PUBLIC DEBT REPORTING IN DEVELOPING COUNTRIES

Diego Rivetti (World Bank) *

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Abstract

More than twenty developing countries do not publish any data on their sovereign debt. In those that do disclose data, public debt statistics usually do not comply with international standards in terms of coverage and definitions. Some information can be deduced through indirect disclosure of debt statistics to external agents, such as the WB and IMF, and this can help minimize data gaps. This paper has two main objectives. First, it measures the extent of transparency in direct reporting and identifies the factors that promote it. The results show that debt transparency is fostered by standardized recording and reporting systems, high levels of external scrutiny (e.g., Eurobond issuance and ratings) and the presence of highly skilled staff at the local debt office. Second, this paper describes the reporting ecosystem in which two type of channels (i.e., direct and indirect) coexist and provides novel estimates of the data gaps across the two. Cross-comparison of direct reporting and WB-IMF's Debt Sustainability Analysis (DSA) shows that deviations in public debt stocks can represent up to 30% of national GDP. Based on these results, the paper puts forward a call for action to: i) improve debt transparency by focusing on those factors that best promote transparency; (ii) shifting the focus of MDBs' operations and technical assistance from indirect to direct reporting; (iii) introducing minimum, but enforceable international standards for direct reporting; and (iv) promoting the use of modern and integrated debt recording and reporting systems.

1. Introduction

There are serious concerns about debt transparency in low-income countries (LIDCs)[1] given the current context of rising public debt levels, the emerging role of non-traditional lenders, the increased borrowing by non-central government entities and the frequent use of complex debt instruments. The debt service suspension initiative (DSSI) introduced by the G20 countries in 2020 to aid LIDCs coping with the fiscal impact of COVID-19, has further highlighted the importance of debt transparency.

Debt transparency, defined as the availability of comprehensive, detailed, timely, and consistent public sector debt data (WB, IMF 2020c), is key to allow (i) policymakers to make informed decisions; (ii) creditors and rating agencies to fully understand borrowers' debt sustainability; and (iii) citizens to hold their governments accountable.

Improvements in accountability within debt management practices are strongly enhanced by investments in debt data transparency; this helps bring about substantial long-term benefits, and ultimately reduces the cost of external borrowing (Kubota and Zeufack 2020). Conversely, low levels of debt data disclosure may lead to debt mispricing and/or significant fiscal and debt roll-over risks (WB 2020). Despite this, governments, especially those with limited dependence on market financing and weak governance, may have short-term incentives to under-report. Recent studies have focused on trying to quantify "hidden debt" (Horn, Reinhart, and Trebesch 2019; WB, IMF 2020a).

Current research on key factors that may influence countries' level of transparency is limited. As yet, few studies have tried to explain why "notwithstanding decades of multilateral effort, the goal of making information about public debt accessible and intelligible to the public, remains elusive" (Gelpern 2018). Another gap in the literature concerns divergences across debt statistics sources; even though the existence of different instrument and sectoral coverage in public debt statistics is well documented (Dippelsman et al, 2012; Seiferling, 2020), there is no quantification of the magnitude of mismatches across sources nor any analysis of their implications.

This paper contributes to the existing literature in at least four different ways. First, it provides a methodology to estimate debt transparency and assess LIDCs' performance. Second, it identifies and measures the factors that increase mis- or under-reporting. Third, it qualifies direct and indirect reporting (i.e., data disclosed by authorities' following national standards, as opposed to data disclosed by external agencies following their standards) and explains how their interactions result in a data collection and dissemination network that is not fully conducive to debt transparency. Finally, it presents policy recommendations to systematically enhance debt transparency.

The paper is structured as follows. Section 2 portrays current disclosure practices under direct reporting and provides evidence on the role of factors that can either foster or deter debt transparency. Section 3 focuses on indirect reporting. Section 4 zooms into the issue of discrepancies between direct and indirect sources. Section 5 explains the implications of the existing data disclosure framework and provides policy recommendations. Section 6 concludes.

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[1] LIDCs are defined as countries eligible for support from International Development Association (IDA): http://ida.worldbank.org/about/borrowing-countries

2. Direct debt data disclosure

Public debt data in LIDCs are disseminated through different channels and in different formats. National authorities may publish debt statistics in dedicated bulletins or broader monetary / macro publications, they may also share their databases with the general public. This channel of dissemination of public debt statistics can be defined as *direct* reporting. In parallel, national authorities also make data available to a number of external agents (e.g., WB/IMF, credit rating agencies, etc.) for their review, compilation and disclosure on their own publications or websites. This second form of dissemination is defined as *indirect* reporting.

National authorities have a responsibility to provide timely information on debt statistics to their citizens as well as to current and potential investors, the lack of full disclosure may have important financial consequences and hinder trust in governments. The extent of a country's debt transparency can be evaluated based on the degree of information that it shares on its public debt; particularly by examining a country's active reporting of debt data vis-à-vis the expected level of reporting according to its legal and institutional frameworks, and its actual debt portfolio.[2]

Despite the relevance and increasing interest in debt transparency, there is no available methodology to measure data disclosure standards at the national level while being able to make cross-country comparisons. This paper sets this agenda forward by providing a simple tool to facilitate this assessment in LIDCs, the Public Debt Reporting Heatmap.

The Public Debt Reporting Heatmap

The heatmap evaluates debt information available on national authorities' websites to assess direct reporting standards. The tool is intended to show strengths and weaknesses at the country level. The heatmap is updated on an annual basis and published on the WB's website[3], with the aim of identifying existing gaps by country, fostering countries' efforts to improve data dissemination, and informing technical assistance strategies.

A country's performance is evaluated across nine indicators and addresses three main areas: (i) public debt statistics dissemination practices; (ii) publication of key debt management documents; and (iii) reporting on risks stemming from contingent liabilities. Each indicator is evaluated according to a four-category scale, which ranks standards from low (red) to high (green), according to the criteria presented in Figure 1.

Dissemination practices for public debt statistics are assessed according to the following three dimensions: accessibility, completeness, and timeliness.[4] Debt data should cover debt stocks at the cut-

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[2] This assessment cannot differentiate between intentional and non-intentional under-reporting, nor can it identify "hidden debt", as this would require granular data from creditors or other stakeholders involved in the transactions. As discussed in Section 3, these records are rarely available.

[3] https://www.worldbank.org/en/topic/debt/brief/debt-transparency-report

[4] Completeness is evaluated relative to the prevailing legal framework and countries' current borrowing practices. For instance, if SOEs in one country are not legally allowed to borrow or do not have outstanding debt, they are not expected to be covered in the public debt reports.

off year and related debt service flows to avoid being qualified as no data/insufficient data (red)[5]. The heatmap evaluates the following indicators:

1. *Data accessibility* assesses whether information is made publicly available through centralized rather than multiple sources (i.e., documents and websites). The rationale is that the more concentrated the information is, the easier is its accessibility.
2. *Instrument coverage* assesses the completeness of the statistics with respect to the most common instruments used in LIDCs: external loans/securities, domestic loans/securities, and guarantees[6].
3. *Sectoral coverage* evaluates coverage by sector, from central government (CG) to general government (GG) up to total public sector[7].
4. *Information on new loans* indicates the availability of information on recently signed loan contracts, including on committed undisbursed amounts.
5. *Periodicity* assesses the frequency of publications[8];
6. *Time lag* evaluates the period between the cut-off data and their publication. The time lag is assessed using the publication with highest frequency data.

The medium-term debt management strategy and the annual borrowing plan are key debt management documents that enhance transparency of future debt operations. Both documents should cover the year in which the assessment takes place to meet the minimum standards.

7. *Debt management strategy (DMS)* assesses whether strategic targets for the main cost risk indicators are provided to inform about the nature and volume of future debt operations source of financing (e.g., external/domestic)
8. *Annual borrowing plan (ABP)* focuses on the publication of nominal borrowing amount planned for a given year for each category of debt instruments (or lenders for external borrowing). The heatmap assessment evaluates its comprehensiveness and timeliness.

The final indicator of the heatmap extends the analysis beyond core debt statistics, and covers the following:

9. *Other debt statistics /contingent liabilities* assess the disclosure of memorandum items, including central government guarantees (also including names of beneficiaries), account payables, collateralization details, and other contingent liabilities.[9]

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[5] For assessments at year t, the cut-off year varies depending on the semester of observation. If the assessment is made in the first semester of t, the cut-off year is December of (t-2). If it is made in the second semester, the cut-off year is December of (t-1).

[6] While some measures of debt may go beyond the three instruments (see subsection 4.1), in LIDCs the definition of direct public debt according to national legislation typically comprises loans, securities and, in some cases, guarantees.

[7] When relevant, central government debt includes extra-budgetary units and debts contracted by the central bank on behalf of the central government. General government debt covers debt from the central government and local governments (LG), as well as social security funds operated at each level of government. Public sector debt aggregates debt of the general government and state-owned enterprises (SOEs).

[8] Countries publish reports at different times for different purposes. For this analysis, the highest-frequency publication containing the minimum set of debt data requested by the methodology is taken into consideration.

[9] This indicator is assigned a gray color if such reporting is not relevant for a specific country.

**Figure 1 - Methodology Underpinning the Debt Reporting Heatmap**

Data accessibility	1. Public debt reporting published — Completeness			1. Public debt reporting published — Timeliness		2. Public Debt Management — Debt Management Strategy (DMS)	2. Public Debt Management — Annual Borrowing Plans (ABP)	3. Other debt statistics / contingent liabilities (CLs) — N.A./ No information
	Instrument coverage	Sectorial coverage	Information on new loans	Periodicity	Time lag			
No publicly available debt reporting or incomplete/ outdated debt reports	N.A. or incomplete coverage	N.A. or incomplete budgetary central (CG)	N.A	N.A.	N.A.	No DMS published	No ABP published or a partal plan with a delay > 3 months	No reporting or insufficient reporting of existing CLs
Multiple websites	Limited coverage: external or domestic debt only	Limited coverage : complete CG	Limited information: lender's name or purposes of borrowing, amount	> 1 year (e.g. every two years)	> = 6 months	Yes, but no targets	Partial: only for domestic or external debt) with a delay<3 months or full coverage with delay > 3 month	Limited reporting: guaranteed debt by beneficiary (if applicable)
Single website & multiple docs	Partial coverage: external and domestic (if applicable)	Partial coverage: complete general government (GG) or complete public corporations	Partial information: lender's name, amount, purpose, but no financial terms	Annual basis	> 3 months	Yes, with target for total debt	Full coverage within 3 month	Partial reporting: audited/recognized fiscal arrears and collaterilized debt (if applicable)
Single document	Full coverage: external and domestic and guarantees (f applicable)	Full coverage (GG and public corporations)	Full information: lender's name, amount, purpose, and financial terms	< 1 year (e.g. quarterly update)	< = 3 months	Yes, with targets for domestic & external debt	Full coverage before the fiscal/calendar year starts	Comprehensive reporting: publication of a framework covering existing CLs

Source: Author's elaboration.

Results from the April 2020 assessment show great variability among IDA countries in publication of timely, comprehensive, and accurate public debt data. Close to thirty percent of LIDCs do not meet the minimum standards of data disclosure. In 11 countries, no debt data have ever been directly disclosed; 12 countries have either insufficient or outdated data (prior to 2018). Direct debt data disclosure is particularly weak in in Sub-Saharan Africa and in small states.

Of the 53 IDA countries that do publish debt data, coverage by instrument is in line with the highest standard of the heatmap[10] in only 41 countries (77 percent). Extending sectoral coverage remains a challenge, as only one third of IDA countries publish data beyond central government and less than 20 percent have actual debt coverage aligned with the country's legal framework and current borrowing practices (see second bar in Figure 2).

The heatmap also shows where improvements need to be made in terms of publishing key debt management (DM) documents; 45 percent of IDA countries (34 countries) publish a debt management strategy. However, the DMS is only translated into a comprehensive annual borrowing plan in 9 cases (Figure 3).

Figure 2: Public Debt Reports (% of IDA countries)	Figure 3: DM Documents (% of IDA countries)
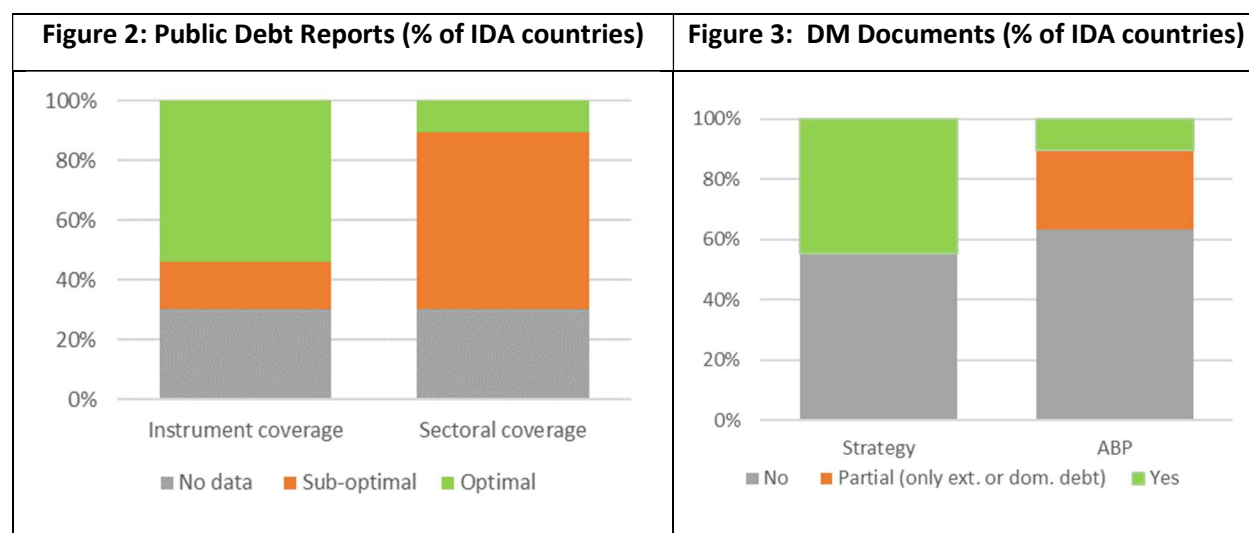
Source: author's elaboration

Determinants of Debt Disclosure

To achieve greater levels of transparency in IDA countries, the main drivers and deterrents of a government's ability to directly disclose debt statistics need to be clearly presented. This section exploits novel data on debt transparency in the heatmap to correlate the degree of public debt disclosure with factors such as debt recording systems, portfolio composition, degree of external scrutiny, governments' capacity, and legal requirements.

The heatmap provides a detailed account of a country's standing in terms of data disclosure efforts. There is a clear ranking of importance among the nine assessed criteria. For instance, yearly publication of statistics with broad coverage are preferable to more frequent, narrow statistics; similarly, comprehensive

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[10] Loans + securities + guarantees

data scattered across multiple sources are preferable to partial records even if they are in a single publication.

Reflecting these priorities, this section focuses on a sub-index that aggregates five core indicators that describe each country's data availability, and excludes: data format (indicator 1), periodicity (indicator 5), and time lag (indicator 6). Indicator 9 on other debt statistics/contingent liabilities is also removed as it does not apply to all countries (e.g., a country may not have guarantees or arrears).

The index is therefore obtained as a simple average of the following sub-components of the heatmap that measure: instrument and sectoral coverage of debt statistics, availability of financial terms on new loans, and publication of DMS and ABP.

The index is standardized to have mean zero and unit variance in the sample of IDA countries to facilitate the interpretation of the results. Relying on cross sectional data of 74 IDA countries, the role of different factors on debt transparency is estimated using the following equation:

$$Y_{ij} = \alpha + \beta X_{ij} + \gamma Z_{ij} + \delta_j + \epsilon_{ij} \tag{1}$$

where Y_{ij} denotes the transparency level for country i in subregion j.[11]
The matrix X_{ij} includes the following set of determinants:
- *Type of debt recording and management system (DRMS)*. Debt Management Offices (DMOs) in LIDCs uses either off-the shelf recording systems, developed by the Commonwealth Secretariat (CS-DRMS/Meridian) or UNCTAD (DMFAS), or idiosyncratic procedures (mostly Excel-based).
- *Portfolio Composition*: presence of collateralized debt or Eurobonds in the public debt portfolio.
- *External scrutiny*: availability of a rating from one of three major rating agencies (Fitch, Moody's, Standard & Poor's).
- *Debt management capacity*, proxied by the share of college graduates among DMO staff (source: WB 2020 survey)
- *DM Legal framework:* presence of legal requirements to produce debt statistics, strategy and/or annual borrowing plan (source: WB 2020 survey)

The matrix Z_{ij} adds a set of controls including categorical variables that capture the country's income level, debt sustainability risk as rated by WB/IMF's LIC-DSA (low, moderate, high, or in debt distress), status of fragile and conflict-afflicted country as defined by the WB[12], and participation in the Highly Indebted Poor Countries (HIPC) initiative. Even though country fixed effects to address endogeneity could not be added, sub regional fixed effects (δ_j) have been included to partially deal with this issue.[13]

Table 1 presents the results from estimating the linear model in equation (1). The model in column 1 shows that using a standard DRMS significantly contributes to improvements in debt transparency. Comparing an off-the-shelf DRMS to a non-standardized system has shown that both CS-DRMS/Meridian and DMFAS facilitate production of debt statistics, the former being more robust. LIDCs benefit from

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[11] Regional patterns are relevant since debt disclosure requirements could be enforced by regional institutions (e.g. Central Bank of West African States or Eastern Caribbean Central Bank).
[12] https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations
[13] Subregions are defined as follows: Central America and Caribbean (8), Eastern Europe and Central Asia (4), East Asia and Pacific (18), South Asia (6); Sub-Saharan Africa non-CEMAC (23); Sub-Saharan Africa CEMAC (4), West Africa non-WAEMU (9); West-Africa WAEMU (7).

these tools despite their limitations (e.g., inability to register complex debt instruments[14], and limited integration with other PFM systems[15]), as their ability to develop and maintain their own in-house systems is usually constrained.[16] The results here highlight the potential to increase transparency as a result of improvements in systems and debt recording practices. Coordinating and centralizing the efforts to improve existing DRMSs, with an aim to achieving international standards in debt reporting, can be positive for debt reporting and overall transparency.

The results in column 1 also show that issuance of Eurobonds and availability of ratings increases transparency. Obtaining a rating is usually a pre-requisite for tapping into international debt markets. Both ratings and Eurobond issuances are game-changers in LICDs' transparency thanks to the data disclosure requirements and the investor relations practices that they encourage. Conversely, countries with collateralized debt tend to be less transparent. Of the 10 countries identified as having collateralized debt in their portfolio, only three publish regular debt reports (Ghana, Guinea, São Tome & Principe); however, none of them provides details of the collateralization.

The skill set of DMO staff is key to improving transparency. A 10 percentage-point increase in the share of college graduates among DMO staff has been shown to increase transparency by 0.12SD (see Table 1), indicating a need to recruit and retain qualified, specialized staff in local DMOs.

The effects of other controls are shown towards the bottom of column 1. On one hand, higher income levels seem to be positively correlated with transparency, but these effects are not statistically significant. On the other hand, debt transparency is a challenge primarily for fragile and highly indebted countries. This points to the need to prioritize these countries in future TA assistance. Finally, previous multi-country debt relief initiatives (e.g., HIPC) may have played a supporting role in debt transparency, but the estimated coefficient is too noisy for it to be statistically significant.[17] This could respond to the current practice of handing over debt reporting to external agents (e.g., to Paris Club, IMF/WB) over direct disclosure, as described in Section 4.

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[14] "It is a challenge for system providers to stay abreast of financial innovation and keep their product and services relevant against increasingly sophisticated debt portfolios and transactions (i.e., securities, liability management transactions, etc.)" (WB, IMF, 2018).

[15] Current DRMSs are mostly stand-alone software. This may limit data quality control, as wrong data entry has no impact in the public financial operations. If data registered in the DRMSs were to be used at different levels within integrated systems (e.g., to mobilize budget lines or generate payments), DMOs would have a significant incentive to maintain accurate and comprehensive data.

[16] E.g., Mali decided to develop its own DRMS in 2016 with IMF-AFRITAC support. After 5 years, a fully functional system is still not yet available.

[17] Notice that this is not evidence of the *immediate* effect of the HIPC initiative, as the time since its implementation may have affected countries' level of transparency.

Table 1. Determinants of debt transparency in IDA countries

	I	II
Debt Recording Systems		
Comsec	0.694**	0.590**
	(0.272)	(0.270)
Dmfas	0.475*	0.389
	(0.266)	(0.261)
Portfolio Composition		
Has Eurobond	0.491**	0.337
	(0.245)	(0.243)
Has collateralized debt	-0.164	-0.006
	(0.281)	(0.285)
External scrutiny		
Has rating	0.510**	0.504**
	(0.229)	(0.227)
Capacity		
Percentage of staff with college degree	0.012**	0.009*
	(0.006)	(0.005)
Legal requirements		
Index (statistical bulletin, ABP, and Strategy)		0.747**
		(0.336)
Other factors		
Lower middle income	-0.220	-0.182
	(0.253)	(0.249)
Upper middle income	0.332	0.390
	(0.435)	(0.428)
High DSA risk	-0.751***	-0.758***
	(0.227)	(0.226)
Fragile state	-0.522**	-0.567***
	(0.211)	(0.207)
HIPC	0.180	0.425
	(0.294)	(0.305)
N. of Obs.	74	74
R-squared	0.63	0.65

Notes: Syria and Yemen are excluded from the analysis since they are currently facing armed conflicts. Standard errors in parentheses, * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Column 2 in Table 1 adds an index that captures the presence of laws that require the publication of debt statistics and key DM documents. While most effects remain robust, the estimated coefficient for Eurobond drops considerably and loses statistical significance. This suggests that both factors are aligned in terms of data disclosure requirements. Notice that the index on legal requirements only reflects the obligation to publish, but does not capture the depth of the mandate or level of enforceability.

3. Indirect debt data disclosure

How are Debt Sustainability Analysis (DSA) formulated for all LIDCs[18] on a regular basis despite limited or inexistent direct reporting, as described in Section 2? This is possible because DSAs are supported by data collected and managed by the IMF and the WB. National authorities engage in indirect reporting by providing these international financial institutions (IFIs) and other external agents with data either through participation in existing reporting initiatives or disclosing data upon request.

LIDCs may report debt data to four main statistical databases hosted by the IMF and WB, which are closely aligned with international definitions: Quarterly Public Sector Debt Statistics (QPSDS), Quarterly External Debt Statistics (QEDS), Government Finance Statistics (GFS, annual), and the Debtor Reporting System (DRS). As these databases were created for different purposes, their debt coverage and definitions differ (WB, IMF, 2020c, Annex 2). The DRS provides the most granular data breakdown, it also has the broadest coverage for external debt, and is the only compulsory data disclosure exercise whilst the others are voluntary. Countries that have borrowed from IDA at least once are supposed to complete DRS standardized templates on their external public and publicly guaranteed (PPG) debt on a quarterly and annual basis. These data are then revised by WB staff[19] and published in the International Debt Statistics (IDS)[20]. Other IFIs or regional Institutions maintain databases with narrower geographical or instrument coverage (e.g., African Development Bank's Bond Market Database or the forthcoming Institute of International Finance's database on external commercial debt). Additional databases that rely on one or multiple existing indirect sources add to the complexity of this environment.[21]

In parallel to this structured data collection, indirect reporting may occur as a response to *ad-hoc* requests coming from the same IFIs; this could be for IMF Article IV missions or IMF/WB lending operations, or from other key stakeholders such as credit rating agencies (CRAs).

The same direct/indirect reporting dichotomy applies to official lenders (bilateral and multilateral). The IMF and the WB publish comprehensive and timely data on their financing;[22] [23] however, the level of transparency of other multilateral/plurilateral creditors is mixed and largely depends on the degree of accountability imposed by their internal policies and procedures[24]. As for bilateral creditors, some Paris-Club members disclose lending operation information on their website or in publications, although these efforts tend to be isolated and mostly driven by good-will.[25] Creditors also feed into international

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[18] The only IDA countries without recent DSA are Eritrea and Syria.

[19] In the case of the WB's IDS, "data accuracy and comprehensiveness is ensured by validation with other sources such as market data, creditor data, other external statistics such as BOP/IIP, QEDS—including data used in debt analytical exercises led by the World Bank and IMF, such as the medium-term debt strategy (MTDS) or DSA—and rigorous follow-up with government authorities" (IMF/WB, 2020).

[20] In June 2020, the WB published detailed external debt stock and service data for 68 IDA eligible countries in the IDS database, including a previously unavailable breakdown by creditor. http://datatopics.worldbank.org/debt/ids/
[21]For example, WB World Development Indicators (WDI) accesses its debt data from the IMF Government Finance Statistics Yearbook (GFSY).

[22] www.imf.org/en/Data/IMF-Finances

[23] https://ebizprd.worldbank.org/

[24] In a 2018 survey of 25 MDBs, 16 had policies on public communication or disclosure (Engen and Prizzon, 2018).

[25] According to the IMF/WB G20 Operational Guidelines for Sustainable Financing – Survey Results and Policy Recommendation: "Most countries provide information on their lending on the web, but it is not being done in a

databases, such as the OECD's Creditor Reporting System (CRS). Non-Paris-Club lenders tend to have less stringent disclosure practices, for direct and indirect reporting.

In general, official lenders play a limited role in the reporting ecosystem of a borrowing country (Figure 4). Aggregation at the borrower level is critical for facilitating portfolio analysis and making borrowing/lending decisions; while the aforementioned information gaps in some creditor reports preclude a complete picture of a borrowing country's debt position. As a result, creditor records are mainly used for validation purposes, and often face challenges, as described in subsection 4.3.

Figure 4: Direct and indirect data reporting of government debt
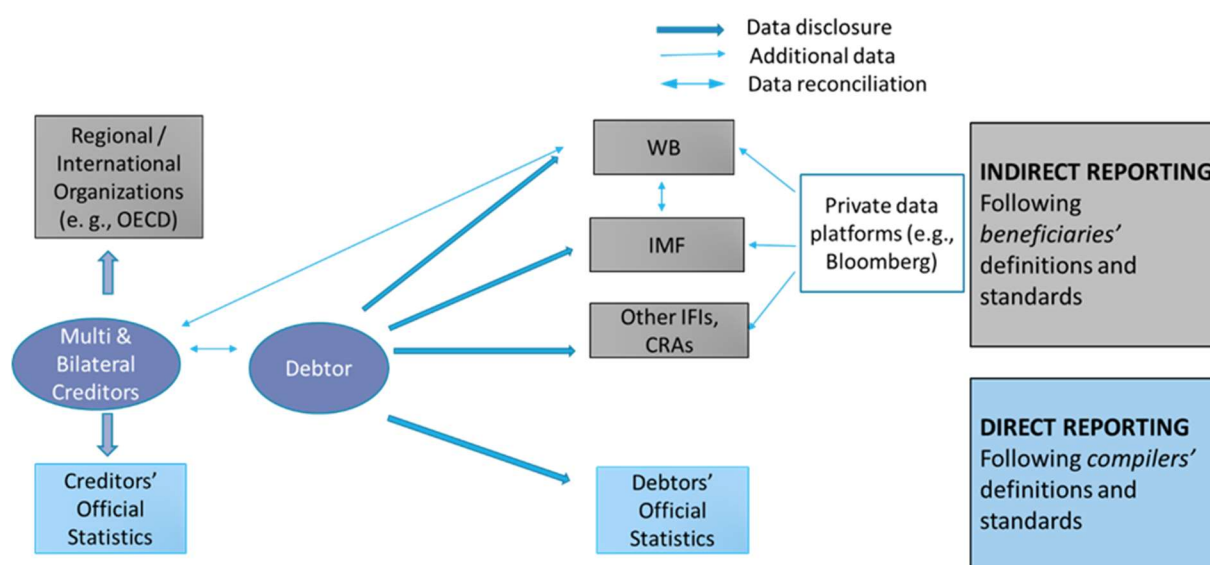
Source: Author's elaboration

## 4. Direct and indirect reporting: discrepancies and causes

Direct and indirect debt reporting serve different objectives. Direct reporting aims to provide citizens and stakeholders with comprehensive and timely data. In principle, indirect reporting shares the same goal; however, it has also tried to deal with concerns about misreporting and comparability of data published by national sources (Monnet, Truong-Loi, 2020). External agents have thus become key in the process of integrating and standardizing records, and this often replaces direct reporting channels.

The main source of both direct and indirect reporting in LIDCs are data produced by national DMOs. However, discrepancies across public debt data made available through direct and indirect debt reporting can be significant. Figure 4 displays the differences in 2019 total debt stocks as a percentage of each country's GDP between debt authorities' websites and WB/IMF's LIC-DSA, one of the most important

way that consolidates lending by all agencies, and, for some, there is room to improve on the comprehensiveness of the data being reported". Only one third of G20 countries that responded to the survey report lending terms in line with OECD requirements.

channels of indirect reporting. The LIC-DSA coverage increases the debt stock that is reported in official statistics by an average of 5 percent of GDP; the degree of dispersion fluctuates between -15 and 30 percent.

Figure 4: indirect-direct reporting debt stock gap (in percent of 2019 national GDP)
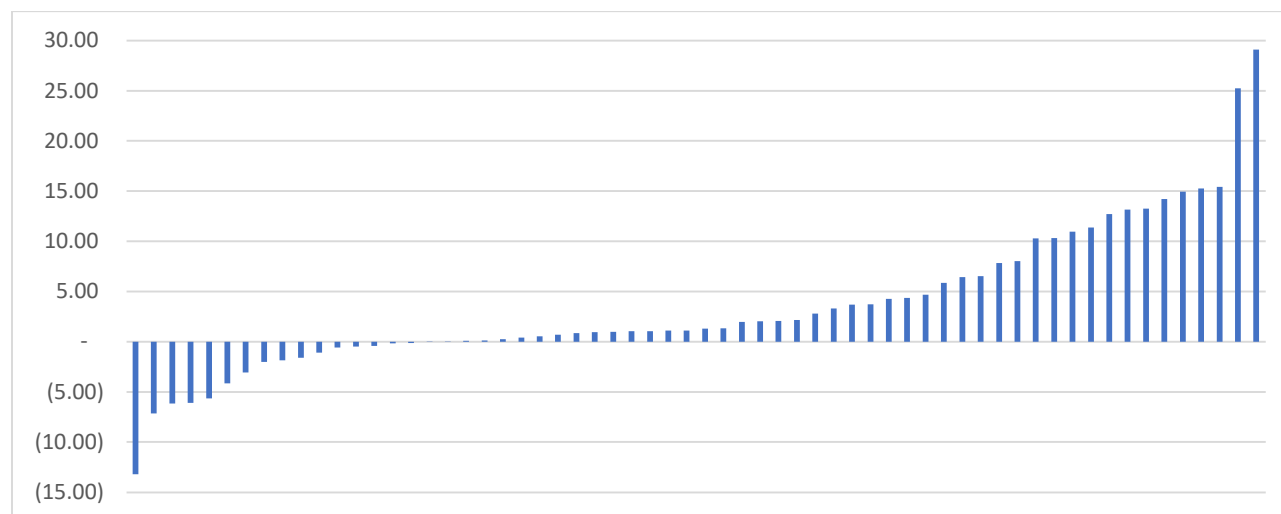
Source: WB/IMF 2019 DSA and authorities' websites.
Notes: author's elaboration.

This example shows that the degree of mismatch across different sources may be significant. Previous work has highlighted the role of variation in coverage and debt definitions as the main driver of gaps between different debt statistics. This paper studies these factors but extends the list of potential causes to also include recording errors (often amplified by decentralized and non-automated recording processes) and data manipulation by external agents to comply with standardization and comparability goals. "Hidden debt" is also touched upon, but analysis regarding this channel faces severe data limitations and is not addressed in this paper.

4.1. Sectoral and instrument coverage

Public debt data is typically presented as aa matrix with instrument coverage on the horizontal axis and sector coverage on the vertical axis (Figure 5). This tool is useful for mapping a country's progress, although it is difficult to rank the level of coverage solely based on this matrix as it implies a ranking along both axes that may not apply to all countries. For instance, if this matrix were used to assess coverage in LIDCs, no country would register instrument coverage beyond D1, as currency/deposits are not included in LIDC debt reports.[26] Similarly, LIDCs have scattered coverage in terms of sectors and this may not fit with the hierarchical structure of the matrix, for example, a country may cover sub-national debt (GL3) but may not report its extra-budgetary debt (GL2).

Figure 5: public debt coverage by instrument and sector

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[26] The treatment of cash as debt is a legacy of the gold standard and has been recently questioned from an economic (Abbas, 2020) and a legal viewpoint (Kumhof et al, 2020).
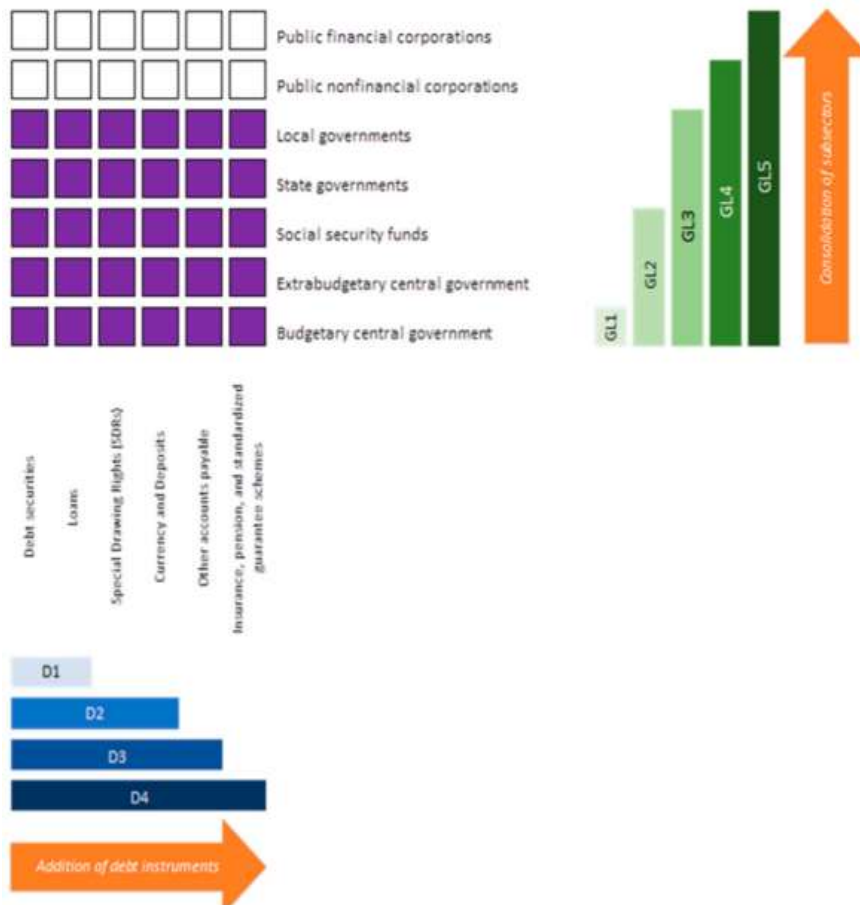
Source: Dippelsmann (2020)

As a result of this limitation, this study introduces an index in Figure 5 to compare coverage under DSAs and direct reporting. This index provides a positive marking for each sector and debt portfolio that is reported. The index ranges between 0 and 5 (where 5 corresponds to maximum coverage[27]) and is built as follows:

- comprehensive central government external/domestic debt: +1 point each;
- guarantees: +1 (0.5 if partial);
- general government debt (i.e., local debt, social security funds): +1 (0.5 if partial);
- non-guaranteed non-financial SOE debt: +1 (0.5 if partial).

Figure 5 shows how indirect reporting expands the coverage of debt statistics: almost 50 percent of the LIDCs (30 countries) fall above the diagonal while 38 percent (24 countries) fall on the diagonal, indicating equal coverage. In several cases, the contribution of indirect reporting to the expansion of coverage is quite significant, reflecting the availability of additional data[28] beyond what is officially published. This

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[27] As not all sectors are applicable to every economy, the highest country-specific marking may be less than 5.

[28] These data are generally not collected by the DMO or the office in charge of producing debt statistics.

highlights the potential for higher direct disclosure levels by tapping into existing data sources within the country.

Figure 6: Direct and indirect data reporting of government debt
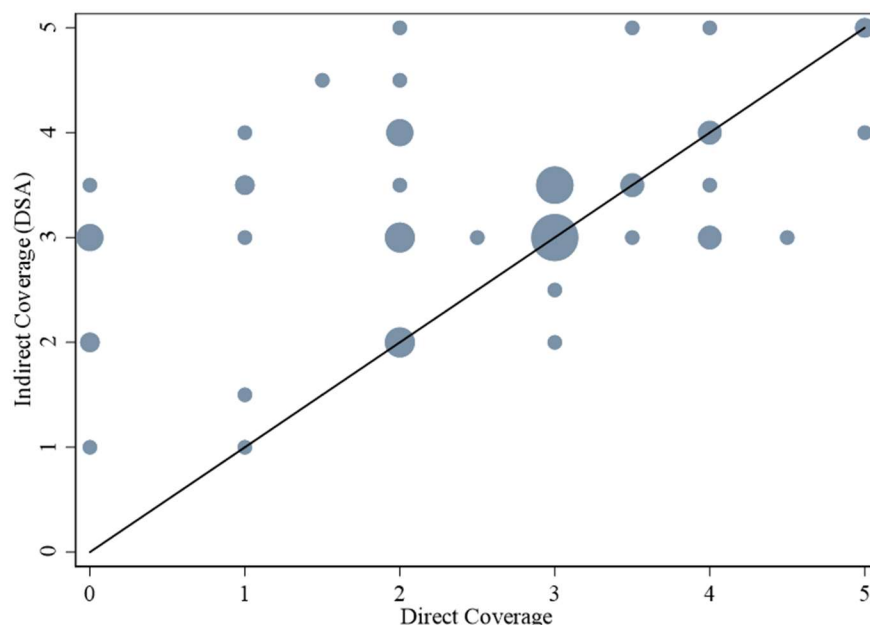
Source: WB/IMF 2019 DSA and authorities' websites, author's elaboration
Notes: The magnitude of the markers reflects the frequency of observations in that particular point.

Figure 7 goes one step further and correlates the discrepancies presented in Figure 4 and coverage gaps shown in Figure 6. The degree of mismatch in terms of debt stock is positively correlated with the discrepancies in coverage under direct and indirect reporting systems. A one-point increase in the coverage gap is associated with a 4-percentage point increase in debt stock, as a percentage of GDP.

Figure 7 also shows that discrepancies of up to 7 percent of national GDP occur even when direct and indirect reporting have the same sectoral coverage (see black markers in Figure 6)[29]. In these cases, while the original source of information is exactly the same, minor discrepancies may arise due to exchange rate inconsistencies or cut-off date misalignments. These statistical discrepancies are common and do not threaten the soundness of the debt analysis. However, larger gaps in debt stock cannot be solely explained by these issues and instead point to other factors, such as the use of decentralized and non-automated recording processes, data manipulation, different debt definitions, and the possible existence of non-disclosed debt.

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[29] Three outliers also point to the same conclusions. In Honduras, DSA coverage is supposed to be larger, but the debt stock reported in quarterly debt reports (60 percent of GDP) is greater than that reported in the DSA (42 percent). Conversely, Bangladesh's authorities include non-guaranteed domestic debt of SOEs, which is not incorporated in the DSA, but overall public debt is $11 billion greater in the DSA

Figure 7: Deviation in stock of debt (as % of national GDP) between direct and indirect (DSA) data
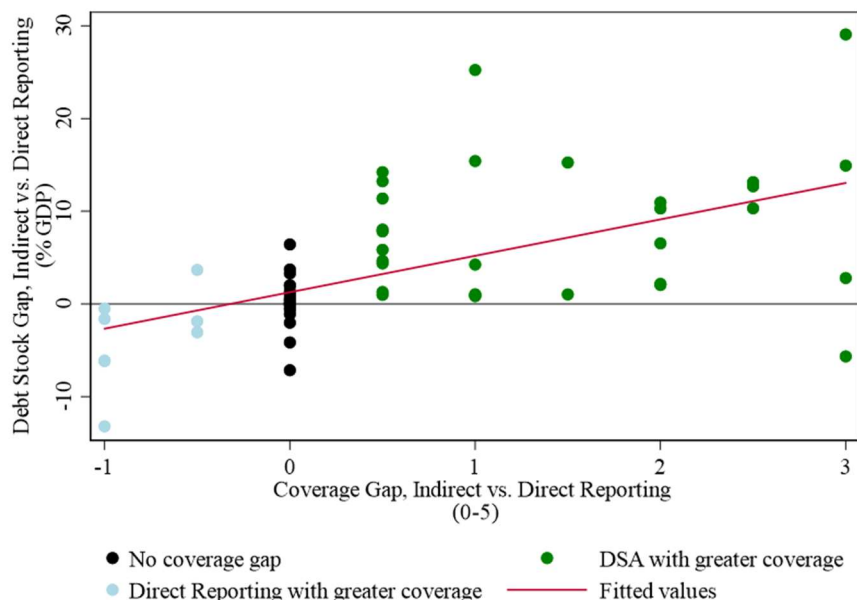
Source: WB/IMF 2019 DSA and authorities' websites.
Notes: author's elaboration.

4.2.   Different debt definitions, and valuation methods

The Public Sector Debt Statistics: Guide for Compilers and Users (PSDS, 2011) requests countries to report all debt at nominal value[30] while securities should be also reported at market value. Yet, ten years after the PSDS publication, all LIDCs still report their debt at face value only. On the one hand, LIDCs may not have liquid issuances to price their debt, particularly in domestic debt market. On the other hand, existing DRMS cannot automatically generate debt statistics at nominal values[31], and their compilation is a very time-consuming manual exercise that requires strong financial skills. DMOs may also have clear incentives to produce debt statistics at face value, since most domestic law and fiscal rules, as well as the same LIC-DSA, require this evaluation method.

Another example of a definition that frequently deviates from international standards is that of external/domestic debt. External debt should be defined by the creditor's residency according to the PSDS, direct reports rely on the more accessible currency definition. This also reflects debt managers' preference for a metric that facilitates analysis of debt and budget exposure to foreign exchange volatility, hence improving risk management and strategy development. Similarly, indirect agents are able to comply

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[30] Nominal and face value definitions tend to be used interchangeably. However, face value is "the amount to be repaid at maturity", while nominal value is the "amount that the debtor owes to the creditor at any given moment. Conceptually, the nominal value of a debt instrument can be calculated by discounting future interest and principal payments at the existing contractual interest rate on the instrument" (PSDS, 2011).

[31] "Most LIDCs use debt recording systems that define debt in their software at face value and do not allow computation of market value" (WB/IMF, 2020c).

with the residency definition only in specific cases when information is available, as acknowledged in the LIC DSF Guidance Note[32]. In fact, debt denominated in foreign currency is still used as a proxy of external debt in 43 percent of the 2019 DSAs.

4.3. Recording errors

Data collected in over 20 WB-led missions on Medium-Term Debt Management Strategy (MTDS)[33] in LIDCs between 2010 and 2020 reveal severe recording mistakes in approximately 30 percent of debt databases . The quality of DRS data assessed by the WB on an annual basis confirms these findings: of 74 LIDCs, 15 (20%) do not submit comprehensive reporting templates or, if they do, the quality is not deemed satisfactory. Among those who provide a complete template, 28 percent are affected by at least one type of recording mistake (Table 2).

Table 2. Assessment of the 2020 reports by IDA countries to DRS

	No / partial / unsatisfactory reporting	Complete reporting		
Number of countries (%)	20%	80% of which 28% affected by one or more of the errors below		
Error types		*stocks/flows inconsistencies*	*missing information on new commitments*	*transactions not reported*
Frequency (%)		15%	17%	17%

Source: WB Development Data Group.
Notes: author's elaboration

These problems are mostly driven by the debt recording process itself, which is still a very manual exercise involving limited or no cross-validation with creditor records during the lifetime of debt instruments. In fact, two parallel debt recording processes coexist for each instrument, with very limited systematic validation across them (Figure 8).

On one hand, the debtor manually records debt transactions in its DMRS as follows:[34] (i) loan terms are extracted from hard copies of the agreements; (ii) disbursement information is shared with creditors by letter/email; (iii) debt service is entered after reception of the creditor's billing advice. The operational

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[32] "Because of difficulties in record keeping (for example due to secondary market trading and data limitations in LICs), and where non-resident participation in domestic debt market is not significant, debt denominated in foreign currency can be used as a proxy for external debt". (WB-IMF, 2018d).
[33] Prior to any MTDS mission, a data validation is conducted to verify that (i) financial terms for each debt instrument are present and (ii) debt stock-flows are consistent. Inconsistencies of type (i) are regarded as "minor", while those of type (ii) are regarded as "severe" if the error is higher than 1% of the total debt stock.
[34] Some debtors use integrated financial management systems, which eliminate some of the manual steps, though straight-through processing is still a very rare exception.

risk triggered by this non-automated handling is compounded by the challenges posed by the recording of complex debt instruments.[35]

On the other hand, each creditor undertakes its own debt data recording. This duplication of efforts requires frequent reconciliation exercises between creditors and debtors, via correspondence or even country visits. This practice is common to all LIDCs, it is costly and time-consuming and may delay and complicate restructuring negotiations. For example, the HIPC data reconciliation exercise has proven to be a very resource-intensive exercise. An average of 3 man/month of IMF/WB staff was required for each country to produce a fully reconciled dataset. Moreover, given the length of the process, partial reconciliations (e.g., 80 percent of the loans) have qualified as meeting the criteria for HIPC decision point. More recent debt restructurings point to the same evidence.[36]

Figure 8: Loan debt recording by creditor and debtor
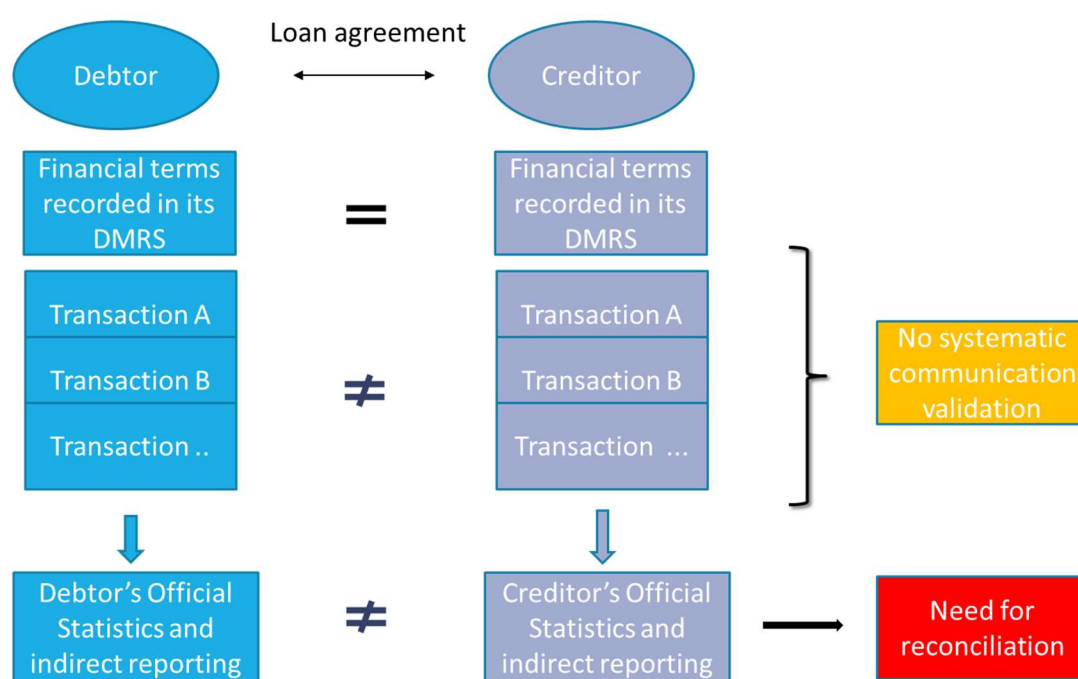
Source: Author's elaboration

4.4. Manipulation of the records received from DMOs.

External reporters often need to significantly manipulate data, in order to: (i) reconcile; (ii) consolidate across sectors; (iii) integrate data from other sources; and (iv) adjust to their own definitions. This necessarily triggers differences across reports which can potentially be reconciled, as long as the metadata of the different statistical documents provide details on data manipulation and consolidation. However,

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[35] In the case of Chad, the largest commercial loan (accounting for over 40 percent of the portfolio) is not recorded in the DMRS given its complex oil-related pay-out system.

[36] The poor quality of data - scattered across different databases - in Grenada means that IMF staff had to work for weeks with the local DMO to reconcile debt data before the 2015 restructuring.

this is rarely the case; none of the indirect sources provides a log of the amendments made to the original data received, or engages in a systematic feedback process with DMOs to ensure original records are also corrected.

4.5 "Hidden debt"

Finally, not all debt instruments may be disclosed ("hidden debt"). Compared to the dimensions listed above, the contribution of "hidden debt" is hard to quantify. Non-disclosed loans can be identified in a timely fashion only when granular information is provided by the creditor, which is rarely the case (see Section 4). Otherwise, given the existing voluntary-based data disclosure framework, progress can only be triggered by parallel engagements of external stakeholders (e.g., analysis of project funding) that may allow some form of cross-validation.

5. Implications of the current data disclosure framework and policy recommendations.

The debt data recording and disclosure framework described above results in the multiplication of debt statistics that differ across sources. In the absence of enforceable international definitions, these idiosyncratic differences are explained by agents' needs to present debt data according to their own standards.

The international community has been trying to address these data challenges by (i) independently targeting broader[37,38] coverage of debt statistics in each country, and (ii) providing technical assistance (TA) to countries to help increase transparency. This has greatly contributed to an overall expansion of debt data disclosure, but uncoordinated interactions between direct and (multiple) indirect reporting may lead to the following major shortcomings:

1- Erroneous sense of statistical homogeneity and cross-country comparability in debt statistics, which can lead to major misunderstandings in the fiscal and debt policy debate. This paper shows that debt statistics are not comparable across sources, (see Section 3). Even when external agents try to centralize and standardize records, they need to rely on the availability of each country's public debt data. For instance, the WB's IDS are supposed to cover public sector PPG external debt. However, as shown in section 2, the majority of LICDs only have central government debt data available. Additionally, external agents cannot easily validate the accuracy of the coverage of data shared and are left to assume that it coincides with their requests. The lack of homogeneity and comparability may impact the analysis of debt statistics that

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[37] E.g., the upcoming Review of Data Provision to the Fund for Surveillance Purposes in 2021 could consider proposals to extend the minimum data provision obligation under Article VIII, Section 5 of IMF Articles of Agreement to include data on general government debt and the broader non-financial public sector to enhance IMF capacity to assess fiscal space and analyze debt risks.

[38] The WB is examining DRS reporting requirements for domestic debt data—launching a survey on domestic debt reporting, with pilots from November 2020—and broadening external debt data requirements, e.g., the collateralization features of loans.

inform creditor and multilateral organization decisions to extend grants/loans, as in the case of the WB/IMF's DSA.

2- Lack of efficiency. Governments face multiple requests from different external agents. At the same time, external agents duplicate efforts to manage, validate, and disclose their own debt statistics, without any systematic reconciliation process with creditors or cross-source validation.

3- *Noisiness in the market.* Different debt data circulating at the same time may confuse *stakeholders* not familiar with the process (Seiferling, 2020). It may also increase the burden on DMOs, who are often called upon to clarify their debt statistics.

4- *Challenging data reporting requirements (WB, IMF, 2020).* Debt statistics in LIDCs are usually produced by DMO staff, not by a specialized statistical office. International guidelines such as PSDS are designed with more sophisticated institutional arrangements in mind, with a clear separation of responsibilities between a DMO and a statistical debt office. This is burdensome for DMO officers, who may lack the adequate statistical skills to report under such guidelines (e.g., nominal versus face value). Furthermore, international statistical definitions may be disconnected from those used by DMO staff in their operations, as in the case of the external debt by residency versus currency.

5- *Pressure on resource-constrained DMOs.* The current disclosure framework often forces short-staffed DMOs to divert resources away from their daily debt management activities to address the multiple and demanding requests of indirect reporting. This is a result of the repercussions of the lack of indirect reporting on lending from WB[39], IMF[40], other MDBs, and rating agencies.

6- *Discouragement to invest in accurate direct reporting.* As DMOs engage with external agents to produce debt reports, they may see it as a form of outsourcing their reporting responsibilities. In fact, indirect statistics may reduce DMOs' incentives to produce direct statistics. This effect may be amplified by the fact that, when discrepancies arise, MDBs' statistics are usually trusted more than national ones. As an example, a simple exercise was conducted to measure the relevance of direct versus indirect reporting sources. By inspecting The Economist[41] articles from 1998 to 2021 that mention country-specific public debt statistics of 10 LIDCs that disclose their own data[42], the analysis showed that 93% of the sources reported were indirect. The IMF is most cited (30% of the cases), followed by the World Bank (10%). Direct sources were referred to in only 7% of the articles and included National Statistics Offices, Central Bank Statistics and DMOs. Although the study is limited in scope, it supports the hypothesis that indirect reporting is more commonly relied upon, at least at international level.

Against these scenarios, this paper calls for:

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[39] World Bank loans and financing for countries failing to meet basic DRS reporting requirements cannot be presented to the Board unless the country provides an acceptable plan of action for reporting its external debt.

[40] The IMF's Articles of Agreement establish an obligation for every IMF member to provide a minimum set of data to the Fund for its activities, as set forth in Article VIII, Section 5. "In addition, the IMF can request debt information beyond the above-mentioned minimum set of data and can decide not to lend if such critical information is not forthcoming" (WB IMF, 2020). For instance, the IMF interrupted its program in Mozambique in 2017 when cases of "hidden debt" were identified.

[41] The Economist was selected due to its international coverage and the availability of structured and consistent information on sources of debt statistics. Total observations: 66; data of access: 26th Jan 2021.

[42] Benin, Cameroon, Ethiopia, Ghana, Honduras, Moldova, Mongolia, Nigeria, Pakistan, Zambia.

(i) Prioritizing direct reporting. Rather than linking indirect reporting to funding conditionalities, MDBs could introduce incentives to improve direct disclosure.[43] [44]

Public and direct access to these records would be a strong accountability mechanism. As shown in Section 2, citizens in several countries have to rely on indirect sources to get a sense of their own government's debt portfolio. Solid and accessible direct databases would also improve efficiency for exchanging data with external agents. Finally, future debt restructurings can have a stronger and long-lasting impact on debt transparency if the main players (e.g., borrowing country, Paris Club, IMF/WB, etc.) commit to ensuring that the necessary data reconciliation process with creditors is reflected in direct reports.

(ii) Targeting a core of global, achievable, and enforceable direct reporting standards. As shown in Section 3, few developing countries fully comply with standards and definitions (e.g., nominal value rather than face value; external debt by residency; total public sector debt coverage). This paper shows that requiring high standards without consideration of local limitations, leads to divergent levels of compliance which perpetuates cross-country comparability issues and distrust over debt data. In this context, the focus on direct reporting should be supported by *interim* standards aiming at consolidating debt statistics based on simplified definitions (i.e., external debt by currency; face value) and achievable coverage levels which should be clearly indicated (from central government to general government to public sector). This needs to happen in conjunction with building DMOs' capacity and developing technical solutions to foster disclosure under best international standards.

(iii) *Standardizing and coordinating templates among external agents*. On-going indirect reporting efforts to expand sectoral or instrument coverage, as in the LIC-DSA framework should be encouraged. External agents should also seek to build their work on direct sources, rather than on multiple *ad-hoc* data requests, which overburden DMOs. This would reinforce the incentives for stronger direct reporting. Indirect reports should clearly specify individual deviations from direct sources to avoid further comparability issues. To that end, this paper recommends introducing a log of the amendments made to the original data and explicit engagement of external agents; this will help enforce feedback procedures and ensure that DMOs can record these changes themselves.

(iv) *Equipping DMOs with modern and integrated systems.* An integrated repository for public debt could be developed. Appendix A proposes a concrete strategy to develop and implement an international loan repository (ILR). The goal of the ILR is to provide a platform to reconcile debt records between creditors and debtors, thus improving the accuracy of debt records and limiting operational risk. The ILR would also enable the creation of a central database, which can be used for public reporting purposes, [45] it could

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[43] In the case of IMF, for instance, "while members have to provide the required data to the Fund, they are under no obligation to publish such data" (IMF, WB, 2020).

[44] IDA's recent Sustainable Development Finance Policy (SDFP) follows this approach, as a number of Performance and Policy Actions (PPAs) focus on the publication of comprehensive statistical bulletins by the authorities.

[45] A similar approach has been proposed by civil society (Eurodad and others, April 2019) and formalized by a G20 working note (Ayadi, Avgouleas, 2020). However, the proposal in Appendix A differs from this approach on several fronts as: (i) participation in the ILR is entirely voluntary, although its use can be incentivized by official lenders; (ii) the scope of the ILR is limited to loans, as bonds tend to be more transparent (e.g., contract terms are disclosed through prospectus and commercial platforms); (iii) the ILR is not replacing well-established platforms for issuing or trading debt instruments; (iv) the ILR is not tracking use of funds; (v) the ILR should facilitate the data reconciliation between creditors and debtors.

facilitate creation of a unique DMRS, ensuring that all participating countries benefit from the latest technological advancements; this is a move that would assist with further standardizing debt reporting.

6. Conclusions

The lack of uniform, comprehensive and timely public debt data poses severe challenges to the international financial architecture. In particular, inaccurate or diverging debt records across sources may hinder effective debt management, affect the quality of debt sustainability analysis and limit implementation of swift and fairly-designed debt restructurings. During the COVID-19 crisis and in its aftermath, pressing demands for debt reconciliation and restructuring processes have made the debt transparency agenda more relevant than ever.

Countries directly disclose their debt statistics, but these efforts are varied and not equally mandated at the national level. Debt offices with reporting obligations to IFIs have high stakes, and it is assumed that these obligations will generate incentives to comply with requests of indirect reporting. However, varying levels of coverage, poor debt recording and the use of different debt definitions and standards across multiple reporting channels lead to discrepancies across sources and generates the need for frequent reconciliation.

This paper contributes to the debt transparency discussion by: (i) measuring the extent of transparency in direct reporting; (ii) studying its determinants; (iii) describing the ecosystem in which direct and indirect reporting channels coexist; and (iv) providing novel estimates of data gaps.

The results indicate that debt transparency is best supported by standardized recording and reporting systems. LIDCs benefit from existing DRMSs, despite their limitations, as they are usually constrained in their ability to develop and maintain their own in-house systems. This result highlights the huge potential to increase transparency by improving current systems and tightly coordinating these efforts. The results also show that high levels of external scrutiny in the form of ratings and Eurobonds issuances have a high impact on LICDs' transparency as a result of the data disclosure and investor relations practices required by them. Finally, increasing the numbers of highly skilled staff in debt offices has also been identified as a key part of improving transparency.

In the absence of reliable and comprehensive data disclosed by the authorities, indirect reporting is currently integrating and in some cases replacing direct reporting channels. Indirect reporting has been found to expand the coverage of debt statistics in most LIDCs, and country-specific comparisons of debt stocks from direct sources versus those recorded in the WB-IMF's DSAs show that deviations therein can represent up to 30 percent of national GDP, confirming that differences in coverage are a key driver of this gap. Even when direct and indirect reporting coincide in terms of sectoral coverage, discrepancies can be as high as 7 percent of national GDP. This additional mismatch can be attributed to the use of decentralized and non-automated recording processes, data manipulation, and different debt definitions.

Given these challenges, this paper puts forward a call for action to: i) improve debt transparency by focusing on those factors that are most likely to promote transparency; (ii) shift the focus of MDBs' operations and technical assistance from indirect to direct reporting; (iii) introduce a core of enforceable

international standards for direct reporting; (iv) promote widely-accepted, modern and integrated debt recording and reporting systems.

References

Abbas S.A., Pienkowski A., Rogoff K., "Sovereign Debt. A Guide for Economists and Practitioners", 2020 Oxford University Press.

Aslan, C., Ajazaj, A., Wahidh, S. 2018. "Study on Public Debt Management Systems and Results of a Survey on Solutions Used by Debt Management Offices". Policy Research Working Paper; No. 8544. World Bank, Washington, DC.

Ayadi, R., Avgouleas, E. 2020. "Time to Implement a Tech-Driven Sovereign Debt Transparency Initiative: Concept, Design and Policy Actions"; T20 Policy Brief.

Dippelsman, R., Dziobek C., Gutiérrez Mangas C., 2014. "What Lies Beneath: The Statistical Definition of Public Sector Debt". International Monetary Fund, Washington, DC.

Engen, L., Prizzon, A., 2018. "A Guide to Multilateral Development Banks". ODI, London.

Gelpern, A., 2018. "About Government Debt… Who Knows?" Capital Markets Law Journal. Vol. 13; No. 3.

Horn, S., Reinhart, C.M. and Trebesch, C. 2019. "China's overseas lending". National Bureau of Economic Research; No. W26050

Horn, S., Reinhart, C.M. and Trebesch, C. 2020. "Coping with Disasters: Two Centuries of International Official Lending". National Bureau of Economic Research; No. w27343

IIF (Institute of International Finance). 2019a. Global Debt Monitor. Washington, DC.
———. 2019b. "Voluntary Principles for Debt Transparency." Washington, DC.

International Monetary Fund, 2020. The International Architecture for Resolving Sovereign Debt Involving Private-Sector Creditors—Recent Developments, Challenges, and Reform Options". Washington, DC.
———, 2020b "The Role of State-Contingent Debt Instruments in Sovereign Debt Restructurings". Washington, DC.
———, 2018b "Global Debt Database: Methodology and Sources" Washington, DC.
———, 2017. "State-Contingent Debt Instruments for Sovereigns" Washington, DC.
———, 2015a "Designing Legal Frameworks for Public Debt Management". Washington, DC.

Kubota, M., Zeufack, M., 2020. "Assessing the Returns on Investments in Data Openness and Transparency". Policy Research Working Paper No. 18; World Bank, Washington, DC.

Kumhof, M., Allen, J., Bateman W., Lastra, R., Gleeson, S., Omarova, S., Central Bank Money: Liability, Asset, or Equity of the Nation?, Cornell Legal Studies Research Paper 20-46

Monnet E., Truong-Loi B., 2020. "The history and politics of Public Debt Accounting" in "A World of Public Debt"; Palmgrave McMillan, Paris.

Proite A., 2020. "Recording, Monitoring and Reporting Public Debt – Organizing a Back-Office" MTI working Paper No. 18; World Bank, Washington, DC.

Seiferling M., 2020. "Apples, Oranges and Lemons: Public Sector Debt Statistics in the 21st Century". Financial Innovation; London.

World Bank, 2019 "Addressing Debt Vulnerabilities in IDA Countries: Options for IDA19," Washington, DC.
———, 2018. "Debt Vulnerabilities in IDA Countries," Washington, DC.

World Bank and International Monetary Fund, 2020a. "The Evolution of Public Debt Vulnerabilities in Lower Income Economies,". Washington, DC.
———, 2020b. "Collateralized Transactions: Key Considerations For Public Lenders And Borrowers". Washington, DC.
———, 2020c. "G20 Note on Public Sector Debt Definitions and Reporting in Low-Income Developing Countries," Washington, DC.
———, 2018a. "G-20 Note: Strengthening Public Debt Transparency –The Role of the IMF and the World Bank" Washington, DC.
———, 2018b. "G-20 Note: Improving Public Debt Recording, Monitoring, and Reporting Capacity in Low and Lower-Middle Income Countries" Washington, DC.
———, 2018c. "Debt Vulnerabilities in Emerging and Low-Income Economies," Washington, DC.
———, 2018d. "Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries", Washington, DC.
———, 2011. "Public Sector Debt Statistics: Guide for Compilers and Users"

Appendix A. International Loan Repository

An International Loans Repository (ILR) would strengthen and coordinate existing data collection initiatives. The goal of the ILR is to provide a modern platform to reconcile debt records between creditors and debtors, thus improving the accuracy of debt records and limiting operational risk. The ILR would also enable the creation of a central database, which can be used for public reporting purposes. [46]

Participation to the ILR would be voluntary. However, it is expected that the data reconciliation services, and reporting facilities provided by the ILR will act as a strong incentive for DMOs to participate. Furthermore, incentives could be introduced in MDB's operations or creditor/debtor country legislation to spearhead its use and increase its relevance. While targeting official debt in a first step, the ILR can be broadened to include private external debt.

Terms of existing and new international public loan agreements would be registered by creditors or debtors participating in the initiative. Any subsequent loan transaction would be linked to an existing agreement and, once cleared by the debtor and creditor, stored in the ILR[47]. The data will be encrypted to ensure data ownership and confidentiality. Reporting clauses would allow for debt reporting using the centralized database of the ILR (Figure 9).

Figure 9: ILR's automatic reconciliation and centralization of loan data
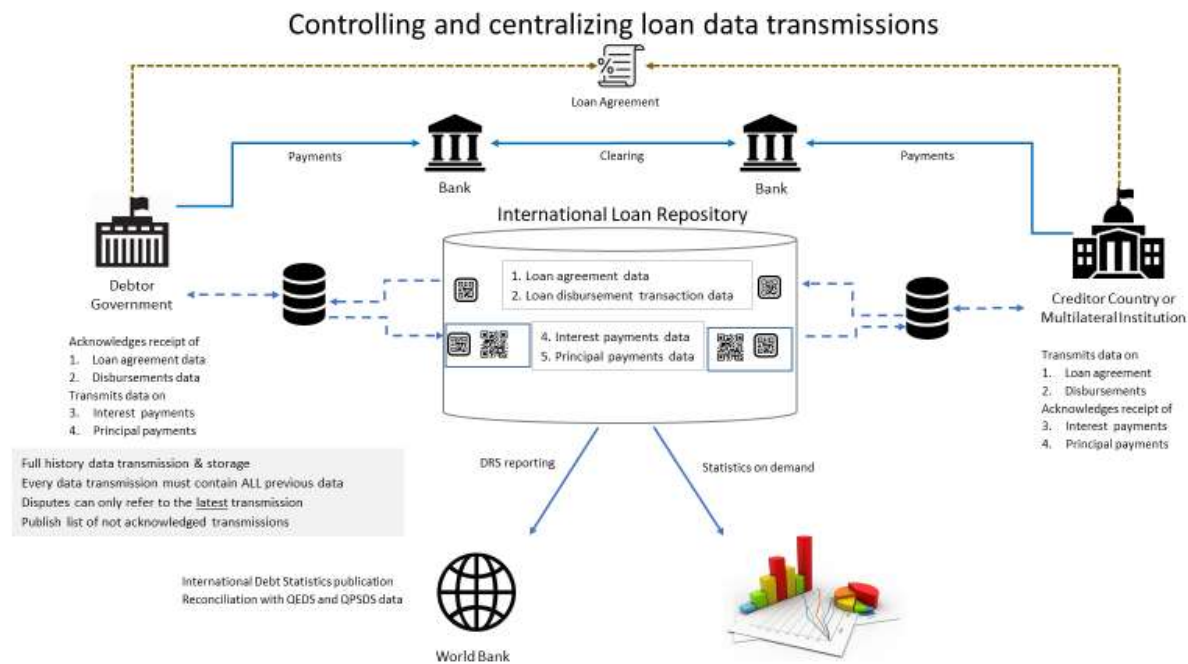
Source: Author's elaboration

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[46] Data ownership and confidentiality provisions would need to accommodate the provision and disclosure of relevant transaction information and reporting clauses would be aimed at specifying the required debt transparency.
[47] The use of block chain technology can be envisaged to include the full history of previous transactions and loan data.

ILR's main benefits would be the following:

- Provide a secure platform for data exchanges on loan transactions between creditors and debtors, replacing existing risk-prone and ineffective channels;
- Ensure validation between creditor and debtor of all loan transactions;
- Automate data recording in DRMS and thereby reduce data inconsistencies;
- Ensure transparent data on loan financing conditions, with the possibility to introduce variables currently not covered by existing reporting templates (e.g., collateralization, quasi-collateralization/collateral-like features, jurisdiction, legislation);
- Allow for real-time dissemination of statistics, and complement existing indirect reporting channels (e.g., WB's DRS);
- Promote the use of standardized debt definitions for the purpose of statistics and debt reporting;
- Assist creditors and debtors to move to digital end-to-end processing of loan transactions.

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