UDB Currency Risk-Sharing Facility

Instrument Design Report

FiCS LAB

CLIMATE POLICY INITIATIVE

UNIVERSITY OF LEEDS

CITY ST GEORGE'S UNIVERSITY OF LONDON

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I. SUMMARY

A. INSTRUMENT PURPOSE

The Uganda Development Bank (UDB) aims to scale up local-currency climate lending through its Climate Finance Facility (CFF) by introducing a Currency Risk-Sharing Facility (CRSF). The proposed CRSF is designed to reduce the foreign exchange (FX) exposure that UDB assumes through the CFF in an affordable way. The CRSF instrument combines partial hedging with a tail-risk FX guarantee (hereafter also referred to as the guarantee) to protect UDB against the depreciation of the Ugandan shilling (UGX) beyond a set dynamic threshold.

UDB has developed this instrument via the FiCS Innovation Lab, with technical support from Climate Policy Initiative (CPI), the University of Leeds, and City St. George's University of London. While the instrument is tailored to UDB, it is adaptable for other public development banks (PDBs) in emerging markets and developing economies (EMDEs) that borrow in foreign currency and lend in domestic currency for climate-related projects.

This report presents one of several novel climate finance instruments developed by PDBs through the FiCS Innovation Lab between 2025 and 2026. The instruments were designed to address key barriers to scaling climate finance in emerging markets, combining financial innovation with technical support and institutional capacity building.

B. CORE PROBLEM ADDRESSED

High domestic funding costs in Uganda, combined with UDB's 12% statutory lending cap, make it difficult to raise and provide long-term finance at affordable rates in local currency. The bank therefore relies on concessional credit from multilateral development finance institutions (DFIs) denominated in US dollars or euros, which it then on-lends in Ugandan shillings. This exposes UDB to losses when the UGX depreciates. The bank has limited hedging options to mitigate these risks, given that traditional hedging instruments from market providers are either too costly or unavailable for EMDE currencies for the long maturities required for climate projects.

UDB could benefit from using the proposed CRSF to address these challenges because it predominantly lends in UGX, has a mandate to mobilize sustainable investment, and directly bears balance sheet exposure to FX volatility.

C. KEY INSIGHTS

The incubation of the CRSF through the FiCS Lab yielded the following insights:

- By allowing context-specific FX risk sharing, FX guarantees can be more capital-efficient than conventional hedging instruments and may mobilize greater climate finance.
- International financial institutions that lend to UDB could consider providing guarantees as a means of deploying capital more efficiently than through loans alone.
- Preliminary modeling suggests that large local currency depreciations exceeding the

proposed threshold for the guarantee activation occur relatively infrequently in Uganda—on average, once every seven years.

- Back testing the CRSF from 2000 onwards shows that the guarantor would have earned profits in all years except for deals initiated in 2007 and 2009.

D. DESIGN PRINCIPLES

UDB's Currency Risk-Sharing Facility promises to be:

1. **Innovative:** The facility is designed to manage currency risk through a layered risk-sharing arrangement that is more affordable for UDB than using conventional hedging instruments, and which enables UDB to engage directly with guarantee providers.
2. **Replicable:** The instrument could be applied in other countries where there is institutional buy-in from the PDB, suitable regulatory conditions, and technical support for modeling FX risk and option-pricing techniques, alongside legal, operational, and stakeholder engagement.
3. **Catalytic**: The proposed instrument has the potential to unlock affordable hedging opportunities at scale in Uganda, and could also be implemented in other regions. It has the potential to attract additional concessional funds through a dedicated FX guarantee trust fund.

II. CONTEXT

A. THE CHALLENGE

In the face of rising climate risks, Uganda must mobilize more than USD 28 billion by 2030 to meet its adaptation and mitigation goals. Yet climate finance remains far below what is needed from both domestic and international sources, as well as across the public and private sectors. This investment gap is compounded by the fact that most climate projects require long-term, affordable financing in local currency. However, Uganda's long-term domestic borrowing costs are too high for both public and private actors investing in climate adaptation and mitigation.

International climate finance sources are vital but can expose the country to FX risk and rising debt. Uganda relies on concessional foreign-currency lending from international development partners for the bulk of its climate finance. However, like many other EMDEs, the country already has significant foreign-currency-denominated debt, leaving it vulnerable to debt distress. According to the IMF Article IV Consultation for Uganda, over 50% of public debt was denominated in foreign currencies at the end of FY 2022/23, suggesting significant exposure to FX risks.

UDB receives concessional credit lines in hard currency (USD/EUR) from international DFIs to support its domestic climate lending. The bank converts these funds into UGX and on-lends them to domestic borrowers. As a result, UDB faces a persistent currency mismatch that limits its ability to expand long-term, affordable climate lending. While concessional foreign funding is generally cheaper than domestic credit, FX hedges raise the cost of capital, making lending expensive for borrowers who can least afford it.

B. THE SOLUTION

UDB together with the technical experts has designed the CRSF as a means of reducing currency risk held by the bank's Climate Finance Facility (CFF) and scaling low-cost lending for climate-friendly projects.

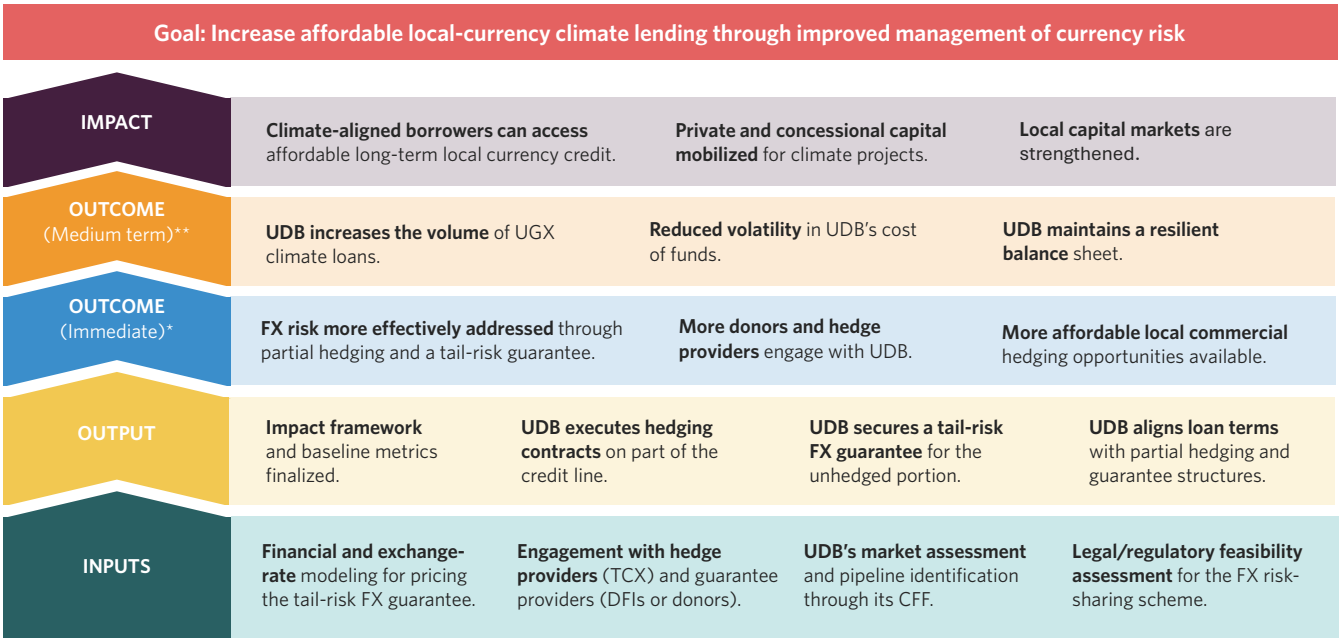
The CRSF aligns with PDB's mandate and current operations. In line with its development mandate, UDB launched the CFF as its dedicated green financing vehicle in 2023. With UGX 50 billion in seed capital from the bank, the CFF is UDB's main channel for climate finance. It seeks to expand access to long-term, affordable green finance, including for a pipeline of bankable climate projects across agriculture and agribusiness, climate-resilient infrastructure, clean energy, low-carbon industries, ecotourism, and sustainable waste management. To expand access to finance, the CFF mobilizes capital from both domestic and international sources through green loans, green equity, credit guarantees, and grants.

As Uganda's national development bank, UDB is also aligned with national climate priorities. The proposed CRSF is designed to boost UDB's capacity to access financial resources to offer low-interest-rate loans for sustainable projects that support Uganda to realize its GHG emission reduction targets, in alignment with the country's National Development Plan and Nationally Determined Contribution.

C. THEORY OF CHANGE

The CRSF is intended to expand long-term, affordable local-currency lending for climate projects, while protecting UDB's capital adequacy, freeing up balance sheet capacity, and mobilizing additional climate investment. By reducing UDB's FX exposure, the CRSF will allow the bank to expand lending to projects that support national climate priorities. Expected impacts of the CRSF include higher volumes of climate-aligned lending in UGX, mobilization of concessional capital, and expanded access to long-term finance for sectors exposed to climate risks. Refer to the Theory of Change for more details in Figure 1.

Figure 1. Theory of Change



*within three-five years
**post 5 years

III. INSTRUMENT STRUCTURE AND STRATEGY

A. INSTRUMENT INTRODUCTION

UDB has designed the CRSF to mitigate UDB's FX risk in an affordable manner by combining a partial hedge with a tail-risk FX guarantee.

With this instrument, UDB will continue to bear limited, expected currency movements, while the hedge and guarantee cover tail-risk depreciations that could threaten UDB's climate lending.

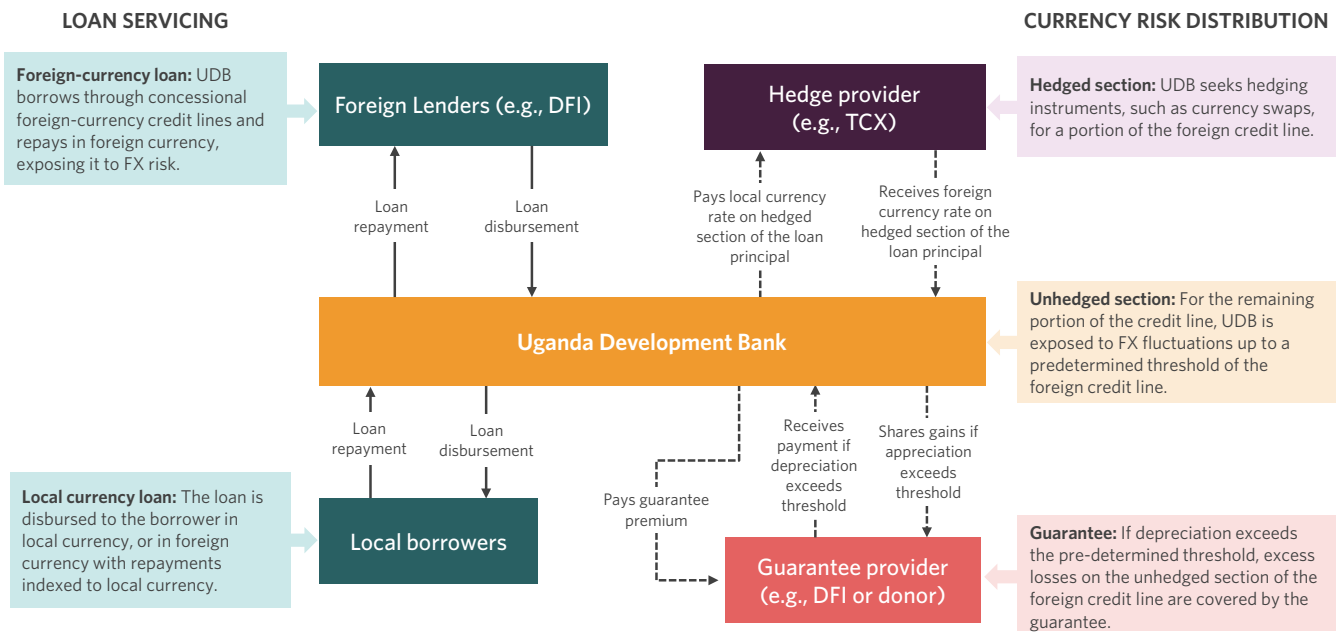
B. INSTRUMENT MECHANICS

The CRSF is designed to distribute currency risk among three actors:

- A traditional/development-oriented FX hedge provider
- Uganda Development Bank
- A guarantor (a donor or development finance institution) to cover high depreciations

The mechanics of this arrangement are laid out in Figure 2, and the potential roles and incentives for each actor are explained in Table 1.

Figure 2. UDB Currency Risk-Sharing Facility



HOW EACH COMPONENT WORKS

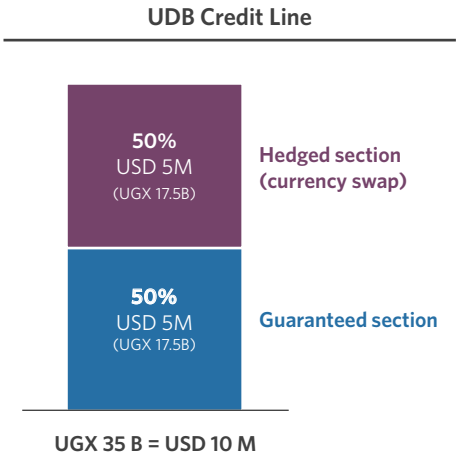
To manage the FX risk created by on-lending its hard currency credit lines in local currency, UDB uses a conventional hedging instrument (e.g., a currency swap) for a part of its foreign currency liability. For the remaining part of its liabilities, UDB is exposed to moderate currency risk but protected against large exchange rate depreciations through the tail-risk FX guarantee.

In upside scenarios where the UGX appreciates beyond a predetermined threshold, the guarantor also shares in the gains. This structure helps make the guarantee financially sustainable while maintaining incentives for prudent risk management. It also limits the guarantor's capital commitment, as coverage is contingent and payouts are triggered only when predefined depreciation thresholds are exceeded. Importantly, the predefined depreciation threshold is dynamic, meaning the exchange rate value required to activate the guarantee depreciates by 5% annually relative to the previous year.

The example below illustrates how the CRSF would operate in practice using indicative parameters based on UDB's existing credit lines.

1. **Foreign currency borrowing:** UDB receives a concessional credit (e.g., USD 10 million over seven years at 2.5% interest).
2. **Local currency financing:** UDB converts these funds to local currency (approximately UGX 35 billion) and on-lends them to local projects at the 12% interest rate set by the Ugandan government, generating revenue in UGX.
3. **Risk allocation:**
    - UDB hedges around 50% of its exposure through a traditional currency swap.
    - A donor-backed guarantee protects the remaining unhedged portion from depreciations above the predefined threshold for each period. In return for this protection, UDB pays a fixed annual premium to the guarantor.
    - Under this arrangement, UDB absorbs moderate annual depreciation of the Ugandan shilling against the dollar up to a pre-set threshold (e.g., 5%), while the guarantor covers any losses beyond this level. Conversely, if the Ugandan shilling appreciates beyond the 5% threshold, the UDB shares the upside with the guarantor.

Figure 3. Illustrative risk-sharing structure for a USD 10 million credit line



This combination of a partial hedge and guarantee is more affordable for UDB than full hedging and, on average, is intended to be profitable for the guarantor. The instrument operates like an insurance mechanism on a specific foreign-currency loan that UDB receives. By capping extreme FX losses, the CRSF helps to stabilize UDB's capital position and supports the continued provision of local-currency climate finance.

The CRSF can be calibrated to different cost-risk preferences by adjusting the proportion of hedged exposure, the depreciation threshold, and the point at which the guarantee becomes active. This flexibility allows institutions to tailor the balance between cost reduction and risk protection to their operational needs.

Table 1. Proposed stakeholder roles and incentives in the proposed instrument

Stakeholders	Role	Incentives
Donors (e.g., EIB)	Cover UDB against tail-risk currency depreciations beyond the predefined threshold rather than absorbing full currency risk exposures	High-leverage use of limited concessional capital to catalyze participation by commercial hedge providers and crowd in private capital to provide affordable climate lending
Hedge provider (e.g., TCX)	Covers a portion of the FX exposure with a traditional hedging instrument such as a currency swap	Opportunity to engage in a de-risked environment with structured support
UDB	Absorbs moderate FX risk (up to a pre-defined threshold) on the remaining portion of the credit line	Increase affordable, lower-cost local-currency lending with minimized FX risk

IV. INCUBATION AND IMPLEMENTATION

A. ROLES AND RESPONSIBILITIES

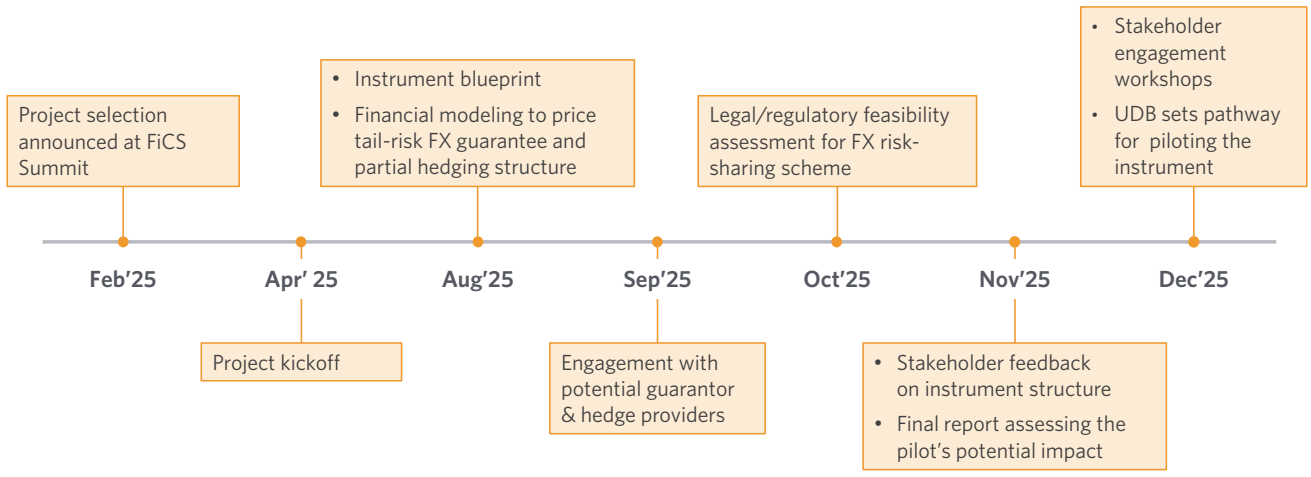
CPI, and the two development partners—University of Leeds and City St George's, University of London—supported UDB to design and structure the instrument's technical components, as shown in Figure 4.

Figure 4. Stakeholder roles and responsibilities

Stakeholder	Core Role	Key Contributions
UDB Inspiring Development	PDB leading the initiative	• Instrument proponent • Portfolio and operational data • Identification of eligible climate project pipeline • Legal assessment review
CLIMATE POLICY INITIATIVE	Strategic support & project coordination	• Operational Secretariat • Technical analysis and validation of deliverables • Instrument presentation and engagement materials • Stakeholder interface and outreach
UNIVERSITY OF LEEDS CITY ST GEORGE'S	Technical assistance design and delivery	• FX risk modelling and scenario testing • Legal and regulatory assessment • Guarantee pricing model • Guarantee Methodology

The development partners met with UDB in Uganda and engaged directly with key stakeholders and potential guarantors. Figure 5 highlights key milestones in the 9-month incubation process, from kick-off through final approval by UDB of the CRSF.

Figure 5. Instrument development process



B. INCUBATION PATHWAY

The CRSF was designed through an iterative, evidence-based process that included financial analysis, instrument structuring, and stakeholder engagement.

The incubation phase aimed to align blueprint documents, instrument pricing, stakeholder incentives, legal assessments, and market needs through successive refinement. This included three interrelated steps:

1. **Financial modeling** to price the tail-risk guarantee and partial hedging instrument, identify potential thresholds for both the hedged and unhedged portions, and align the CRSF with CFF's eligibility criteria and loan structure.
2. **Stakeholder mapping** of potential guarantors, including concessional lenders to UDB, to assess interest in supporting the FX guarantee and gather feedback on the feasibility of the instrument blueprint.
3. **Assessment** of the legal and regulatory feasibility of the CRSF.

I. FINANCIAL MODELING

The development partners from the University of Leeds and City St George's led the modeling and stress-testing of the CRSF. They priced the tail-risk FX guarantee and partial hedge, estimated potential guarantee payouts, simulated and tested depreciation scenarios, and compared different risk-sharing outcomes. Building on this analysis, CPI validated the assumptions, interpreted the results through loan examples, and integrated the findings into the instrument blueprint. To ground the model in practice, UDB shared its loan structures to ensure that the analysis reflected real transactions and aligned with actual lending practices.

THE GUARANTEE/OPTION PRICING TOOL

The development partners created an interactive Python-based option pricing tool[1] to estimate the premium that UDB would pay for that protection. The tool uses market data, including UGX and USD interest rates, combined with historical UGX exchange rate volatility. It relies on historical rather than implied volatility to avoid adding the risk premia often embedded in FX option prices for EMDEs, which often reflect market illiquidity and risks perceived by private investors. Based on these inputs, the tool calculates the guarantee cost upfront as the present value of the guarantor's expected payouts.

In addition, the guarantee is designed as a symmetrical mechanism under which UDB will transfer any gains from currency appreciation beyond a predefined threshold to the guarantor. For example, if the Ugandan shilling appreciates by more than 5%, UDB would transfer gains above that threshold to the guarantor. As a result, the instrument functions as a "collar", constraining UDB's overall gains and losses within agreed parameters. This feature helps improve the guarantee's financial sustainability and affordability.

The pricing tool incorporates the guarantee into UDB's operations by modeling the bank's foreign-currency loans from DFIs, including the guarantee premium. The tool includes a range

1 The tools are based on established pricing models such as Black-Scholes as a baseline model, as well as more advanced frameworks suited to UGX behavior.

of adjustable parameters tailored to the loan characteristics, including the foreign currency exchange rate, UGX interest rate, principal amount, coupon rate, tenor, grace period, and depreciation threshold. Figure 6 illustrates the types of values entered into the tool and shows how it can be applied in practice.

Figure 6. Option pricing tool used to input guarantee pricing parameters

MODELING RESULTS

The guarantee pricing tool estimates UDB's overall funding cost under three currency-risk management scenarios: (1) unhedged exposure, (2) full hedging, and (3) the CRSF, comparing the trade-off between affordability, predictability, and exposure to currency risk. Here, funding costs reflect the overall cost of foreign currency borrowing to UDB under each scenario, including the impact of exchange-rate fluctuations and, where applicable, the cost of hedging or paying a premium for guarantee protection.

The average funding costs of different strategies are measured as annual interest rates in UGX. Users can adjust the parameters to test different assumptions and exchange-rate conditions.

Table 2. UDB's funding cost generated by the option pricing tool*

Scenarios	Mean/Average (%)	Min (%)	Max (%)
Unhedged	8.39	-5.52	20.12
Fully hedged	10.96	10.96	10.96
CRSF	9.82	4.38	12.11

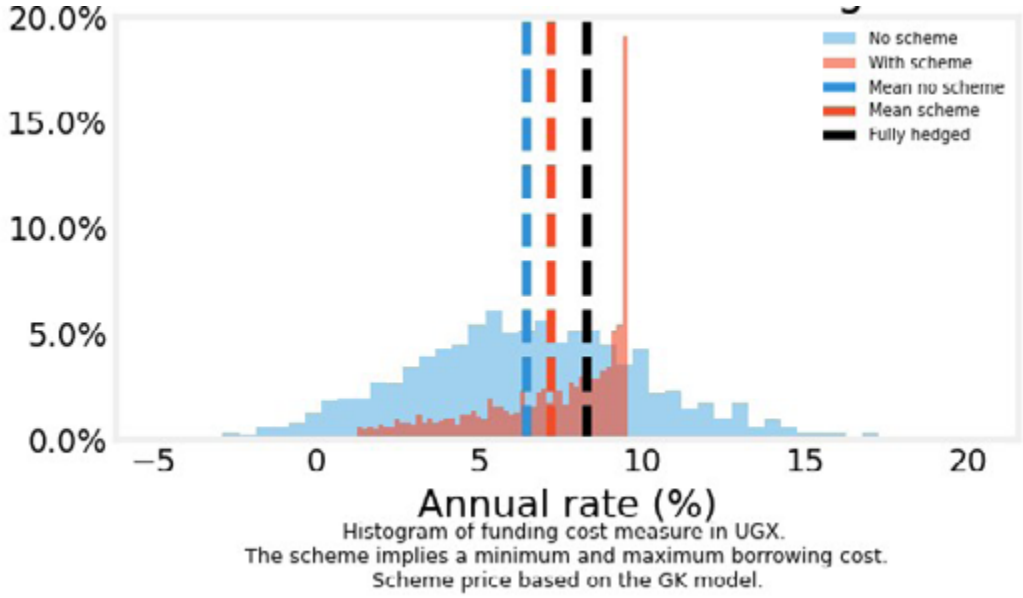
*The output changes based on the date of the inputs, reflecting changes in exchange rates.

A lower average funding cost indicates more affordable capital for UDB, while the spread between the minimum and maximum values illustrates volatility in funding costs under each scenario:

- **The unhedged scenario** has the lowest average funding cost (8.39%) but also has the widest spread of outcomes (-5.52% to 20.12%), making it the most volatile option and leaving UDB most exposed to FX risk.
- **The fully hedged scenario** has a fixed funding cost (10.96%). While this option removes exchange-rate volatility entirely, it lacks the potential to capture any benefits from favorable currency movements.
- **The CRSF scenario** provides a middle-ground solution with an average funding cost of 9.82%. Its spread of outcomes (4.38% to 12.11%) is much narrower than under the unhedged approach, meaning that it materially reduces FX volatility while still preserving some upside.

These figures show that the CRSF offers a balance between cost and stability by limiting extreme outcomes without locking UDB into the full hedging cost. The same conclusion is illustrated in Figure 7, generated by the option pricing model, which shows how the CRSF affects UDB's funding costs across the three scenarios: reducing funding costs and limiting exposure to severe currency depreciation.

Figure 7. Distribution of the cost of funding in UGX



Full hedging has a fixed cost of 10.96%, as per the black dotted line.

The unhedged scenario presents the widest spread of funding costs, moving directly with exchange-rate fluctuations, as shown by the blue area and dotted line.

The CRSF scenario has lower average funding costs than under full hedging with a narrower spread of outcomes than the unhedged scenario, due to the collar-like instrument design capping extreme losses and gains for UDB, illustrated by the red shaded area and line.

The funding costs for foreign borrowing generated under all three scenarios are materially lower than local lending rates in Uganda, where government bond yields are above 16%. This suggests that even the most expensive option shown in the table—full hedging at 10.96%—could still compare favorably with domestic long-term local borrowing conditions, as full hedging

instruments are often most costly and unavailable. In this context, the CRSF is particularly relevant and preferable to full hedging because it keeps average funding costs below local market rates while also narrowing the spread of outcomes relative to an unhedged position, thereby improving currency risk stability alongside affordability.

KEY ASSUMPTIONS AND SENSITIVITIES

- The model takes a conservative approach of assuming a 50% chance that the UGX depreciates by more than 5% in one year.
- Historical data shows that this risk is much lower, at about 16% (once every seven years). This means the model tends to overestimate the expected cost of the guarantee.
- The guarantor only covers tail-risk FX loss (beyond the predetermined threshold), so its maximum exposure is lower than the total value of the loan.
- Default by UDB on its credit lines is rare but implies a total loss, while currency depreciations are more frequent and imply a lower loss than a full default. Hence, the expected loss under an FX guarantee may be similar to that of a credit guarantee.

II. STAKEHOLDER MAPPING

A stakeholder mapping exercise was conducted during the instrument incubation phase to identify potential donors across philanthropies, commercial banks, DFIs, and MDBs that could support the guarantee. Through this engagement, interest and feedback were also received on the instrument methodology. Table 3 summarizes the stakeholders contacted, their roles, and the key rationale and outcomes of those discussions.

Table 3. Stakeholder mapping of potential donors for the tail-risk guarantee

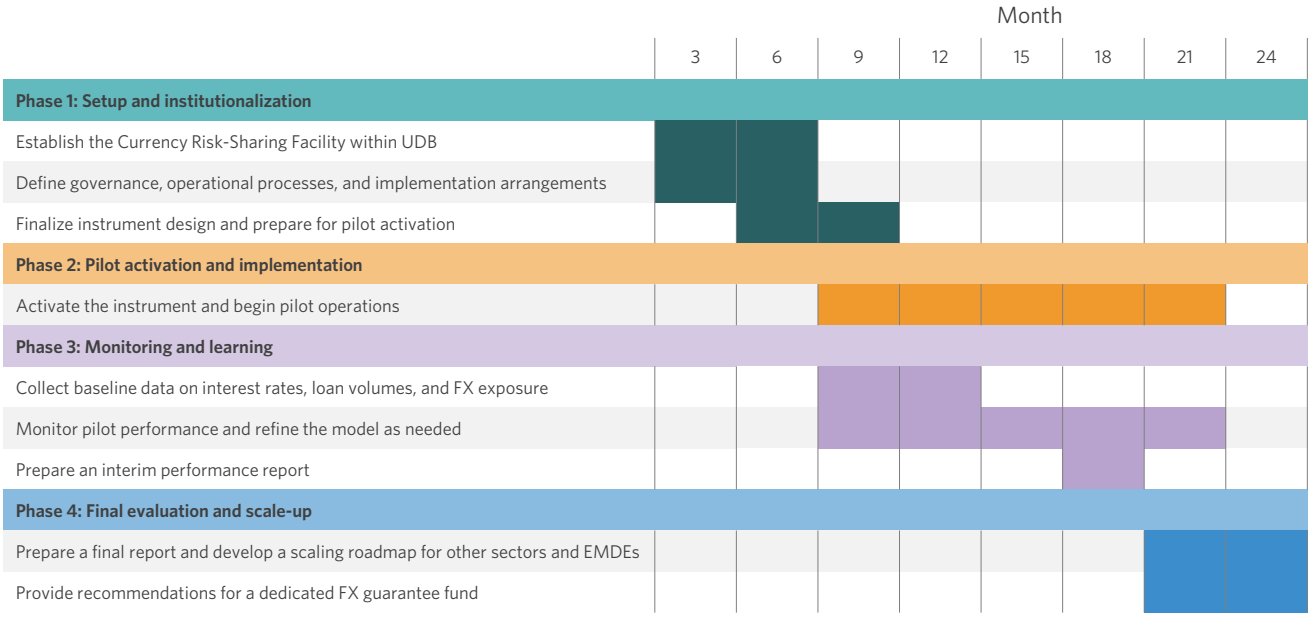
Organization	Role	Nature of engagement
Developer of a similar facility	Technical and strategic support	Discussions to understand barriers, opportunities, and best practices in the design and implementation of similar FX instruments and facilities in EMDEs
Commercial banks	Potential hedge provider	Engagement with commercial hedge providers in Africa to assess market interest and appetite, for future follow-up when the instrument is ready to be scaled
Specialized currency hedging provider	Potential hedge provider	Ongoing engagement explored its potential role as a hedge provider and the possible use of its concessional local-currency facility
Philanthropic foundations	Potential guarantor	Initial engagement and outreach indicate limited strategic alignment and scope currently
DFIs lending to UDB	Potential guarantor	Discussions are ongoing with foreign financiers of UDB loans as potential donors
MDBs and DFIs	Potential guarantor	Potentially relevant for the post-pilot phase to support scaling of the instrument to additional regions

III. LEGAL AND REGULATORY ASSESSMENT

The regulatory assessment examined the central legal question of whether the guarantee element should be characterized as a guarantee or a derivative. It also considered the implications of structuring the instrument symmetrically, integrating the risk-sharing instrument into the CRSF agreement, and addressing relevant regulatory considerations, while highlighting key questions for UDB counsel. See Annex 1 for further analysis of the legal and regulatory assessment.

C. IMPLEMENTATION PATHWAY

Figure 8. Pilot phase implementation milestones



UDB will own and manage the CRSF, with the instrument activated during months 9–21 after the incubation phase. During the pilot phase, partners intend to support UDB in institutionalizing the CRSF within UDB, activating pilot loans, collecting baseline metrics such as interest rates, loan volumes, and FX exposure, and monitoring performance to refine the model as needed.

Where feasible, UDB will also prepare an interim performance report, followed by a final report that sets out a scaling roadmap for other sectors and EMDEs and provides recommendations for a dedicated FX guarantee fund.

D. POTENTIAL RISKS AND CHALLENGES

Risk category	Challenge	Addressing the challenge
Donor Commitment Risk	A donor may not commit capital to provide the FX tail-risk guarantee	Encourage donor participation: • Hold in-person meetings with donors and engage bilaterally • Organize a larger meeting with invited donors • Publicize the tool through social media • Leverage the wider FiCS network to expand engagement, including the FiCS working groups and FiCS Summit
PDB Capacity Risk	Competing priorities within the PDB may reduce the chances of implementation	Support implementation: • Hold regular coordination meetings • Clarify roles and align timelines early • Engage other national entities to identify potential market-level benefits
Hedge Provider Commitment Risk	The hedge provider may not commit to the pilot. At present, only one provider meets the affordability criteria and has an existing relationship with UDB	• Hold direct conversations between the hedge provider and UDB to clarify expectations • Explore alternative hedge providers if needed • Adjust the hedge share or maturity to fit provider exposure limits

E. EXPECTED CLIMATE AND SOCIAL IMPACT

The main goal of the CRSF is to improve the affordability of hard-currency credit for UDB, thereby preserving its lending capacity. The table below outlines the CRSF's main expected impact areas, the benefits associated with each, and key performance indicators (KPIs).

Table 4. Expected impact of the CRSF

Impact area	Expected benefit	KPIs	Measurement approach
Impact 1: **Reduced FX risk exposure**	The instrument creates a more stable financial environment for development lending and supports domestic capital-market development in Uganda	• Volatility of UGX exposure on UDB's balance sheet • Share of FX risk covered by the facility • Frequency and severity of extreme depreciation losses	Produce baseline and post-instrument datasets Compare outcomes with similar non-pilot portfolios to estimate currency exposure and loan characteristics
Impact 2: **Increased UGX lending**	The instrument expands affordable local-currency climate lending and removes FX risk for borrowers and local financial institutions	• Change in UGX climate loan volume (before vs. after the CRSF) • Change in average cost of funds for climate lending • Change in the number of climate projects financed	Compare UDB lending volumes and pricing before and after instrument deployment Benchmark against comparable institutions or portfolios without currency-risk protection
Impact 3: **Impact on emissions and adaptation**	Lower interest rates enable UDB to extend more climate lending for projects that reduce GHG emissions and strengthen adaptation	• Estimated GHG reduction potential & adaptation in project metrics	Track project-level data over time Compare project approvals and climate impacts across pilot and non-pilot groups before and after instrument activation.

V. REPLICATION AND CATALYTIC POTENTIAL

The CRSF is designed as a replicable model for PDBs in EMDEs facing similar financial and climate contexts, including high domestic interest rates, expensive or unavailable hedging options, and growing climate finance needs. The model is most relevant in contexts where PDBs rely on concessional foreign-currency credit lines, lend mainly in local currency, operate under low lending rates relative to funding rates, and hold mandates focused on climate or sustainable finance while managing balance-sheet exposure to severe currency depreciation. The instrument also fits contexts where FX hedging markets are limited or prohibitively expensive, and may be applicable in countries already exploring innovative approaches to currency risk management, such as Brazil's Eco Invest Facility.

The instrument's core replicable element is its layered risk-mitigation structure, which combines partial hedging from market providers such as The Currency Exchange Fund (TCX) with tail-risk guarantees from donors. The CRSF can be adapted to different PDBs in contexts where it aligns with standard treasury operations and regulatory environments that support both hedging and guarantees.

Successful replication requires several enabling conditions:

1) **Institutional and market requirements**: A PDB must have a pipeline of climate or development projects seeking finance in local currency, along with access to concessional foreign-currency credit lines. In addition, the national currency must show measurable FX volatility so the guarantee can be priced through modeling.
2) **Key local and international partnerships:** Replication also depends on the availability of external partners, including a hedge provider that can offer partial hedging, a donor or DFI that can provide a tail-risk guarantee for extreme depreciations, and technical partners that can support instrument design and outreach.
3) **Internal operational capacity:** A PDB replicating this instrument must be able to track FX exposure, manage swaps, and record loan terms and conditions.

Table 5 summarizes which aspects of the CRSF are adaptable versus fixed, to support replication of the instrument.

Table 5. Adaptable vs fixed aspects of the CRSF

Adaptable	Fixed
▪ **Financial parameters:** depreciation thresholds can be adjusted to reflect local FX dynamics ▪ **Risk-sharing design:** the share of hedged versus unhedged exposure can be calibrated based on the risk appetite of the PDB and guarantor ▪ **Facility size and tenor:** the size and maturity of the credit line can be adjusted to the PDB's balance sheet and funding needs ▪ **Local implementation approach:** specific terms (e.g. principal amount/ tenor) can be tailored to the PDB's operating context and market conditions	▪ **Core risk-mitigation features:** partial hedging combined with a tail-risk guarantee ▪ **Retention principle:** the PDB retains small and expected FX movements ▪ **Use of concessional resources:** concessional support may be needed to make the instrument viable; it should be tied to clear climate and development additionality

VI. KEY LESSONS LEARNED

The key challenges and opportunities identified through the instrument incubation process are listed below:

- A combination of partial hedging and a guarantee on extreme depreciation can offer a cheaper and more flexible alternative to full hedging and lower exposure to FX risks than a fully unhedged position.
- FX guarantees can be more capital-efficient and may mobilize greater climate finance than conventional hedging instruments, requiring lower upfront costs for PDBs and limited donor capital.
- Foreign DFIs already lending to UDB should be considered as potential guarantee providers, as reallocating a share of DFI loans to guarantees (e.g., 90/10) could enhance UDB's capital leverage.
- Preliminary modeling suggests that large local currency depreciations exceeding the proposed 5% threshold occur relatively infrequently—on average, once every seven years.
- Back testing the CRSF from 2000 onwards shows that the guarantor would have earned profits in all years except for deals initiated in 2007 and 2009.
- Uganda's strong financial market conditions—high liquidity relative to other EMDEs, fewer systemic constraints, and UDB's existing CFF—provide an immediate testing ground, enabling implementation of the instrument within 12–18 months.
- PDBs can replicate the currency-risk sharing structure across other EMDEs with strong buy-in from PDBs, favorable regulatory conditions, and countries that face similar currency mismatch challenges.
- The CRSF can be calibrated to the specific context and financial conditions of each PDB.
- The CRSF aligns payouts with UDB's debt-service schedule, simplifying implementation and reducing operational risk.

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VIII. ANNEXES

1. ABOUT THE INSTRUMENT DEVELOPERS

ABOUT FICS LAB

Finance in Common (FiCS), the Inter-American Development Bank (IDB), and the Climate Policy Initiative (CPI) have partnered to operationalize the FiCS Financial Innovation Lab, with CPI as its secretariat. The FiCS Lab aims to help public development banks (PDBs) address barriers to climate finance by sharing best practices, developing standardized approaches to climate instruments, and providing technical support to move ideas from inception to implementation.

Based on the FiCS final communiqué of September 2023, the vision of the FiCS Lab is to bring together PDBs around an action-oriented platform to accelerate the implementation of climate finance and the broader agenda of the 2030 Sustainable Development Goals. The mission of the FiCS Lab is to be a platform that fosters innovation and collaboration among PDBs in mobilizing private capital and expanding climate finance, particularly in emerging markets and developing economies.

ABOUT CPI

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has eight offices around the world in Austria, Brazil, India, Indonesia, South Africa, the United Kingdom, and the United States.

CPI is known as a leader in tracking sustainable investment trends, identifying innovative business models, and supporting the solutions that can drive a transition to a low-carbon, climate-resilient economy. We are unique in our focus on finance, our ability to get the right people to the table, and our analytical rigor.

ABOUT UGANDA DEVELOPMENT BANK

Uganda Development Bank Limited is the national development finance institution of Uganda, mandated to accelerate socioeconomic transformation through sustainable financial interventions. The bank supports private sector projects that deliver high socioeconomic value, particularly in the areas of job creation, production output, and foreign exchange generation. Its strategic focus centers on aligning with national development goals, mainstreaming social, economic, and environmental sustainability across its operations while addressing systemic credit challenges for underserved segments like SMEs, women, and youth.

Central to these efforts is the Climate Finance Facility, the dedicated green financing vehicle of the bank. This facility mobilizes domestic and international capital to support low-carbon and climate-resilient projects through a range of blended finance instruments, including debt, equity, and grants. By offering concessional rates and mitigating the high costs associated with green investments, the facility helps build a robust pipeline of bankable projects. With an initial

commitment of 50 billion shillings, the bank is driving the transition to a green economy and demonstrating innovative financial engineering tailored to the Ugandan context.

2. LEGAL CHARACTERIZATION OF THE CRSF

The legal analysis focused on the core question raised by the proposed Currency Risk-Sharing Facility: whether the tail-risk protection should be characterized in law as a guarantee or as a derivative. This distinction is important because it determines not only the contractual form of the instrument, but also the regulatory, tax, and enforceability issues that may arise in implementation.

The analysis concluded that an asymmetric structure, under which a donor or other counterparty would compensate UDB in the event of severe depreciation of the Ugandan shilling without receiving any corresponding benefit if the shilling appreciates, could plausibly be documented as a guarantee. In English law, guarantees (whether on-demand or in the form of suretyship) are one-directional obligations designed as credit support, under which the guarantor may be required to pay the beneficiary, but not vice versa.

The proposed CRSF, however, is designed as a symmetric risk-sharing mechanism: the counterparty would compensate UDB if the UGX depreciates beyond an agreed threshold, while UDB would compensate the counterparty if the UGX appreciates beyond that threshold. Once these reciprocal contingent payment obligations are introduced, the instrument no longer fits within the recognized legal categories of guarantee. Instead, its economic and legal effect becomes equivalent to a bilateral contingent financial contract, more specifically an option collar combining protection against depreciation with exposure to appreciation. On this basis, the analysis concludes that the instrument should not be described as a guarantee in a strict legal sense. Even if presented commercially as a form of risk-sharing, it would most likely be treated in law and regulation as a derivative.

This characterization has important structuring consequences. If the instrument is documented as a derivative, the most appropriate contractual framework would be an ISDA Master Agreement together with transaction-specific confirmations.

This framework enables the facility to address several issues central to its operation.

- A first consideration is whether the hedge should apply separately to each loan drawdown or across the facility as a whole. If the hedge is calibrated to each drawdown, the derivative notional (the protected sum) must reset each time money is disbursed or repaid. The ISDA Master Agreement accommodates this through its 'single agreement' structure, under which multiple transaction confirmations are integrated into the Master and Schedule. The ISDA Schedule should specify how amortization, prepayments, or loan cancellations affect the derivative notional.
- A second consideration is the alignment of repayment dates and exchange-rate observation dates. The payoff under the collar should be linked to the exchange rate prevailing at each repayment date, ensuring that settlement flows align with UDB's debt-service obligations.

The contract must also specify the reference exchange rate, the calculation agent, and fallback arrangements if the benchmark is unavailable. Because the structure is symmetric, it requires reciprocal contingent payments: if the UGX depreciates beyond the agreed threshold,

the counterparty pays UDB; if it appreciates, UDB pays the counterparty. These bilateral obligations fall within the ISDA framework for payment netting and early termination, so that only net amounts are exchanged, with implications for both operational efficiency and insolvency protection.

Governing law and dispute resolution must also be agreed upon. The ISDA Master Agreement is typically documented under English or New York law, and arbitration may be considered where a neutral enforcement forum is preferred.

The derivative characterization also raises regulatory questions. Under EU and UK frameworks such as EMIR and MiFIR, derivative contracts may be subject to reporting, margining, and, in some cases, clearing requirements. Certain multilateral development banks benefit from exemptions under these frameworks, but UDB and potential donor counterparties may not automatically fall within those exemptions. Whether these requirements apply in practice will depend on the status of the counterparties and the scale of their derivatives activity.

From a Ugandan law perspective, several points arise for confirmation by local counsel. These include UDB's capacity to enter into over-the-counter derivative transactions; whether any approval, registration, or engagement with the Capital Markets Authority may be required; and the extent to which Bank of Uganda rules on foreign exchange flows may apply to premium payments or settlement receipts. The enforceability of close-out netting and set-off provisions under an English or New York-law ISDA Master Agreement should also be assessed, particularly in an insolvency scenario.

It would also be important to clarify whether the instrument could be characterized as insurance if framed as a guarantee or indemnity, and whether this would have implications under the Insurance Act. Finally, the tax treatment of premium payments and settlement flows – including any potential withholding tax exposure – should be confirmed, as well as the classification of such payments for corporate tax purposes.

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