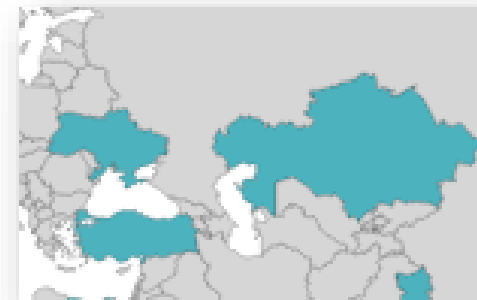


Clean Technology Fund (CTF)



CTF 2.0 Initiative: Progress and Status Update to the Trust Fund Committee

31 January 2019



The Origins of CTF

Background

- *Established:* 2008
- *Funds:* USD 5.5 billion
- *Objective:* provide scaled-up, concessional financing for the demonstration, deployment, and transfer of low-carbon technologies with a significant potential for long-term greenhouse gas (GHG) emission savings, through six partner multilateral development banks in middle income countries
- *Technologies:* Renewable energy, Energy efficiency, Sustainable transport

January 2010

<i>Contributor</i>	<i>Type</i>	<i>USD eq.</i>	<i>%</i>
Australia	Grant	86	2%
Canada	Loan	199	4%
France	Loan	231	4%
Germany	Loan	615	11%
Japan	Grant	1,056	19%
Spain	Capital	106	2%
Sweden	Grant	80	1%
United Kingdom	Capital	1,681	30%
United States	Grant	1,492	27%
Total		5,546	

Key features

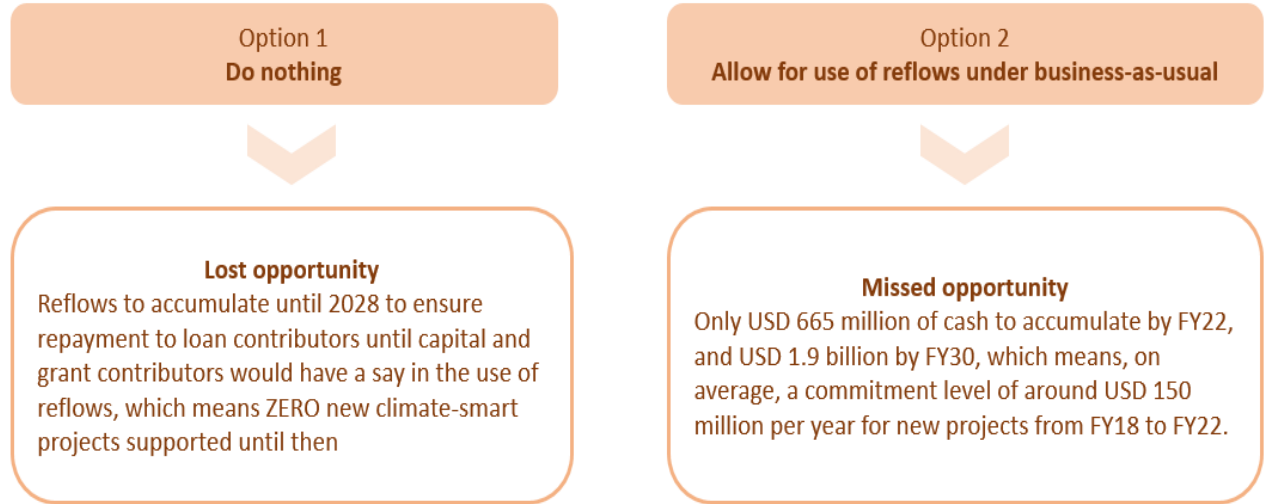
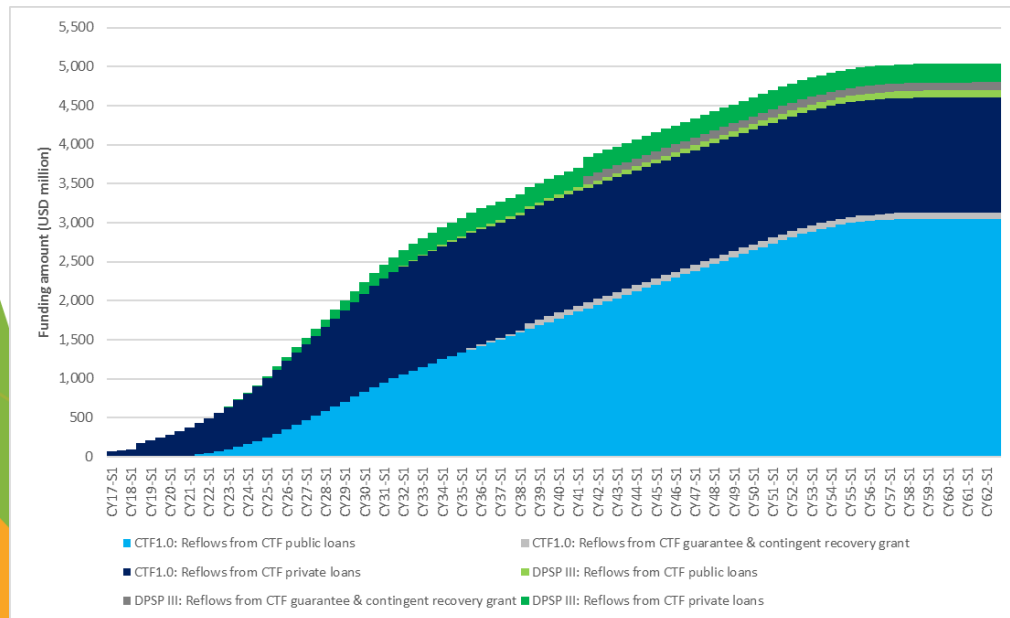
- MDB-partnership model
- Ability to leverage
- Private sector engagement
- Innovative financial instruments
- Flexible programmatic approach

What to do with CTF Reflows? Options Analysis

CTF 1.0: Portfolio overview (as of June 30, 2018)

	Approved funding		Disbursement
	Committee	MDB	
CTF Funding (in \$M)	4,999	4,636	2,213
Number of projects	130	98	82

CTF 1.0: "Legacy Reflows" (\$4bn+)



Objective: Provide scaled-up financing for demonstration, deployment and transfer of low-carbon technologies with a significant potential for long-term GHG emissions savings through six partner MDBs

How: Introduce a financing structure capable of leveraging *legacy reflows* to independently raise funds from institutional investors through the issuance of green bonds in the capital markets, allowing MDBs and other investors to move into high risk/high impact new frontier markets and technologies

Priority areas: Energy storage, distributed generation, residential energy efficiency, sustainable transport

CTF 2.0 “Green Markets” Concept – the Basics

- Utilizes the credit quality of existing CTF assets (i.e., cash, investment portfolio and expected reflows) to raise new resources from the market to finance the next phase of transformational energy and transport technologies
- Financial analysis projects that up to USD 5.0 billion of new funds could be raised in the capital markets over a 10-year period
- Assumes USD 500 million per annum of new TFC commitments, split 50-50 between public and private sector projects
- Assumes no new donor contributions, but that all contributors commit to the use of CTF reflows in 2.0
- Any additional voluntary contributions could enable a higher level of concessionality for CTF 2.0 operations and thus enhancing the potential transformational impact

CTF 2.0 “Green Markets” Concept – the Basics (continued)

- Governance, decision making, implementation and administration of loan operations will remain relatively the same, but additional service providers will be needed to support the CTF special purpose vehicle established to issue the green bonds
- Indicative guidance from S&P and Moody’s suggests that the CTF Issuer could anticipate strong investment-grade credit ratings (i.e., allowing it to issue bonds at reasonable rates)
- Financing costs subject to market conditions at the time, the terms of the transaction and the perceived liquidity of the secondary market
- Indicative credit ratings support the plan of CTF accessing markets on terms which would allow it to continue offering highly cost-effective (concessional) financing

Expected CTF 2.0 Operational Refinements

As CTF will be “market facing” (through bonds), certain business, financial and operational risks would be actively managed:

- **Active interest rate and currency risk management:** As with IBRD, IFC and other MDBs, CTF will need to avoid excessive exposure to interest-rate and foreign exchange risk by ensuring that the interest rate variability and the currency composition of loans, investments and cash matches that of CTF’s capital and borrowing obligations
- **Pricing / Terms:** Not as cheap as original CTF terms , but still priced at a discount to MDB rates (for both public and private sector) when needed – see details later
- Assumes higher share of **CTF private sector lending** – helps ensure cost recovery (higher pricing, shorter tenors) and furthers prioritizes private capital mobilization
- More proactive **pipeline management** (e.g., importance of readiness criteria)
- **Disbursements** from CTF Trustee to be timed much closer to MDB disbursement needs, **enhanced liquidity management** needed

Refining and Validating the CTF 2.0 business model

- Since the last update provided to the Trust Fund Committee, the CIF Administrative Unit has continued to conduct detailed due diligence with the key stakeholders, including the MDBs and IBRD technical teams, in order to prioritize remaining issues and concerns.
- These consultations have facilitated further refinement of both the financial and business models, which have been updated in light of the various feedback. This next section provides highlights of those updates and refinements.

Engagement with the MDB Committee

Iterative dialogue with the CTF Implementing Entities has focused on the following key issues:

- **Deployment potential** of new CTF 2.0 funds including:
 - Countries, sectors, projects, technologies
 - CTF pricing levels, fees and other terms and conditions
- Review of financial projections / new model
- Ensuring same limitation of legal liability of MDBs to bondholders
- Changes in MDB reporting requirements and frequency

Engagement with the MDB Committee – deployment potential

Private sector portfolio composition:

- Based on feedback from the private sector MDBs on indicative terms, how to include and scale up the deployment of **subordinated** CTF debt instruments (facilitating transformation)
- Subordinated instruments can be accommodated with slight changes to margins (to reflect the higher risk)
- CTF 2.0 base case revised to assume 50% of private sector portfolio being comprised of subordinated instruments (i.e., 25% of total CTF 2.0 portfolio)
- **Other deployment considerations:** Onlending terms for public sector and senior private sector projects were also refined to improve concessionality (i.e., extending tenor) where possible.
- Positive feedback from the MDBs, increased flexibility for deployment to both the public and private sector

Summary of Proposed CTF 2.0 Terms (refinements)

Description	CTF1.0 Legacy Portfolio		CTF 2.0 <u>Revised</u> Base Case Portfolio	
	Public Sector	Private Sector	Public Sector	Private Sector
Composition	66%	34%	50%	50% (including subordinated instruments)
Interest Rate	100% fixed rates at 0.25% or 0.75% Weighted average = 0.42%	1.72% (82% fixed rate, 18% floating rate)	0.5% below 6-month floating USD LIBOR (was "Libor flat")	6-month floating USD LIBOR + 1.06% weighted average margin (was 0.98% margin)
Currency Composition	100% USD	86% USD 14% EUR	100% USD	100% USD
Grace Period	10 years	3.1 years (weighted average)	10 years (was 5 years)	2-5 years (commensurate with construction schedule)
Door to Door Tenor	20 or 40 years (weighted average = 31 years)	14.1 years (weighted average)	30 years (was 25 years)	10 to 20 years
Credit Loss Ratio	0.88% Reserve 0.0% Losses	6.44% Reserve 5.85% Losses	0.88% Reserve 0.0% Losses	6.44% Reserve 8.38% Losses (was 5.85%)
Annual Project Commitments by TFC	USD 500 - 700 million		USD 500 million	
Commitment fees	None		0.25% on undisbursed commitments (for both public and private projects) (was up to a maximum of 1.0%)	

Engagement with the MDB Committee - other considerations

MDB legal liability:

- The intent of the CTF 2.0 arrangements is to ensure that the MDBs' legal liability of administering CTF loans **remain the same** as in the existing FPAs.
- Input sought from the legal counsel from the MDBs and to the Trustee as well as external counsel to CIF AU.
- Based on that feedback, revisions made in the draft CTF 2.0 Technical Proposal regarding MDBs' legal liability to CTF bondholders.

MDB reporting requirements:

- Active discussions underway with Trustee and Accounting to finalize these arrangements. Further information provided in the following section.

Engagement with the IBRD technical teams

Proposal for IBRD to continue as **Trustee** and take on new role as **Treasury Manager** (key considerations around the latter)

Iterative dialogue with the IBRD technical teams (including Accounting, Treasury, Legal and Development Finance policy) has focused on the following key issues:

- Adequacy of risk adjusted capital (RAC) and sensitivity analysis to assess impacts of credit and interest rate shocks on RAC and CTF credit rating.
- Funding assumptions, asset liability management and hedging considerations.
- Credit risk and related modelling assumptions.
- Reporting requirements for the CTF special purpose vehicle (for issuing bonds) and underlying MDB financial reporting requirements.
- Procedural issues and implementation risks associated with reporting obligations of the treasury manager mandate under CTF 2.0.

CTF 2.0: Financial reporting

Due diligence performed:

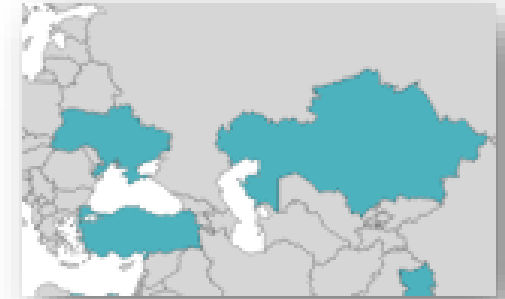
- Deloitte UK was engaged in June 2017 to provide an opinion regarding the appropriate accounting treatment of the proposed funding and investments of the CTF Issuer. The opinion is based on the following key assumptions: the CTF Issuer would adopt **International Financial Reporting Standards (IFRS)** and the CTF Issuer would be a **UK based entity**.
- A draft set of **pro-forma financial statements** and disclosures for the CTF issuing entity have been prepared and shared with the MDBs and the Trustee to help inform:
 - on expected accounting and disclosure requirements of the CTF Issuer.
 - what will be needed from the MDBs to support the CTF Issuer reporting requirements.
- Discussions with Deloitte UK and IBRD teams have explored the alternative approaches to compile the CTF Issuer financial statements, taking into consideration the expected audit requirements.

Next Steps

- Preparing a revised **CTF 2.0 Technical Proposal**, incorporating all inputs and refinements and a proposed implementation plan and schedule will be presented to the Trust Fund Committee as soon as possible
- Consideration by IBRD's **internal approval processes** (regarding the treasury manager role, timing and financial reporting arrangements)
- Submission for CTF TFC's decision
- Complete remaining due diligence
- Amendments to legal agreements (including contribution agreements and governance framework documents)
- Amendments to Financial Procedures Agreements and reporting requirements with the MDBs
- TFC Update on final implementation schedule to follow

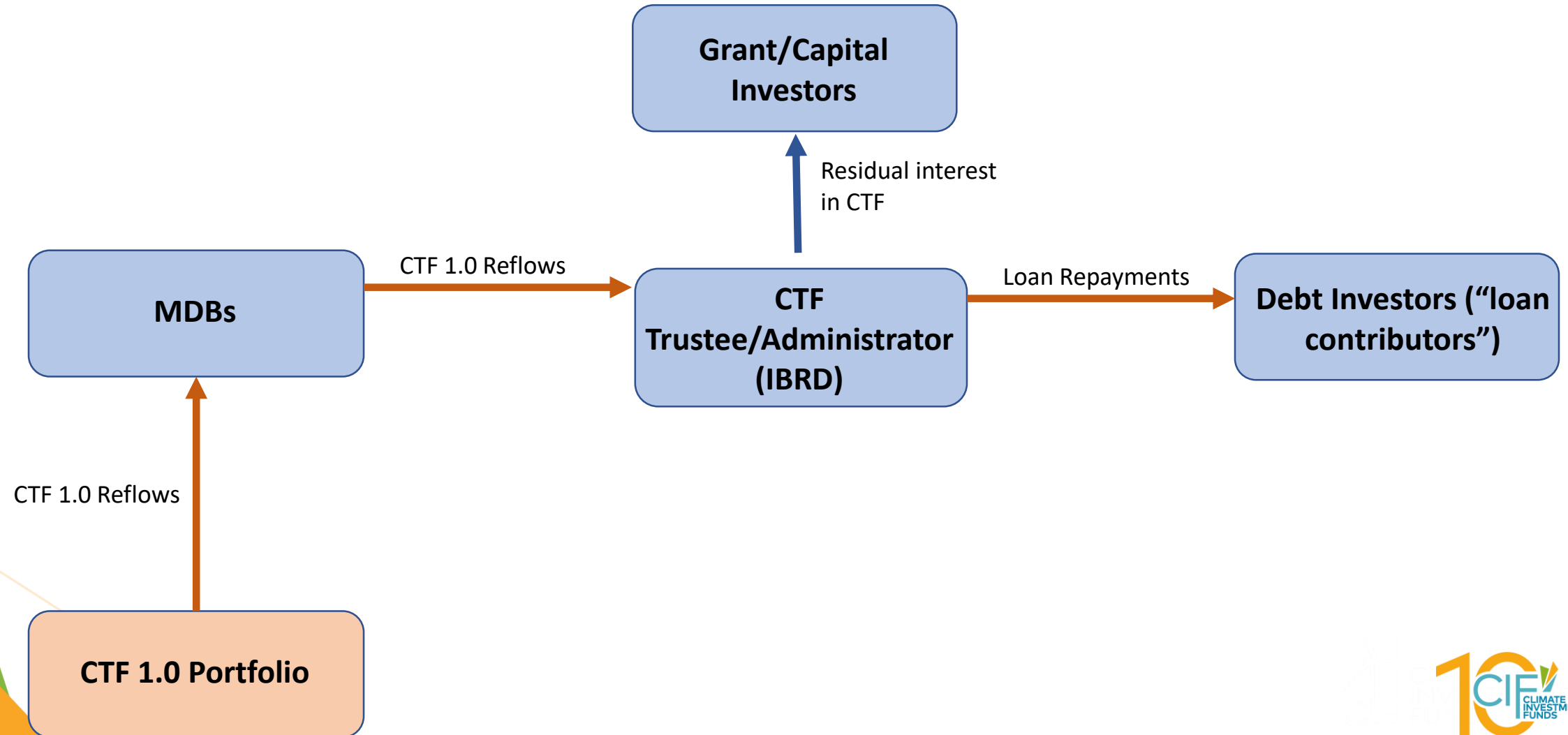


Thank you

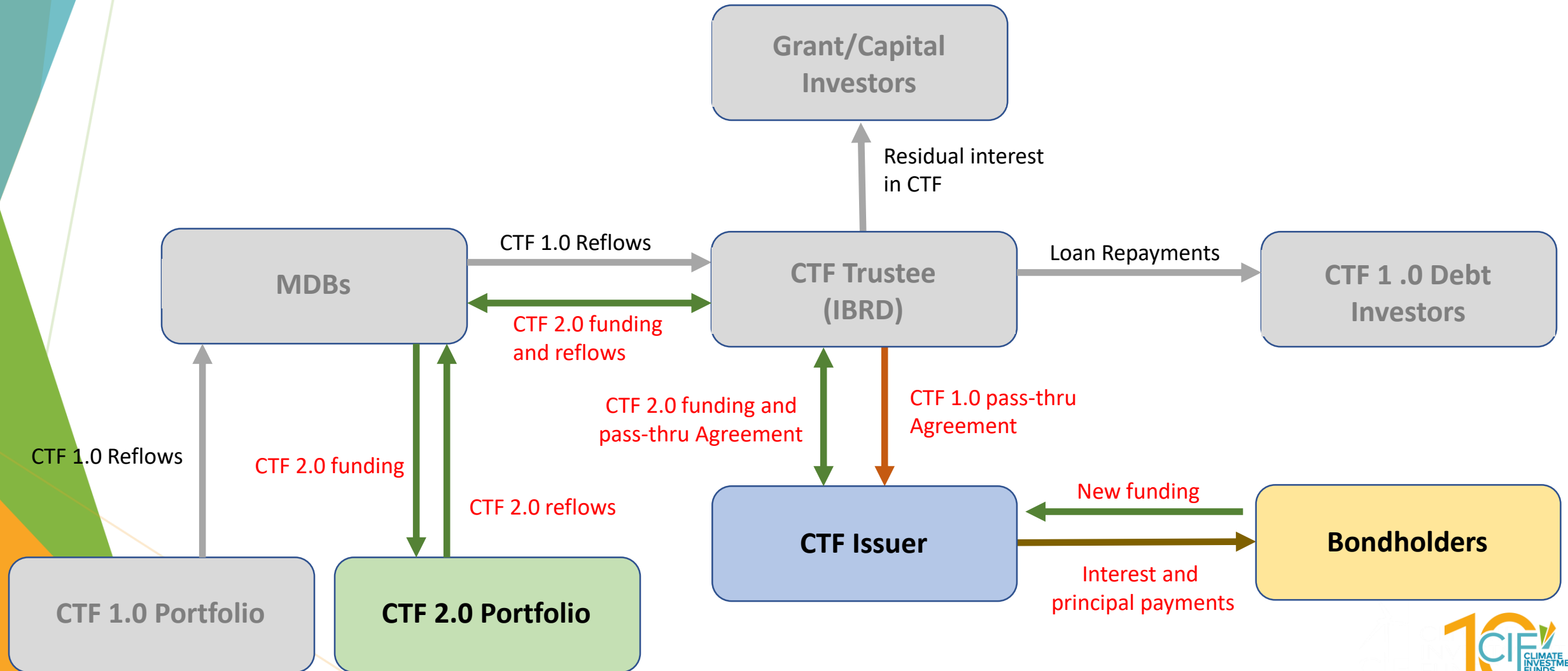


Appendix

Current Structure (CTF “1.0”)



Proposed Structure - CTF 2.0 Green Markets



Summary of Financial Projections (2019-2032)

Key Financial Ratios	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Average	Threshold
Funding Ratio																
Leverage ratio (debt to total capital)	19%	18%	24%	28%	33%	36%	40%	39%	39%	39%	38%	39%	39%	39%	34%	60%
Leverage ratio (external debt vs NET assets)	0.24	0.24	0.24	0.23	0.22	0.31	0.40	0.48	0.57	0.66	0.64	0.64	0.64	0.62	44%	1.50
Equity vs loans outstanding	1.46	1.21	1.05	0.89	0.82	0.75	0.71	0.71	0.69	0.70	0.70	0.69	0.71	0.69	0.84	0.50
Interest coverage ratio	10.49	9.73	9.13	3.05	2.08	1.64	1.46	1.35	1.36	1.38	1.36	1.37	1.37	1.36	3.37	1.25
Liquidity Ratio																
Liquid assets/total assets	44%	32%	28%	20%	18%	16%	17%	15%	13%	14%	13%	14%	16%	14%	20%	
Liquid assets/gross debt	234%	181%	117%	71%	56%	43%	42%	37%	34%	36%	34%	35%	41%	36%	71%	
Other Indicators																
Net Income (\$ million)	48.7	44.0	39.6	12.3	19.6	7.0	9.8	14.5	12.0	22.5	14.2	11.3	26.5	9.3	20.8	0
Ending Cash Balance (\$ million)	2,404	1,731	1,605	1,258	1,217	1,114	1,234	1,074	993	1,062	951	1,019	1,209	1,071	1,282	



CTF 2.0: Additional Sensitivity Analysis

- Financial modeling has examined a number of different sensitivities to assess whether the business model would remain viable. Some key sensitivities examined since the last TFC meeting and their results:
 - **Private sector subordination: (equal to half of the private sector portfolio):** Both profitability and capital remain sufficient to support the higher risk associated with this portfolio, assuming modest increases in pricing.
 - **Lower private sector composition (25-35% of entire portfolio):** Profitability is negatively affected and becomes even more pronounced over the long term as market borrowing must increase to address the gap in reflows arising from the larger public sector portfolio (due to longer terms to maturity).
 - **Fair value impact of an interest rate shock when well leveraged (200 bp interest rate increase in 2032):** Although capital drops in 2032 to 63% due to the fair value impacts of the interest rate increase on the portfolio, the capital level remains well above the S&P threshold (under S&P's capital framework, an MLI's RAC needs to remain > 23% to maintain an extremely strong financial profile) and continues to improve modestly and consistently each year following 2032.
 - **Fair value impact of interest rate shock (above) combined with a 2-notch credit downgrade of all CTF loan assets:** Despite the greater capital drop in 2032 to 42% in this scenario, the capital level remains above the S&P threshold and remains relatively stable and above the threshold in subsequent years.