

# CLIMATE INVESTMENT FUNDS

CTF-SCF/TFC.11/6  
October 16, 2013

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Joint Meeting of the CTF and SCF Trust Fund Committees  
Washington D.C.  
October 29, 2013

Agenda Item 7

**UPDATE OF THE CIF ERM FRAMEWORK:  
DEVELOPMENT OF A PORTFOLIO RISK DASHBOARD**

## **PROPOSED DECISION**

The joint meeting reviewed document CTF-SCF/TFC.11/6, *Update of the CIF ERM Framework: Development of a Portfolio Risk Dashboard*, and notes its appreciation for the work that has been undertaken to develop a prototype to facilitate tracking of the risks identified in the CIF ERM.

The meeting requests the Trustee, working in collaboration with the CIF Administrative Unit and the MDBs, to proceed expeditiously to finalize the design of the dashboard, taking into account comments made at the meeting as well as any written comments submitted by Committee members by November 15.

The meeting further requests that the Trustee and the CIF Administrative Unit ensure that the IT work necessary to support the dashboard commence as early as possible with a view to running a testing phase of the full dashboard in the first quarter of 2014. The Committees request that the Dashboard be fully operational by the end of March 2014.

## **I. INTRODUCTION**

1. The CTF and SCF Trust Fund Committees, having reviewed the document entitled “Updates to the Elaboration of an Enterprise Risk Management Program for the Climate Investment Funds”, dated August 22, 2013, approved the revised Tier 1 risks and associated risk mitigation measures for the Clean Technology Fund and the Strategic Climate Fund. The Committees also requested the CIF Administrative Unit, the Trustee and the MDBs to undertake the next steps identified in the document to ensure continued implementation of the ERM.

2. One of the agreed follow-up steps was the development of a prototype Risk Dashboard (financial and operational) for review and comment by the joint meeting of the CTF and SCF Trust Fund Committee in October 2013. The fully implemented Risk Dashboard is to be available by the first meeting of the Committees in 2014.

3. This document presents a prototype of what the Tier 1 Financial Risks plus one Operational Risk might look like in the Risk Dashboard. The joint meeting is invited to review the prototype and provide its comments to guide further work to fully develop the Risk Dashboard.

## **II. PURPOSE OF THE CIF PORTFOLIO RISK DASHBOARD**

4. The Risk Dashboard will be a graphical presentation of CIF Tier 1 risks, presented in a secure online web platform. It will provide a consolidated view of CIF portfolio risk metrics with relevant indicators to help: (i) quantify the Tier 1 risks; (ii) provide early warnings when any risk metric is approaching the maximum threshold levels; and (iii) provide notification when any risk metric has exceeded the maximum threshold levels. The Risk Dashboard will support: (i) development of approaches and strategies to address and mitigate risks; (ii) discussions by the CIF Committees on the Tier 1 risks; and (iii) timely and informed risk management decisions by the CIF Committees. The Senior Risk Management Officer, when hired by the CIF Administrative Unit, will be responsible for ensuring the Risk Dashboard is updated and for collaborating with MDBs and the Trustee on expanding and developing enhancements to the Risk Dashboard.

### **Risk Metrics**

5. To generate the risk metrics for the Risk Dashboard, the CIF Administrative Unit must collect, aggregate and analyze data from its own data repository and from data provided by the Trustee and the MDBs. For example, the Risk Dashboard will use outputs from existing sources such as the Trustee’s CTF Cash Flow Model, periodic reports provided by MDBs to the Trustee and the CIF Administrative Unit, the CIF Pipeline Management system, as well as other sources such as the Global Emerging Market Risk Database (GEMs). Additionally, new sources may be identified as gaps in information are identified and additional analysis is performed. The inputs of the Risk Dashboard will be updated on a periodic basis. Annex I provides an illustration of the CTF Tier 1 Financial Risks in the future Risk Dashboard, including sample threshold levels and indicators.

## **Design and Development and Testing**

6. The Risk Dashboard will be designed to be a clear and easy tool to communicate risks to Committee members and to facilitate their understanding of the risk exposure of the CIFs. During the design phase, particular attention will be paid to developing tangible and measurable risk indicators to trigger risk mitigation measures and help the Committee take risk informed decisions. More importantly, it is anticipated that the design phase of the Risk Dashboard will facilitate the identification of any gaps in information that are needed in order to further implement the ERM framework.

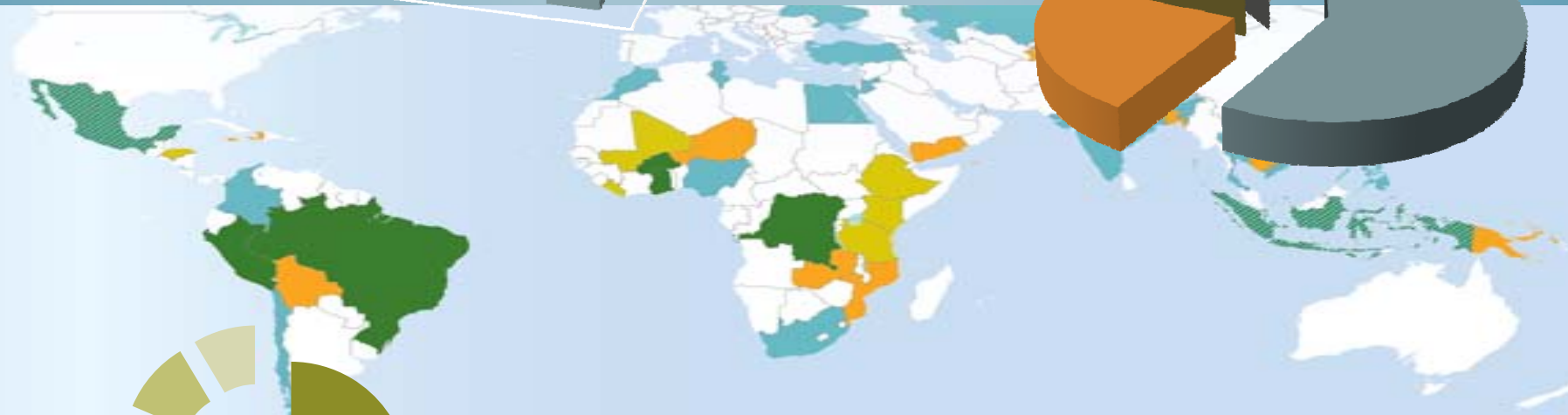
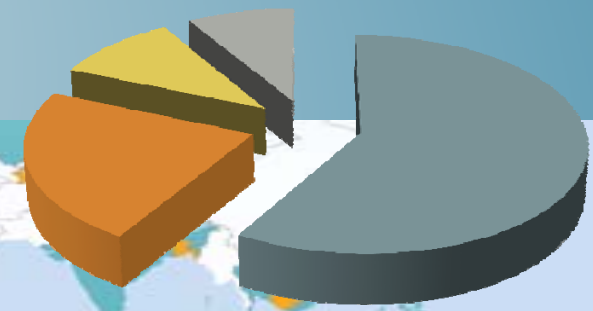
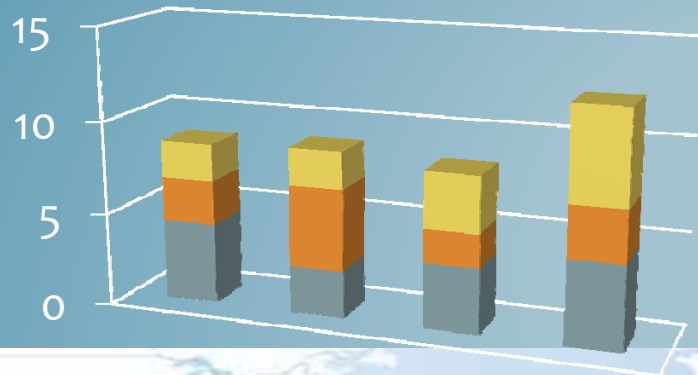
7. It is important to note that one of the key requirements of the Risk Dashboard is that it be flexible and configurable to facilitate improvements and refinement of the Tier 1 risks.

### **III. NEXT STEPS**

8. The IT development of the Risk Dashboard will commence once the design and high level business requirements are complete, currently expected for November/December 2013. The Trustee will lead the design of the Risk Dashboard in collaboration with the CIF Administrative Unit and the MDBs. Comments from the members of the CTF and SCF Committees will be taken into account in the design and high level business requirements. Before making the Risk Dashboard fully operational, there will be a testing phase to ensure that the actual development by IT programmers matches the design and high level business requirements. Committee members will be invited to participate in the testing phase to make sure that their views and issues are incorporated in the design.

# Annex 1

**Disclaimer: All Data and Indicators in the following slides are illustrative and may not represent actual risk metrics for the CIF Portfolio.**







## CIF RISK DASHBOARD

This Dashboard presents CIF Tier 1 risks and supports (i) the Trust Fund Committees' decision making as well as (ii) the development of approaches and strategies to address risks. It provides a consolidated view of CIF portfolio risk metrics with relevant indicators to help quantify the risks, provide early warnings and trigger risk mitigation responses.




## How to read/review these slides

### How to interpret symbols?

-  A flag indicates that the risk indicator has changed from the previous reporting period.
-  A green light indicates that the risk is mitigated within the agreed parameters.
-  A yellow light represents an early warning that the risk is moving closer to the threshold level. This could trigger a discussion if further mitigation tools are needed in order to avoid or share the risk. Alternatively, the Committee can accept the level of risk pertaining to the yellow indicator.
-  A red light indicates that the risk has exceeded threshold level and existing mitigation measures are not working and further discussion is needed to either increase or change the risk mitigation measures. Alternatively, the Committee can accept the level of risk pertaining to the red light indicator.

### How to interpret the indicator key?

Thresholds shown in these slides are indicative for illustrative purposes. During development of the dashboard in a secure online website, appropriate thresholds will be proposed to the Committee. The table below shows sample thresholds and corresponding traffic light indicators.

Indicator Key	
Threshold: less than 5%	
Threshold: is between 6% and 8%	
Threshold: is over 10%	

# CTF RISK DASHBOARD

Illustrative Data

June 30, 2015      Dec. 31, 2014




		June 30, 2015	Dec. 31, 2014
<b>Financial Risks</b>	Risk 1: Financial Management Portfolio risk - Lack of integrated financial portfolio and consolidated cash flow management may increase the likelihood of losses and disruption, and diminish effectiveness of decisions and the overall efficiency of the use of funds.		
	Risk 2: Financial model risk - Actual credit default (sovereign/private) as well as other financial indicators may exceed CTF Cash Flow model projections.		
	Risk 3: Credit risk - Portfolio loan losses due to defaults or non-payments may exceed the CTF's ability to absorb such losses.		
	Risk 4: (a) Market Interest rate and (b) Foreign Exchange risk - CTF interest rate available to borrowers may not have the appropriate level of concessionality; adverse exchange rate movements may create a significant negative impact on CTF's ability to fund project/program portfolio.	a) b)	a) b)
	Risk 5: Asset Liability Management risk - Liquidity may not be sufficient to meet the CTF's obligations to repay loan contributors and/or obligations to MDBs; excessive cash reserves may result in disruptions to pipeline management.		
<b>Strategic / Operational Risks</b>	Risk 6: Pledge risk - Funding pledged by contributors may not materialize in a timely manner.		
	Risk 7: Misuse of funds risk - Recognizing that each MDB has robust procedures in place to mitigate misuse of funds, MDB reporting on actual misuse of funds to the Committee may not be timely. This may result in the Committee's inability to effectively respond to such an event.		
	Risk 8: Impact risk - Inability to deliver the expected programmatic impact as defined by CTF objectives, investment criteria, and the results framework		
<b>Operational Risks</b>	Risk 9: Operational Portfolio risk - Poor or untimely information hinders the Committee's ability to make risk informed decisions.		
	Risk 10: Pipeline management risk - Optimistic forecasts and uncertainties of project forecasting may lead to suboptimal use of CTF funds.		
	Risk 11: Financing Terms risk - Lack of active management and tracking of the financing terms for projects may result in a situation where the level of concessionality is inappropriate and/or the distribution of terms within the portfolio does not comply with the Principles Regarding Contributions to the CTF .		






## Risk 2 – Financial Model Risk

Risk 2: Financial model risk - Actual credit default (sovereign/private) as well as other financial indicators may exceed CTF Cash Flow model projections.

### View 1: CTF Cash Flow model validation

Model version	Quarterly update	World Bank Chief Risk Officer review	CIF Senior Risk Management Officer review	Open critical issues	Risk Indicator
6	6/30/2014	Pass	Pass	4	
5	3/31/2014	Pass with comments	Pass with comments	15	
4	12/31/2013	Pass	Pass	2	

If the model has more than 5 open critical issues, the Trust Fund Committee could request that the model be revised before considering any of model's outputs in Committee decisions.

Indicator Key (Number of Open Critical Issues)	
Threshold: less than 5 open issues	
Threshold: between 6 and 10 open issues	
Threshold: over 10 open issues	

## Risk 2 – Financial Model Risk

Risk 2: Financial model risk - Actual credit default (sovereign/private) as well as other financial indicators may exceed CTF Cash Flow model projections.

### View 2: Credit Default

Benchmark Default Levels vs. Actual Defaults by Region <i>Benchmark rates from 2011 GEMs Annual Report</i>				
Region	Average Benchmark Default Rate	CTF Avg. Actual Default Rate	Delta	
Europe & Central Asia	0.60%	0.00%	-0.60%	
Latin America & Caribbean	7.00%	1.00%	-6.00%	
Middle East - North Africa	3.90%	8.90%	5.00%	
Sub-Saharan Africa	8.60%	0.00%	-8.60%	
Asia & Pacific	1.50%	0.00%	-1.50%	
<b>Totals/Averages</b>	<b>4.32%</b>	<b>1.98%</b>	<b>-2.34%</b>	

Indicator Key (Delta of Regional Default rates)	
Less than 3%	
Between 3% - 5%	
Over 5%	

Yellow or Red indicator in any of the regions could trigger discussion at the Trust Fund Committee. Committee could decide to impose another risk mitigation measure or accept the level of risk.

### View 3: Project loans in arrears

MDB	Region	Country	Program / Project	Status
IBRD	Middle East - North Africa	A	Project A	
IDB	Latin America & Caribbean	B	Project B	
EBRD	Middle East - North Africa	C	Project C	

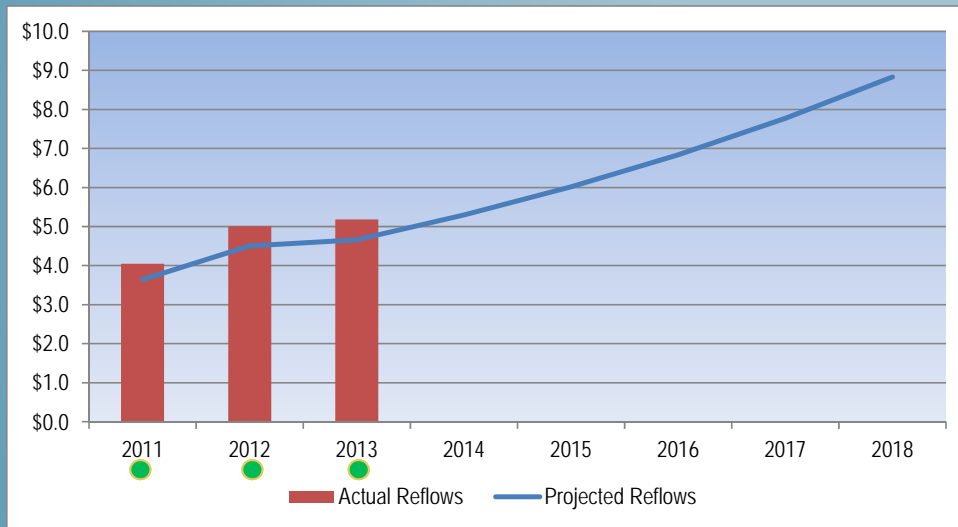
Indicators Key (Status of Arrears)	
Less than 60 days overdue	
More than 60 days overdue	

Additional Information on projects in arrears would be provided to the Trust Fund Committee. The Trust Fund Committee could request the relevant MDB for more information on how the arrears issue is being resolved.

## Risk 2 – Financial Model Risk (continued)

Risk 2: Financial model risk - Actual credit default (sovereign/private) as well as other financial indicators may exceed CTF Cash Flow model projections.

### View 4: Cashflow model projections on reflows and actual reflows

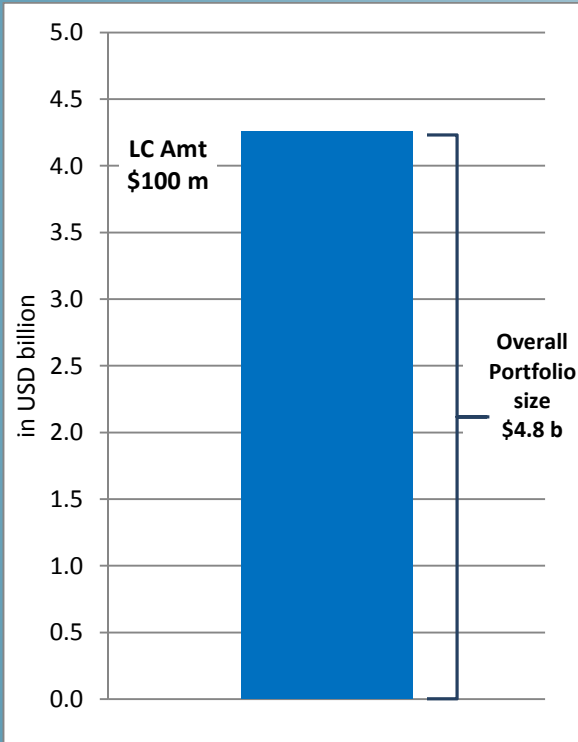


This chart shows actual reflows against projections. In this example, actual reflows are higher than projected but within the selected threshold.

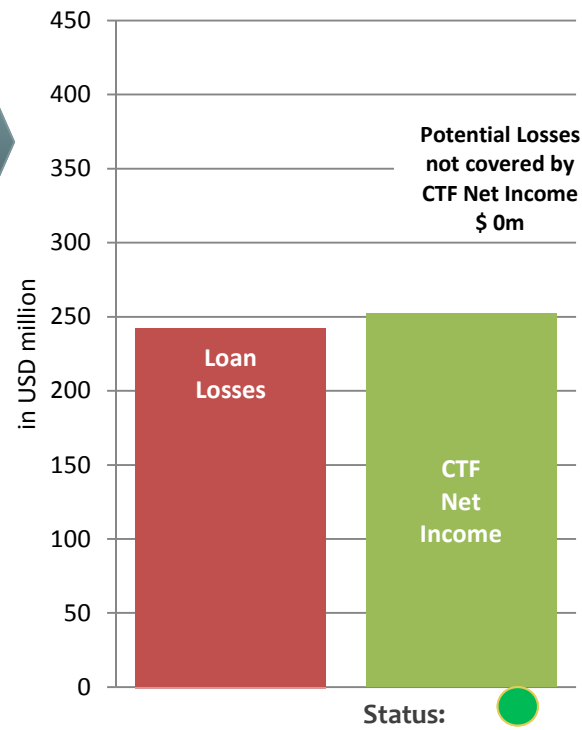
# Risk 3 – Credit Risk

Risk 3: Credit risk - Portfolio loan losses due to defaults or non-payments may exceed the CTF's ability to absorb such losses.

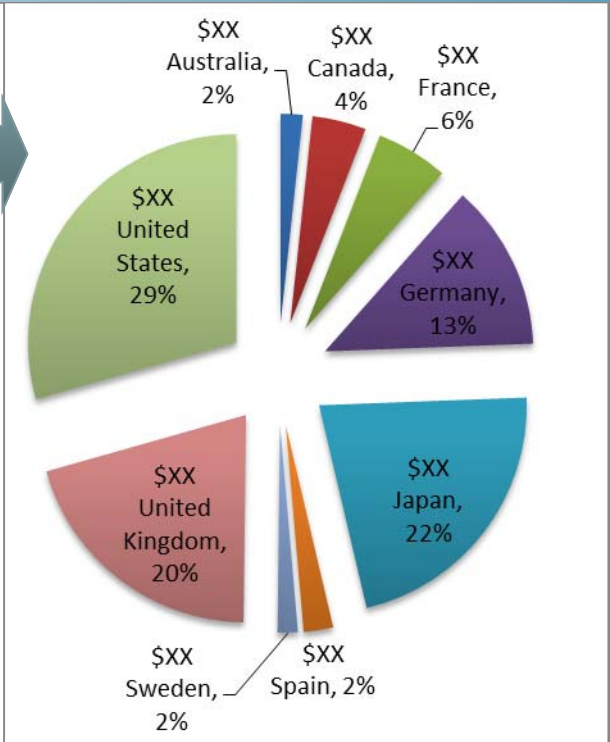
## Overall Portfolio



## Potential Losses



## Illustrative pro-rata sharing of losses (if any)



### Indicator Key (Potential losses not covered by CTF Net Income)

- No losses / losses lower than 90% of CTF Net Income ●
- Between 90% and 100% of CTF Net Income ●
- Greater than 100% of CTF Net Income ●

Yellow or Red indicator (i.e. potential losses are not covered by CTF Net Income as projected by the CTF Cash Flow model) would trigger discussion at the CTF Trust Fund Committee to decide the course of action.

## Risk 4a: Market Interest Rate Risk

Risk 4: (a) Market Interest rate and (b) Foreign Exchange risk - CTF interest rate available to borrowers may not have the appropriate level of concessionality; adverse exchange rate movements may create a significant negative impact on CTF's ability to fund project/program portfolio.

### 2009

Institution	Loan Type	Maturity & Grace Period	Principal Repayment Terms	Current Charges	Interest Rate	Grant Element
CTF	Harder Terms	20 years maturity, 10 years grace	10% per annum in Years 11-20 then 0% per annum in Years 21-40		0.75%	45%
CTF	Softer Terms	40 years maturity, 10 years grace	2% per annum in Years 11-20 then 4% per annum in Years 21-40		0.25%	75%
IDA	Regular IDA Credit	40 years maturity, 10 years grace	2% per annum in Years 11-20 then 4% per annum in Years 21-40	75 basis point service charge + 0 basis points commitment charge	None	62%
ADF	Project Loan	32 years maturity, 8 years grace period	Equal annual payments once grace period is over	None	1% - 1.5%	47%
IFAD	Highly Concessional	40 years maturity, 10 years grace	Equal annual payments once grace period is over	75 basis point service charge	None	59%

### 2013

Institution	Loan Type	Maturity & Grace Period	Principal Repayment Terms	Current Charges	Interest Rate	Grant Element
CTF	Harder Terms	20 years maturity, 10 years grace	10% per annum in Years 11-20 then 0% per annum in Years 21-40		0.75%	45%
CTF	Softer Terms	40 years maturity, 10 years grace	2% per annum in Years 11-20 then 4% per annum in Years 21-40		0.25%	75%
IDA	Regular IDA Credit	40 years maturity, 10 years grace	2% per annum in Years 11-20 then 4% per annum in Years 21-40	75 basis point service charge + 0 basis points commitment charge	None	62%
ADF	Project Loan	32 years maturity, 8 years grace period	Equal annual payments once grace period is over	None	1% - 1.5%	47%
IFAD	Highly Concessional	40 years maturity, 10 years grace	Equal annual payments once grace period is over	75 basis point service charge	None	59%

The Trust Fund Committee with the support of the CIF Risk Management Officer, could assess the risk of overly concessional lending, market distortions or crowding out by comparing and analyzing CTF terms against other institutions. Based on the differences, the Trust Fund Committee could request an in-depth review of CTF terms.

# Risk 4b: Foreign Exchange Risk

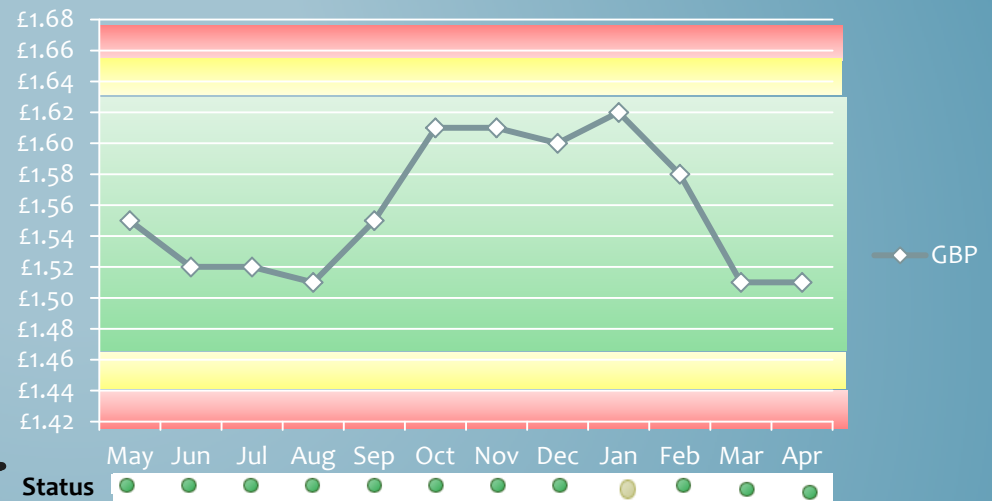
Illustrative Data

Risk 4: (a) Market Interest rate and (b) Foreign Exchange risk - CTF interest rate available to borrowers may not have the appropriate level of concessionality; adverse exchange rate movements may create a significant negative impact on CTF's ability to fund project/program portfolio.

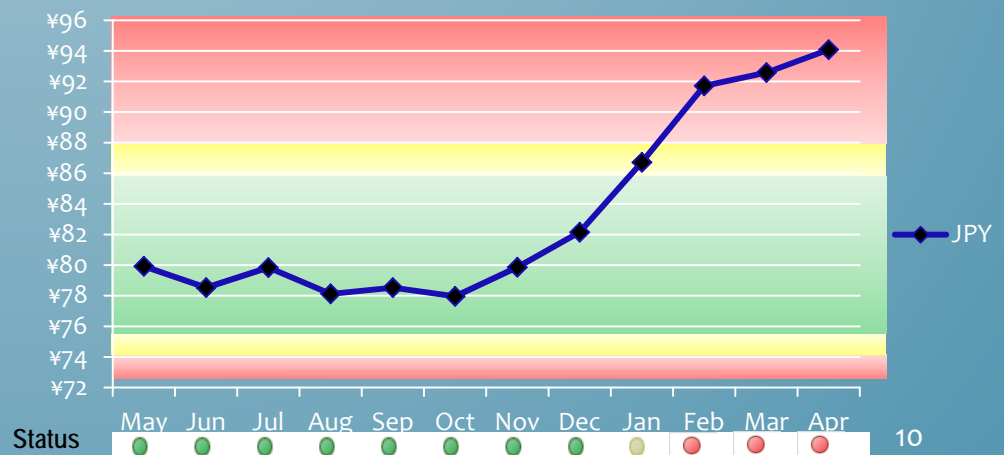
Indicator Key (Promissory Notes)	
Forex is within a 13.5% band	● (Green)
Forex is within the 15% band	● (Yellow)
Forex is over the 15% band	● (Red)

If the FOREX curve is over a 15% threshold, the RMO could recommend that the trustee either increase forex reserves or send a request to donors to accelerate encashments. The 15% is calculated by comparing the lowest and highest point during the period presented.

Promissory Notes USD/GBP 12 Month Exch. Rate

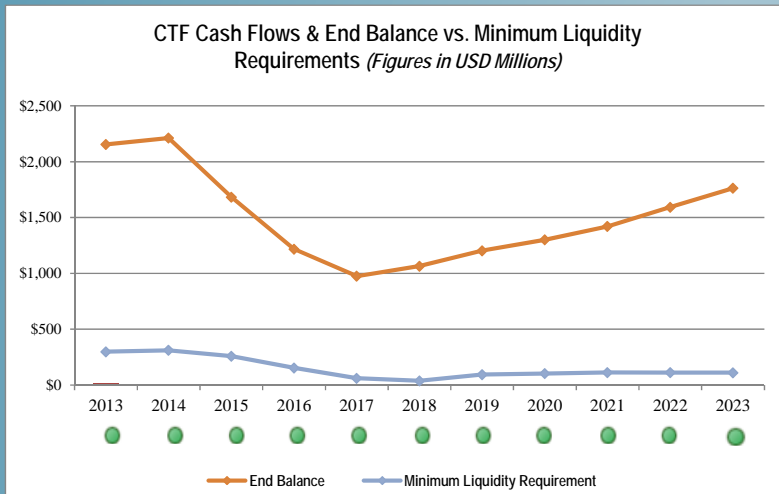


Promissory Notes USD/JPY 12 Month Exch. Rate



# Risk 5 – Asset Liability Management Risk

Risk 5: Asset Liability Management risk - Liquidity may not be sufficient to meet the CTF’s obligations to repay loan contributors and/or obligations to MDBs; excessive cash reserves may result in disruptions to pipeline management.



### Indicator Key - End Balance vs. MLR

Greater than 2% of MLR	
2% or equal to MLR	
Below the MLR	

Issues in minimum liquidity requirements could trigger the Trust Fund Committee to slow down further commitment of funds.

## Risk 5 Drilldown 1 – End Balance vs. Minimum Liquidity Requirement

### Minimum Liquidity Policy

100%	of projected next year debt service payment
50%	of projected next year disbursements

### By Fiscal Year, \$US Millions

	1	2	3	4	5	6	7	8	9	10	11
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Beginning Balance (from Prior Year)</b>	<b>1,981.7</b>	<b>2,154.3</b>	<b>2,212.1</b>	<b>1,682.9</b>	<b>1,217.0</b>	<b>979.6</b>	<b>1,065.1</b>	<b>1,203.0</b>	<b>1,300.6</b>	<b>1,420.8</b>	<b>1,592.4</b>
Cash Inflows from Contributors	1,174.8	603.1	39.1	-	-	-	-	-	-	-	-
Other Cash Inflows (Reflows)	11.2	19.4	25.9	30.3	49.5	128.1	161.2	175.5	206.0	264.8	260.4
Cash Outflows (Projects, MPIS, Budget)	(1,031.9)	(585.8)	(610.9)	(506.3)	(296.9)	(47.0)	-	-	-	-	-
Cash Outflows (Contributors' Loans Debt Service)	(8.1)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(37.6)	(93.5)	(102.9)	(112.1)	(111.4)
Investment Income	26.7	29.3	25.0	18.4	13.7	12.7	14.2	15.7	17.1	18.9	21.0
<b>End Balance</b>	<b>2,154.3</b>	<b>2,212.1</b>	<b>1,682.9</b>	<b>1,217.0</b>	<b>975.1</b>	<b>1,065.1</b>	<b>1,203.0</b>	<b>1,300.6</b>	<b>1,420.8</b>	<b>1,592.4</b>	<b>1,762.4</b>
<b>Minimum Liquidity Requirement</b>	<b>298.1</b>	<b>310.7</b>	<b>258.5</b>	<b>153.7</b>	<b>60.2</b>	<b>37.6</b>	<b>93.5</b>	<b>102.9</b>	<b>112.1</b>	<b>111.4</b>	<b>110.5</b>
Surplus/Deficit checker	1,856.2	1,901.4	1,424.5	1,063.3	914.9	1,027.6	1,109.5	1,197.7	1,308.7	1,481.0	1,651.9
<b>Risk Indicator (by Year):</b>											

\*Assumption: Minimum Liquidity Requirement = 100% of projected Debt Service Payments + 50% of projected Disbursements for the Next Fiscal Year

## Risk 6 – Pledge Risk

Risk 6: Pledge risk - Funding pledged by contributors may not materialize in a timely manner.

Contributor	Contribution Type	Pledges Outstanding	Contributions Finalized	Total	Status
Australia	Grant		100	100	●
Canada	Loan		200	200	●
France	Loan		203	203	●
Germany	Loan		500	500	●
Japan	Grant		1,000	1,000	●
Spain	Capital		80	80	●
Sweden	Grant		600	600	●
United Kingdom	Capital		518	518	●
United States	Grant	602	890	1,492	●

Indicator Key - Pledge Status	
●	On schedule
●	More than one year, but less than two years old
●	More than two years old

Yellow indicator could trigger a discussion at the Trust Fund Committee on the impact to the pipeline.






## Risk 6 Drilldown 1

Risk 6: Pledge risk - Funding pledged by contributors may not materialize in a timely manner.

CLEAN TECHNOLOGY FUND RESOURCES - ALLOCATIONS			
<i>(Amounts expressed in \$ million)</i>			
	Projected Contributions <sup>1</sup>	Funding Approval	Net Available Donor Contributions
<b>FY 2013</b>			
Beg. Balance			1,060.8
Jul-12	158.5	-	1,219.2
Aug-12	-	51.9	1,167.3
Sep-12	45.0	67.0	1,145.3
Oct-12	58.0	134.5	1,068.8
Nov-12	-	26.1	1,042.8
Dec-12	-	-	1,042.8
Jan-13	26.1	-	1,068.9
Feb-13	-	-	1,068.9
Mar-13	-	100.0	968.9
Apr-13	-	-	968.9
May-13	-	70.0	898.9
Jun-13	823.6	36.0	1,686.5
<b>TOTAL</b>	<b>1,111.2</b>	<b>485.4</b>	

CLEAN TECHNOLOGY FUND RESOURCES - ALLOCATIONS			
<i>(Amounts expressed in \$ million)</i>			
	Projected Contributions <sup>1</sup>	Funding Approval	Net Available Donor Contributions
<b>FY 2014</b>			
Jul-13	16.8	240.0	1,463.3
Aug-13	-	85.1	1,378.2
Sep-13	-	300.0	1,078.2
Oct-13	-	86.7	991.5
Nov-13	-	-	991.5
Dec-13	-	383.5	607.9
Jan-14	-	24.5	583.4
Feb-14	-	50.0	533.4
Mar-14	-	50.0	483.4
Apr-14	-	252.4	231.0
May-14	-	-	231.0
Jun-14	-	25.0	206.0
FY14 Projects not yet meeting Readiness Criteria		486.9	(280.9)
<b>TOTAL</b> (Alloc. based on r	<b>16.8</b>	<b>1,497.2</b>	

Indicator Key - Net Funds Available	
	Funding Availability greater than or equal to \$300m
	Funding Availability less than \$300m but greater than \$0
	Funding Availability less than \$0