

LCY solutions – onshore

today's options for top 10 MDBs

Erik van Dijk, CRFO

Ingrid Hagen, Sr. Vice President Strategic Projects



frontclear
A financial markets development company

The Problem

Large EMDC financing needs – climate-related or otherwise – cannot be funded by local savings only. Cross-border funding is required to fill the gap – but introduces significant risks.

Risk absorption by different actors

Current solutions in place

Fundamental problem in development finance is that onshore LCY funding is available to a limited extent due to a lack of domestic savings and short term only.

USD funding has been used to overcome tenor restriction, at the cost of currency exposure for the borrower – if loans are provided in USD too.

In overcoming this problem, the following risk categories need to be considered:

- market risk
- counterparty credit risk
- transfer & convertibility risk
- refinancing risk

Offshore markets – synthetic LCY funding to fund LCY assets

MBD/DFI can provide synthetic LCY loans – i.e. transfer USD, have the borrower convert that to LCY which determines the repayment obligation.

The resulting LCY asset can be hedged back to USD using a cross-currency interest rate swap. This swap can be conducted offshore and be fully settled in USD, by converting all LCY obligations in the swap to USD on the date these are due and net settle the LCY and USD leg. The synthetic LCY funding now matches the synthetic LCY loan given.

TCX is currently the only provider of such hedges in scale.

The resulting position / problems:

- The borrower needs to convert LCY to USD and transfer these to the lender on the debt service payment dates. As there is no USD obligation from the borrower, this is subject to transfer and convertibility risk.
- The offshore swap market does not price based on observed rates, but based on expectation of market developments, creating a possibly significant pricing disparity between on- and offshore markets.

Risk absorption by different actors

Current solutions in place

Fundamental problem in development finance is that onshore LCY funding is available to a limited extend due to a lack of domestic savings and short term only.

USD funding has been used to overcome tenor restriction, at the cost of currency exposure for the borrower – if loans are provided in USD too.

In overcoming this problem, the following risk categories need to be considered:

- market risk
- counterparty credit risk
- transfer & convertibility risk
- refinancing risk

Onshore markets – sourcing LCY funding from local FI

The alternative to synthetic LCY funding is to source actual LCY in the domestic market. The MDB/DFI can engage in a cross-currency swap with a local Financial Institution (FI), providing USD and receiving LCY at inception, to fund the LCY loan.

The resulting positions / problems:

- Access to the domestic market depends on local FI needing USD funding.
- The LCY sourced comes out of the same limited domestic savings, reducing the ability to scale this solution.
- The swap with the domestic counterparty introducing significant counterparty credit risk exposure (CCR).
- The tenor of the CC-IRS is likely reduced to a maximum of 1YR. This introduces the need to roll the hedge a number of times to fund longer dated assets (refinancing risk).

Frontclear is currently the only party offering risk mitigation to CCR .

Risk absorption by different actors

Current solutions in place

Fundamental problem in development finance is that onshore LCY funding is available to a limited extent due to a lack of domestic savings and short term only.

USD funding has been used to overcome tenor restriction, at the cost of currency exposure for the borrower – if loans are provided in USD too.

In overcoming this problem, the following risk categories need to be considered:

- market risk
- counterparty credit risk
- transfer & convertibility risk
- refinancing risk

Solution	Market risk	Onshore CCR	T&C	Refinancing
Offshore	TCX	n/a	MDB/DFI	n/a
Onshore	n/a	Frontclear	Frontclear	MDB/DFI

Some Key Take-aways:

- Onshore hedging is short-term and not available in scale
- Offshore hedging does come at a potential price disparity
- MDB/DFI are always facing residual risk

02 The Solution

Neither offshore nor onshore sourcing of LCY alone is sufficient. They need to work together.

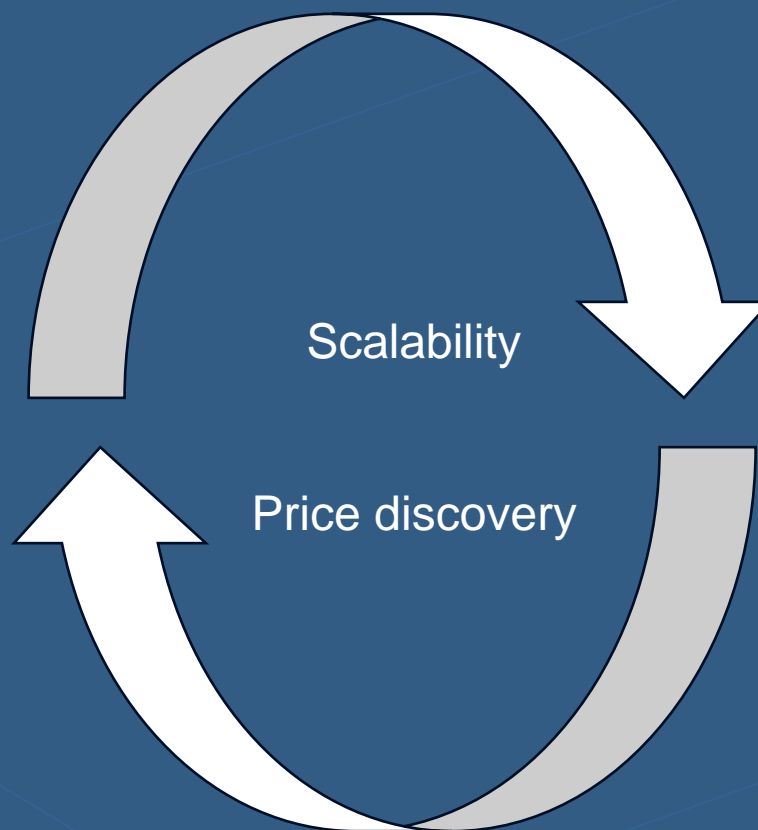
The symbiotic relationship between solutions

Development of proper price discovery in the domestic money market is needed to reduce price disparity problem of offshore hedging

Offshore hedging:

- /- possible price disparity
- /- no development of local markets
- /- T&C risk remains

+ available in scale



Onshore hedging:

- + tied to local pricing
- + contributes to market development
 - enforceability ISDA
 - price discovery
 - benchmark rate

- /- not available in scale
- /- introduces CCR
- /- refinancing risk (rolling the hedge)

The solution: Frontclear approach

Dedicated to money and interbank market development

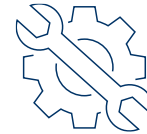
Guarantees



Frontclear unlocks access to global and local interbank markets for EMDC financial institutions by providing credit guarantees to cover counterparty credit and related risks.



Technical Assistance



Frontclear complements its risk bearing capacity with the provision of technical assistance to remove barriers to money market development. Technical assistance is focused on regulatory and legal reform, industry training and financial market infrastructure development – all targeting the development of liquid global and local money markets.



Stability



Frontclear is a financial markets development company dedicated to stable and inclusive money markets in Emerging and Developing Countries (EMDCs).

Why money markets matter

Key functions, challenges and benefits

Functions

Challenges

Benefits

01

Clearing of short-term liquidity and risk positions between money market participants
(Tenors up to 1YR)

- Market segmentation
- Monetary policy regime not conducive to money market development
- Lack of capacity of market participants to trade advanced products
- Lack of enforceability of transaction documentation
 - General Master Repurchase Agreement (GMRA) for repos
 - ISDA Master Agreement for derivatives

- Price discovery for interest and FX rate in interbank market
- Reduction of excess liquidity in the system
- Redistribution of risk leading to reduced overall risk in the system
- Foreign participation in local markets
- Responsible lending practices – positions resulting from deposits and loans on client terms can be managed in the interbank market

02

Offering liquidity to government securities markets

- Fragmentation in government security issuance – no maintenance of benchmark issues
- Lack of diversified investor base
- Lack of capacity of market participants to trade advanced products
- Lack of enforceability of transaction documentation for repurchase transactions (GMRA)
- Lack of financial market infrastructure

- Price discovery in government securities
- Increased liquidity and reduced bid-ask spreads
- Reduced risk / cost of trading leading to increased investor base
- Increase of investor base leading to lower cost of funding for the government
- Creation of government yield curve – basis to price bank loans and securities issued by other issuers

03

Creation of a reference rate that serves as an anchor to the short end of the yield curve

- Market segmentation
- Lack of liquid, traded tenor that can provide a reference rate
- Secured or unsecured reference rate?
- Lack of capacity of market participants to trade advanced products
- Lack of enforceability of transaction documentation (GMRA)

- Index rate (or reference rate) that is the market price for short-term liquidity
- Operational Target for monetary policy
- Anchor for the short-end of a term curve of interest rates
- Basis for floating rate loan products

04

Monetary policy transmission
(Preferably with IT light regime)

- Fundamental economic imbalances challenging monetary policy objectives
- Selection of monetary policy type, objectives and tools
- Design of central bank operations
- Lack of interbank target rate

- Ability to steer inflation through central bank operations
- Increase capacity to absorb shocks and facilitate balanced economic growth
- Support the development of long-term interest rates

Frontclear TA Program– 5 parallel work streams

From raising awareness to creating enabling conditions – working with central bank and domestic financial institutions/actors

01

Money Market Diagnostic Framework (MMDF)

Advisory - MMDF Study

Insights through a deep dive analysis of:

- Current level of money market development;
 - Market environment;
 - Central bank activity; and
 - Resources
-
- Detailed baseline against which to review market development over time
-
- Sequential recommendations for structured reforms to best improve the market (focus on central bank operations)

Training - MMDF Academy

- Supporting regulators (CB, MinFin, pension fund authorities, etc) to better understand central bank operations and the money market through interactive hybrid workshops

02

Guarantee structure

Advisory - market demand & design

Determining:

- Optimal mix of financial instruments (e.g. repo, FX swaps and other)
- Eligible market participants
- Eligible LCY collateral
- Transaction terms and conditions (guarantee amounts, tenors, pricing and operational mechanics)

03

Legal and regulatory framework

Advisory - legal/regulatory review & reform

- Backstopping local regulatory reform processes
- Detailed review of relevant local regulation relative to ISDA and GMRA enforceability
- Recommendations towards positive ICMA and ISDA opinions
- Reform through **drafting support** of revised language towards positive opinions

04

Settlement infrastructure

Advisory - settlement review & reform

- In-depth reviews of clearing and settlement challenges
- Recommendations towards improved operational settlement and platform
- Recommendations towards improved settlement finality
- Reform through **support** to develop improved platform and processes

05

Financial skills and knowledge

Training - Frontclear Academy

Hybrid (online and onsite) training programme:

- 11 Tradeclear tutorials, including but not limited to:
 - Swap products
 - Repo products
 - Effectively pricing repo to market rates
 - GMRA & ISDA enforceability in the local market context
 - Accounting for repo
- 10 extensive courses, including but not limited to:
 - Accounting for derivatives
 - Bond accounting and repos
 - Collateral management
 - Deep dive derivatives
 - Repo primer
 - GMRA primer

Impact Strategy

GDP



1

Create access and knowledge

Nascent market

- Primary market dominated
- Missing legal & regulatory framework
- Missing market infrastructure
- Central bank dominated market

– FOCUS –

Market readiness

- Deepen regulatory & market knowledge
- Monetary policy incentives
- Basic laws & regulations
- Fit-for-purpose government securities market
- CSD for government securities

Opening
2—3 years

2

Develop local onshore money markets

Emerging market

- Thin secondary market
- Incidental bilateral money market transactions
- Tier-1 (top-level) bank dominated market
- Incomplete/unharmonized legal & regulatory framework
- Sub-optimal processes & systems
- Central bank dominated & limited oversight market practitioners

– FOCUS –

Market practice

- Extensive legal & regulatory reform
- Reduced risk in infrastructure & systems
- Advanced capacity building
- Preliminary oversight framework development

Mid-development
3—5 years

3

Develop stable and inclusive money markets

Connected market

- Deep secondary market
- More common bilateral & multi-party money market transactions
- Broader market participation
- Evolving legal enforceability
- Volume warrants stronger oversight market practitioners

– FOCUS –

Market participation

- Fine-tuning governance with growing oversight framework development
- Continued legal reform to align best-practices
- Diversification of market participations (local institutional investors)
- Advanced market infrastructure (e.g. CCH/CCP)
- Advanced capacity building for new participants

End-target
5—8 years

The Frontclear Impact Strategy is a long-term effort in many country contexts. As a conceptual guideline stemming from Frontclear’s experience to-date, our Impact Strategy can be divided into 3 evolutionary phases: **1) Nascent**; **2) Emerging**; and **3) Connected**. A nascent money market may require an 8-year commitment.

The Impact Strategy reflects the complementarity and interoperability of Frontclear’s two key activities: **1) financial guarantees**; and **2) capacity development (technical assistance)**.




Time

Market maturity ladder –the Frontclear TOC

Measuring impact against a baseline

Moving markets up the maturity ladder leads to increased liquidity and price discovery in local markets and the possibility of introducing benchmark rates that support the development of floating rate products

The Market Maturity Ladder is aligned with the Frontclear Impact Strategy and Theory of Change, where outputs empower market participants to act, outcomes measure the extent they have done so and impact measures the desired end result in terms of market development. In Phase 1, it is largely ToC 'output' evidence that is relevant. This is logical since training, regulator roundtables and workshops are prevalent. Such activities deliver very immediate and short-term results. In Phase 2, Frontclear's work is largely guarantees and TA with a strong focus on observable revisions to monetary policy conditions, regulations and market infrastructure. These are ToC outcomes and already reflective of system change.

PHASE 3	Market participation Develop stable and inclusive money markets	STAGE 3B	<ul style="list-style-type: none"> • All of stage 3A + transaction volume • including all participants 	 Impact
		STAGE 3A	<ul style="list-style-type: none"> • All of stage 1 + all 3 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure (e.g. CCH/CCP) 	
PHASE 2	Market practice Develop local onshore markets	STAGE 2B	<ul style="list-style-type: none"> • All of stage 1 + 2 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure (e.g. UGF) 	 Outcomes
		STAGE 2A	<ul style="list-style-type: none"> • All of stage 1 + maximum 1 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure 	
PHASE 1	Market readiness Develop the basics	STAGE 1B	<ul style="list-style-type: none"> • Basic infrastructure in place + • Awareness of both regulators and market participants 	 Outputs
		STAGE 1A	<ul style="list-style-type: none"> • Limited awareness of regulators and/or market participants 	

2018

2019

2020

Mongolia

Impact strategy in practice

- A** Access
- C** Capacity
- S** System

- BSPs** Banking Sector Participants
- Rs** Regulators
- Other** Other Participants

S **Country Strategy FTAP** APR

Market-wide interviews and due diligence

A **STATE BANK** JUL

USD 30m
Cross-border collateral swap
 USD T-Bonds against MNT government bonds
Financier: EBRD
Originator/Guarantor: Frontclear

C **Repo and GMRA Executives' Roundtable** SEP 12

26 BSPs 7 Rs

C **Understanding Repo and Implementing GMRS** SEP 13-14

20 BSPs 4 Rs

A **DEVELOPMENT BANK OF MONGOLIA** DEC

USD 30m
Cross-currency swap
 USD cash against JPY cash
Financier: Société Générale
Originator/Guarantor: Frontclear

S **Diagnostic Workshop on Interoperability Bond Trading and Settlement Platforms** APR

A **DEVELOPMENT BANK OF MONGOLIA** OCT

USD 20m
Cross-currency swap
 USD cash against JPY cash
Financier: Société Générale
Originator/Guarantor: Frontclear

S **Money Market Diagnostic Framework (MMDF)** JUN

Report finds key hurdles:

- Market segmentation
- Excess liquidity
- Tradeclear discussions with BoM to address MS

A **STATE BANK** JUL

USD 23m
Repo transaction
 USD cash against USD Mongolian Eurobonds
Financier: EBRD
Originator/Guarantor: Frontclear

2017

2016

2018

2019

2020

2021/23

Country Strategy FTAP SEP
Market wide interviews and due-diligence

Understanding and Implementing ISDA FEB
30 BSPs

Primary Dealer Review Regulators' Review JUL
6 Rs

Signing Event: MoU Frontclear and BoU MAY
Work programme:

- Legal and Regulatory Review and reform
- Money Market Diagnostic Framework (MMDF)
- Tradeclear implementation

Legal and Regulatory drafting MAY
Qualified contracts and FIA

Legal and Regulatory Review and Reform 2021

- Clarified Financial Institutions (Preference and Appraised Book Value) Regulations approved by BOU SMT and Parliament (2022)
- Awaiting gazetting (2023)
- Netting Act remains target

MoU with Uganda ACI MAR
Interbank market development

Repo Product and GMRA Basics JUL
37 BSPs 15 Rs

Repo and the GMRA MAY
29 BSPs 8 Rs

Market Infrastructure MAY
Bond Market Governance Study

Tradeclear Launch 2022
Tradeclear launch and operational trainings

Understanding and Implementing GMRA MAR
24 BSPs 3 Rs

Regulators' Roundtable Money Market Matters and Bond Governance OCT
12 Rs

Tradeclear workshops and trainings H1 20

Market Infrastructure Bond Market Governance Study 2021

- Results discussed widely among regulators and market actors In-process drafting with First Parliamentary Council
- BOU SMT approved proposed Uganda model
- CMA and BOU joint approach to MOFPED (2023)

Derivatives Deep-Dive APR
29 BSPs 1 Rs

Legal and Regulatory Review and Reform OCT
ISDA and GMRA enforceability

MOU Frontclear and URBRA 2022
Work programme:

- Legal and Regulatory Review and reform
- Training
- Market operational guidelines

Derivatives and Bond Accounting MAY
29 BSPs 1 Rs

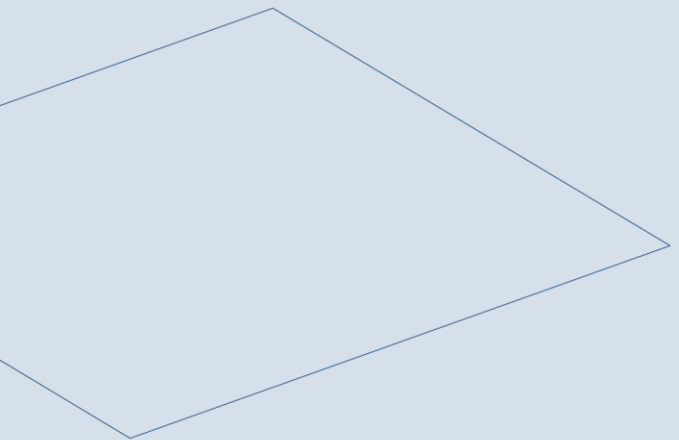
Fixed-Income Boot Camp JUL
25 BSPs 1 Rs

Basel II/III NOV
18 BSPs

Uganda

Impact strategy in practice

- A** Access
 - C** Capacity
 - S** System
- BSPs** Banking Sector Participants
 - Rs** Regulators
 - Other** Other Participants



03 About Frontclear

Our Investors



Our grantors (in-kind and funding)



Federal Ministry
for Economic Cooperation
and Development



United Nations
Economic Commission
for Africa

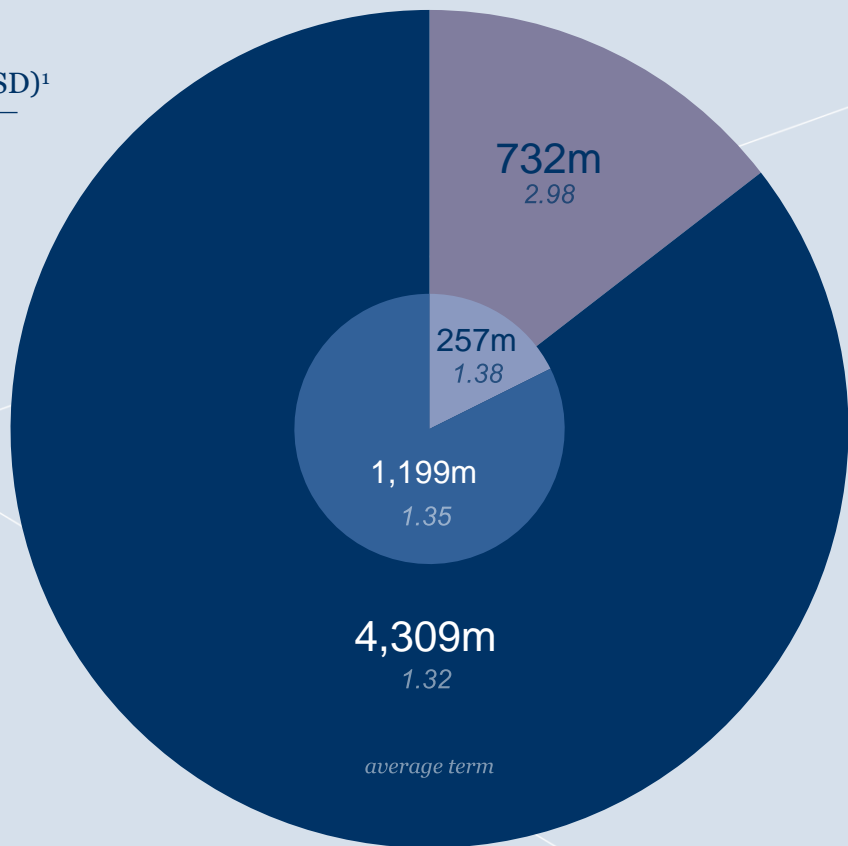


In Short




2022 Summary

Money market credit (USD)¹

- 2015-22**
 - Mobilised
 - Guaranteed
-
- 2022**
 - Mobilised
 - Guaranteed



Money market systems	2022	2015—22
Financial knowledge trainings and regulator engagements	24 ²	79
Legal and regulatory reviews	5	29
Market structures & system studies	3	33
	32	141

	 Countries	 Projects	 Network partners ³
2022	0	8	60
2015—22	25	71	200

¹ In line with the Impact Report 2021, the average term is provided to illustrate the (positive) impact of (longer) tenors on funding mobilized.

² 2022 featured a significant jump in online regulator engagement: tailored discussions on specific topics in monetary policy, regulatory and market infrastructure (12 of the 24 activities).

³ Onboarded beneficiary banks, regulators and private sector contributors.

Thank you

Frontclear

Mauritskade 63
1092 AD Amsterdam
The Netherlands

frontclear.com



frontclear

A financial markets development company