

Joint Master in Global Economic Governance and Public Affairs

Title

***Applicability of the IMF/World Bank
Debt-for-Development Swap Framework
in West Africa;
Scope and Strategic Purpose***

Supervised by Michel-Henry Bouchet

Name Klara Emma Sengespeick

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Thesis Pitch

A thesis pitch as video presentation of is available at:

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Nice, July 2026

Sengespeick, Klara Emma

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Abstract

Sovereign debt distress across the developing world has renewed interest in Debt-for-Development (D4D) swaps to link debt relief to development spending. In 2024 the IMF and World Bank introduced a new framework to standardize and potentially scale the instrument. This thesis asks whether that design innovation widens the scope of D4D applicability in West Africa, and how it reshapes the instrument's strategic purpose. It combines mechanism-based analysis of the liability management operation as well as the expenditure design, a structured eligibility screening of all Eurobond-issuing ECOWAS sovereigns, and qualitative validation through expert interviews. The analysis finds that the new design does not widen scope but restructures it. Debt-market underdevelopment remains the largest barrier, excluding ten of the fifteen ECOWAS states before eligibility is assessed. For eligible countries, the integrated design removes the transaction-cost constraint that limited the older tripartite model, but replaces it with a new one, institutional and governance capacity. The binding constraint therefore shifts from transaction cost to institutional eligibility. On strategic purpose, the thesis argues that a D4D swap reveals its full value only as part of a long-term debt-sustainability strategy, through the institutional capacity and lower future cost of funding that is accelerated by repeated use. It is argued that these findings carry direct implications for how the instrument should be understood by sovereigns that are eligible to use D4D, structurally excluded countries, and development partners.

List of Abbreviations

bps	basis points
CE	credit enhancement
CPIA	Country Policy and Institutional Assessment
D4D	Debt-for-Development
DLI	disbursement-linked indicator
DMO	debt management office
DSA	debt sustainability analysis
ECOWAS	Economic Community of West African States
ESG	environmental, social and governance
GSDR	Global Sovereign Debt Roundtable
IDA	International Development Association
IEG	Independent Evaluation Group
IMF	International Monetary Fund
LMO	liability management operation
MDB	multilateral development bank
ODA	official development assistance
PBG	policy-based guarantee
PFM	public financial management
PforR	Program-for-Results
SDG	Sustainable Development Goals
SPV	special purpose vehicle
WB	World Bank
WBG	World Bank Group

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1 Introduction

1.1 Problem Statement

Around the world, debt that was meant to fund development has begun to consume it instead. 3.4 billion people now live in a country that spends more on interest than on health (UNCTAD, 2024). Countries in Africa are hit hardest with half of the government's spending more on debt servicing than on education (Thomas, 2025). The SDG financing gap has widened annually from around 2.5 trillion US dollars in 2015 to 4 trillion today (UNCTAD, 2023; United Nations, 2024). Simultaneously the debt distress in countries and reoccurring global crises compound each other. High debt restricts the investment in resilience and each new shock forces further borrowing and raises the debt stocks even further (Thomas, 2025; World Bank, 2025). A structural shift in the global creditor landscape worsens this compounding crisis. The shrinking of concessional development assistance, traps Global South economies in a cycle of debt servitude by forcing countries to rely on costly commercial loans and Eurobonds (AFRODAD, 2023; Perry, 2021). With official financing disappearing, governments now choose between borrowing at high cost or technical default, effectively bargaining with the devil (World Bank, 2025).

The system and tools built to resolve sovereign debt crisis have not kept pace with the changing global financial architecture. Even the institutions responsible for debt resolution, the IMF and the Paris Club, describe the results delivered by existing mechanisms such as the G20 Common Framework as too little and too late (IMF, Strategy, Policy, and Review Department, 2024). From the global south and much of the literature the judgement is sharper, criticizing that debt resolution today amounts to extend and pretend, temporary relief that kicks the can down the road and ensures that the crisis returns (Gwaindepi, 2025; Bohoslavsky et al., 2024). The reason is that the framework for debt relief remains built for an older reality of bilateral negotiations, even as debt has shifted to majorly commercial creditors (IMF, 2025; United Nations Economic Commission for Africa, 2024). A system designed for the last debt crisis cannot resolve this one. Hence, the gap, between a

compounding crisis of debt and development and the tools available to meet it, is what has driven the search for new instruments fit for the present.

Among these new instruments, the Debt-for-Development swap (D4D swap) has gained renewed attention. It is widely discussed as a promising tool, but the potential scope of application, is still not holistically understood.

1.2 Literature Review

This review examines how the literature evaluates D4D as a scalable response to the failure of existing debt-resolution mechanisms and identifies the gap this research aims to fill.

Despite its recent prominence in official debate, most visibly at the Fourth International Conference on Financing for Development, the new generation of commercial swaps has attracted surprisingly little academic analysis and grey and institutional literature dominate. A 2025 bibliometric analysis found only around 117 publications on debt-for-nature swaps between 1988 and 2025, which points to a young and still-consolidating field (Oskay, 2025). Reviewers describe D4D as still moving from exploratory to empirical work, concentrated in environmental and sustainability journals (Nedopil and Sun, 2025). Almost all of the more recent literature concerns debt-for-nature and climate, and takes the form of single-case studies of the early deals in the Seychelles (Booth and Brooks, 2023; Jiang and Cao, 2024), Belize (Fontana-Raina and Grund, 2024), and Gabon (Simeth, 2025). The most comprehensive overview, and the only one covering Côte d'Ivoire, is Raih (2025). He sorts the swaps into two use cases according to their primary purpose, this thesis builds on.

The literature reflects on D4D scalability from several angles. Chamon et al. (2022) question whether swaps are efficient at all, arguing that direct conditional grants could be a simpler solution. Nedopil and Hughes (2024) find the amounts that can realistically be swapped are small relative to debt stocks and highly country-specific, so swaps may work as conservation finance but not as debt relief at scale. Others fear that engineered buybacks let creditors exit on favourable terms while the benefits for debtors remain uncertain (Perry, 2021). Most notably, the case-study literature identifies the transaction cost and complexity of the tripartite model, together with its heterogeneous design, as the central obstacle to

scaling (Raih, 2025). In response, the IMF and World Bank have taken on this obstacle with their D4D Swap Framework (IMF/WB, 2024).

The framework marks the turn that matters for this thesis. Where earlier swaps were heterogeneous in design, the framework standardises the instrument and makes systematic application conceivable. Although the framework and its first application in Côte d'Ivoire (2024) are richly documented by the institutions themselves, they have attracted almost no academic analysis. The most notable exception is the working paper by Diwan and Devie (2025), which evaluates the World Bank guarantee in the Côte d'Ivoire operation and argues for redefining the strategic purpose of its liability management operation (LMO) component.

Two gaps therefore remain. The framework has no independent academic assessment, and no systematic eligibility screen for D4D swaps in a defined region. The nearest work, Tkachenko et al. (2024), screens 195 countries with generative AI, but it is nature-focused, global and does not concern the new design proposed by the IMF and World Bank. How the framework changes applicability and the strategic value proposition therefore remain largely unknown.

1.3 Research Question and Contribution

The absence of a systematic regional assessment, together with the framework's untested scalability, opens an analytical opportunity that this thesis addresses by asking:

“How does the IMF/WB framework's design innovation reshape the scope and the strategic purpose of D4D swaps in West Africa?”

West Africa is a natural setting for this question because the first framework operation, Côte d'Ivoire in 2024, is itself a member of the Economic Community of West African States (ECOWAS). Therefore, the region already holds the only working example of the country-system model and a natural test of whether its neighbours could follow. It is also

among the regions most exposed to the debt and development crisis the instrument addresses, and ECOWAS is a coherent unit whose shared institutions make a regional screen a controlled comparison rather than a global scatter.

The research investigates three essential areas to answer this question.

- i. It examines through which financial transmission channels the LMO component of a D4D swap generates debt sustainability improvements, and which boundary conditions determine a country's eligibility to activate them (Chapter 3).
- ii. It evaluates through which channels the expenditure-programme component generates effective development outcomes, and which institutional preconditions determine a country's eligibility to activate them (Chapter 4).
- iii. It combines these insights to assess how far the ECOWAS countries meet these financial and institutional conditions, and what this implies for the scope and strategic purpose of the instrument (Chapter 5).

The thesis contributes on three levels. Conceptually, it widens the strategic purpose question that Diwan and Devie open, moving from the guarantee alone to the operation as a whole and asking what the instrument can deliver for the debtor. Empirically, it provides the first systematic regional application of the framework to West Africa, revealing structural patterns of eligibility across the region and providing an evidence base for claims about scalability. Methodologically, it operationalises the framework's qualitative eligibility criteria into a theory-driven quantitative scoring model, in which each variable is connected to a financial transmission channel or an institutional precondition established in the analysis.

1.4 Methodology & Thesis Structure

This thesis employs a deductive, applied policy approach combining mechanism decomposition, structured eligibility screening, and qualitative expert validation. The design follows from the research question. To see how the framework's design innovation reshapes applicability, the instrument is first decomposed into its two operational layers,

then tested against the conditions within West Africa, and finally the results are evaluated against further external evidence.

Chapter 2 establishes the contextual foundation, the problem the instrument addresses and its two structural models, through a review of policy documents, D4D academic literature and global debt literature.

Chapters 3 and 4 carry out the decomposition. They break the instrument into its transmission channels and institutional preconditions through a structured reading of primary policy documents, in particular the IMF/WB framework. Related technical papers and the relevant academic literature complement this reading. From these channels and preconditions the eligibility criteria are derived.

In Chapter 5, the criteria are then operationalised into a structured eligibility-screening model applied across the five Eurobond-issuing ECOWAS sovereigns, drawing on bond-level market data and institutional indicators. The full construction of the model and sources can be found in the Methodology Appendix.

Finally, three semi-structured expert interviews with World Bank practitioners involved in the framework and its first operations validate and contextualise the results. They were open-ended and adapted to each interviewee's role to draw on their specific expertise on debt-sustainability policy, on country operations, and on guarantee structuring, to enrich the eligibility screening results. Each interview lasted between thirty minutes and an hour. They were conducted with informed consent, and the two interviewees who preferred partial anonymity are treated accordingly. Such practitioner insight is particularly valuable in this case, because the framework and its first operations are very recent and the published research on them is still limited.

2 Context: Global Debt Architecture and the Emergence of D4D

Chapter 2 builds two foundations for the analysis that follows, it establishes the debt and development problem the D4D swap is meant to solve and explains the older tripartite model against the model the IMF and World Bank introduced in 2024. Section 2.1 traces

the evolution of D4D swaps and the post-COVID crisis that brought it back. Section 2.2 then sets out the two structural models, the tripartite model and the country-system model, and identifies what the new design changes. This comparison is the basis for the analysis in the following chapters.

2.1 The Evolution of D4D Swaps

The D4D swap is not a new instrument, it is the current form of a technique that has changed repeatedly with the structure of the sovereign debt market. A D4D swap converts a sovereign debt obligation into a commitment to fund development spending (IMF/WB, 2024). The technique originated in the debt-equity swaps of the early 1980s Latin American debt crisis (Buckley, 2009). From there it spread to both commercial and official debt. On the commercial side, banks were offered a market-based menu for their claims through the London Club. The options included debt buybacks, exchanges of old debt for new discounted bonds, and debt-equity swaps (Bouchet and Hay, 1989). Official debt followed a similar path. Paris Club menus let creditors convert ODA and part of non-ODA claims into debt-for-nature, debt-for-health and debt-for-education swaps (Cassimon and Essers, 2017). D4D then lost prominence, because at the same time comprehensive multilateral debt relief such as the Heavily Indebted Poor Countries Initiative of 1996 and the Multilateral Debt Relief Initiative of 2005 delivered debt relief at a scale that these swaps never could (Cassimon and Essers, 2017).

After COVID, a new generation of commercial debt swaps re-emerged, the tripartite model. The literature is consistent about why the instrument returned. The pandemic trapped low- and middle-income economies in a debt cycle, with escalating SDG financing needs on one side and the rapid disappearance of affordable capital on the other (Kose et al., 2021). Total net official development assistance (ODA) fell by 11.2 percent in 2024, and concessional finance will decline further as major donor countries announced cuts to aid (UNCTAD, 2025). With official finance drying up countries are forced to turn to private bondholders, who now hold close to 60 percent of their long-term public debt, at interest rates of 10 percent or more, (Prizzon, 2025; World Bank, 2025). Expensive external commercial debt

built up rapidly, and the numbers show an escalating debt crisis. Median public debt in low-income countries rose by more than 200 percent between 2020 and 2023, and interest payments tripled as a share of revenue (Neher et al., 2025).

This is the problem the tripartite D4D swap attempts to confront because a commercial D4D swap addresses both parts of the crisis at once. It aims at the expensive commercial debt sovereigns are now forced to carry, and it channels the resulting savings into the SDG spending they can no longer fund otherwise. The older responses no longer fit because bilateral Paris Club swaps were built for official debt, which is a shrinking share of sovereign debt profiles¹. The other traditional route, ODA, is drying up just as fast. The debt had moved to commercial creditors², and the tripartite design adjusted D4D to this new reality.

Further, the tripartite swaps are far larger and more financially engineered than their predecessors. Where the early swaps were simple bilateral conversions, this new generation relies on new bond issuance, multiple sophisticated stakeholders, and a web of interconnected legal instruments (Fontana-Raina and Grund, 2024; Simeth, 2025). Even though it was an important evolutionary design step and seemed promising, this design brings its own obstacles to scalability. While it scales the size of a single operation, with Belize and Ecuador each converting hundreds of millions, it did not scale the number of operations (Raih, 2025). This is the starting point for this thesis. The tripartite model is the baseline against which the IMF/WB design is understood. Thus, the next section explains the design features and main limitation of the tripartite Swap to later introduces the new design proposed by the IMF/WB.

¹ Bilateral loans from Paris Club members accounted for 28 percent of the external debt of low- and middle-income countries in 2006, but this share dropped to just 10 percent by 2020(United Nations Economic Commission for Africa, 2024)

² Private debt in Africa grew from 30 percent in 2010 to 44 percent by 2021, outpacing the general trend for developing countries(Gwaindepi, 2025)

2.2 D4D Operational Design: Tripartite Model vs. Country-System Model

Figure 1 visualises the two structural models this section compares, the older tripartite model and the new country-system model, displaying the operational flow of a Eurobond D4D under each design.

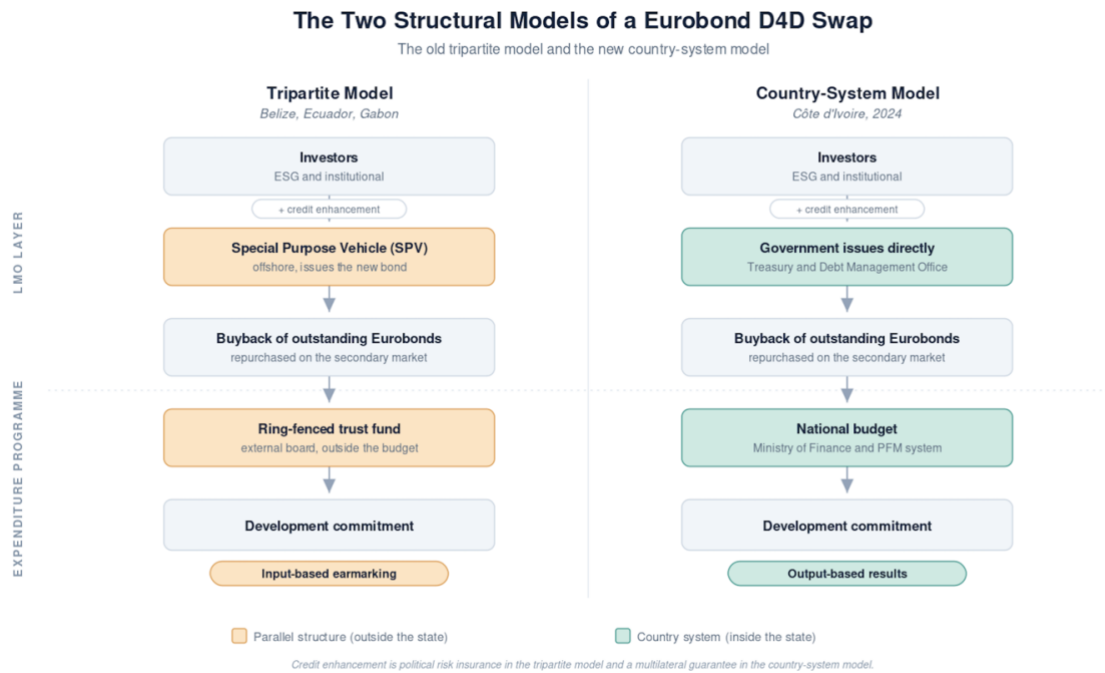


Figure 1. The two structural models of a Eurobond D4D swap.

2.2.1 The Older Tripartite Model

The tripartite model, used among other in Belize, Ecuador, and Gabon, is named for the three parties it involves. It is built around a third-party intermediary which is usually an international NGO, that sits between the sovereign and the capital markets (Chamon et al., 2022; Fontana-Raina and Grund, 2024; Simeth, 2025). Like every D4D swap, it has two distinct layers visible in Figure 1, a liability management operation (LMO) that generates fiscal savings, and an expenditure programme that directs those savings toward a development operation.

The liability management operation (LMO) is a “market-based transaction used to improve the cost-risk profile of public debt, through exchanges, buybacks and similar operations”

(GSDR, 2026, p. 2). In the tripartite model it starts at the top of the chain (see Figure 1). ESG and institutional investors provide capital, which is made possible only through credit enhancement (CE). CE is defined as a guarantee by a more creditworthy third party that lowers the sovereign's risk premium and crowds in capital the sovereign could not access alone (IMF/WB, 2024). Those funds flow into a Special Purpose Vehicle (SPV), a parallel structure outside the country, which issues new blue bonds to investors and on-lends the proceeds to the government as a blue loan (Simeth, 2025). The government then uses those proceeds for a buyback. Meaning for the retirement of outstanding Eurobonds before their maturity date (World Bank Group, 2015). Because Eurobonds trade continuously on the secondary market at prices set by perceived creditworthiness, the repurchase may occur above or below face value (Medeiros et al., 2007). Chapter 3.1 will explain more in detail how the LMO generates savings, depending on the set-up of the buyback and the CE. For now, it is sufficient to understand that these savings are further managed by the second layer of the D4D swap.

The expenditure programme set up to finance the development project is this second layer. It is the structure through which the savings are managed and directed to the development spending commitment. In the tripartite model this expenditure programme is managed in parallel structures outside of the country (IMF/WB, 2024). The savings are channelled into a ring-fenced trust fund administered by an external board sitting outside the national budget (Fontana-Raina and Grund, 2024). Spending is earmarked by input, meaning funds are tied to specific pre-defined expenditures rather than to measurable outcomes (IMF/WB, 2024).

Experience with the tripartite model shows that its design significantly limited the scope for D4D swaps because the parallel structures and the multiple actors involved made each operation complex and expensive. The literature identifies this consistently as the central obstacle to the instrument and explains that this is why negotiations take years and transaction costs rise into the millions. It is argued that this is why commercial D4D has stayed a series of isolated deals instead of a standardised widely applied instrument (see, among others, Chamon et al., 2022; Fontana-Raina and Grund, 2024; Simeth, 2025;

Tkachenko et al., 2024). The recurring question the literature therefore poses is how commercial D4D can be scaled beyond this constraint.

2.2.2 The New Country-System Model

Introduced in 2024 by the IMF and the World Bank, this model aims to standardise and scale D4D swaps by reducing complexity and costs by integrating the operation into the sovereign's own institutions (IMF/WB, 2024). Put simply, the design innovation is a single structural move. As displayed in Figure 1, the new design absorbs the functions the parallel structures previously fulfilled into the countries own systems.

In the LMO layer, the SPV disappears. The issuance function it performed is absorbed by the sovereign itself. It issues the credit-enhanced instrument through its treasury, with the guarantee attached to its own debt (IMF/WB, 2024). The Debt Management Office (DMO) then records and reports the instrument and monitors its debt service (IMF/WB, 2024). The financing the SPV raised runs through the sovereign's own institutions.

In the expenditure layer, the trust fund disappears. With the trust fund gone, the savings run through the national budget, where the Ministry of Finance channels them and the Public Financial Management (PFM) system govern their planning, execution and reporting. The country itself, then controls how and when the money is used (IMF/WB, 2024). This second shift forces a change in accountability structure as well. Since the savings run through the government's budget, they can no longer be ring-fenced to predetermined inputs. Input-based earmarking is replaced by an output-focused mechanism that ties disbursement to verified development results (IMF/WB, 2024). Accountability moves from confirming inputs to confirming outcomes. Whether these savings reach the development operation therefore depends on the strength of the country's institutions. Institutional and governance quality become the central condition for the new model to work, which Chapter 4 examines in detail.

The new design removes the parallel structures and so reduces the number of actors involved. With no SPV and no external trust fund, the complex set-up of parallel structures that made the tripartite model slow and expensive is largely removed. Whether the

Framework manages to scale the commercial D4D since it removed this obstacle or if it introduced new constraints, is the question the following chapters aim to answer.

3 LMO and Debt Sustainability

This Chapter provides a comprehensive overview of the first part of the D4D swap, the LMO. As an LMO, the D4D swap is designed to target liquidity, not solvency risk (IMF/WB, 2024). A sovereign faces a liquidity problem when it lacks the liquid assets needed to meet payments as they fall due, even though its total assets and future revenues are sufficient to cover its obligations over time (Gianviti, 1998). A sovereign faces a solvency problem when its obligations exceed what it can pay in full from current and future resources, so that no amount of refinancing or rescheduling alone restores its capacity to pay (Gianviti, 1998). Liquidity concerns the timing of payments. Solvency concerns the underlying capacity and willingness to pay. The GSDR Practitioner’s Manual is explicit that, “in a country where liquidity, rather than solvency, is the main concern, a LMO supported by a CE can be effective” (GSDR Practitioner’s Manual, 2026, p. 3). This distinction is foundational to understand the nature of the instrument.

The next subchapter builds upon this understanding of the nature of LMOs and evaluates the transmission channels through which the LMO impacts debt sustainability. Section 3.2 then examines the boundary conditions that determine when and for which countries these channels can activate to establish the analytical foundation for the financial eligibility criteria X1 to X5 which will be operationalized in Chapter 5.

3.1 LMO Transmission Channels to Debt Sustainability

The LMO mechanics established in Section 2 affect debt sustainability through three transmission channels, drawing on Medeiros et al. (2007), reducing debt service payments (3.1.1), reducing sovereign risk (3.1.2), and maintaining and expanding capital market access (3.1.3). This section traces the three transmission channels through which the LMO affects debt sustainability, drawing on comparative evidence from Belize, Gabon and Côte

d'Ivoire. Table 1 helps to illustrate how each channel activates under different operational designs and debt profile conditions.

Table 1: Key Financial Parameters of Recent Commercial D4D Swap Operations

Country (Year)	Debt Type	Discount Price (3.1.1)	Original Interest Rate	New Interest Rate (3.1.2)	Maturity Extension (3.1.2)
Belize (2021)	Commercial Bonds	55 cents	6.77%	3% → 6% (step-up)	+6 years
Gabon (2023)	Eurobonds	~85–97 cents	6.625%–7%	6.097%	+4 years
Côte d'Ivoire (2024)	Commercial Loans	At Face Value	>8%	6%	+8 years

Note. Compiled by the author from the sources cited in Section 3.1. Belize figures from Fontana-Raina and Grund (2024); Gabon from World Bank (2024a) and Simeth (2025); Côte d'Ivoire from World Bank (2024, 2025), Diwan and Devie (2025) and Raih (2025). For Côte d'Ivoire, “at face value” reflects a like-for-like refinancing: approximately €400 million of commercial loans was replaced by a €400 million guaranteed loan, with no discount reported, implying no nominal debt stock reduction (World Bank Program Information Document and Case Study, 2024). The eight-year maturity extension is the author’s calculation: the new 15-year loan, maturing in 2039, replaces commercial loans maturing between 2029 and 2033 (World Bank Program Information Document, 2024).

3.1.1 Debt Service Reduction

The debt service reduction channel captures how the LMO impacts debt sustainability by reducing the sovereign's debt service payments through two sub-mechanisms. Debt stock reduction and interest rate compression (Medeiros et al., 2007). In the D4D context specifically, these savings are not retained as fiscal relief but redirected toward the development spending commitment (IMF/WB, 2024). This is important to understand, since it indicates that the debt service reduction channel only positively impacts debt sustainability if the savings of both sub-mechanisms exceed the development spending commitment, which usually is not the case (IMF/WB, 2024).

The first sub-mechanism is debt stock reduction, and its activation depends on the size of the discount to which the outstanding debt can be bought back. As established in Chapter 2,

the buyback combined with CE potentially allows the sovereign to retire outstanding debt at a secondary market discount. The nominal debt stock falls where debt is bought at a discount, the gap between face value and purchase price generates the additional saving (Medeiros et al., 2007). The scale of this effect varies substantially across operations, as illustrated in Table 1. The buyback operation in Côte d'Ivoire repurchased its debt at par³, generating no nominal debt stock reduction (see Table 1). Belize's buyback, on the other hand, repurchased \$553 million of outstanding external commercial debt at a 45% discount, paying \$301 million, and financed this through a new Blue Loan of \$364 million (Fontana-Raina and Grund, 2024). The principal amount of Belize's external public debt stock decreased by \$216 million. The cases together demonstrate that the size of debt stock reduction depends on the secondary market discount to which the outstanding debt can be bought back.

The second sub-mechanism is interest rate compression through refinancing, and its activation depends on the interest rate differential between the outstanding debt and the credit-enhanced replacement instrument. As established CE shifts part of the sovereign's default risk to the guarantor, which makes it a valuable instrument where a sovereign carries high sovereign spreads reflecting elevated risk perception on the market (Chamon et al., 2022). The case studies confirm that the scale of compression varies across operations and depends on the interest rate differential between the retired debt and the replacement instrument. Côte d'Ivoire achieved an interest rate compression of more than 2 percentage points, refinancing debt that cost above 8 percent at 6 percent. Gabon on the other hand achieved a smaller differential of around 0.9 percentage points (see Table 1; World Bank, 2024a; Simeth, 2025). Belize demonstrates a more complex design decision with declining savings over time (Fontana-Raina and Grund, 2024). The new bond produced an initial interest rate differential of 3.77 percentage points from which a contractual step-up design subsequently narrowed the long-term differential to 0.77 percentage points by maturity (Fontana-Raina and Grund, 2024). This design illustrates that the distribution of interest

³ It is to note that Côte D'Ivoire's D4D targeted external commercial bank debt. Commercial bank loans are bilateral contractual arrangements which are not traded on a secondary market. A buyback is possible where the loan contract contains a prepayment clause or through direct negotiation (Polan et al., 2007). Thus, commercial bank loans are usually bought back at face value since no discount mechanism exists.

rate savings over time is itself a design variable. The size of compression therefore depends on the interest rate differential the credit-enhanced refinancing generates.

In conclusion, the debt service reduction channel generates larger savings the deeper the secondary market discount and the greater the interest rate compression. These savings however, barely improve the sovereign's debt sustainability, because they are not retained as fiscal relief but redirected to the development spending commitment.

3.1.2 Sovereign Risk Reduction

The second transmission channel through which the LMO mechanics impact debt sustainability is risk reduction in the sovereign's debt profile, particularly rollover risk reduction. Medeiros et al. (2007) identify rollover risk as one of the main risk's governments seek to reduce through buyback and swap operations. It is defined as the risk that maturing debt cannot be refinanced on acceptable terms or, in extreme cases, cannot be refinanced at all. While Medeiros et al. treat rollover risk alongside interest rate and exchange rate risk as equally relevant targets, more recent literature on the new generation of D4D swaps and LMOs has made rollover risk the primary criterion for candidate selection (IMF/WB, 2024). The IMF/WB framework (2024) identifies sovereigns facing temporary liquidity pressures as the primary use case, and the GSDR Practitioner's Manual (2026) explicitly designates rollover risk mitigation as a standard case for credit-enhanced LMO deployment. As will be explained, this channel targets the vulnerability that arises when a concentration of near-term maturities forces the sovereign into refinancing processes that can destabilise its debt position.

The LMO achieves maturity structure adjustment by replacing near-term maturities with longer-dated instruments. It is often aimed to simultaneously extend the average maturity and produce a smoother repayment profile the lower the probability that a temporary shock escalates into a full rollover crisis (Medeiros et al., 2007). The scale of this effect varies across operations, as illustrated in Table 1. Extensions range from approximately four years in Gabon (2023) to eight years in Côte d'Ivoire (2024) (see Table 1). The Côte d'Ivoire operation repurchased commercial loans maturing between 2029 and 2033 to ease liquidity

pressure over 2025 to 2027. Instead, it replaced them with an instrument carrying a 15-year maturity and a six-year grace period (World Bank, 2024, 2025). The operation is projected to free around €330 million in fiscal savings over the upcoming five years (World Bank, 2024, 2025). This directly replaced a concentrated debt wall with a smoother and more prolonged repayment profile (Raih, 2025).

In conclusion, the rollover risk channel improves a sovereign's debt sustainability by reducing sovereign risk in the debt profile, lowering the probability of future default or costly refinancing pressure. Over time it also helps the sovereign return to market access on better terms, which the next channel developed in 3.1.3.

3.1.3 Capital Market Access and Creditworthiness Signal

Beyond the previous immediate impacts on the debt profile of the country, the LMO generates also long-term macroeconomic benefits through a third transmission channel. The credibility signal the operation sends to markets, reduces the sovereign's future cost of funding at a scale that can substantially exceed the immediate transaction savings.

Medeiros et al. (2007) establish the foundational argument that sovereigns can deploy buyback and swap operations to strengthen their standing with international markets and rating agencies. The IMF/WB framework (2024) confirms that successful operations generate positive spillovers to a sovereign's creditworthiness, primarily through the reduction of debt vulnerabilities (IMF/WB, 2024). This connects the capital market access channel directly to the two preceding channels. By reducing debt service obligations and rollover risk, the operation lowers the sovereign's vulnerability to debt distress. This sends a credibility signal to rating agencies and markets which potentially reduced future cost of funding by lowering the risk premium (IMF/WB, 2024; Diwan and Devie, 2025). Diwan and Devie (2025) argue that this signalling effect is not a secondary benefit but the potential primary economic contribution of the LMO. In their study they prove that the financial benefit of the future cost of funding reductions can exceed immediate transaction savings significantly.

The extent to which the capital market access channel reduces future cost of funding depends on the scale of the operation, the design, and the wider market context in which it is executed. While the positive spillover effects on creditworthiness have been proven, the exact measurement of the effect faces practical challenges since it is hard to precisely measure and predict financial spillover effects (Raih, 2025). This counts particularly for small swaps as Raih (2025) shows where a swap refinances only a small share of a sovereign's debt, its impact might be too subtle to detect or model precisely. It follows that operations addressing a substantial share of outstanding commercial debt send a stronger credibility signal, because the improvement to the sovereign's debt sustainability position is more visible to markets and rating agencies (Global Sovereign Debt Roundtable, 2025; IMF/WB, 2024). Belize illustrates this effect, its D4D swap covered nearly a quarter of its total debt, which significantly changed the country's debt dynamics (Raih, 2025). After the transaction the S&P upgrade Belize's sovereign credit rating from selective default to B-, which restored the market access that had been closed (Fontana-Raina and Grund, 2024; Simeth, 2025). The Côte d'Ivoire case demonstrates that, even where the sovereign maintains market access prior to the operation, the credibility signal can generate future cost of funding reductions that substantially exceed the direct transaction savings. Diwan and Devie (2025) estimate that the 2024 PBG-backed D4D swap reduced sovereign spreads by approximately 32 basis points directly attributable to the transaction. This generated a projected reduction in future cost of funding of around \$200 million in lower interest charges during 2025 to 2029, additional to the direct debt service saving of approximately €60 million in net present value terms (Diwan and Devie, 2025). Gabon illustrates that the channel's activation depends on the wider context in which it is executed. A suboptimal operation design combined with a coup d'état shortly after the operations was executed interrupted the credibility signal (Simeth, 2025). Which led to a subsequently downgrade of Gabon by Moody's from Caa1 to Caa2 (Trading Economics, 2024).

In conclusion, under the right conditions, the future cost of funding channel improves debt sustainability indirectly, because the gains from the two immediate channels raise the country's standing with investors and rating agencies, which lowers the cost of its future borrowing.

3.2 Debt Sustainability Impact: Boundary Conditions and Eligibility Criteria

The transmission channel analysis established that the LMO can influence debt sustainability through three channels, and that each activates only where specific conditions are met. Section 3.2.2 examines those conditions and turns them into the activation criteria, X3 to X5. Two further strict conditions of inclusion, which every operation must meet will be additionally introduced. The first boundary condition is introduced at the start, in Section 3.2.1, because it follows directly from the nature of the instrument as a liquidity tool. Without meeting this condition, no channel can activate safely. The second is introduced at the end, in Section 3.2.3, because it builds on the three channels just established. Without this condition no channel can activate sufficiently to even meet the operation's transaction costs. Together, these five conditions form the analytical foundation for the financial eligibility criteria X1 to X5, operationalised in Chapter 5.

3.2.1 The Debt Profile

The first boundary condition follows directly from the instrument's nature as liquidity tool, determining the condition under which D4D can be even operated safely. As established in the chapter introduction, the LMO is only appropriate where the sovereign's problem is liquidity rather than solvency. This means its obligations are manageable over time but the current debt structure generates payment pressure that the operation can address. In the D4D context this constraint is even more strict. As established in Chapter 3.1.1, the D4D swap commits the debt service savings toward the development spending commitment rather than retaining them as fiscal relief. The instrument is therefore not designed to reduce the debt stock or the total expenditure burden, thus it cannot improve debt sustainability where the sovereign's fundamental problem is solvency rather than liquidity (IMF/WB, 2024). The IMF/WB framework is explicit that “swaps are generally not appropriate when a country's debt situation is such that a comprehensive and deep debt restructuring is likely required to restore sustainability” (IMF/WB, 2024, p. 7).

Where the instrument is deployed in a distressed context it does not only fail to resolve the solvency problem but actively worsens the sovereign's position by introducing budget

rigidity through multilateralisation and the additional spending obligations. The additional spending commitments to the development project are contractually fixed obligations that cannot be reduced even under severe fiscal stress (IMF/WB, 2024). This reduces the sovereign's fiscal flexibility and limits its ability to adjust expenditure downward when revenues fall or external conditions worsen. In a distressed context, this budget rigidity obstructs restructuring process potentially increasing the risk of default (IMF/WB, 2024). Second, CE shifts part of the creditor base to multilateral guarantors whose claims carry de facto seniority (IMF/WB, 2024). A process referred to as multilateralization of the debt. The guaranteed portions are excluded from burden-sharing in any future restructuring. This forces larger losses onto remaining creditors and makes future debt management more difficult (IMF/WB, 2024). Both mechanisms reduce the sovereign's fiscal flexibility. This means, using the instrument in a distressed context risks deepening rather than resolving an underlying solvency problem.

The first boundary condition therefore requires that the sovereign's debt position does not require restructuring or risk default. Sovereign spreads on outstanding commercial debt capture this directly, as they reflect the market's aggregate assessment of the sovereign's default probability at any given point in time (Wu et al., 2007). Sovereign spreads therefore serve as the observable dimension for eligibility criterion X1 operationalised in Chapter 5.

3.2.2 Criteria for the Activation of the Three Use Cases of D4D for Debt Sustainability

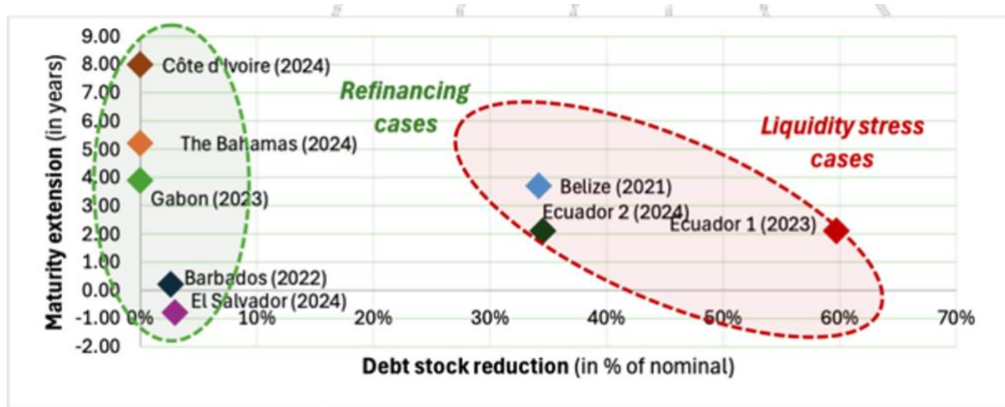
This section translates the three transmission channels of Chapter 3.1 into the observable conditions that determine whether each can activate in the circumstances of a given country. Each channel corresponds to a use case, the debt situation under which it is the primary source of debt sustainability gains. Raih (2025) identifies two such use cases, the refinancing case and the liquidity stress case, in the following named discount buyback case⁴. This thesis adds a third, grounded in Diwan and Devie (2025), arguing that the long-term improvement gains in future cost of funding are a sufficiently meaningful to stand as

⁴ This thesis renamed Raih's, Liquidity stress cases, hoping to generate more clarity and coherence in phrasing, related to the other terminology used throughout this work.

their own case. Each use case is identified by observable activators, and those activators become the financial eligibility criteria X3, X4 and X5, operationalised in Chapter 5.

Raih (2025) maps recent commercial D4D swaps into two use case archetypes based on their primary debt sustainability mechanism. Figure 2 displays this along two dimensions, maturity extension on the vertical axis and debt stock reduction as a share of nominal debt on the horizontal axis. Operations clustering in the upper left represent the refinancing case, where debt is repurchased at or near face value and replaced with longer-dated credit-enhanced instruments delivering maturity extension. Operations clustering in the lower right represent the discount buyback case, where deeply discounted buybacks generate upfront debt stock reductions, though often with shorter maturity gains (Raih, 2025).

Figure 2: Economic map of commercial debt swaps since 2018



Note. Figure 2 reproduces the two-archetype mapping developed by Raih (2025)

The discount buyback case, clustering in the lower right of Figure 2, activates directly through the debt service reduction channel, where Chapter 3.1.1 established that sovereign credit spreads on outstanding commercial debt are the key activation indicator. Sovereign spreads are used as the observable dimension for the eligibility criterion X3 in Chapter 5 because they capture the savings potential of this archetype through relationships established in Chapter 3.2.1. A higher spread means a larger gap between the existing debt cost and what credit-enhanced refinancing can achieve, enabling greater interest rate

compression⁵. X3 therefore measures Savings Potential through sovereign spreads on outstanding commercial debt.

The refinancing case, clustering in the upper left of Figure 2, activates through the rollover risk reduction channel, where Chapter 3.1.2 established that near-term maturity concentration is the key activation indicator. The refinancing case applies where near-term maturity concentration is elevated, since the buyback can address these maturity walls through maturity structure adjustment. As previously established, the higher the concentration of near-term maturities, the more rollover risk the sovereign faces. Thus, the larger the potential benefit on debt sustainability through the replacement of those maturities with longer-dated instruments. Near-term maturity concentration therefore serves as the activation indicator for eligibility criterion, Rollover Risk (X4), operationalised in Chapter 5.

Diwan and Devie (2025) work is used to argue for a third use case archetype alongside Raih's two, adding operations where the primary debt sustainability impact is the long-term improvement in future cost of funding. As established in Chapter 3.1.3, the indirect gains from this channel can substantially exceed direct transaction savings. However, unlike X3 and X4, this channel is difficult to assess both before and after the transaction (Simeth, 2025; Raih, 2025). The IMF/WB framework and the transmission channel logic in Chapter 3.1.3 point toward two observable conditions that proxy for its activation potential. First, the sovereign's rating trajectory, the framework gives preference to sovereigns closer to a rating upgrade, where distressed exchange classification risk is lowest (IMF/WB, 2024). Medeiros et al. (2007) stress that “countries need to select and time their operations carefully,” because “an unsuccessful operation may harm the government's reputation and lower its creditworthiness” (Medeiros et al., 2007, p. 11). Thus, the current perception of the Sovereign in international markets is an important factor. Second, as established earlier the share of total external debt the operation covers and its impact on the debt dynamic of the sovereign determine the signalling power the operation can have. Rating

⁵ Distressed situation might also indicate a higher secondary market discount however this must be evaluated more on a case-by-case basis of the current situation on the secondary market and other characteristics of the bond itself.

trajectory and size relative to debt stock share are therefore the two observable dimensions through which eligibility criterion X5, Future Cost of Funding, is assessed in Chapter 5.

The countries initial debt situation determines which of the three user cases generates beneficial impact on debt sustainability. The three transmission channels must together generate savings at sufficient scale to exceed transaction costs, establishing a minimum financial viability threshold below which, the D4D swap does not create net benefits. This is introduced as the last strict condition of inclusion in the following subchapter.

3.2.3 Financial Viability and the Net Benefit Condition

The net benefit condition requires that the volume of debt swapped is large enough for the combined savings across all three transmission channels to exceed the transaction costs of the operation. Even where the debt position is appropriate and the debt profile exhibits characteristics that activate transmission channels, a D4D swap is only justified where it generates an overall positive net financial benefit (IMF/WB, 2024). The IMF/WB framework is explicit that financial benefits have historically been assessed too simplistically (IMF/WB, 2024). Considering only nominal debt service savings fails to account for the time value of money and the transaction costs (IMF/WB, 2024). A complete assessment requires calculating net benefits as the present value of savings across all the transmission channels established in Chapter 3.2. The direct debt service reduction, sovereign risk improvement, and future cost of funding spillovers, minus all transaction costs and guarantee fees (IMF/WB, 2024).

As Chapter 2 established, it is exactly these costs that made the tripartite model's parallel structures the binding constraint on D4D scalability. It was shown that under the old structure model the implementation arrangement causing high transaction costs severely damaged the economic case, especially for smaller transactions (Chamon et al., 2022; Fontana-Raina and Grund, 2024; Simeth, 2025). The reason is that a large share of these costs is fixed. Simeth (2025) describes them as initial fixed expenses, legal fees, SPV creation and arranger fees, on top of continuing operational costs. Because fixed costs do not scale with deal size, they make up a proportionally larger share of a small transaction

than of a large one. The Belize operations illustrate the problem of the high transaction costs clearly. The full cost of the financial intermediation chain reached approximately \$85 million against a conservation commitment of \$79.8 million (Fontana-Raina and Grund, 2024; Diwan and Devie, 2025). In a buyback of \$553 million at a 45% discount, these costs are significant but manageable (Fontana-Raina & Grund, 2024). In smaller operations the same fixed cost structure would rapidly eliminate the net benefit entirely, confirming that the instrument has historically been viable only for large transaction size threshold (IMF, 2024).

The net benefit condition therefore establishes that a D4D swap is viable only where the present value of savings across the three transmission channels exceed its transaction costs. It is operationalised as the second condition of inclusion variable, X2 in Chapter 5. This formalises the constraint Chapter 2 identified in regard of the tripartite model's parallel structures. Thus, this eligibility criteria tests whether minimum size persists being a limiting factor on scope in the new mode even though the country-system model significantly changed the design of the expenditure programme. A logic further examined in the next chapter.

4 Expenditure Programme and SDG Financing

This chapter argues that the tripartite model not only raised transaction costs but additionally systematically violated the development effectiveness standards the international community has agreed constitute good practice. It further argues that the shift toward country-system integration established by the IMF/WB framework corrects those violations. This chapter makes this case by evaluating the second half of D4D swaps, the expenditure programme. It contributes to the research question in two ways. It shows that the usage of country systems delivers development effectiveness and lowers transaction costs. Further it establishes that those gains are conditional on institutional capacity and governance quality, which become the binding preconditions operationalised as eligibility criteria X6 and X7 in Chapter 5.

The analysis is organised around a design continuum shown in Figure 3 which maps the expenditure programme's design choices along two axes. The vertical axis captures the implementation arrangement, extending the distinction introduced in Chapter 2, from the fully parallel structures of the tripartite model at the bottom to full country-system integration at the top. The horizontal axis captures the degree of earmarking, from full input-based earmarking on the left to softer outcome-based accountability on the right. Four archetypes sit along the continuum, from the offshore SPV, through the NGO and the public implementation unit with third-party verification, to the fully integrated public unit. The tripartite model therefore sits at the bottom left of the continuum, and the country-system model moves the operation up and to the right.



Figure 3: Design continuum of the expenditure programme

Source: (IMF/WB, 2024, p).

Section 4.1 analyses the change when moving along these two axes, using the Paris Declaration on Aid Effectiveness as the benchmark of good development practice to trace the impact on the transaction cost and development outcomes (OECD, 2005). Section 4.2 then examines the institutional boundary conditions that determine whether these gains can be realised, establishing institutional capacity and governance quality as the binding constraints that ground X6 and X7 in Chapter 5.

4.1 Transmission Channels to Development Outcome

4.1.1 Country System: Ownership, Alignment & Harmonisation

This section shows that country-system integration corrects the three Paris Declaration violations built into the tripartite model, ownership, alignment, and harmonisation, and that correcting them activates two transmission channels to development outcomes. Long-term institutional capacity building, from the ownership correction, and transaction cost reduction, from the alignment and harmonisation corrections.

Parallel structures violate the Paris Declaration principle of ownership by preventing institutional capacity from developing. Under the Paris Declaration, ownership means that “partner countries exercise effective leadership over their development policies, and strategies and co-ordinate development actions” (OECD, 2005, p. 5). Lack of ownership raises several concerns in development literature. Most relevant in this context is the long-term effect on capacity building (OECD, 2009). The OECD establishes that parallel structures set up by donors are designed to ensure short-term efficiency but are shortsighted, as results are frequently not sustained once the parallel structure is abandoned (OECD, 2009). Therefore, the usage of parallel structures increases the long-term dependency of the receiving country on external structures rather than building its own (OECD, 2009). In the D4D context specifically, using the SPV and Trust Fund as the implementation arrangement risks keeping the relevant country structures underused and underdeveloped, hindering the country's long-term development trajectory.

Country system integration corrects this. The IMF/WB framework operationalises ownership through the Y-axis shift in Figure 3, embedding execution within country systems, leading to better implementation, results, and long-term sustainability of programmes through institutional capacity building (IMF/WB, 2024). The development aid literature strongly supports this claim. The Paris Declaration establishes that using a country's own institutions increases aid effectiveness by strengthening its sustainable capacity to develop, implement, and account for its own policies (OECD, 2005). The Accra Agenda for Action reinforces this, explicitly recognising that the act of using country systems promotes their institutional development (OECD, 2008). The OECD illustrates this with the image that country systems, “like muscles, must be exercised if they are to grow stronger” (OECD, 2009, p. 18). In the context of D4D the implementation arrangement proposed by the framework supports long-term capacity building of the countries PFM system and DMO. The implementation arrangement proposed by the framework specifically, the PforR takes capacity building even further. The PforR assessments identify specific capacity gaps and formalise measures to address them through Program Action Plans. These are a set of agreed actions integrated into the government's programme to address systemic gaps in procurement, audit, and fiduciary management (IEG, 2016; World Bank Group, 2011). Thus, the design actively embeds long-term institutional capacity building into the programme itself.

Parallel structures also violated the Paris Declaration principles of alignment and harmonisation by bypassing existing country systems and creating expensive duplicative parallel structures. Alignment requires donors to base support on partner countries own systems and procedures rather than creating parallel ones, and harmonization requires eliminating duplicative processes that raise transaction costs (OECD, 2005). The international community has explicitly committed to use country's own systems for aid delivery first, warning that creating parallel new systems risks fragmentation and raises coordination costs at the country level (OECD, 2008). Parallel structures violated both principles simultaneously by establishing the SPV and Trust Fund as new external channels running alongside country PFM systems. Managing these externally controlled commitments then required ongoing intermediary and financial facilitator involvement,

generating continuous costs on top of the fixed set-up costs of the SPV and Trust Fund (Nedopil and Sun, 2025). As established in Chapter 2, these combined costs made parallel structures the primary scalability constraint on D4D swaps.

Country system integration corrects this by eliminating the need to construct parallel structures entirely. Rather than setting up a legally expensive SPV and offshore Trust Fund, the Finance Ministry and PFM system replace both (IMF/WB, 2024). Thus, in the new model no new parallel structures need to be created nor maintained (IMF/WB, 2024). In Côte d'Ivoire, transaction costs were strictly limited for exactly this reason, with savings being channelled directly through the national budget rather than through a parallel structure (Diwan and Devie, 2025; World Bank, 2024a). Practitioners directly involved in structuring these operations confirm that this approach reduces the execution and monitoring costs of the operation to near zero (Debt Sustainability Expert Interview, 2025). By eliminating the construction and maintenance costs of parallel structures, country-system integration directly strengthens the economic case established in Chapter 3.2.3.

The shift toward country-system integration therefore activates two transmission channels simultaneously, long-term institutional capacity building through the correction of the ownership violation, and transaction cost reduction through the correction of the alignment and harmonisation violations. Section 4.1.2 examines the shift along the X-axis of Figure 3, moving from full earmarking toward results-based accountability and correcting the Paris Declaration principle of managing for results.

4.1.2 Managing for Results

Full earmarking violated the Paris Declaration principle of managing for results by creating false incentives to comply with spending requirements rather than achieving development outcomes.

The Paris Declaration defines managing for results as implementing aid in a way that focuses on desired results (OECD, 2005). The Accra Agenda for Action links the absence of a results focus to growing concerns about the transparency and effective use of aid resources (OECD, 2008). This is because input-based accountability is a distortion of

incentive since it ties disbursement to what was spent rather than what was achieved. The problem is that if a government needs to hit a spending target it has the incentive to direct resources toward activities that are easy to document rather than toward activities that produce the intended development outcome (World Bank Group, 2011). These risks produce efficiency losses that undermine the operation's purpose (World Bank Group, 2011). In the D4D context, full earmarking produces exactly this distortion. By tying disbursements to predetermined expenditure items, it creates a transaction focus that prioritises legal and procedural compliance over development results (World Bank Group, 2011). Beyond distorting incentives, full earmarking locks resources into predefined categories which limits the governance flexibility to respond to changing circumstances. The IMF/WB framework explicitly warns that expenditure earmarking increases budgetary rigidity, complicates consolidation efforts and prevents the efficient management of the total resource envelope (IMF/WB, 2024). The Belize example shows that rigidity in its most extreme form. The earmarked conservation payments were tied to the Blue Loan by a cross-default clause. This means missing one would have triggered catastrophic financial consequences (Fontana-Raina & Grund, 2024). This effectively forced the government to prioritise the predefined milestones over national needs even such as emergency responses to crisis (Fontana-Raina and Grund, 2024; IMF/WB, 2024). Both problems follow from input-based accountability.

Results-based accountability corrects both problems by shifting the accountability question from how money was spent to what was achieved. The IMF/WB framework operationalises this through movement along the X-axis of Figure 3, shifting from full earmarking toward outcome-focused accountability (IMF/WB, 2024). PforR makes a ministry accountable for the specific development outcomes (Clist and Dercon, 2014; World Bank Group, 2011). It effectively corrects the compliance distortion that full earmarking produced.

Additionally, it simultaneously corrects the budget rigidity that full earmarking produced. Because results-based accountability defines what must be achieved without prescribing how, it leaves the government flexibility over resource allocation and allows shifting spending priorities without triggering accountability failures (Clist and Dercon, 2014;

World Bank Group, 2011). The instrument is designed to provide this flexibility across differing country contexts (IEG, 2016). In Côte d'Ivoire, both corrections materialised in practice. The restructured education PforR linked ministerial accountability to the verified construction of 33 additional schools rather than to expenditure compliance, aligning government behaviour with the development goal while preserving the flexibility to manage implementation through national PFM structures (World Bank, 2024a). Results-based accountability therefore generates more effective development outcomes but only under specific circumstances examined in Chapter 4.2.2.

4.2 Limitations, Risks and Institutional Preconditions for usage of the new D4D Design

4.2.1 Institutional Capacity as a Binding Constraint

Country system integration only generates the ownership, alignment, and harmonisation gains established in Chapter 4.1.1 where the countries institutions have sufficient capacity to carry the operational burden. In environments of weak institutional capacity, relying on PFM systems, risks overloading these structures which generates development and reputational risks.

In the context of D4D, development risk describes the danger that the ultimate objective of the aid intervention is not met due to country system failures, even where there was no misuse of fund (OECD, 2009). The IMF/WB framework explicitly acknowledges this risk, noting that D4D swaps are intrinsically complex to analyse, record, and report on, and that in low-capacity environments their requirements can divert resources from core debt management functions (IMF, 2024). One way this overload materialises is through the additional technical demands the operation places on existing PFM and debt management infrastructure. Where the budget nomenclature is weak or budget and accounting classifications are not integrated, the resulting loss of information means budgetary operations cannot be reliably tracked (Jacobs et al., 2009). This undermines the monitoring the operation depends on and introduces development risk. A PforR operation in Mozambique exemplifies the risk of country system overload and monitoring failures in

practice. In Mozambique the government's audit body responsible for DLI verification was severely understaffed and required external capacity-building grants to prevent the verification mechanism from collapsing entirely due to the additional burden of the programme (IEG, 2016).

Where development risk materialises, reputational risk follows. The OECD (2009) establishes that perceived weakness in a country's systems does not only affect a single donor relationship but endangers the sovereign's entire availability of resources, reducing its ability to attract external finance. In the D4D context this has a direct consequence for the capital market access channel established in Chapter 3.1.3. Where system overload causes the development objective to be missed, the operation creates negative spillover effects on future cost of funding. Fontana-Raina and Grund (2024) illustrate this through the Belize case, explaining that a default on the Blue Loan would have signalled failure to international markets, damaging the sovereign's relationships with trading partners and future investors.

This only matters where the country responsibly accesses the external market. Many low-income countries turned to expensive commercial debt only because cheaper concessional finance dried up, and that borrowing is a big part of why they are now in distress (Gwaindepi, 2025). For them, getting back into expensive markets is not the goal. The priority is concessional finance and building up domestic capital markets that reduce their reliance on external commercial debt (AFRODAD, 2023). This thesis returns to that point in its policy implications (Chapter 7).

The importance of institutional readiness for system usage is broadly recognized in development literature. Even the Accra Agenda for Action emphasising that the Paris Declaration principles can not be applied uniformly but need to be adapted to environments of weak ownership and capacity (OECD, 2008). These risks together establish that country-system integration is only appropriate where institutional capacity is sufficient to absorb the operational demands of the swap without generating development or reputational risk. In Chapter 5 this is operationalised as X6 Transparency and Debt Management.

4.2.2 Governance Quality as a Binding Constraint

Country system integration only generates the managing for results and mutual accountability gains established in Chapter 4.1.2 where governance quality is sufficient to ensure that funds flow as committed and outcomes are genuinely pursued. In environments of low governance quality, result-based accountability mechanism jeopardizes the development target being met due to fiduciary risks.

Fiduciary risk is the mechanism through which governance weakness undermines the achievement of the indicators used in result-based accountability⁶ and is defined as the danger that funds passing through country systems are not used as intended (OECD, 2009). The IEG (2016) confirms that fiduciary risk is the dominant driver of overall programme risk in PforR operations. Case evidence points to governance failures in budget management, accountability structures, and anti-corruption capacity as significant drivers of this risk (IEG, 2016). When these governance weaknesses are elevated, it can make the country fail to meet the required results, leading to the expected financing being withheld (IEG, 2016). At this point fiduciary risk translates into what this thesis terms funding risk. Under results-based financing, the government is paid only once the agreed results are verified (World Bank Group, 2011). It therefore funds the development investment upfront, expecting the disbursement to follow. If governance weakness prevents those results from being met, that disbursement is withheld potentially causing a spending gap it had not budgeted for, putting completion of the project, and the development objective at risk (World Bank Group, 2011).

The IMF/WB framework therefore requires solid governance as a precondition for results-based D4D swaps. Governance quality can be measured and compared across countries through the World Bank's Country Policy and Institutional Assessment (CPIA), which scores budget and financial management, the quality of public administration, and transparency, accountability and corruption in the public sector (IMF/WB, 2024). Because it applies the same criteria to all IDA-eligible countries, the CPIA gives a consistent cross-country benchmark for the governance dimensions that matter to results-based D4D (World

⁶ In the case of the World Bank PforR they are called Disbursement Linked Indicators (DLI)

Bank Group, 2024). Governance quality therefore functions as the second binding constraint on the integrated design and is operationalised as eligibility criterion X7 Governance Quality in Chapter 5.

5 West Africa Application

This chapter combines the insights of Chapters 3 and 4 in an eligibility screening model to analyse to what extent West African countries meet these financial and institutional conditions to assess the scope of possible D4D implementation. It starts by establishing the first layer of structural exclusion, based on the debt market profile (5.1). The eligibility screening methodology is then explained, introducing the financial (5.2.1) and institutional eligibility (5.2.2) criteria. Thereafter the eligibility scoring results are presented visually as a heat map and analytically interpreted (5.3).

5.1 West African Debt Markets and Structural Exclusion

This chapter will use a debt composition analysis to demonstrate that the first layer of structural exclusion, the existence of Eurobonds, is the primary limit on Eurobond D4D swaps, already excluding ten of the fifteen ECOWAS countries. Table 2 presents the external debt composition of all fifteen member states for 2023. The debt data is presented by creditor type and the countries are grouped into three clusters displaying the theoretical applicability of the new D4D Model based on debt market development. Ranging from A structurally applicable, B theoretically possible but data-limited, to C structurally irrelevant.

Table 2: External Debt Composition of ECOWAS Member States (2023, % of total external debt)

Table 1. External Debt Composition of ECOWAS Member States (2023, % of Total External Debt)					
Country	Bilateral (%)	Bonds (%)	Commercial Banks (%)	Multilateral (%)	Cluster
Cluster A — Bond-Issuing Countries (Full Assessment Applicable)					
Nigeria	13.7%	36.1%	2.3%	47.9%	A
Ghana	11.9%	46.0%	14.8%	27.3%	A
Côte d'Ivoire	21.1%	30.2%	22.8%	25.9%	A
Senegal	23.5%	19.4%	13.6%	43.5%	A
Benin	10.3%	25.3%	17.4%	47.0%	A
Cluster B — Commercial Bank Debt Only (Theoretically Possible, Data-Limited)					
Cabo Verde	18.7%	0.0%	24.0%	57.4%	B
Guinea	43.6%	0.0%	14.6%	41.9%	B
Niger	14.3%	0.0%	3.8%	81.9%	B
Sierra Leone	17.7%	0.0%	12.1%	70.3%	B
Togo	28.4%	0.0%	17.4%	54.2%	B
Cluster C — Multilateral Dominated (Structurally Excluded)					
Burkina Faso	9.5%	0.0%	0.8%	89.7%	C
Liberia	9.0%	0.0%	0.5%	90.4%	C
Mali	27.2%	0.0%	0.0%	72.8%	C
Gambia, The	34.6%	0.0%	2.4%	63.0%	C
Guinea-Bissau *	15.6%	0.0%	0.0%	84.4%	C

*Source: World Bank International Debt Statistics (2023). * Guinea-Bissau: bond figure in IDS reflects WAEMU regional treasury securities (CFA franc denominated, held by regional banks, not internationally traded). Reclassified as zero for this analysis; shares recalculated accordingly. See text for methodological note.*

Source: World Bank International Debt Statistics (2023).

Most ECOWAS member states fall into Cluster C, where multilateral concessional debt dominates the external debt profile. Burkina Faso, Liberia, Mali, Gambia, and Guinea-Bissau hold between 63 and 90 percent of their external debt with multilateral creditors. Since these countries have no internationally traded commercial debt, there is naturally no possibility of a commercial debt buyback, which excludes Cluster C from using D4D.

The five additional countries in cluster B hold relevant commercial bank debt but have issued no internationally traded Eurobonds. Thus, in Cabo Verde, Guinea, Niger, Sierra Leone, and Togo commercial bank loan D4D swaps are theoretically possible based on their debt profiles, but data limitations prevent a systematic eligibility assessment within the scope of this analysis. Cluster B countries are therefore noted as a theoretically relevant but data-limited case and excluded from the screening model which concentrates on Eurobond D4D.

Eurobond debt exists in only five ECOWAS member states. Nigeria, Ghana, Côte d'Ivoire, Senegal, and Benin have all issued internationally traded Eurobonds with bond debt shares ranging from 19 to 46 percent of total external debt. These five countries form Cluster A will be assessed against the financial and institutional eligibility criteria of the new D4D model in Chapter 5.2.

5.2 Eligibility Screening Methodology

This section operationalises the framework's eligibility criteria into a quantitative scoring model, for systematic comparison across the five Cluster A countries. The IMF/WB framework sets these criteria across financial and institutional dimensions (IMF/WB, 2024). Each variable follows the framework's indicative thresholds as closely as possible. Where the framework does not specify a threshold, the operationalisation is derived from the transmission-channel logic established in Chapters 3 and 4. Full technical detail is provided in the Methodology Appendix.

The eligibility screening must be read considering its purpose. It indicates regional trends in the degree of eligibility across the five cluster A countries. It does not determine appropriateness for any individual country. The framework is explicit on this point. Its inclusion criteria can identify cases where D4D swaps have the largest likelihood of being beneficial, but the thresholds are indicative, and each transaction needs to be evaluated separately based on country-specific circumstances and market conditions at the time of the swap (IMF/WB, 2024, p. 12; para. 19). The screening should therefore be read as the foundation for analysing regional patterns showing where eligibility concentrates, and why.

The first layer consists of two binary hard filters, X1 and X2, which establish the strict condition of inclusion for D4D application. A country failing either is structurally ineligible for a Eurobond-based D4D swap, regardless of its scores on any other dimension. The second layer consists of five continuous scoring variables, X3 through X7, standardised to a 0–1 scale to show the degree of eligibility along each dimension. The financial variables indicate the degree to which each financial transmission channel is likely to operate, giving a picture of the financial opportunity. The institutional variables measure the institutional

readiness of the sovereign to operate the new expenditure programme design. Taken together, the continuous variables indicate how well-positioned each country is across the eligibility dimensions. Table 3 provides an overview of all seven criteria.

Table 3: Eligibility Criteria Overview

Criterion	Type	Transmission Channel / Basis	Key Threshold / Scoring Logic
X1: Default Risk	Binary (0,1)	Boundary condition, Ch. 3.3.1	Portfolio avg. spread < 1000 bps: pass; ≥ 1000 bps: excluded
X2: Minimum Transaction Size	Binary (0, 1)	Boundary condition, Ch. 3.3.3	Total Eurobond stock ≥ USD 50m: pass; < USD 50m: excluded
X3: Savings Potential	Continuous (0-1)	Ch. 3.2.1 Direct debt service savings	Average Eurobond portfolio spread over risk-free benchmark; 0 = 200 bps; 1 = 1000 bps
X4: Rollover Risk	Continuous (0-1)	Ch. 3.2.2 Sovereign risk reduction	Share of Eurobond stock maturing within 3 years; benchmark 50%
X5: Future Cost of Funding	Continuous (0-1)	Ch. 3.2.3 Spillover effects	Equal-weight composite: rating outlook score + eligible debt as share of total external public debt
X6: Institutional Capacity	Continuous (0-1)	Ch. 4.3.1 Institutional capacity	Composite of 9 indicators from World Bank Debt Reporting Heat Map
X7: Governance Quality	Continuous (0-1)	Ch. 4.3.2 Governance quality	Composite of 3 CPIA indicators; 1–6 scale normalised to 0–1; < 0.44 = below World Bank fragility threshold

5.2.1 Financial Eligibility Criteria

X1 – Default Risk

X1 is the first binary strict condition of inclusion. It indicates whether a country's default risk is low enough for a D4D swap to be deployed since deploying the instrument where default risk is too elevated actively worsens the sovereign's restructuring possibility through budget rigidity and multilateralisation as established in Chapter 3.3.1. Sovereign spreads are the market's aggregate assessment of default probability, making them the natural observable for this boundary condition. The IMF/WB framework sets 1000 basis points as the indicative threshold above which default risk is too elevated for appropriate deployment

(IMF/WB, 2024). A portfolio average spread below 1000 basis points scores 1. A spread at or above 1000 basis points scores 0 and excludes the country from further assessment.

X2 – Minimum Transaction Size

X2 is the second binary strict condition of inclusion. It screens whether the volume of outstanding Eurobonds is large enough for the transmission channels (Variable X3-X5) to potentially generate net positive benefits after transaction costs. As established in Chapter 3.3.3, the net benefit condition of each swap needs to be positive after subtraction of all costs. Even though the new design implementation model reduced transaction cost significantly the framework still proposed USD 50 million as the indicative minimum threshold (IMF/WB, 2024). A total outstanding Eurobond stock at or above USD⁷ 50 million scores 1. A stock below USD 50 million scores 0 and excludes the country.

X3 – Savings Potential

X3 is a continuous variable indicating the saving potential through the direct debt service savings transmission channel across the outstanding Eurobond portfolio. As established in Ch. 3.2.1/ 3.3.2 the debt service reduction channel activates where sovereign spreads are wide enough for CE to generate meaningful interest rate compression⁸. The IMF/WB framework identifies spreads above 200 basis points as the indicative threshold for meaningful savings generation (IMF/WB, 2024). X3 measures savings depth as the weighted average spread of the portfolio, scaled from the minimum threshold proposed by the IMF/WB Framework to a 1000 bps upper benchmark.

X4 – Rollover Risk

X4 is a continuous variable measuring the degree through which the sovereign risk reduction channel can be activated by restructuring a country's near-term maturity concentration in the outstanding Eurobond portfolio. As established in Chapter 3.3.2, the higher the share of near-term maturities, the stronger the potential for debt sustainability improvement from maturity extension. X4 is the share of the Eurobond portfolio maturing within three years, read against the 50% benchmark above which near-term rollover

⁷ Or the equivalent in Euro

⁸ And buybacks potentially secondary market discounts

concentration becomes significant. The variable is operated as near-term Eurobond volume divided by the country's total outstanding Eurobond volume continuously scoring between 0 and 1.

X5 – Future Cost of Funding

X5 is a continuous variable measuring to which degree an operation can potentially activate the transmission channel of future cost of funding. As established in Chapter 3.2.3, the financial spillover effects of D4D swaps are hard to predict accurately, less so where the swap represents a larger portion of the debt and significantly changes a sovereign's debt dynamics. Thus, this variable and its two combined thresholds should be interpreted in caution of this point. The first threshold follows the IMF/WB Framework preference to sovereigns closer to a rating upgrade and uses S&Ps credit rating outlook (IMF/WB, 2024, p. 12). The second threshold is the debt impact ratio, expressed as the eligible Eurobonds as a share of total external debt. It captures whether the operation is large enough to move market perception. Total external debt is used as the reference because external debt introduces similar risk in the debt, which is what the market assesses when pricing creditworthiness. The larger the share of that burden the operation covers, the stronger the potential signal it sends. X5 is operationalised as an equal-weight composite of the rating outlook score and the debt impact ratio continuously scoring between 0 and 1.

5.2.2 Institutional Eligibility Criteria

X6 – Institutional Capacity

X6 is a continuous variable which measures whether the sovereign's transparency and debt management capacity are sufficient to execute a D4D swap through country systems. As established in Chapter 4.3.1, country-system integration risks overloading national institutions where capacity is insufficient. Transparency and debt management capacity are taken together and operationalised through the World Bank Debt Reporting Heat Map, which the IMF/WB framework proposes for assessing transparency (IMF/WB, 2024). Arguably the Heat Map also signals debt management capacity because the periodicity and time lag of reporting reflect the country's underlying recording systems, and the publication

of a Debt Management Strategy reflects a functioning debt management framework. It is operationalised as an equal-weight composite of the nine Debt Reporting Heat Map indicators, continuously scoring between 0 and 1 where a high score indicates country system readiness for the integrated design model and its potential to generate efficiency gains and long-term capacity building benefits. A low score indicates that institutional capacity is insufficient and that country-system integration would generate operational and reputational risk.

X7 – Governance Quality

X7 measures whether governance quality is sufficient to ensure that funds flowing through country systems are used as committed and that the agreed development outcomes are genuinely pursued. The IMF/WB framework requires solid governance as a precondition for results-based D4D swaps and recommends 3 CPIA indicators particularly as the indicating thresholds (IMF/WB, 2024). X7 is the equal-weight average of the three normalised CPIA indicators, scored on its natural 0 to 1 range, where a score below 0.40, a CPIA of 3.0 falls below the World Bank fragility threshold (WBG, 2020). A high score indicates governance strong enough to benefit from the improved incentive structure and efficiency gains of results-based accountability. A low score indicates the introduction of fiduciary risk and an elevated probability of not reaching the DLIs, which risks the future funding of the development project.

5.3 Eligibility Screening Results

Table 4 presents the eligibility screening results for the five Cluster A countries (IMF/WB, 2024). Read together, they answer how far the D4D swaps under the frameworks design, is potentially applicable among the ECOWAS states. The answer indicated in the heat map is, narrow and uneven. The instrument is applicable to only four of the fifteen states. Among these, the financial eligibility criteria point only in scattered cases toward a high debt sustainability impact, with low to moderate activation potential for the transmission channel. All four also operate in an elevated risk environment, due to weaknesses in their institutional eligibility scores, which likely narrows applicability further. The section

demonstrates this by reading the map in two steps. The first is the structural eligibility discovering which sovereigns qualify at all. The second are the continuous variables showing how strong the financial and institutional case is for those that do. An additional overview of the foundational Eurobond data of each country can be found in Table 5 at the end of this chapter.

Table 4: D4D Swap Eligibility Screening Results, ECOWAS

D4D SWAP ELIGIBILITY SCREENING – WEST AFRICA

Cluster A (Eurobond issuers). Data vintage: April 2026.

Country	FINANCIAL – Hard Filters (pass/fail)		FINANCIAL – Continuous (degree of eligibility)			INSTITUTIONAL – Continuous		COMPOSITE	
	X1 Default Risk	X2 Min. Tx. Size	X3 Savings Potential (spread depth, 200-1000 bps)	X4 Rollover Risk (1-3y stock, scaled to 50%)	X5 Future Funding Cost	X6 Institutional Capacity	X7 Governance	Financial Composite	Institutional Composite
Benin	1	1	0.2	0	0.43	1	0.53	0.21	0.77
Côte d'Ivoire	1	1	0.13	0.06	0.43	0.94	0.57	0.21	0.76
Ghana	1	1	0.04	0.61	0.34	0.89	0.5	0.33	0.69
Nigeria	1	1	0.15	0.45	0.68	0.56	0.33	0.43	0.44
Senegal	0	1	1	0.41	n.c.	0.17	0.5	0.71	0.33

Continuous: 0 0.25 0.5 0.75 1 grey = n.c.
 Green = criterion strong / met, red = weak / absent. X4 is scaled to its 50% materiality boundary; all other continuous variables to their column range. Gates: green pass / red fail. Grey = n.c.

Senegal fails X1 (spread >1000 bps): structurally ineligible regardless of other scores. X5 = n.c. X3 = savings depth = (avg spread - 200bps)/(1000-200bps); the 1000 bps upper anchor coincides with the X1 solvency gate, beyond v

The primary limitation on the framework's regional applicability among the ECOWAS states is structural ineligibility due to the debt market structure. As established in Chapter 5.1, ten of the fifteen ECOWAS member states are not included in the eligibility screening. Since they do not issue Eurobonds, a Eurobond-based D4D swap is naturally inapplicable. The eligibility screening therefore includes only the five Cluster A countries. Within that group, the two structural conditions of eligibility do little further narrowing. The default-risk filter (X1) removes only Senegal, whose portfolio average spread exceeds 1000 basis points. Every Eurobond issuer clears the USD 50 million minimum size floor. After the hard-filter screening, Benin, Côte d'Ivoire, Ghana and Nigeria remain the potential candidates for D4D application in the region. The biggest limitation on applicability is structural ineligibility, particularly debt market development.

D4Ds financial eligibility is defined by country, not by regional pattern, so how strongly each transmission channel can be activated differs on a case-by-case basis. The savings potential channel is low for the four eligible countries. It runs from Benin, the strongest case at 0.20, down to 0.04 for Ghana, whose average bond spread sits close to the savings floor. Only Senegal, which is structurally excluded, reaches the top of the scale with full

savings potential. By contrast the Rollover risk, shows medium to strong potential for some countries and very little for others. Against the 50% benchmark for material near-term concentration, Ghana and Nigeria carry the largest share, at 0.61 and 0.45 with the structurally excluded Senegal close behind at 0.41. Benin has none and Côte d'Ivoire only 0.06. These differences indicate that each country in the region follows its own debt management trajectory rather than a shared regional trend. The future cost of funding channel is the one element common to all four. It is present at a moderate to moderately high level between 0.34 in Ghana and 0.68 in Nigeria. The financial composites range from 0.21 to 0.43 which demonstrates that no eligible country is strong across every channel. A clear financial driver emerges for only some, with the weakest case being the savings potential channel.

Unlike the financial case, the institutional dimension shows a clear regional pattern. Governance quality imposes a shared regional constraint on D4D applicability, while institutional capacity distinguishes high- and low-risk countries. Governance quality is weak to medium across the whole eligible set. On the CPIA scale, the three governance indicators run from 0.05 for Senegal to 0.57 for Côte d'Ivoire. From the eligible countries Nigeria falls 0.07 points below 0.40, the fragility threshold, and the others sit at or only slightly above the non-fragile norm of 0.50. This leaves every eligible country with at least some concern for implementation risk under the new D4D design. Institutional capacity, by contrast, varies sharply across the sample. It runs from 1.00 for Benin, 0.94 for Côte d'Ivoire and 0.89 for Ghana down to 0.56 for Nigeria, with the excluded Senegal as low as 0.17. The institutional capacity the new design requires is therefore in place for three of the five countries and weak for the other two. The institutional composite scores range from 0.77 for Benin to 0.33 for Senegal. Nigeria is the highest-risk eligible country, with the weakest capacity and the only fragile governance score. Only the excluded Senegal falls even below that. The instrument is therefore far more readily applicable to some eligible countries than to others, though every eligible country carries considerable implementation risk under the new design. Governance is the shared constraint across the region, while institutional capacity is what separates the stronger candidates from the rest.

The composite scores reveal a further pattern. Financial attractiveness and institutional readiness move in opposite directions across the sample. Ranked by financial standing, the order runs from Senegal and Nigeria down to Benin, Côte d'Ivoire and Ghana. Ranked by institutional standing, it almost reverses. The mechanism is visible at the indicator level, since savings potential and default risk both derive from the sovereign's spread and move together. While a wide spread raises the savings score under X3, at the extreme it breaches the X1 default gate. Senegal is the clearest case. Its distress-level pricing gives it the maximum savings score, but the same spread exceeds the 1000 bps ceiling and excludes it. Additionally, it records the lowest institutional standing in the sample. The conditions that make it attractive financially are the same ones that leave it unable to use the instrument. Nigeria shows the same pattern more mildly. With only five countries and no high-capacity environment in the sample, where the trade-off could be demonstrated more meaningfully, this is a tendency the data points to rather than a proven regularity. Thus, confirmation that applicability of the new D4D instrument sits in the window between financial benefit and institutional capability is left for future research.

Taken together, the four findings give a narrow answer to the scalability question. The framework is not broadly applicable in West Africa. Structural ineligibility removes most of the region even before the eligibility screening runs. Within the small set of eligible countries, the conditions the instrument needs rarely align. Where the financial case is strongest, institutions are weak, and where institutions are ready, the financial case is modest. The binding constraint therefore differs from one country to the next, which makes applicability in ECOWAS a country-specific question rather than a regional one. Building on the eligibility screening findings presented, the next section contextualises the regional pattern against the transmission channel analysis established in Chapters 3 and 4 and expands the analysis through expert interview evidence. The aim of the next chapter is to assess what the framework's design innovation implies for both, the scope (6.1) and strategic purpose (6.2) of D4D applicability in West Africa.

Table 5: Eurobond yields and spreads of the Cluster A countries

Country	Eligible Eurobonds	Volume (USD bn)	Avg. yield (%)	Maturing within 3 yrs (USD bn)	Share maturing within 3 yrs (%)	Avg. spread (bps)
Benin	5	3.0	7.2	0.0	0.0	358
Côte d'Ivoire	12	13.3	6.8	0.4	2.9	301
Ghana	4	8.3	6.7	2.5	30.4	233
Nigeria	15	17.8	7.5	4.0	22.5	319
Senegal	4	3.8	18.7	0.8	20.4	1,489

Note. Compiled by the author from bond-level data (Cbonds Group, Deutsche Börse AG, finanzen.net GmbH); benchmark yields from FRED and Investing.com. Retrieved 5 April 2026.

6 Reassessing D4D Scope and Strategic Purpose

6.1 From Transaction Costs to Institutional Capacity: Reassessing the D4Ds

Scope

The new design does not widen the scope of D4D applicability in West Africa, it restructures it. The structural boundary stays in place, because it follows from the instrument's nature rather than from either design, while the binding constraint moves from transaction cost to institutional eligibility.

The screening shows that the biggest limitation on applicability is structural and derived from the nature of the instrument rather than from design decisions, indicating that this boundary should be the same under both design models. The first structural exclusion layer is understood naturally since when countries have no Eurobonds issued, there is no possibility of a Eurobond buyback. The second structural exclusion condition, the default risk criteria, can be equally explained referring back to Chapter 3 which explained the

nature of the LMO and D4D swap as liquidity, not solvency, tools. Vincent Launay, a Senior Infrastructure Finance Specialist at the World Bank who led the guarantee structuring for the Côte d'Ivoire D4D swap, draws the same line from practice. As he puts it, “The country that this product is not for is the country that needs debt restructuring. When the debt stock is already too high, all you do is kick the can down the road, and you delay most likely the inevitable.” He adds, however, that the precise location of that boundary between liquidity and solvency cases remains open to refinement. The current distress classification, Launay notes, conflates liquidity and solvency cases within a single category, and a more precise DSA methodology could draw the line more accurately, expanding the eligible pool without altering the instrument's fundamental logic or compromising its safeguard function. The most significant constraint on D4D applicability in the region therefore reflects the instrument's nature as an LMO for non-distressed Eurobond debt, rather than a design decision of either model. While the threshold for the default-risk boundary is open to refinement, the criterion itself remains a crucial safeguard, and it leaves the scope of D4D application among the ECOWAS states limited.

The screening also showed that minimum transaction size excludes no eligible country. This finding indicates that the new design removed the transaction cost barrier that has been the binding constraint under the tripartite model. As established in Chapter 3.3 and developed in Chapter 4, the high transaction costs of the old model were its major scalability constraint, because an operation had to first offset them before generating net benefit. The integrated design removes this cost layer almost entirely and the screening confirms that minimum size is not a factor of exclusion in any case. A World Bank debt expert confirms the cost effect directly, describing it as “one of the biggest values added of the framework, that basically almost cuts those additional costs in terms of monitoring of the implementation of the savings to zero.” The same expert adds that even with these costs cut to near zero, the World Bank is working with partner foundations to cover residual guarantee fees. This lowers the total cost further, strengthens the economic case and pushes the transaction-cost limitation on scope lower still. Besides effectively shifting away from the transaction cost as binding constraint it additionally strengthens the economic case of D4D, which makes its usage overall more attractive. However, the same design innovation

that lowers the cost barrier simultaneously introduces institutional capacity as a new limiting condition.

The institutional eligibility screening shows that using the new design for the expenditure programme carries fiduciary and funding risk for every eligible country, and additional development and reputational risk for some, which moves the binding constraint to institutional eligibility. Chapter 4.3 established that the benefits of the new D4D design can only materialise where governance quality and institutional capacity are sufficient to execute the operation within country systems. The experts confirm this but add an important qualification. In practice, the risk that arises from weaker governance can be managed where the World Bank already trusts a country's systems. As a World Bank country expert puts it, “one has to have a degree of trust in government systems to go for [it].. integrity reviews apply to the whole program.” Côte d'Ivoire is the example here. It was selected for the first D4D swap in the region despite internal concern about whether an African country could handle the instrument, because prior engagement had built that trust. The World Bank debt expert adds that Côte d'Ivoire's own active liability management reinforced the decision, since it had bought back Eurobonds on its own initiative while the World Bank was monitoring the situation. The operation therefore extended the work the government had already started. Hence institutional capacity and governance quality are not static restrictions based on a score. It is met dynamically, through a track record of trust. The World Bank is working to lower the institutional eligibility criteria further. The World Bank country expert notes that PforR requirements have become less rigid over time as the board has grown more comfortable with the instrument, and more countries now qualify for results-based programming. The newly introduced binding constraint could therefore be reduced further in the future.

6.2 From Short-Term Refinancing Operation to Long-Term Debt

Sustainability Strategy: Reassessing D4Ds Strategic Purpose

The framework's design innovation reshapes not only the scope of D4D applicability in ECOWAS countries but also its strategic purpose, because the new design produces

spillovers that make a D4D swap most valuable when it is used as part of a long-term debt-sustainability strategy rather than as a single operation.

The analysis has shown that the framework's strategic purpose is directed towards refinancing swaps that ease liquidity because it structurally excludes discounted debt buybacks. All swaps clear the minimum threshold of 200 bps, so each generates savings high enough to be financially beneficial. Yet only Senegal has a bps high enough to be classified as a discount buyback swap. Comparing Senegal with the Ecuador and Belize cases which were classified as discounted debt buybacks a pattern becomes visible. Ecuador's sovereign bonds yielded between 17 and 26 percent before its swap (Climate Home News, 2023), roughly 1300 to 2200 bps over the risk-free rate. Such a spread reaches 1 on savings potential, but it also fails the default-risk gate as too elevated to execute the swap. Belize was likewise in selective default by S&P at the time of its swap (Fontana-Raina & Grund, 2024). Senegal, at an average spread of 1,488 bps, is the only candidate in the sample for a true discount buyback swap, yet the framework does not permit this type of operation. This indicates that the Frameworks Default Risk criteria substantially exclude the discounted debt buyback use case. The Debt Sustainability Expert reinforces this point, stating that "this important element is really the liquidity support that one can get through the transaction, but it needs to be within the bigger framework of sustainable debt. So, I think that's the biggest benefit." This points to two things. First, liquidity support and rollover risk management have become the more important target of D4D usage, which Raih confirms in finding that four of the five 2024 deals fall into the refinancing category (Raih, 2025). Second, the operation must form part of a longer-term debt strategy to be effective.

The screening's financial eligibility findings for rollover risk understate the instrument's true value. Since the score is only a moment snapshot and debt-management needs vary over time, reading the instrument through these findings alone misses its long-term strategic value. The example of Côte d'Ivoire shows this by demonstrating that the score alone does not represent a holistic picture of a country's debt trajectory and debt management needs over time. Its moderate rollover risk score reflects the country's

engagement in liability management rather than a moderate need for LMOs. In early 2024 it paired a 2.6 billion dollar Eurobond issue with a buyback of its 2025 and 2032 notes, lowering near-term debt service and rollover risk (IMF, 2024). A low rollover risk can therefore indicate active debt management at a point in time rather than the absence of future benefit using the instrument. On the contrary, it could strengthen the case for D4D usage from an institutional eligibility standpoint, as established previously.

This leads to the second point that the true strategic purpose of D4D has been hugely understated. Reading a D4D swap only for the instant debt-sustainability gain it delivers misses the chronic, recurring nature of the debt problem. As Launay notes, more than 75 percent of debt raised by low-income countries goes just to refinance existing debt, leaving governments unable to prioritise development investment. A swap that extends this cycle without considering the underlying trajectory delivers limited strategic value.. The question is therefore not only whether a country qualifies for a single operation, but whether that operation uses the long-term capacity building and future cost of funding spillover effect of the new D4D design to enhance its long-term debt-sustainability trajectory.

The strategic purpose of D4D needs a redefinition of its strategic value, since the credibility a country builds through the future-cost-of-funding channel, can significantly exceed its immediate financial benefits. As Chapter 3 already established, Diwan and Devie recently called for rethinking the value of a World Bank guarantee as a long-term strategy to debt sustainability. Their research proved that the long-term benefits in the Côte d'Ivoire operation through the future-cost-of-funding channel were larger than the direct benefits through the two immediate channels. Supporting the claim that the true value of the LMO lies in its long-term benefits. The expert interviews underline this by claiming that the reputational channel is itself a strategic motivation for the employment of D4D, particularly for reform-oriented countries. As the World Bank country expert puts it, “The advantage of this is it really puts the country on the scene as a solid debt management capacity, projecting itself as a modern and forward-looking country that invests in its human capital. There's a lot of image advantages to the D4D swap that you should see in a broader context

of how a country wants to project itself.” The World Bank debt expert points to the same demand, noting that “reform-minded and well reform-oriented countries are still very much interested in this. They see the halo effect coming from it.” Both confirm the credibility and perception gains a country builds through a long-term reputation.

While this channel was available under the old model, it is strengthened under the new design through the ownership and institutional credibility that country systems integration builds over time. Thus, the new strategic purpose of D4D is best understood as part of a holistic long-term strategy, since institutional capacity building can support countries to gradually escape the debt trap. As Chapter 4 established, the new design reinforces capacity-building through the use of country systems. The debt expert explains this process of institutional building in practice stating “This institutional readiness is a very important aspect, because you know many countries don't have the capacity to deal with more sophisticated instruments, and that needs to be phased in and accompanied by technical assistance. We want to gradually expose them more to this new instrument and give them new tools in which they can proactively manage their portfolios, and that's an ongoing effort of the World Bank.” The expert underlines the value of this process adding that this is exactly why the World Bank prefers the country-system model over usage of parallel-structures. In the expert's words, “we always favour building institutional capacity with the clients. It takes time, it might be difficult, but that's what I think our direction is.” Executing the operation through country systems therefore reduces the governance and implementation risk the next one requires, progressively building the institutional capacity towards the ability to use more sophisticated instruments in the future. Thus, it is the capacity built across repeated operations, not any single swap, that lets a country manage its own way out of the debt trap. This is why the instrument's true value lies in using it in pursuit of long-term debt sustainability.

Taken together, the two spillovers reframe what a D4D swap is for. Its value is not exhausted in the debt-service saving of a single operation. It lies in the credibility and institutional capacity the swap builds when it is used repeatedly, as part of a long-term strategy. The future-cost-of-funding channel lowers a country's borrowing costs over time,

and the capacity-building channel helps to build debt management capacity gradually, improving its efficiency in the next operation. If the true value of a D4D swap is understood and employed as part of a long-term debt sustainability strategy, it can help to build the capacity and credibility a country needs to break the debt cycle rather than reset it.

7 Conclusion

7.1 Summary and Findings

This thesis examined the scope of application and strategic purpose of the IMF/WB D4D framework in West Africa, through a deductive approach combining mechanism-based analysis, structured eligibility screening, and qualitative expert validation.

On scope, the central finding is that the new design does not widen the scope of D4D applicability in West Africa, but it restructures it. While the largest obstacle to a Eurobond D4D swap remains debt market underdevelopment, the limiting factor for the Eurobond issuing countries shifted. Minimum transaction size excludes no eligible country, because the integrated design removes almost entirely the transaction cost that was the binding constraint under the old model. But the same innovation that removes the cost barrier introduces institutional capacity as a new one. Executing a D4D swap through country systems carries fiduciary and funding risk for every eligible country, and additional development and reputational risk for some. The binding constraint therefore moves from transaction cost to institutional eligibility. However, this new binding constraint should not be understood as a fixed threshold. Institutional risk can be managed through a track record of trust and continues work aims to lower the institutional requirements further as the eligibility bar for PforR is relaxed.

On strategic purpose, two findings stand out. First, among the immediate-impact use cases, the strategic purpose has shifted toward D4D as an instrument of rollover-risk management. The framework's own default-risk filter excludes distressed sovereigns, and with them the discounted-buyback case. In west Africa the higher-risk environment keeps sovereign

spreads wide enough for credit enhancement to generate real financial benefits, but the design deliberately caps that potential below the discounted-buyback threshold, which only distress-level pricing reaches.

The more important finding is that a D4D swap reveals its true strategic value only when it is used as part of a long-term debt strategy. Judged by the immediate saving of a single operation, the instruments value is understated. Read against the chronic problem it emerged to solve, the refinancing pressure countries face in a global environment of expensive Eurobond debt and retreating concessional finance, its real value lies in what the new design builds over time. The repeated use strengthens a country's own institutions and gradually lowers its future cost of funding, generating gains that outlast any single operation. As these gains accumulate, a country can break the debt trap rather than kicking the can down the road until the next restructuring is unavoidable. In doing so it frees money for investments in its long-term development that would otherwise be used as interest payments.

On the evidence presented here, the research question has a clear answer. The design innovation does not widen the scope of D4D in West Africa. It leaves the structural boundary in place, restructures the binding constraint for the eligible countries from transaction cost to institutional eligibility, and redefines the instrument's purpose toward tool for rollover risk management on a path towards long-term debt sustainability, through institutional capacity building and a lower future cost of funding.

7.2 Contribution to the Literature

This thesis makes four contributions, one methodological, one empirical, and two conceptual. The methodological contribution is the operational screening model. It turns the IMF/WB framework's indicative eligibility criteria into a theory-driven scoring model where each criterion is derived from a transmission channel or an institutional precondition. The operationalisation of the framework into a replicable eligibility screening tool for cross-country comparison is therefore the first contribution to the literature. The empirical contribution is the systematic regional applicability test. It applies the new country-system

framework across Eurobond-issuing ECOWAS countries, filling the gap between the more theoretical work of Chamon et al. (2022) and the single-case study work to which most D4D literature was previously restricted.

The first conceptual contribution concerns scope. It adds the perspective that the new instrument lifts the tripartite model's transaction-cost restriction only to replace it with an institutional one, so the framework does not widen scope but moves the binding constraint from transaction cost to institutional capacity.

The second concern's strategic purpose, and it argues for a redefinition of the true value of D4D. It builds on two existing arguments and joins them. It extends Raih's use-case typology by adding a third use case, the future-cost-of-funding case, to his refinancing and discount-buyback archetypes. Through the screening results it shows that the framework's own default-risk restriction shifts the instrument away from the discount-buyback case toward rollover-risk management and future cost of funding case. Adding that third use case also extends Diwan and Devie's call to rethink the value of a World Bank guarantee. And expending their argument from the guarantee alone to the whole of the D4D swap by adding the institutional-capacity-building dimension the new design creates. Taken together, these conceptual contributions reframe D4D's real value as a long-term debt-sustainability strategy rather than a one-off transaction.

7.3 Policy Implications

The findings carry direct implications for three groups, the sovereigns that can already use the instrument, those that cannot, and the development partners, most notably MDBs. All of them follow from the same two results, that the binding constraint has moved to institutional capacity and that the true strategic value of the instrument is realised over the long term.

For the governments that qualify, the most suitable candidates are reform-oriented countries interested in building their standing in international credit markets and their institutional capacity, while investing in development projects. For governments in lower-capacity environments interested in the instrument, a demonstrated record of active liability

management and prior engagement with MDBs can open the door to using D4D. Because implementation risks are partly evaluated through trust and practice. In all cases, the central implication is operational. D4D should be planned within a broader debt sustainability path not as a single transaction. Using it as a single swap neglects the capacity and credibility that repeated use builds, and it ignores the chronic nature of the debt crisis the instrument is meant to address.

For the governments that do not qualify, the honest implication is that D4D is not the answer to their problem. The structurally excluded majority have no Eurobonds to swap. Their priority should be debt-market development to prepare for further shrinking concessional finance and ODA. For sovereigns already in distress, the instrument has been shown to be actively inappropriate. Since where the underlying problem is solvency rather than liquidity the route forward is restructuring, and a liquidity tool only postpones the unavoidable.

For the development partners, the policy implication is that the most useful support, for countries in low-capacity environments with Eurobond access that want to execute D4D through the country-system design is institutional. Because the binding constraint has shifted to capacity, the highest-leverage intervention is to combine D4D with technical assistance for the PFM system and to sequence institutional development. Further work to lower the institutional barrier, through less rigid results-based programme requirements and greater precision in separating liquidity from solvency cases, could additionally widen the scope of application without weakening the safeguards necessary for safe implementation.

7.4 Limitations

Several limitations bound the findings. On data, the eligibility screening is applied to only five countries within a single regional context. Which make the cross-country patterns indicative rather than conclusive. For example, the inverse relationship between financial and institutional readiness is a tendency the data points suggest but could not be verified, since the sample contains no higher institutional capacity country against which to test it. The screening is also a single snapshot in time. The eligibility picture is therefore time-

specific and does not set the D4D instrument against a country's debt trajectory as these evolve.

On method, two eligibility thresholds are set by the author, the 1000 bps savings ceiling and the 50 percent rollover boundary. Further the composite variables weight all combined indicators equally for simplicity. The model therefore rests in part on the author's judgement, and a more finely calibrated version could improve its accuracy. Which points at the importance as understanding the model as a mean to identify regional trends rather than accurately predicting the success of an individual operation. The qualitative validation carries a further limitation. It draws on expert interviews from a World Bank perspective alone and does not include voice from the Global South. Meaning that the validation reflects the creditor and institutional point of view.

On sources, the thesis relies largely on grey and institutional literature, because peer-reviewed material on the new D4D design remains limited. This reflects the novelty of the instrument, but it means several claims rest on institutional rather than independently reviewed work.

On scope, the analysis covers only Eurobond swaps in West Africa. Commercial bank swaps were excluded owing to limited data availability, and the results must be read in the light of the West African regional context. Together these limitations map the directions future research could take.

7.5 Future Research

These limitations point towards a clear future research agenda. The most immediate step is to widen the sample. Applying the screening model to Eurobond issuers in other regions would test whether the patterns found here hold beyond West Africa. Extending it to higher institutional-capacity environments would be especially valuable, since it is there that the trade-off between financial benefit and institutional readiness could be tested directly.

A second direction, crucial for understanding the framework's actual scope, is to extend the screening to commercial bank loans. This would complete the picture of the framework's

scalability for commercial external debt, and within the ECOWAS sample alone it could add Cabo Verde, Guinea, Niger, Sierra Leone, and Togo as potential prospects.

A final direction moves from feasibility to value. This thesis assesses where the instrument can be deployed, not whether a D4D swap is the best available option. Future work could take this further with a net-value comparison against alternatives, in the manner of Chamon et al., considering the positive spillover effects a D4D swap delivers, as Diwan and Devie did for the World Bank guarantee part alone. Such a comparison would turn the question from whether a country qualifies into whether the operation is the right choice.

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Methodology Appendix

Eligibility Screening Methodology

- **Appendix Methodology of the Eligibility Screening**

1. Purpose

This document sets out the methodology behind the eligibility screening heat map built in Chapter 5. It turns the eligibility criteria of the IMF/World Bank Debt-for-Development swap framework (D4D swap framework) into a transparent and reproducible scoring model.

The heat map serves three functions. It identifies strong and weak performers on each eligibility criterion. It allows comparison across the sample countries. And it shows where the binding constraints on applicability lie.

2. Conceptual Framework

The IMF/WB framework sets out financial and institutional eligibility criteria for assessing the appropriateness of D4D swaps (IMF & WB, 2024). This study operationalises those criteria into a theory-driven scoring model. Each variable is derived from a financial transmission channel established in Chapter 3 or from an institutional precondition established in Chapter 4.

The model has two layers. The first layer consists of two binary hard filters that establish the boundary conditions for a D4D swap. A country failing either is structurally ineligible, regardless of its other scores. The second layer consists of five continuous variables that measure the degree of eligibility across the financial and institutional dimensions.

The model is a minimum feasibility screen. It does not predict the success of any individual D4D swap. Each score shows a country's relative position on one criterion, not a forecast of outcome.

3. Unit of Analysis and Sample

Unit of analysis: Countries.

Sample: ECOWAS Countries with active Eurobond issuance.

Date of analysis: 5 April 2026.

The sample consists of the five Cluster A countries: Benin, Côte d'Ivoire, Ghana, Nigeria, and Senegal. This follows the structural filter in Chapter 5.1, which excludes countries with no internationally traded Eurobonds, since a Eurobond-based D4D swap is not available to them.

4. Operationalisation of Variables

All variables are scored on a standardised 0 to 1 scale. The two hard filters take only the values 0 or 1. The five continuous variables take any value between 0 and 1. Where the framework specifies an indicative threshold, the model follows it. Where it does not, the operationalisation follows the transmission channel logic of Chapters 3 and 4.

4.1 Financial Eligibility Criteria

X1: Default Risk (hard filter)

Framework source: Risk of default not too elevated: spreads below 1000 bps, bond criterion (IMF & WB, 2024, p. 12).

Transmission channel: Chapter 3.3.1. A D4D swap is not designed to resolve a solvency problem. Where default risk is too elevated, the operation adds budget rigidity and complicates an eventual restructuring rather than improving sustainability.

Data source: Bond-level yields (Cbonds Group, 2026; Deutsche Börse AG, 2026; finanzen.net GmbH, 2026); 10-year US Treasury yield (FRED, 2026); 10-year German Bund yield (Investing.com, 2026).

Operationalisation. The portfolio average spread is the mean yield across a country's outstanding Eurobonds, minus the benchmark yield.

$$Spread = \frac{1}{n} \sum_i y_i - r_b$$

Here y_i is the yield of Eurobond i , n is the number of outstanding Eurobonds, and r_b is the benchmark yield (4.35%). A single benchmark is used at portfolio level, a simplifying assumption justified by the flatness of the current yield curve.

Condition	Score
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Condition	Score
Portfolio average spread < 1000 bps	1 (pass)
Portfolio average spread $\geq$ 1000 bps	0 (fail, hard filter)

X2: Minimum Transaction Size (hard filter)

Framework source: Minimum size to offset transaction costs and improve sustainability: USD [50] million (IMF & WB, 2024, p. 12).

Transmission channel: Chapter 3.3.3. A D4D swap carries structuring and guarantee costs. Below a minimum size, fixed transaction costs consume the net benefit, so the net benefit condition cannot hold.

Data source: Eurobond circulating volume data.

Operationalisation. The total outstanding Eurobond stock is the sum of circulating volumes across all of a country's Eurobonds, in USD.

$$V = \sum_i V_i$$

Here V_i is the circulating volume of Eurobond i . The size criterion refers to the operation, which can bundle several bonds, so it is assessed against the total stock rather than any single bond.

Condition	Score
Total Eurobond stock $\geq$ USD 50 million	1 (pass)
Total Eurobond stock < USD 50 million	0 (fail, hard filter)

X3: Savings Potential

Framework source: Meaningful savings after transaction costs: spreads above 200 bps (IMF & WB, 2024, p. 12).

Transmission channel: Chapters 3.2.1 and 3.3.2. The direct debt service reduction channel activates where spreads are wide enough for credit enhancement to generate a secondary-market discount and interest rate compression.

Data source: Bond-level yield and volume data; 10-year US Treasury yield; 10-year German Bund yield.

Operationalisation. X3 measures savings depth. The saving from a swap scales with how far the sovereign's spread sits above the benchmark, since a wider spread means a deeper secondary-market discount and greater interest rate compression. The variable is therefore the volume-weighted average spread of the portfolio, scaled from the 200 bps savings floor to a 1000 bps ceiling.

The per-bond spread is the yield over the currency-matched benchmark, 4.35% for USD and 3.056% for EUR bonds.

$$Spread_i = y_i - r_b$$
$$X_3 = \frac{Average\ spread - 200\ bps}{1000\ bps - 200\ bps}$$

A score of 0 means the portfolio sits at the savings floor, so almost nothing can be gained. A score of 1 means the spread reaches the point of structural ineligibility. The 1000 bps ceiling coincides with the X1 solvency gate. The reasoning is that the whole 200 to 1000 bps range is refinancing territory. Within it a wider spread means a deeper secondary-market discount and greater rate compression, so savings potential rises with the spread. Above 1000 bps the sovereign is in distress and requires comprehensive restructuring rather than a swap, and X1 excludes it. Aligning the savings ceiling with the default gate keeps the two criteria consistent, so savings potential saturates exactly where the country ceases to be eligible.

X4: Rollover Risk

Framework source: Transaction would alleviate liquidity pressures: bonds falling due in the coming years (IMF & WB, 2024, p. 12).

Transmission channel: Chapters 3.2.2 and 3.3.2. The sovereign risk reduction channel activates where a large share of Eurobonds matures in the near term, so a swap that extends maturities relieves concentrated rollover pressure.

Data source: Bond-level maturity and volume data.

Operationalisation. Near-term bonds are those maturing within three years of the data date.

$$N_i = 1 \text{ if maturity} \leq 3 \text{ years, otherwise } 0$$

$$s = \frac{\sum_i N_i \cdot V_i}{\sum_i V_i}$$

$$X_4 = \min\left(\frac{s}{0.50}, 1\right)$$

Here s is the raw near-term share and X_4 scales it to a 50% materiality boundary, capped at 1. A high score is favourable: it indicates more near-term maturity that a swap can relieve. The boundary is absolute rather than sample-relative. A score of 1 means at least half the portfolio falls due within the near-term window, which marks a rollover risk case. The three-year window matches the near-term refinancing horizon over which a D4D swap can plausibly act since time to organize the swap needs to be considered.

X5: Future Cost of Funding

Framework source: Possible positive impact on probability of default and future cost of funding; preference given to countries closer to a rating upgrade (IMF & WB, 2024, p. 12).

Transmission channel: Chapters 3.2.3 and 3.3.2. The capital market access channel can lower the sovereign's future borrowing cost. The spillover cannot be predicted precisely, so the variable captures the two observable preconditions for it: a favourable rating trajectory and an operation large enough to move market perception.

Data source: S&P Global rating outlooks (S&P Global Inc., 2026); total external public debt from IMF Article IV consultations and national debt statistical bulletins (Benin end-2024; Côte d'Ivoire March 2025; Ghana end-2024; Nigeria end-2023).

Operationalisation. The variable combines a rating outlook score and a debt impact ratio with equal weight.

S&P Outlook	Score
Positive	1
Stable	0.5
Negative or missing	0

The debt impact ratio is the eligible Eurobond volume as a share of total external public debt. Total external debt is the reference because the market assesses creditworthiness against the sovereign's whole external repayment burden.

$$Debt\ Impact = \frac{Eligible\ Eurobond\ volume}{Total\ external\ public\ debt}$$

$$X_5 = \frac{Outlook\ score + Debt\ Impact}{2}$$

Equal weighting is a simplifying assumption. There is no empirical basis for weighting one precondition above the other.

4.2 Institutional Eligibility Criteria

X6: Institutional Capacity

Framework source: Transparency: regular debt data disclosure and publication of debt statistics, with the World Bank Debt Reporting Heat Map named as the source (IMF & WB, 2024, p. 13).

Institutional precondition: Chapter 4.3.1. Running a D4D swap through country systems requires the capacity to record and report debt. Transparency and debt management capacity are taken together because both describe this single precondition.

Data source: World Bank Debt Reporting Heat Map, the source named by the framework. Its colour classifications are converted to numerical scores.

The Heat Map also signals debt management capacity: the periodicity and time lag of reporting reflect the underlying recording systems, and the publication of a Debt Management Strategy reflects a functioning debt management framework.

Heat Map colour	Score
Green	1.00
Yellow	0.75
Orange	0.50
Red	0.25

Heat Map colour	Score
No data	0.00

Operationalisation. X6 is the equal-weight average of nine Heat Map indicators: data accessibility, instrument coverage, sectoral coverage, information on recently contracted external debt, periodicity, time lag, Debt Management Strategy, Annual Borrowing Plan, and additional statistics.

$$X_6 = \frac{\sum_i s_i}{9}$$

Here s_i is the score of indicator i . The variable is continuous between 0 and 1.

X7: Governance Quality

Framework source: Solid governance is required to minimise the risk of default on the expenditure commitment, assessed through CPIA indicators on budgetary and financial management, public administration, and transparency, accountability and corruption (IMF & WB, 2024, pp. 13, 18).

Institutional precondition: Chapter 4.3.2. Governance quality determines whether funds flowing through country systems are used as committed and whether the agreed outcomes are pursued. Where it is weak, results-based accountability generates fiduciary risk.

Data source: World Bank Country Policy and Institutional Assessment, 2024 (World Bank Group, 2024). The CPIA is the governance instrument most directly referenced by the framework and is reported consistently for IDA-eligible countries in the region.

Operationalisation. CPIA sub-indicators are reported on a 1 to 6 scale and normalised to 0 to 1.

$$X' = \frac{X - 1}{5}$$

X7 is the equal-weight average of the three normalised CPIA sub-indicators: quality of budgetary and financial management, quality of public administration, and transparency, accountability and corruption in the public sector.

$$X_7 = \frac{\sum_j X'_j}{3}$$

The variable is continuous between 0 and 1. A score below 0.40, equivalent to a CPIA average of 3.0, falls below the World Bank fragility threshold. The model measures a score of 0.50 as governance being near the non-fragile norm. Equal weighting is a simplifying assumption.

5. Heat Map Construction

Rows: The five Eurobond-issuing Cluster A countries (Benin, Côte d'Ivoire, Ghana, Nigeria, Senegal).

Columns: The seven eligibility criteria (X1 to X7) and two composite score columns.

Cells: Standardised scores between 0 and 1, except Senegal's X5, which displays n.c. (not calculable) because no external public debt figure is available.

Colour coding runs from green (strong or met) to red (weak or absent). Each variable is read against its own benchmark, so the same colour carries the same meaning across columns: how far that criterion is met.

Cell type	Colour scheme
Hard filters (X1, X2)	Green for pass (1), red for fail (0)
X3 Savings Potential	Green to red, scaled across the 200 to 1000 bps depth range
X4 Rollover Risk	Green to red, scaled to the 50% materiality boundary
X5, X6, X7	Green to red on the natural 0 to 1 range
Not calculable (n.c.)	Grey

Two composite columns are added to the right of X7. The Financial Composite is the unweighted average of the continuous financial variables only. The two hard filters are gates, not scored dimensions, so they are excluded from the composite.

$$\text{Financial Composite} = \frac{X_3 + X_4 + X_5}{3}$$

$$\text{Institutional Composite} = \frac{X_6 + X_7}{2}$$

For Senegal, whose X5 is not calculable, the Financial Composite is the average of X3 and X4. Senegal fails the X1 hard filter and is therefore structurally ineligible. Its scores are retained in the heat map to support the analysis of how a hard-filter failure relates to institutional weakness.

6. Eligibility Rules

Two criteria function as binding hard filters. A country failing either is ineligible for a Eurobond-based D4D swap regardless of its other scores.

- X1 Default Risk: portfolio average spread at or above 1000 bps, excluded.
- X2 Minimum Transaction Size: total Eurobond stock below USD 50 million, excluded.

The remaining five criteria are continuous variables indicating the degree of eligibility across the financial and institutional dimensions: X3 Savings Potential, X4 Rollover Risk, X5 Future Cost of Funding, X6 Institutional Capacity, and X7 Governance Quality.

7. Limitations

Unweighted aggregation. The model applies equal weighting throughout. In practice some criteria may matter more to transaction success than others, but there is no agreed empirical basis for differential weights.

Author-specified operationalisation. Where the framework does not specify a precise threshold, the operationalisation follows the transmission channel logic of Chapters 3 and 4. These choices are stated explicitly so that the reader can judge them.

Author-specified anchors. Two continuous variables are read against benchmarks the framework does not fix numerically. X3 is scaled to a 1000 bps ceiling, which coincides with the X1 default gate rather than being set independently, so the upper anchor follows from the model's own solvency threshold. X4 is scaled to a 50% near-term concentration

boundary, the point at which half the portfolio falls due within the window. Both anchors are stated explicitly and the lower bounds follow the framework, but the exact calibration remains the author's. Because the eligible sample carries spreads well below the 1000 bps ceiling, its X3 scores are conservative.

Mixed construction. The continuous variables share a 0 to 1 scale but are built differently: X3 is a scaled spread depth, X4 a share read against a benchmark, and X5 to X7 are composites of sub-scores. Cross-variable comparison should be read with this in mind.

Screening scope. The model is a minimum feasibility screen. It identifies which countries meet the structural, financial and institutional preconditions for a D4D swap. It is not a substitute for a transaction-level evaluation or a debt sustainability analysis, which the framework requires for any individual operation.

8. Summary: Criteria Overview

Criterion	Type	Transmission channel	Data source	Operationalisation
X1 Default Risk	Hard filter	Ch. 3.3.1, default risk	Bond yields; benchmark yields	Spread < 1000 bps
X2 Minimum Transaction Size	Hard filter	Ch. 3.3.3, transaction cost offset	Eurobond volumes	Total stock $\geq$ USD 50m
X3 Savings Potential	Continuous	Ch. 3.2.1 / 3.3.2, debt service savings	Bond yields and volumes	Spread depth, scaled 200-1000 bps
X4 Rollover Risk	Continuous	Ch. 3.2.2 / 3.3.2, rollover risk	Bond maturities and volumes	Share maturing $\leq$ 3 years, scaled to 50%
X5 Future Cost of Funding	Continuous	Ch. 3.2.3 / 3.3.2, market perception	S&P outlooks; external debt	(Outlook + Debt Impact) / 2
X6 Institutional Capacity	Continuous	Ch. 4.3.1, recording and reporting	WB Debt Reporting Heat Map	Average of 9 indicators

Criterion	Type	Transmission channel	Data source	Operationalisation
X7 Governance Quality	Continuous	Ch. 4.3.2, commitment integrity	WB CPIA 2024	Average of 3 CPIA indicators

Note: All thresholds are indicative. The model operationalises the eligibility criteria of the IMF/WB framework and should be read as a structured screening tool, not as a determination of appropriateness for any individual D4D swap.

9. Data Sources

All series were retrieved on 5 April 2026. Sources are listed by the provider named in the screening. Where a database has no stable per-record link, the provider homepage is given.

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