Impact Report
2022

frontclear
financial market development

Introduction

Frontclear is a development finance company dedicated to improving financial market access through building stable and inclusive money and interbank markets. Its investors are largely European development financial institutions and governments.

Frontclear unlocks access to global and local interbank markets for frontier market institutions, through the provision of risk capital to mitigate and absorb counterparty credit risk. Complementarily, Frontclear provides technical assistance focused on regulatory reform, legal enforceability, industry training and market structures and system development – all targeting the development of more stable and inclusive money and interbank markets as a pre-condition to improved financial markets.

"Our comprehensive partnership with Frontclear is moving the needle. Without Frontclear, it would not be possible to see the impact in for example Uganda, where the MMDF and its policy recommendations to the Bank of Uganda complement their bold steps to implement legal and regulatory change, Tradeclear Uganda and other initiatives have raised the country's rank to #4 on the AFMI Index. And in Zambia where the market uncertainties make risks more difficult to assess, further exacerbating market segmentation. Here, the Bank of Zambia has approved the Tradeclear Feasibility project and the tailored structure will be presented early 2023."

Sonia Essobmadje | Chief Innovative Finance and Capital Markets - UNECA

Frontclear Overview

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Our investors

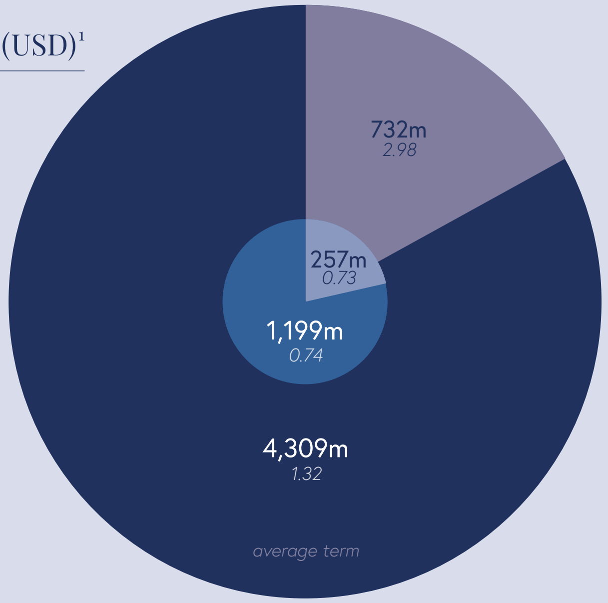
European Bank for Reconstruction and Development, PROPARCO, BMZ Federal Ministry for Economic Cooperation and Development, AFD, Foreign, Commonwealth & Development Office, KFW, FMO Entrepreneurial Development Bank, fsdafrica, TCX, CARDANO DEVELOPMENT, fsdafrica Investments, Sida Swedish International Development Cooperation Agency

In short

Money market credit (USD)[1]

2015-22
- Mobilized
- Guaranteed

2022
- Mobilized
- Guaranteed



Money market systems	2022	2015-22
Financial knowledge trainings and regulator engagements	24[2]	79
Legal and regulatory reviews	5	29
Market structures and 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.

Resilience

Message from the Supervisory Board Chair
Axel van Nederveen

"Frontier and emerging market economies faced a near perfect storm in 2022 and are arguably experiencing the most difficult economic conditions since at least 2008. Whilst the COVID-19 pandemic is no longer a health emergency, the economic costs remain clearly visible in stressed government finances and over-indebtedness, which is expected to result in slower growth for years to come. This, combined with sharply rising US dollar interest rates, imported inflation and the breakout of war in Europe, has led to a number of emerging and frontier market economies losing access to international capital markets. In these conditions, Frontclear's role in facilitating access for frontier market actors to both global capital markets and their domestic markets remains paramount."

As this report confirms, Frontclear did not disappoint in 2022. Overall, the guarantee portfolio expanded by 33% year-on-year. It facilitated market access for local banks in Mongolia, Egypt, Ecuador, Azerbaijan, Benin, Togo, and Nigeria, and furthermore maintained exposures in other markets such as Ecuador, Jamaica, the Dominican Republic and Armenia. A key milestone in 2022 was the launch of Tradeclear in Uganda, Frontclear's first market-wide umbrella guarantee structure that will facilitate the development of a stable and more inclusive local interbank market.

Ultimately, Frontclear seeks to deliver system-level change by absorbing counterparty credit risk and providing technical assistance and expertise to develop local financial markets. Systemic structures such as Tradeclear, combined with effective deployment of technical assistance, is leading to real market development as confirmed by the organisation's first Internal Impact Adequacy and Assessment Procedure (IMAAP). Frontclear furthermore established new technical assistance funding partnerships in 2022, notably with the United Nations Economic Commission for Africa (UNECA) and the IFC/World Bank, to fund Tradeclear feasibility programmes and MMDF projects in various countries including Zambia, Tanzania, and Madagascar.

As Chair of the Frontclear Supervisory Board, I would like to express my appreciation on behalf of my fellow Board members, the Investment and Donor Committees, to the Frontclear staff for their capacity to address rapidly changing market circumstances and continue to deliver high value to markets. A fact recognized by Sida, who we welcome to Frontclear through a FMO-arranged structure.

Readiness

Message from the CEO
Philip Buyskes

"2022 saw Frontclear's outstanding guarantee portfolio increase 34% to USD 278m at year-end 2022, from USD 206m at year-end 2021. This growth is largely attributable to both the addition of 13 new countries (with 31 new obligors) through the first USD 67m portfolio guarantee issued in December 2022 (see page 18) and the closing of the first Tradeclear market wide platform in Uganda (see page 22 and 23). The portfolio guarantee has been key to achieving a business objective of better diversification of the portfolio, with the number of countries in the portfolio increasing from 10 to 27 in a single year."

Excluding Tradeclear Uganda and the portfolio guarantee, Frontclear mobilized USD 2,179m across 9 countries and 12 transactions in its bilateral structured repo and derivative portfolio. This figure represents 38% of the cumulative 6-year mobilized funding of USD 4,309m. With regards to technical assistance funds, FTAP expended USD 364k in 2022, a 2% decline relative to the 2021 spend. However, the difference in spending pales in comparison to the significant jump in implemented activities (88%, see page 30). This is fully attributable to the number of frequent, issue-driven engagements with regulators across active FTAP countries. These stem from multi-year engagements where results do not correlate with immediate expenditure.

Strategically it has become clear that in current and expected future economic conditions, Frontclear can play a critical role not just in its traditional frontier economy focus, but also in larger more developed emerging markets. At the same time, Frontclear is relentlessly focused on catalyzing more resilient domestic financial markets through initiatives such as Tradeclear. Furthermore, the digitization of financial markets offers new opportunities for emerging and frontier markets to leapfrog to new financial infrastructure technology that could overcome many of the traditional barriers to market development. Frontclear is a thought-leader in its field and will look to remain at the forefront of technologies that can spearhead market development in frontier economies. Overall, Frontclear is facilitating the recovery and increasing the resilience of emerging economies to return to growth with more resilient, modern, and deep capital markets to better absorb the shocks of tomorrow.

The 2022 achievements reported in this Impact Report have only been made possible through the continuing commitment of our staff, with expanded countries of operation and complex pressures. On behalf of the Management Board, we wish to thank them and our investors for their continuing support of Frontclear. At the same time, more is needed and Frontclear will continue its efforts to scale operations and accelerate impact.

Impact strategy

Frontclear seeks to achieve its mandate of promoting the development of stable and inclusive financial markets through the combined provision of technical assistance and risk capital. Risk capital is deployed via guarantees or principal counterparty structures aimed at overcoming transaction risks. Technical assistance aims to remove barriers to market development, typically focused on legal and regulatory challenges, infrastructure issues and capacity building.

The Frontclear Impact Strategy is a long-term effort in many country contexts. As a conceptual guideline stemming from Frontclear experience to-date, our Impact Strategy and Theory of Change are based on a country's phase of money and interbank market development: **1) Nascent**; **2) Emerging**; and **3) Connected**. Figure 1 illustrates the key features of each market phase.

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

1. **Nascent markets**, in which the focus of activity is market readiness:
Frontclear interventions are largely technical assistance to support the central bank and market practitioners with the basics required to gain market access and understanding.

2. **Emerging markets**, in which the focus of activity is market practice:
Frontclear guarantees and technical assistance support the country's regulators and market practitioners to improve the existing frameworks and skills towards a deeper domestic market participation. In turn, laying the best practice operational environment to attract and work effectively with foreign investors.

3. **Connected markets**, in which the focus of activity is market participation:
Frontclear guarantees and technical assistance support the country's regulators and market practitioners to accommodate more diversified market participants and corresponding required changes to frameworks (e.g. Netting Regulation) and infrastructure (e.g. CCH/CCP).

Phases of market development

Performance relative to the Impact Strategy is measured and reported using Frontclear's practical framework, the Theory of Change (ToC).

Fig. 1

Introducing the Market Maturity Ladder

Frontclear's Theory of Change (ToC) details the output, outcome and impact indicators, against which Frontclear's results can be gathered and reported. An evaluation challenge remains: ToC results do not provide for an interpretation of the cumulative results of all indicators nor a measure of effectiveness in achieving the mandate for Frontclear to build more liquid and inclusive financial markets in emerging and frontier economies. An additional methodology – the Market Maturity Ladder (figure 2) – is needed to determine the degree to which Frontclear has been able to 'move the needle.'

Frontclear conducts a baseline assessment in all countries of operations. With a country baseline determined, periodic evaluation applying the Market Maturity Ladder can lead to the determination of upgrades or shifts achieved by a certain frontier market. These shifts towards the end objective – moving markets to the final stage of a Connected Market – can then be interpreted as an intermediary development impact result. The market might not be liquid and inclusive yet, but relevant steps have been made towards meaningful change.

> *"Frontclear aims to drive more stable and inclusive money markets. Achieving this will have a meaningful benefit for businesses and individuals. But measurement of change in markets is notoriously difficult. The challenge is to track – and demonstrate to others – what progress is being made towards that objective. By developing the market maturity ladder, Frontclear has provided a rigorous approach to assess where its interventions are having an effect, to allocate resources accordingly and to report evidence to funders and partners. By enabling market changes to be tracked, a tool of this kind encourages support for these vital types of market interventions where the pathway to impact is long."*
>
> Alice Chapple | Founder and Director - Impact Value

Snapshot
Country Results

Is Frontclear 'Moving the Needle?'

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Fig. 2

PHASE 3	**Market participation** Develop stable and inclusive money markets	**STAGE 3B** • All of stage 3A + transaction volume • including all participants **STAGE 3A** • All of stage 1 + all 3 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure (e.g. CCH/CCP)	Impact
PHASE 2	**Market practice** Develop local onshore markets	**STAGE 2B** • All of stage 1 + 2 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure (e.g. UGF) **STAGE 2A** • All of stage 1 + maximum 1 of • Monetary policy conducive to market development • Legal & regulatory reform • Enabling market infrastructure	Outcomes
PHASE 1	**Market readiness** Develop the basics	**STAGE 1B** • Basic infrastructure in place + • Awareness of both regulators and market participants **STAGE 1A** • Limited awareness of regulators and/or market participants	Outputs

The Market Maturity Ladder is aligned with the Frontclear 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.

Theory of Change *(ToC)*

Inputs

- Risk capital
- Expertise
- Networks

Activities

Connecting local & global market participants

1 By issuing financial guarantees to absorb credit, market and country risk

2 By removing markets hurdles through money market expertise and advisory

- A Access
- C Capacity
- S System

Outputs

Increased readiness of counterparties & stakeholders

IMMEDIATE

# of local banks onboarded	A
# of regional and global banks onboarded	A
# of knowledge partner agreements	C
# of agreements with central banks and local banking associations	S

FINAL

Volume funding guaranteed	A
# and type of transactions closed (cross-border, principal, onshore, multi-party, plug-in)	A
Funding diversity (country tier, currency)	A
# of money market trainings	C
Training satisfaction	C
Training diversity (country, tier, participant [bank or regulator], topic)	C
# of and areas identified advisory and feasibility review	S
Volume in-kind contribution knowledge partners (**mobilized**)	C

Outcomes

Increased utilisation of local money market for participants

Volume funding **mobilized**	A
Shifts in counterparty funding volume	A C
Shifts in counterparty funding types	A C
Shift in counterparty funding sources (relationships)	A C
Use of derivatives	A C
Increased knowledge (bank and/or regulator)	C S
# legal reforms achieved	C S
# market infrastructure solutions achieved	C S

Impact

A more stable & inclusive money market

Inclusive:

Shifts in # bank interbank participation (tier) (**multiplied** by plug-in/multi-party transaction)	A C S
# bank participation in repo and swap markets (**catalysed**)	A C S
% access banks to interbank markets	A C S
Interbank market volume/GDP growth	A C S

Stable:

Shifts in bid/offer spreads	A C S
Effectiveness monetary policy transmission	A C S

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

Global uncertainty

Impact on Frontier Markets
The world has become a more complex and uncertain place in 2022. Two years onward, managing the impliications of the pandemic continue to test the resilience of economies. The war in Ukraine added further challenges of commodity price volatility and food uncertainty for many frontier markets, let alone the geopolitical impact of the war. Central banks around the world are dealing with the increased liquidity created during COVID-19 to aid financial institutions' efforts to keep businesses afloat as supply-chain strains caused demand surges. Raising interest rates to curb the resulting inflationary pressures have finally led to the resultant two challenges:

1. Repatriation of investor capital

A significant repatriation of investment flows from frontier markets as investors once searching for yield in riskier environments are now shifting to higher-yielding instruments in developed markets.

2. Bank fragility

The unveiling of bank fragility caused by rapidly rising interest rates and high exposure to indebted government finances.

“The collapse of the US regional banks and the takeover of Credit Suisse by UBS has provided us with another salutary lesson on the importance of risk management. We need to be more intentional on how we manage the big three risk types: Credit, Market and Operational Risk.”

Julius Kateera | Head Financial Markets - dfcu Bank Ltd, Uganda

Whereas many frontier markets entered the period of COVID-19 under relatively sound conditions, the pandemic has generally led to increased government spending and a reduction of government revenues. While the economic recovery following COVID-19 in many countries has been rapid, the need for government spending only increased because of the war in Ukraine. The latter has initially led to a sharp increase in energy prices and higher food uncertainty, the impact of which can be deemed more significant in frontier markets than in developed countries. The resulting position of debt-to-GDP, but more importantly, debt service as a percentage of government revenue in many frontier markets, has raised questions about debt sustainability. This is particularly the case in an environment of quickly rising interest rates where refinancing of short-term domestic debt comes at significant increased cost to the government.

Debt sustainability
The International Monetary Fund (IMF) concludes in a publication of April 2023[4] that about 60% of low-income countries currently face high risk of debt distress. Examples of Frontclear countries of operations going through a debt crisis – albeit in different stages – are Zambia and Ghana. Both countries seem to demonstrate other unexpected side-effects stemming from the changing landscape of concessional financing and growing the domestic market for government debt. In Zambia, work-out arrangements have been complicated for years by China demanding the Bretton-Woods institutions and multilateral development banks share in the pain of restructuring debt. In Ghana, the increased share of domestic debt in government financing has led the IMF to include domestic debt holders in the restructuring of government debt, leaving many of domestic banks extremely vulnerable as a result.

Bruno Laurier
Global Head of Fixed Income & Currencies Financial Institutions Sales
Societe Generale

"The regulatory capital savings achieved through the portfolio guarantee transaction with Frontclear enables Societe Generale to reinvest the capital saved to do more business in emerging markets."

In December 2022, Societe Generale and Frontclear closed a portfolio guarantee that covers all the outstanding derivatives entered into with a selection of near 30 Societe Generale counterparties. The counterparties are all deposit-taking commercial banks from emerging market countries. Societe Generale has appetite for all the derivatives guaranteed, from a credit risk standpoint. The exposure per each counterparty is also relatively small due to the daily margin calls. However, the regulatory capital consumption related to those derivatives can be elevated due to the counterparties having a lower rating (typically capped by the rating of their sovereign) and relatively higher loss-given default.

The rationale for the guarantee is 100% regulatory capital relief. Thanks to the guarantee, Societe Generale has been able to reduce the regulatory capital requirements associated with the derivatives guaranteed. The immediate desired impact has been observable savings in-line with the expected amount of regulatory capital. The portfolio guarantee may be replicable with other global beneficiaries, depending on the regulatory capital treatment of their exposures to emerging market counterparties and their interest in saving regulatory capital.

Frontier Market uncertainty

In a Statistical Release of April 2023[5], the Bank of International Settlements (BIS) reports that banks' cross-border credit to frontier markets declined by USD 179b in the fourth quarter of 2022 alone. Lending in USD fell by USD 142b or 6% of total volume. Higher USD interest rates combined with increased risk and uncertainty faced by many frontier markets are the largest contributors to the above fall in cross-border bank credit. These numbers do not yet reflect the increased concerns about bank fragility. The combined impact of the default of multiple regional banks in the United States – following the decline in value of government debt securities resulting from rising interest rates – and the necessary take-over of Credit Suisse by UBS for very different reasons, has left the market wondering whether we are observing inadequately dealt with idiosyncratic bank weakness or the possible start of a wider banking crisis.

The effects of these concerns in interbank lending, domestically and cross-border, are yet to be determined. Unfortunately, these pressures together with the resulting decline in value of government securities – a more significant share of the balance sheet in most frontier markets – has shifted the position of banks from being part of the solution to potentially being part of the problem.

> *“Adverse impacts of current global uncertainty might not only be more severe but also more protracted in weaker domestic environments, where interbank markets are fragmented and stunt the transmission of monetary policy signals.”*
>
> Erik van Dijk | CRFO - Frontclear

Finally, evidence in the first months of 2023[6] points to inflation showing signs of easing in developed markets, while many countries in Africa are yet facing double digit inflation percentages. Whereas the likely and larger cause is the influence of energy and food prices in less developed economies, another strong factor is the reduced monetary policy transmission effects in less developed local interbank and money markets.

[5] Statistical release: BIS international banking statistics and global liquidity indicators at end-December 2022, April 2023, BIS.
[6] Global inflation tracker: see how your country compares on rising prices, May 2023, Financial Times (source data: Our World in Data).

Ola Sahlen
Senior Program Manager
Unit for Globally Sustainable Economic Development

"As a government agency, Sida is encouraged to better monitor additionality and development impact. Guarantees as an instrument pose a challenge to detail and quantify this requirement. Frontclear has a clear Theory of Change and with a multi-year well-reasoned and proven approach, Sida is confident that Frontclear is well positioned to realize and claim impact at the level of financial systems."

The Swedish International Development Cooperation Agency (Sida) is the AAA-rated government agency of Sweden working on behalf of the Swedish parliament and government. Our mission is to catalyze the preconditions required to improve the lives of those in poverty and/or under oppression. Departing from this overarching Sida goal, we recognize that a good mix of interventions will bring about real added-value. One intervention is to improve the underlying financial system to better ensure sustainable opportunities for the poor and the real economy at large.

Financial stability has been a long-term pillar in Sida's sustainable economic development strategy, further strengthened mid-2022 with the addition of financial sector resilience. Operationalizing these concepts to me means working on well-functioning money and capital markets wherein liquidity and risks are effectively distributed. The result is a financial system better able to avoid distress. Sida's commitment of USD 50m to Frontclear in callable capital fit squarely to this strategic pillar. It supports Frontclear to develop more stable and inclusive money markets in its countries of operation, notably via its innovative Tradeclear platform and transformative technical assistance programme.

Sida appreciates that supporting financial stability and financial sector resilience is not a crowded space. Our partnerships with Frontclear and others like the Toronto Centre, who offers frontier market central banks key skills and understanding, and the IMF through the financial sector stability fund, put us in a position to really make a difference. There is too limited funding going to this work in frontier markets where financial stability is a top priority. At Sida, this work carries strong additionality.

Performance 2022

Guarantee portfolio[7]

The net maximum exposure[8] of the outstanding guarantee portfolio showed an increase of 34% to USD 278m at year-end 2022 from USD 206m at year-end 2021. The 2022 year-end outstanding gross notional guarantee portfolio of USD 327m reflects a 16% increase over 2021. The growth is largely attributable to both the addition of 13 new countries with 31 new obligors through the first USD 67m portfolio guarantee issued in December 2022 and the closing of the first Tradeclear of USD 30m in Uganda. The 2022 annual production of USD 257m represents a 16% decline in new guarantees issued. The cumulative amount of guarantees issued to-date reached USD 1,199m, representing a 27% increase over 2021. The 2022 production pattern clearly showed signs of stress on frontier markets caused by the effects of COVID-19, the war in Ukraine and rising USD interest rates (see Global uncertainty).

Excluding Tradeclear Uganda and the portfolio guarantee, Frontclear mobilized USD 2,179m across 9 countries and 12 transactions in 2022. This figure represents 38% of the cumulative 7-year mobilized funding of USD 4,309m. The effect is that for each USD guaranteed in 2022, Frontclear mobilized an additional USD 4.56 in private capital funding. The Portfolio Guarantee and Tradeclear have the capacity to mobilize larger amounts of funding. The Portfolio Guarantee provides a first-loss coverage per obligor on the expected exposure of the netting set for the beneficiary, with the notional exposure of a netting set typically a much larger number. In Tradeclear Uganda, Frontclear is offering a first-loss guarantee on all interbank transactions between eligible parties, the sum of which could far outreach the amount of the first-loss guarantee.

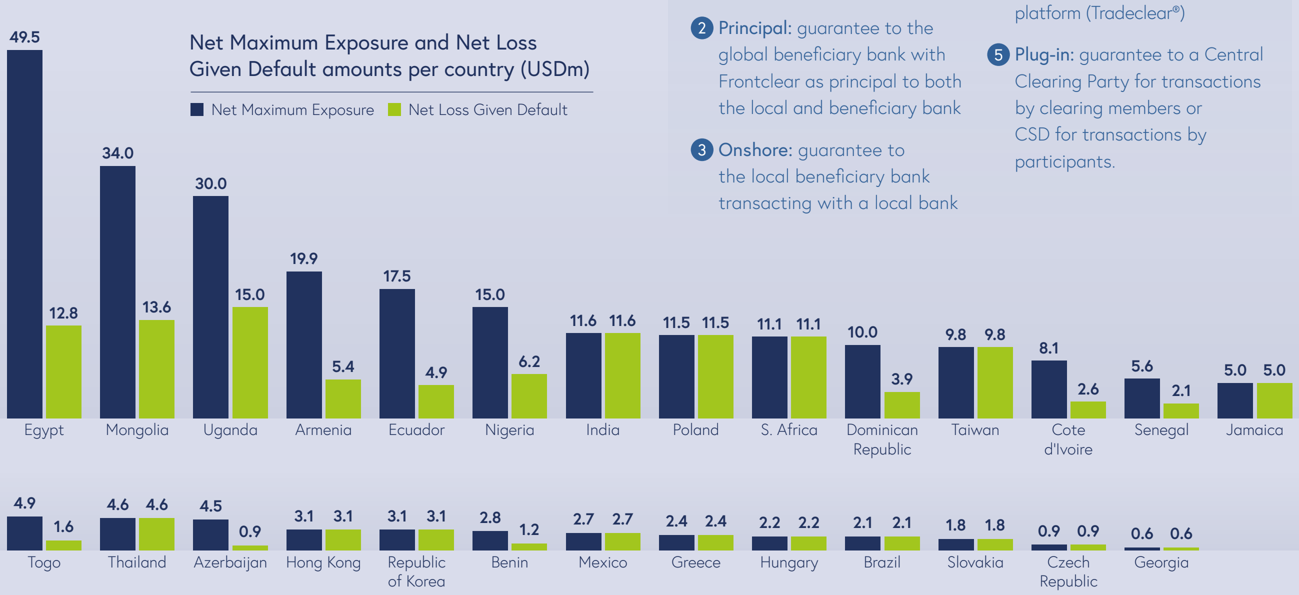
Frontclear remains cautiously optimistic about the outlook to grow the portfolio and is more convinced than ever that inclusive and liquid local money and interbank markets are essential to managing the impact of external shocks. The strategic review of the risk management framework under ICAAP[9] in 2022, has facilitated the growth of the portfolio in better-rated countries, enabling Frontclear to operate at the shoreline of (retracting) risk appetite of global banks operating in frontier markets.

TRANSACTION TYPES

Frontclear connects frontier market banks to global interbank markets and unlocks domestic markets by providing credit guarantees to cover a transacting institution's counterparty credit risk, on the condition that local currency assets can be used for collateral management purposes.

There are 5 transaction structures:

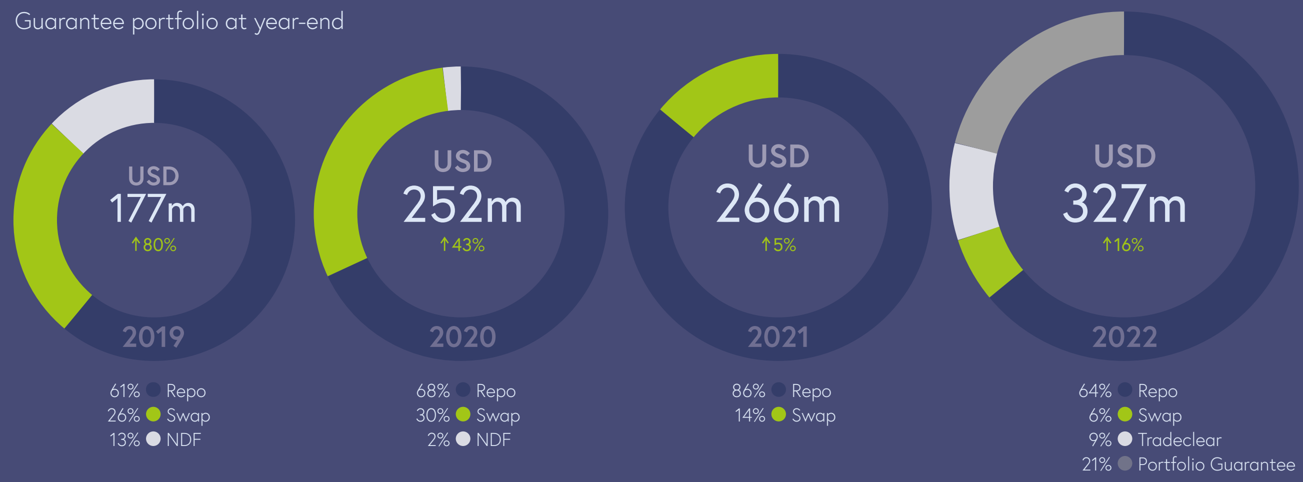
1. **Cross-border:** guarantee to the global beneficiary bank transacting with a local bank
2. **Principal:** guarantee to the global beneficiary bank with Frontclear as principal to both the local and beneficiary bank
3. **Onshore:** guarantee to the local beneficiary bank transacting with a local bank
4. **Multi-party:** guarantee to all local banks transacting with one another bilaterally as part of platform (Tradeclear®)
5. **Plug-in:** guarantee to a Central Clearing Party for transactions by clearing members or CSD for transactions by participants.



Portfolio growth

Output indicator

Guarantee portfolio at year-end



Takeaway

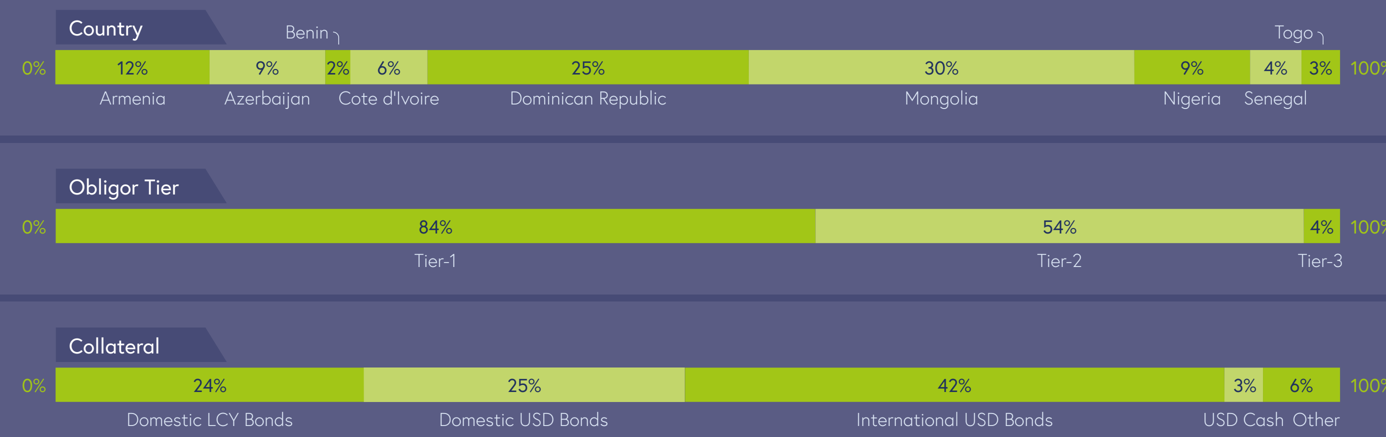
Frontclear remains responsive to local market needs by innovating its guarantee products

With the introduction of Tradeclear and the Portfolio Guarantee product, Frontclear aims to be more effective in offering risk mitigation to both domestic and international interbank markets. The innovation of the guarantee product responds well to the need to build more resilient domestic markets and the reduction in risk appetite of global banks to participate in these.

Guarantee results[10]

Output indicators

	2022	2015-22
Local banks onboarded	3	56
Regional and global banks onboarded	1	22



Outcome indicators

	2022	2015-22
Volume funding mobilized	USD 732m	USD 4,309m

[7] FN 1, ibid.
[8] The maximum exposure is the key risk metric for guarantees, measuring the total amouint payable under the guarantee under stressed conditions.
[9] The Internal Capital Adequacy Assessment Procedure.

[10] Production 2022 excluding Tradeclear and Portfolio Guarantee.

Domestic market resilience

In the 2022 conditions, frontier market central banks have been tackling the dual requirements to curb inflation and ensure financial stability. Many have developed more sophisticated tools as they move to inflation rate targeting (IT and IT-lite) monetary policy regimes. For example, raising both reserve requirements so as to increase the liquidity buffers of the banks under uncertain conditions. Or using open market operations to mop-up market liquidity and slow inflationary pressure.

Such central bank policy actions are essential to the price stability mandate. At the same time, the global and domestic tightening of monetary policy – interest rate hikes and heightened requirements – have a twofold result on the domestic financial sector. It increases the domestic funding costs for the financial system and potentially the borrowing costs on loans to actors in the real economy and thus non-performing loans (NPLs). It tightens the availability of liquidity in the financial system. Banks with strong capital and liquidity buffers will remain resilient to volatility and risk. Given the lack of deep interbank markets, certain banks might need to make use of the central bank liquidity facilities despite a preference in internal policies to avoid.

The interbank market

A truly resilient domestic financial system best able to transform savings to loans on terms and conditions favourable to businesses and households, features a participatory and liquid interbank market. Interbank markets are markets where banks lend and borrow funds from each other for the sake of meeting their daily liquidity needs. Banks regularly face unexpected short-term liquidity needs in their everyday business, particularly in times of volatility such as today. A vibrant interbank market ensures access to liquidity through a mechanism that reallocates funds through the financial system and reduces the over-reliance on the central bank as the lender of first resort.

Market segmentation

A common challenge to frontier interbank markets is structural market segmentation due to credit risk concerns. Under normal market conditions, let alone in a crisis, (perceived) counterparty credit risk quickly dislocates banking relationships. Entrenched market segmentation pushes banks to rely on central bank standing facilities for their liquidity adjustment, despite often high levels of excess liquidity in the banking system. Where liquidity trading does occur, it is limited to few often larger counterparties. Segmentation thus prevents relatively smaller banks from mobilizing funds at lower rates, making the trickle-down effect of lowering credit rates in the financial system more difficult. Without access to the interbank system, such banks who often play an outsized role in serving SMEs, hoard liquidity as a primary risk mitigator versus putting it to more productive economic use.

Sonia Essobmadje
Chief Innovative Finance and Capital Markets
UNECA

"Financial sector liquidity is an important part of the implementation of the African Continental Free Trade Area (AfCFTA). If we want a common market with African trade interaction, it will be crucial to align financial markets as it is the means to boost cross-border trade. There is a strong rationale to develop interbank markets, even more so in today's context that is plagued by liquidity problems. Our countries, our continent, needs to build its own resilience."

There is no more postponing the need to fix Sub-Saharan Africa (SSA) money markets as the basis to develop a resilient domestic financial sector and face the multiple crises we Africans have today. Active money markets facilitate the allocation of short-term funding, helping to determine reliable short-term interest rates as an anchor for the domestic yield curve and providing a basis for pricing longer term assets and liabilities. Monetary policy signals are transmitted through money market channels. Without money markets, the current central bank manoeuvres to simultaneously target inflation and financial stability are impossibly stunted. The critical nature of money markets is even more evident today than in the post Global Financial Crisis.

For ECA's central bank counterparties, the discussion is a no-brainer. They recognize that a pre-condition to developing domestic debt markets is deeper money and interbank markets. In dealing with the ongoing crises, they clearly see this as an immediate priority to increase financial system resilience to external shocks. With Frontclear, ECA found the singular partner with money and interbank market expertise, understanding of the region and a common purpose to exert real change and impact. Moreover, the work with countries is catalyzing relationships on other ECA programmes such as LCY bond market issuance and restructuring of outstanding debt supply. Money and interbank markets are truly the starting point.

Our comprehensive partnership is moving the needle. Without Frontclear it would not be possible to see the impact in for example Uganda, where the Money Market Diagnostic Framework (MMDF) policy recommendations to the Bank of Uganda complement their bold steps to implement legal and regulatory change, Tradeclear Uganda and other initiatives – raising the country's rank to #4 on the AFMI Index. And in Zambia where the market uncertainties make risk more challenging to assess, further entrenching market segmentation. Here the Bank of Zambia has approved the Tradeclear Feasibility and the tailored structure will be presented early 2023. Next is Tradeclear Feasibility with the Bank of Tanzania.

Umbrella Guarantee Facility

An inclusive interbank market will be central to recovery and to improved resilience to future shocks. The Umbrella Guarantee Facility (UGF) is a systemic approach to reducing counterparty credit risk in the market – the key challenge behind market segmentation. In the UGF, all interbank transactions among eligible banks in a country are guaranteed. This mitigates counterparty credit risk and allows liquidity to flow among tiers in the system, while simultaneously building-up operational experience with best practice documentation (GMRA and ISDA) and transaction knowledge (e.g. margining, collateral management). UGFs reflect pre-CCP[11] market infrastructure and a secure approach to a more inclusive interbank market.

Across 2022, Frontclear made significant progress in the development and execution of the UGF in several domestic markets, largely at the specific request of a frontier market central bank.

MAY

In May, the Bank of Zambia (BOZ), the Bankers' Association of Zambia, and the SEC, began working with Frontclear and UNECA to design a UGF structured to fit the specific domestic market needs. By December, a tailored Tradeclear structure was presented to the BOZ for due diligence and decision-making.

JUNE

June saw the launch of the first UGF, known as Tradeclear Uganda, in Kampala. Tradeclear Uganda is the culmination of a large-scale programme between the Bank of Uganda (BOU) and Frontclear, to remove the legal, infrastructure and knowledge constraints to a more liquid interbank market.

"The introduction of Tradeclear Uganda is expected to dislodge the logjam of market segmentation in the interbank money market. This Umbrella Guarantee Facility will cover the risk of interbank defaults i.e. if a borrowing bank fails to pay the lender in a secured transaction, Frontclear will stand ready to pay back the funds advanced by the lender. The establishment of a facility like Tradeclear in Uganda's money market has been long overdue."

Mr. Micheal Atingi-Ego | Deputy Governor - BOU
Launch of Tradeclear Uganda

OCTOBER

In October, the Bank of Tanzania (BOT) and Frontclear signed a large-scale programme including efforts with UNECA, to implement a Tradeclear Feasibility study. The study, like that implemented in Zambia, will deliver a UGF structure best suited to the domestic market needs.

"Banks should gain access to markets through one another – through an interbank market. It is not optimal that banks rely on the central bank through the vertical window to address liquidity requirements, except in very extreme circumstances. It is costly, carries a market signal and does not benefit the system. Counterparty credit risk remains a challenge to our market volume and liquidity. The study will review our market conditions and design a domestic interbank guarantee facility for our consideration to implement.'

Dr. Yamungu M. Kayandabila | Deputy Governor, Economic and Financial Policies - BOT
Signing MOU with Frontclear

[11] Central Clearing Counterparty (CCP).

Country case
Uganda

In 2022, Frontclear's Technical Assistance Programme (FTAP) revisited its 2016 Donor Committee approved Uganda country strategy to document the extensive added-value projects agreed to with the Bank of Uganda (BOU) as part of the Memorandum of Understanding (MOU) signed in 2019. The Uganda Country Strategy 2022-2024 is consistent with an Emerging Phase per the Frontclear Impact Strategy and reflects a work programme strong on diagnostics, market practice and a commitment to deepen investor participation. It reflects four on-going projects:

It reflects three key projects:

1. Bond Market Governance and Oversight;
2. Money Market Diagnostic Framework (MMDF);
3. Reform of the legal and regulatory framework; and
4. Implementation of the Tradeclear® platform supported by the Frontclear Academy.

The Uganda country programme realized solid outcomes in 2022, including an MMDF Report delivered with the support of UNECA and AFD. The Report's policy recommendations are timely to inform central bank operations as they tackle inflationary pressures and maintain financial stability. Both the launch of Tradeclear Uganda (June) and the adoption and publication (early 2023) of the Financial Institutions Preference and Appraised Book Value Regulations, are significant outcome achievements. The BOU and the Ugandan financial sector have high expectations as to the combined impact on domestic market participation and financial resilience.

Julius Kateera
Head Financial Markets
dfcu Bank Ltd, Uganda

"We have never been able to do netting in Uganda without a targeted Netting Law. The adoption of the Financial Institutions Preference and Appraised Book Value Regulations, a long-term process supported by Frontclear, has immediate benefits. It gives financial institutions transacting under GMRA and ISDA additional comfort by reducing risk exposures in the interbank market. This is the first step to Uganda achieving a clean ISDA and GMRA opinion."

In Uganda, like most SSA markets, the banking sector is highly concentrated. The top 4 or 5 banks contribute more than 50% of industry total assets, customer deposits and profits. While this has some benefits in terms of having strong institutions that can withstand shocks, it also means that liquidity and capital sometimes does not go where they are needed the most. As a result, many small and micro-businesses are not able to raise capital through the formal banking system and end up going to the shadow banking system.

dfcu is a universal Bank with Personal and Business Banking, Corporate Banking and Financial Markets as the main business lines serving a diverse range of customers across 56 branches and approximately 1,700 agents, many of whom are in rural areas. Our funding sources are robust and well-diversified, making it possible for us to be an active player in the interbank market. In cases of a liquidity shortfall, the first port of call are the other tier 1 banks. In the event of market wide liquidity constraints, we have access to liquidity via the Central Bank through various tools such as Standing Lending Facility (SLF).

The Umbrella Guarantee Facility (UGF) launched in June 2022 helps mitigate credit risk among banks, which has been identified as a primary reason for liquidity segmentation in the interbank market. The UGF thus complements existing trading capacity in the interbank market. Key expected benefits include reduced interbank segmentation between the different bank tiers, improved market resilience to shocks, reduced reliance on central bank funding, improved secondary bond market liquidity, and improved monetary policy transmission.

The guarantee facility is still in its infancy and will grow with a return of more normal liquidity conditions. What is needed in the meantime is 70% or more of the banks participating – to benefit from 'network effects'. Banks will need support with the legal documentation and product knowledge for us to have a uniform and common understanding across the market. The Frontclear Academy and ECA supported in 2022 with collateral management and valuation workshops in Kampala. More is needed.

Margaret Kaggwa Kasule
Director, Legal Department
Bank of Uganda

"We need to continually sensitize the market on the need for a deeper and more liquid horizontal interbank market. My experience is that understanding the technical concepts behind the repo and derivative products and their specific transaction documentation is quite challenging particularly because ours is just a developing market. Working with Frontclear on The Financial Institutions (Preference and ABV) Regulations was a challenging journey for myself; a legal professional working at the central bank. There is a strong possibility that it could be a challenging one for staff of many Ugandan financial institutions."

The Bank of Uganda is charged with promoting price stability and a sound financial system. Open market operations including for example main refinancing and structural facilities, are important tools to realize this objective. In times of tight liquidity, the BOU lends to commercial banks, but it is not the objective of the Bank to be the lender of first resort. There is need to avoid a situation where commercial banks frequent the lending window when they can source liquidity from other market players. On the legal side, those with liquidity, particularly the larger financial institutions, need to have sufficient legal protection under the regulatory framework when lending to smaller counterparties.

Earlier efforts to build confidence in the legal protection of repo market transactions were supported by an expert Mr. Richard Comotto and the decision was to adopt a Global Master Repurchase Agreement (GMRA) framework including with a buy/sell back annex. The expectation was that banks would become more confident using these arrangements to transact in the horizontal market. Even with the signed GMRA in place, Bank of Uganda did not witness growth in the horizontal market. To further improve legal protection, the BOU issued the Appraised Book Value Regulations of 2019 under the Financial Institutions Act, 2004 (FIA, 2004), defining what transactions would be deemed conducted at appraised book value which therefore would not be voided upon closure or placement of a financial institution under management – addressing the concerns posed by Section 88. This initiative also did not yield much as it appeared that the market did not embrace these regulations as providing sufficient legal protection.

Frontclear's initiative added value to the review and reform of the existing legal framework by bringing to the table solid expertise, greater stakeholder involvement and convergence particularly at the international level. We probably would not have gotten to the robust result achieved today with the adoption of the Financial Institutions (Preference and ABV) Regulations, which tackles the challenges posed by Section 88 at this stage. Frontclear's involvement was instrumental. We had to rework the existing Regulation in consultation with the financial institutions and their external legal advisors, to enable a universal understanding of the protection. The market confidence is now shared, going well-beyond the perspective of the central bank and a few stakeholders.

With this adopted Regulation, the protection financial institutions have been clamouring for is in place. In parallel and with the support of the central bank, Frontclear has launched Tradeclear Uganda to mitigate the credit risk between participating institutions transacting in the interbank market. The Bank of Uganda will be reviewing horizontal market activity relative to dependency on the central bank's liquidity facilities. Going forward, the central bank is considering putting in place stronger signals to incentivize participation in the horizontal market.

Client Letter
Uganda rules on enforceable netting
SCAN OR CLICK TO READ

Financial Institutions Regulation 2023
Preference and ABV
SCAN OR CLICK TO READ

Key Indicators

- **Agreement with central bank**
- **Agreement with pension funds regulator**
- **Agreement with local banking association**
- **# of knowledge partner agreements**
  - ISDA contribution to legal & regulatory framework development
  - ICMA contribution to legal & regulatory framework development
- **# of funding partnerships**
  - UNECA contribution to MMDF and training
- **# of money market trainings and regulatory engagements**
  - 11 trainings
  - 1 regulatory round-table
  - 3 regulatory engagements
- **Training diversity**
  - 424 participations (333 bank staff, 91 regulators)
  - 50 Frontclear Academy licensees (revolving)
- **# of and areas identified for advisory and feasibility review**
  - Legal and Regulatory Review and Reform
  - Umbrella Guarantee Facility (Tradeclear)
  - Money Market Diagnostic Framework (MMDF)
  - Bond Market Governance and Oversight
- **Volume in-kind contribution knowledge partners (mobilized)**
  - USD 11,288 equivalent
- **Increased knowledge regulators**
- **Increased knowledge banks**
- **# Legal reforms achieved**
  - Financial Institutions (Preference and Appraised Book Value) Regulations
- **# of market infrastructure solutions achieved**
  - MMDF
  - BOU SMT and CMA approved Ugandan Governance Model
  - Tradeclear Uganda

Performance 2022

Technical Assistance portfolio

FTAP expended USD 364k in 2022, a 2% decline relative to the 2021 spend. The difference in spend pales in comparison to the significant 88% jump in implemented activities. This is fully attributable to the number of frequent, issue-driven engagements with regulators across FTAP countries: A trend aligned to the heightened awareness of the need to improve domestic market resilience. The number of FTAP countries did not increase in 2022, remaining at 25 to-date.

Since inception, FTAP conducted 141 activities stemming from 71 approved projects. The year's 8 new projects shrunk by 43% compared to 2021 (14) while the 32 new activities is a near doubling over 2021. These diverging trends reflect the relatively time-consuming, interactive and complex added-value projects that predominate the FTAP portfolio. At 95% of all 2022 FTAP expenditures, investments in legal and regulatory reform plus market infrastructure, expanded an additional 21% over 2021. 2022 investments in the development of Tradeclear system solutions account for 18%, MMDF trajectories another 17%, and legal review and reform 54% of the overall annual FTAP expenditure.

The intensity of regulatory engagement stems from two developments. Firstly, the implementation of 2022 high added-value activities such as regulatory reform and financial market infrastructure. An example of the former includes the Tradeclear Feasibility in Zambia with concurrent reviews and reform of the regulatory context and the overlapping CSD infrastructure[12]. Such trajectories require extensive interaction with the market and multiple regulators. Secondly, the MMDF-related monetary policy recommendations in the currently challenging market environment. An example of the latter includes central banks seeking specific input on monetary policy and central bank operations given the challenging intersection between inflation targeting and financial stability.

Of the total 2022 expenditure, 89% was allocated to projects in Sub-Sahara Africa (SSA) and close to half of that percentage on projects related to the implementation of Tradeclear. The large SSA footprint continues to build on its position as a solidly established, trusted and knowledgeable adviser on money market development. In 2022, FTAP signed partnership agreements with UNECA to jointly develop the money and interbank markets in Zambia, Tanzania and Uganda. The regional FTAP track record led to the signing of another large-scale MOU with the Bank of Tanzania (October 2022), including but not limited to the design of a Tradeclear structure tailored to the market's particularities. Similarly, by reverse inquiry, the Bank of Zambia requested UNECA and FTAP to develop the contours of a Tradeclear Zambia.

Across 2022, current partners such as ICMA, ISDA, ABN AMRO Clearing Bank and new partner Allen & Overy, contributed in-kind advisory work valued at a USD-equivalent of USD 49k – a figure akin to 2021. The technical expertise required to implement much-needed market infrastructure is sourced from both FTAP's partner network and increasingly from Frontclear itself in the context of proprietary product development such as Tradeclear.

AREAS OF TECHNICAL ASSISTANCE

The Frontclear Technical Assistance Programme (FTAP) spans a wide range of activities, focusing on financial knowledge at the Nascent phase of the Frontclear Impact Strategy and higher value-add in the Emerging and Connected phase. The three FTAP target areas are:

1 Financial knowledge trainings and regulator engagements
Basic and medior trainings in money and interbank markets for banking industry participants and targeted, issue-driven trainings and engagements with regulators.

2 Legal and regulatory system
Roundtables and legal and regulatory reviews, reforms and recommendations and related research.

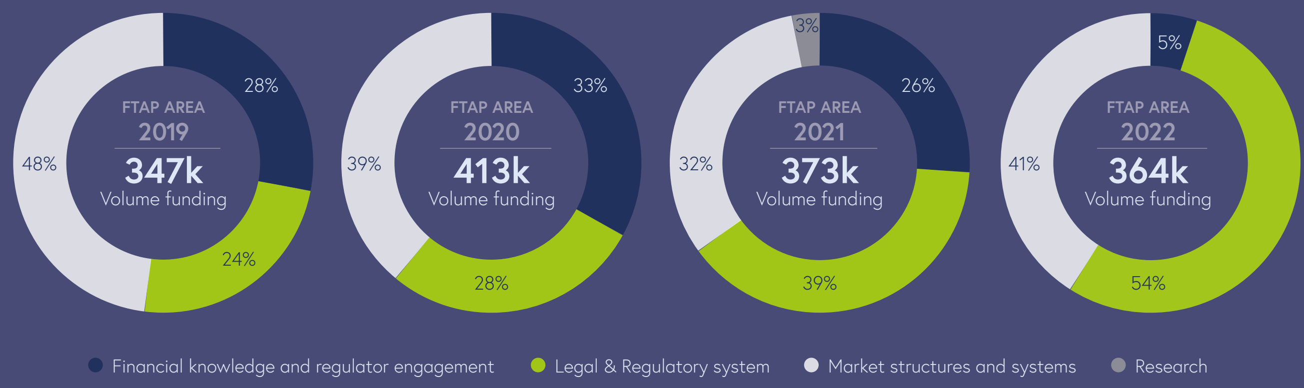
3 Market systems and structures
In-depth reviews and reform of clearing and settlement, central clearing and primary dealer structures. Money Market Diagnostic Frameworks (MMDF) and related research.

[12] Tradeclear feasibility studies are country specific studies towards the implementation of Frontclear's Umbrella Guarantee Facility (UGF) product to allow for interbank trading in the domestic market. Feasibility studies encompass MMDFs, legal and regulatory review and reforms, reviews of the local market infrastructure and up-skilling of local market participants. These studies therefore form a holistic country approach and have increasingly become the angle through which FTAP approaches its technical assistance agenda. FTAP draws significantly on the proprietary expertise of the Frontclear team to complete Tradeclear feasibility studies.

Portfolio results

Output indicators

Annual TA expenditure and % breakdown by area



In absolute figures, FTAP 2022 spending shows an unremarkable 2% decline over 2021. In contrast, there has been a strong increase in the number of engagements with regulators throughout the development and implementation of high added-value projects such as legal and regulatory reform and market infrastructure (12 such tailored engagements). Of the 12 financial knowledge trainings in 2022, regulators accounted for 58% of the 321 training participants in 2022. Other large contingencies stemmed from Tier 2 banking sector participants (13%) and local law firms (17%). Law firm participation increased as a result of market engagement to secure universal understanding of expected legal review and reform.

Takeaway

Proportionally more spending on added-value activities

The 95% of all 2022 spending (increase of over 20% over 2021), is largely attributable to intensive and successful regulatory reform and development of market strengthening infrastructure such as Tradeclear. This will expand further in 2023 with the expected development of a minimum of 2 additional domestic guarantee facilities in SSA.

	2022	2015-22
Financial knowledge trainings & regulator engagements	24	79
Training satisfaction	99%	99%
Training participants	321	2188

5 Activities to address legal and regulatory review and reform
— 29 Cumulative

3 Activities to address market structures and systems
— 33 Cumulative

Takeaway

Training catering to the very specific needs of key counterparties

The actual development of umbrella guarantee facilities required the up-skilling of transaction implementation skills, in particular bank mid- and back-office staff of Tier 2 banks. This similarly applies to local legal practitioners, who will be asked for opinions on regulation relative to transaction documentation. For said reasons, very specific counterparties relevant to the smooth implementation of domestic guarantees are highly represented among training participants.

Outlook 2023

Frontclear's development impact is increasingly centered around building inclusiveness and liquidity in domestic money markets through the Tradeclear Umbrella Guarantee Facility platform. As this report has shown, these markets are fundamental to the overall ability of a financial system to fund economic growth, poverty reduction and the transition to a green economy.

Following the launch of the Tradeclear facility in Uganda, Frontclear has a strong pipeline in a number of other countries. The long-term vision is to connect local markets via a global trading platform that will bring resilience and strength to emerging and frontier financial markets. The technical assistance required to ready a local market to implement Tradeclear is resource intensive and includes a review of the monetary policy and central bank operations using the Money Market Diagnostic Framework, the review and reform of the legal and regulatory environment and an assessment of and improvement to the local clearing and settlement infrastructure. New strategic partnerships, such as the unique collaboration with UNECA in 2022, are needed to improve domestic market resilience through Tradeclear and other initiatives.

At the same time, Frontclear is increasingly playing an outsized role in larger emerging markets. With the risk-off environment expected to remain in the medium-term and with many global banks retreating from both emerging and frontier markets, a core focus in 2023 is to expand Frontclear's principal counterparty structure to facilitate onshore-offshore transactions. The principal counterparty model not only provides market access for frontier market participants to global markets, but also provides an efficient means for offshore counterparties to access frontier markets and thus facilitate foreign investor access to local currency and hedging instruments. Such access will be critical to support economic growth in the future as well as to support key global priorities such as green finance. We welcome the increasing participation of development finance institutions in this area, alongside our traditional partnerships with global and regional bank beneficiaries.

In 2022, Frontclear concluded its first annual Impact Measurement Adequacy Assessment Procedure (IMAAP), a critical new lens through which to assess impact results. In 2023, Frontclear will utilize the IMAAP to ensure a continuous improvement cycle around resource allocation and the assessment of the impact framework. The IMAAP strengthens our ability to communicate impact results to a wider audience of donors, capital providers and other stakeholders, who value the development impact of Frontclear business as much as the commercial results and opportunities that it creates. Such objective assessment will be crucial as Frontclear continues to seek to raise new capital and technical assistance resources to further scale and accelerate its mandate to establish the financial markets of tomorrow.

Frontclear
Mauritskade 63
1092 AD Amsterdam
The Netherlands

FRONTCLEAR.COM