details of: Net debt; Arrears by type of arrear and type of debt instrument; Reconciliation between opening and closing stock positions; Publicly guaranteed debt by maturity and debt type; Summary of explicit contingent liabilities and net obligations for future social security benefits.  Disclosure of aggregate Information: the information supplied by entities outside CG will not be separately disclosed and will only be published in the form of statistical aggregates (except explicit permission)	Summary tables for external debt (liabilities to non-residents) positions, transactions, and exceptional financing operations by sectors  The 2013 EDS Guide encourages to provide additional data on remaining maturity, market valuation (or nominal valuation), type of creditor, currency structure, future debt service of the external debt, and other attributes of external debt	

Institutional coverage	Central Government	<ul> <li>Central government (basic practice)</li> <li>General government (good practice)</li> <li>All Public Sector, including public corporations: by subsector and consolidated (advanced practice)</li> </ul>	All Public Sector including public corporations and by subsector	General government     For the main tables, it is also recommended to present data for public sector and publicly guaranteed debt	Table 1. Summ
Debt instrument coverage	Main financial obligations	All debt – securities and loans (basic practice)     Liabilities – debt instruments and other contractual liabilities, such as trade payables, lease contracts, financial liabilities related to PPPs, equity of public corporations, other liabilities arising from insurance, pension, standardized guarantee schemes (good and advanced practice)	Debt instruments (SDRs, currency and deposits, debt securities, loans, insurance, pension, standardized guarantee schemes and other accounts payable/receivable)	Debt instruments (SDRs, currency deposits, securities, loans, insurance, pension, standardized guarantee schemes and other accounts payable/receivable)	1. Summary of Provisions of International (concluded)
Static framework disclosure	PDM legal framework Organizational structure (including governance framework, DMO structure, delegation of responsibilities) Design of debt instrument		Statistics dissemination process, concepts, definitions, classifications, and methodology.		national Standa uded)
DM Strategies and operations	Medium-Term Debt Strategy     Document (DM objectives,     macroeconomic environment,     evaluation of debt stock, key risk     factors)     Annual report on outcomes of the     DM strategy disclosed to Parliament     and the public (with material     operations, derivatives statistics, and     rationale for their use)     DM operations in primary market     (borrowing plans and terms and     conditions of new issues)				Standards for Public Debt Data

#### **B.** Public Debt Databases

19. There are at least fifteen publicly available databases for public debt data (Table 2). Some databases explicitly focus on debt (like the Quarterly Public Sector Debt—QPSD) or have specific series for government debt (like GFS and IFS). Others provide partial information on debt, such as the Coordinated Portfolio Investment Survey (CPIS) (for bilateral cross-country exposures for portfolio securities but not loans and no domestic component) and Monetary and Financial Statistics (MFS) (for debt held by domestic financial sector). Two of the databases—the BIS Locational Banking Statistics and the OECD Creditor Reporting System—are based on creditor-reported data.

#### 20. The key messages from this overview are the following:

- Public debt data are fragmented across databases and across institutions (the Fund, World Bank, other IFIs).
- While nearly all the databases aim to have universal country coverage, the actual availability of data falls short of this.
- About half of the databases cover total government debt—both external and domestic, while the remaining half focuses only on government external debt.
- In most cases, the databases aim to cover all the levels of government. The most comprehensive public debt database is QPSD, but it does not include a composition by creditor type.
- Most databases include breakdown of public debt data by instrument, following the guide on Public Sector Debt Statistics but not always (for example, GFS includes only debt securities and loans, while the full breakdown includes SDRs, currency and deposits, insurance/pensions/standardized guarantee schemes, and other accounts payable).
- While the breakdown by creditor is requested in more than half of the databases, definitions vary, and availability of data is limited. The World Bank's IDS database is the most comprehensive database of long-term, public external debt with breakdowns of aggregate external debt data by individual creditor. Data are sourced from the loan-level data collected in the World Bank's DRS. While loan-by-loan information is confidential, aggregated data, including the stock of public external debt and debt service data by creditor type and by individual creditor countries are published. In addition, information on average commitments and average loan terms by creditor type and creditor county for each individual debtor country and debtor type is published.
- There is no single database that provides data on total public (general government) debt for all countries with desired breakdowns, and the differences in coverage and concepts and variety of reporting frameworks can lead to inconsistencies across databases along with duplication of effort for countries reporting to these databases.

Table 2. Public Sector Debt Data in International Databases									
: universal coverage	: universal coverage : share of countries reporting debt data in total IMF membership : applies fully / partiall							ully / partially	
	ry r of rting rox.)		Sect	oral Cove	erage	Coverage by Creditor Residency		λ	by e
Database	Debtor Country Coverage Share/Number of	Share/Number of Countries Reporting Debt Data (approx.)	General Government	Public Sector	Public and Publicly Guaranteed	Domestic Debt	External Debt	Composition by Instrument	Composition by Creditor Type
GFS (IMF) 1/		85						1	
IFS (IMF)	<b>SS</b>	40							
PSBS (IMF) 2/	Mixed	55							
GDD (IMF) 2/	683	90							
Sovereign Debt Database (IMF) 3/		115							
QPSD (WB-IMF)		100							
IDS (WB)	Low- and middle- income	123							4/
QEDS (WB-IMF)	663	125							
JEDH (BIS-IMF-OECD-WB)	663	125							
CPIS (IMF)		85							
CDIS (IMF)	663	110							
MFS-SRFs (IMF)		65							
LBS (BIS) 5/		44							1
CRS (OECD) 6/	ODA- eligible (141)	31							•

Source: Fund staff.

Notes: GFS=Governance Finance Statistics; IFS=International Finance Statistics; PSBS=Public Sector Balance Sheet; GDD=Global Debt Database; Sovereign Debt Database by Arslanalp-Tsuda (2014), separate databases for advanced economies and emerging market economies; QPSD=Quarterly Public Sector Debt; IDS=International Debt Statistics; QEDS=Quarterly External Debt Statistics; JEDH=Joint External Debt Hub; CPIS=Coordinated Portfolio Investment Survey; CDIS=Coordinated Direct Investment Survey; MFS-SRFs=Monetary and Financial Statistics-Standardized Report Forms; LBS=Locational Banking Statistics; CRS=Creditor Reporting System; ODA=Official Development Assistance. 1/ Sectoral coverage varies by country, with about 60 countries reporting general government debt; 2/ constructed; sectoral coverage varies by country; 3/ constructed; 4/ includes composition by creditor country and multilateral institution; 5/ covers data reported by BIS-reporting banks from 44 countries (by nationality of reporting bank); 6/ covers data for 141 ODA-eligible countries reported by Development Assistance Committee (DAC) members, including DAC member countries (31), non-members, and multilateral organization.

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