International Finance Corporation
WORLD BANK GROUP






Green Bonds

January 2017

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- ❑ IFC's Green Bonds Experience
- ❑ Investment Partnership Proposal
- ❑ Q&A

What are Green Bonds?

- **Green Bonds are a subcategory of Socially Responsible (SRI) Bonds**
  - Proceeds from **SRI bonds** are tied to "socially responsible" investments such as social, development, environment and governance needs
  - Proceeds raised from **Green Bonds** target climate friendly projects and environmental sustainability purposes

Types of Green Bonds

Green Use of Proceeds Bond

Green Use of Proceeds Revenue Bond

Green Project Bond

Green Securitized Bond

Why Green Bonds are needed?

To finance climate needs

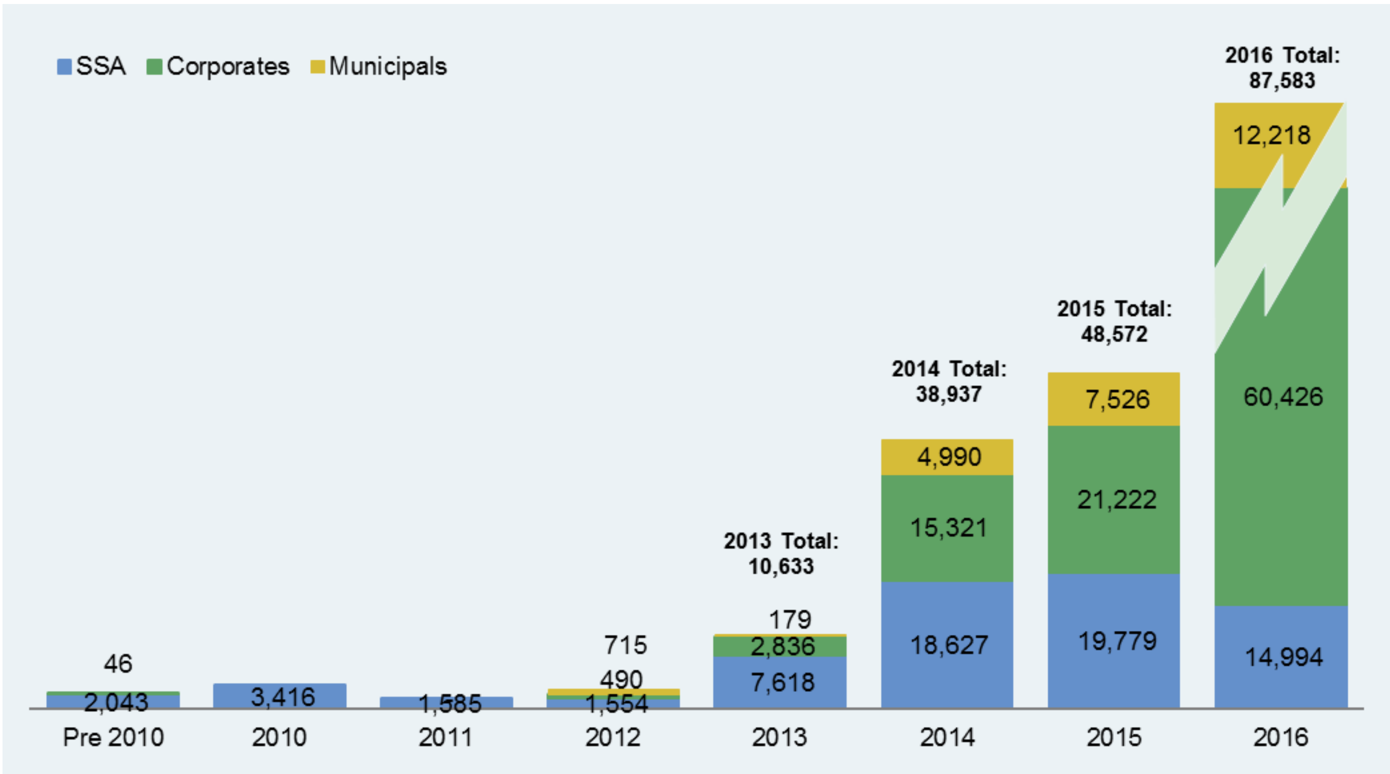
To meet investor demand

To diversify issuer investor base

To enhance awareness of environmental challenges

Green Bond Market Overview

- Volume in 2016 was $88 billion
- Almost $50 billion of green bonds were issued in 2015, up from $39 billion in 2014



Source: Bloomberg, J.P. Morgan as of December 31, 2016. JPM data includes Green, Social, and Sustainable Bonds

What can Green Bonds finance?

There are several sets of criteria defining eligible Green Projects in the market that can be used as a guide.

The Green Bond Principles explicitly recognize several broad categories of potential eligible Green Projects including:

- Renewable energy
- Energy efficiency (including efficient buildings)
- Sustainable waste management
- Sustainable land use (including sustainable forestry and agriculture)
- Biodiversity conservation
- Clean transportation
- Sustainable water management (including clean and/or drinking water)
- Climate change adaptation

Who issues Green Bonds?

- Multilateral development banks
- Municipalities
- Corporates
- Utility providers
- Financial institutions

Who buys Green Bonds?

- Fixed income investors who have a dedicated SRI/Green Portfolio or others with an interest in environmental sustainability purchase the bonds from a general investment fund

- An increasing number of investors have begun to embed ESG (Environmental Social Governance) into their investment decisions

Other important players

- **The Green Bond Principles (GBP):** are voluntary process guidelines that call for transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond in four components:
    1. Use of Proceeds
    2. Process for Project Evaluation and Selection
    3. Management of Proceeds
    4. Reporting

  *As of June 2016, the **GBP Executive Committee** has a total of 24 members reflecting a representative group of: 8 Investors, 8 Issuers **including IFC** and 8 Underwriters*

- **3rd Party Opinion providers:** Agencies that verify the eligible projects criteria and assist in setting up a project selection and reporting process or audit the program

IFC'S GREEN BOND EXPERIENCE

Set up of IFC's Green Bond program

Established a criteria for use of proceeds

↓

Consulted a third party for an opinion/verification of criteria

↓

Outlined an internal process for project selection

↓

Set up a system to segregate and manage the proceeds separate from the liquidity pool

↓

Created controls for transparency and assurance

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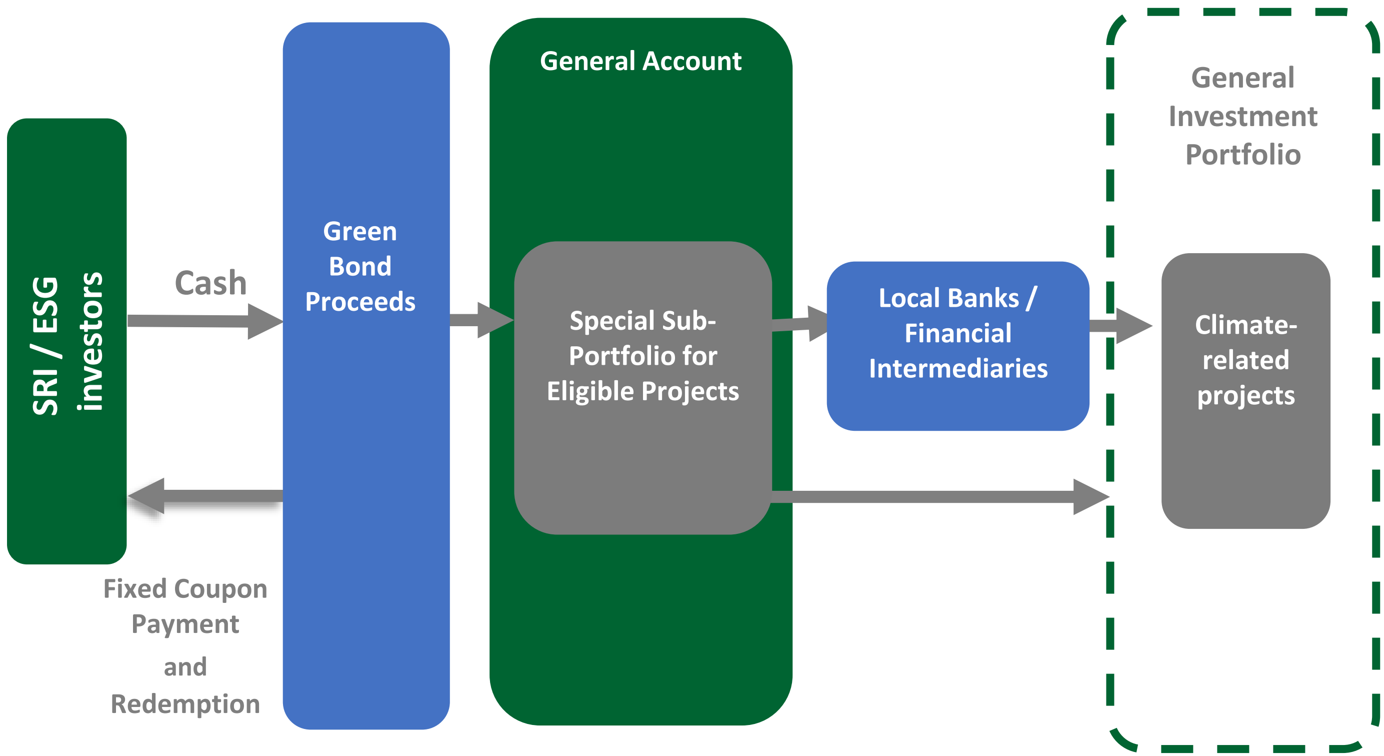
Reporting the impact of projects funded to investors

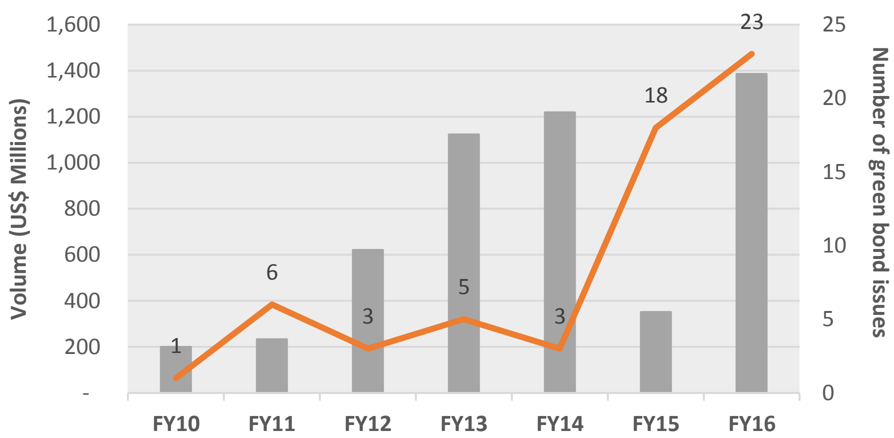
IFC's Segregation of Green Bond Proceeds



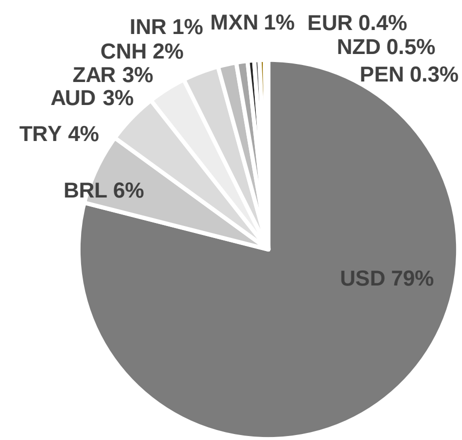
- **Context**: IFC has played a pioneering role in creating investment opportunities which support climate change-related projects
- **Objective**: The Green Bond program of IFC supports private sector investments in transition to low-carbon and climate resilient development and growth in client countries

  All eligible IFC investments meet the Green Bond Principles criteria and are consistent with IFC's Sustainability Framework [1]. All projects have undergone a rigorous ESG due diligence process and are subject to ongoing monitoring and supervision.
- **Issuance**: IFC's Green Bond program was launched in 2010 and has raised about USD 5.6 billion to date, including:
  - the market's first benchmark-sized green bonds issued in 2013 and a recent 10-year benchmark
  - the first US focused retail green bond program
  - issues in EM currencies such as CNH, ZAR, INR

Green Bond issuance: historical breakdown



Green Bond issuance: currency breakdown



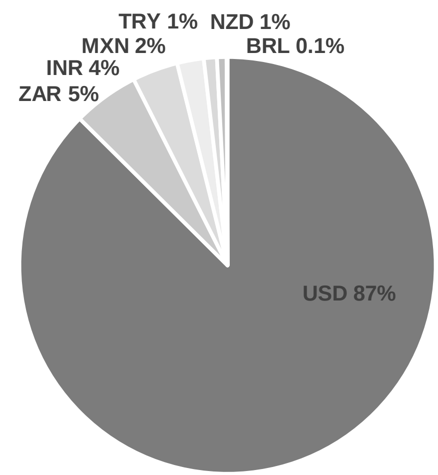
(1) This includes the Performance Standards and World Bank Group EHS Guidelines, IFC's Corporate Governance Framework and disclosure requirements of the IFC Access to Information Policy.

- **Balance**: IFC enjoyed record issuance in FY16. The total outstanding Green Bond volume was approximately USD 3.0 billion as of FY16 end (June 30, 2016)
- **Debuts**: For the first time, IFC issued Green Bonds denominated in Indian rupee and Mexican peso. Also, IFC debuted with its first domestic green bond issuance in South Africa
- **Recent updates**: In March 2016, IFC issued its longest 10-year green benchmark raising USD 700 million, which was subsequently upsized to USD 1.2 billion in July 2016. The bond enjoyed very strong investor interest

Green Bond issuance in FY16

Volume	USD 1.4 billion
No. of issues	23
Weighted average life	6.9 years

Green Bond currencies in FY16



IFC issues green bonds in both public and private placement formats

Public Transactions

- Issuing public deals create a **“crowding in”** effect and heightened socially responsible investing (“SRI”) awareness
- Eligible for investors with large minimum deal sizes
- Index eligible
- Large liquid transactions facilitate secondary trading

Private Placements

- Private placements allow for **customization**
  - Currencies
  - Tenor flexibility
  - Floating rate index flexibility
  - Potential for structure
- Buy and hold investments

IFC issued the first green offshore rupee bond ("Green Masala Bond") in August 2015 for INR 3.15Bn ($50mm equiv.) with a tenor of five years and a coupon 6.45%

- **First green offshore INR bond** issuance to fund an investment in a corporate green bond
- **Proceeds** of the Green Masala Bond were invested in a green onshore INR bond issued by Yes Bank
- A strong signal of **support by potential investors** who are looking for diversification into emerging markets
- IFC also **shared its experience and expertise** in the Green Bond market, reviewing Yes bank's pipeline of green investment, IFC's climate definitions and helping draft "Use of Proceeds Language" and providing impact reporting tool and training
- The eventual deployment was utilized in **renewable energy and energy efficiency** projects mainly in solar and wind sector
- The bond was subscribed to by **8 Asian and European investors**
- The green Masala bonds were **listed** on the London Stock Exchange
- Green Masala bond demonstrates the powerful role of capital markets in **mobilizing** savings for climate finance

Scaling solar capacity in India

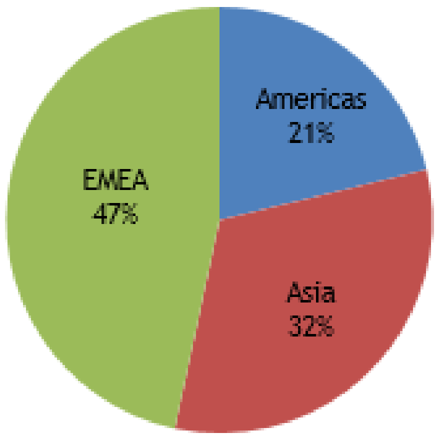
- India has an ambitious goal to reach 200 GW of solar capacity by 2022, requiring $100 billion in new investments. Azure Power, the leading provider of solar photovoltaic energy technology in India, is actively contributing to this goal by scaling solar capacity at three of its plants by up to 225 GWh per year
- The increase in production capacity is estimated to cost around $147 million, $31 million of which derives from an IFC senior loan and syndication of parallel loans of up to $80 million. The long-term nature of IFC's financing package matches the Azure solar plants' longevity, ensuring proper financing for years to come
- As a result, the project will help avoid greenhouse gas emissions, reducing approximately 181,895 tons of carbon dioxide per year

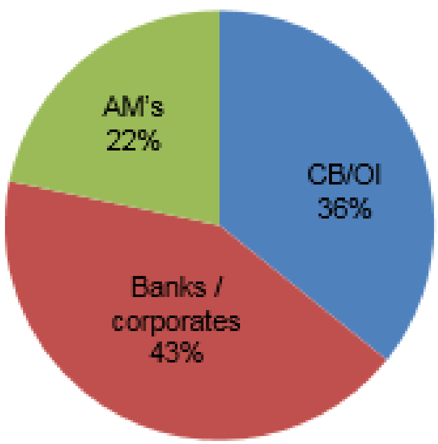
Improving urban mobility in Turkey

- Istanbul, the largest municipality in Turkey, has thriving transport needs and is looking to expand its vital public transport system. The Metropolitan Municipality of Istanbul will construct the 5.3 kilometer Kabatas-Mediciyekoy metro line and three additional stations, establishing a vital east-west public transit axis
- With the total estimated cost of EUR 369 million, finding the necessary long-term financing to complete the investment was key. IFC is providing considerable financial support, contributing up to EUR 110 million
- The project will improve urban mobility and connectivity for the city's 15 million population, providing an attractive alternative to the congested urban road network. Furthermore, the project will achieve significant reductions in carbon dioxide emissions

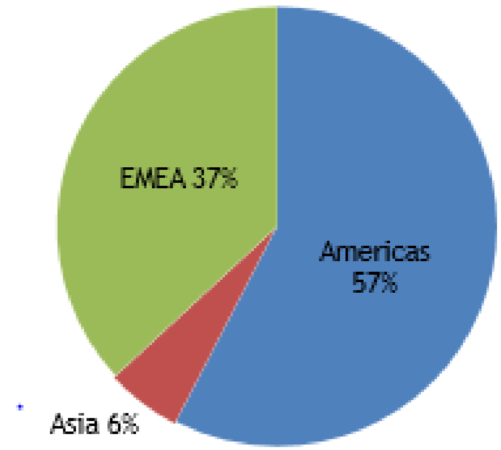
Distribution: IFC Green Bond vs IFC Classic Bond

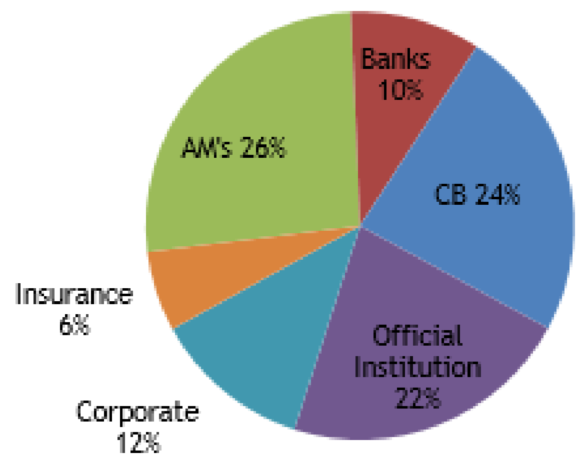
USD3.0 billion 5-year
(issued July 2014)





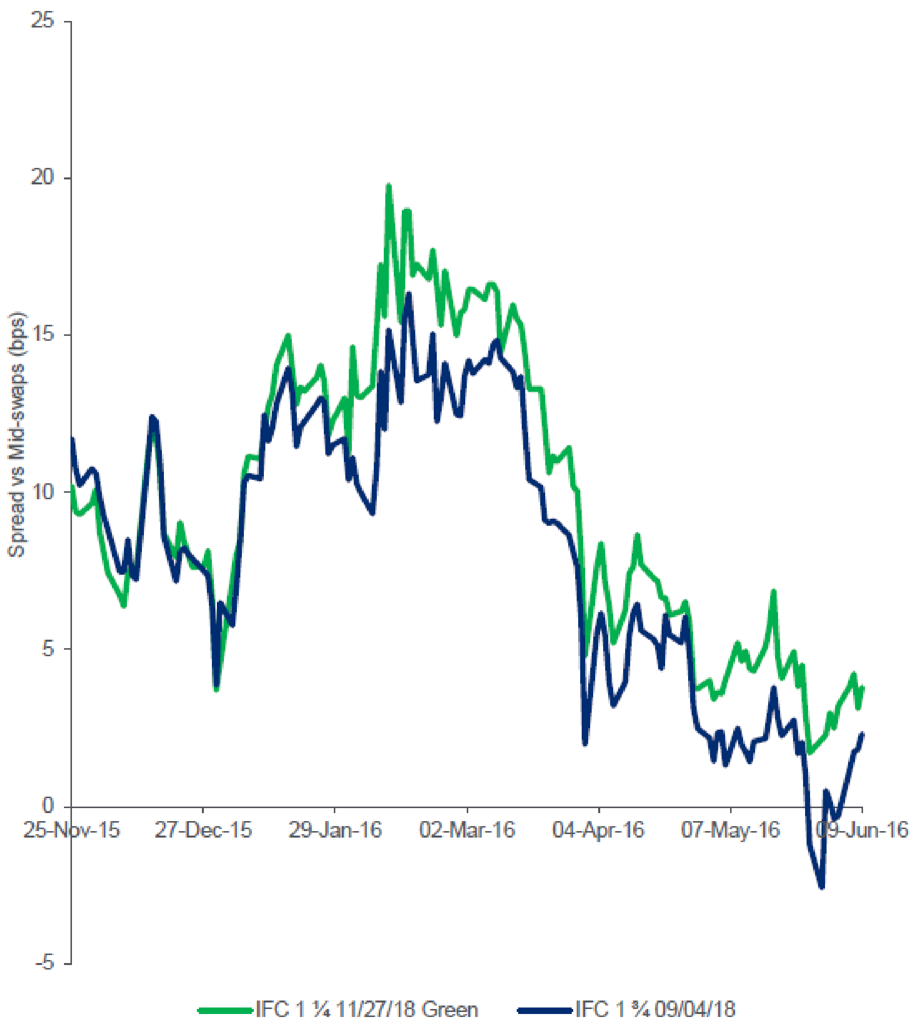
Combined USD2 billion 3-year Green Bonds
(issued 2013)



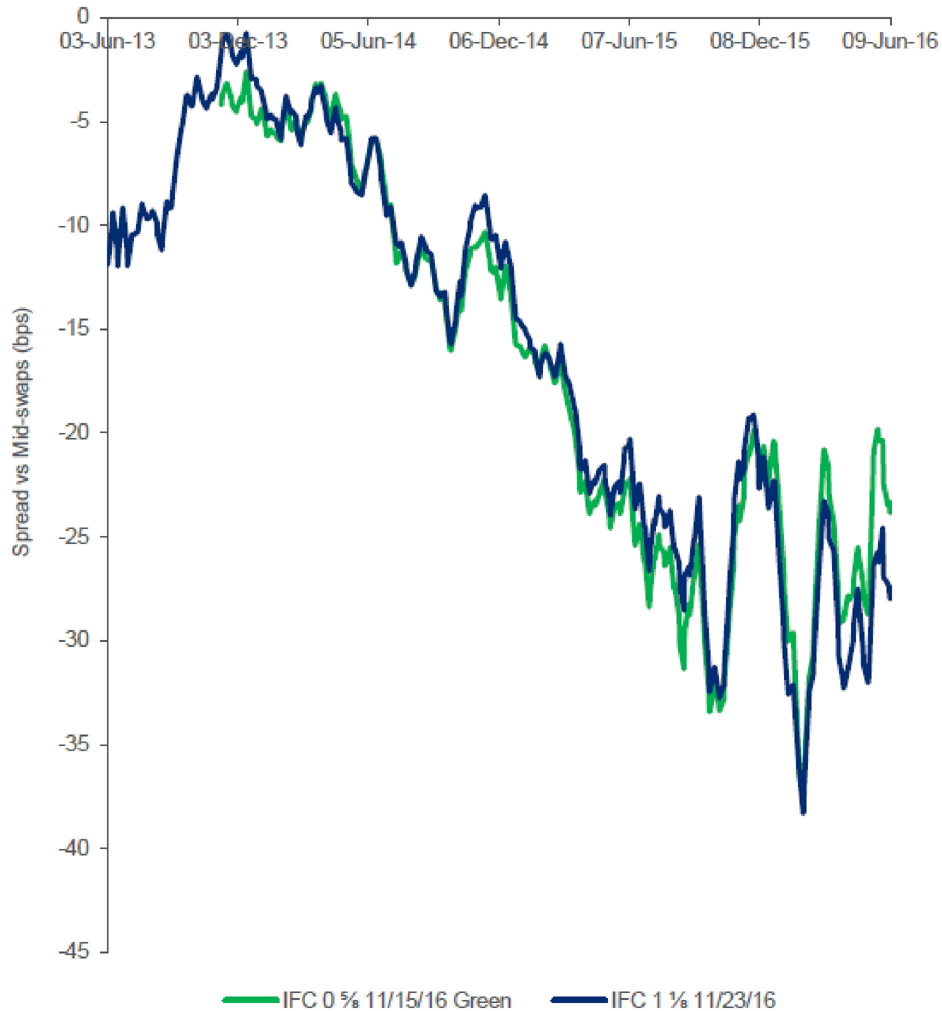


Spread Comparison: IFC Green Bond vs Classic Bond

IFC $500mn Nov-18 Green Bond



IFC $1bn Nov-16 Green Bond



FY16 Green Bond Eligible Projects:

- Commitments to 35 new projects across 22 countries for close to USD 1 billion
- Disbursements of USD 754 million

Green Bond Eligible Portfolio Committed in FY16 and FY15: Impact Indicators

Sector	No. of projects	Climate Loan Committed	Annual energy produced	Annual energy savings	Renewable energy capacity constructed/ rehabilitated	Annual GHG emissions reduced/ Avoided
		$ million	*MWh*	*KWh*	*MW*	*Tons of CO2 equivalent*
Solar Energy	21	394	1,925,596	N/A	855	1,180,683
Wind Energy	8	264	1,911,076	N/A	823	1,112,877
Hydro Energy	3	82	665,333	N/A	156	345,129
Green Buildings	16	500	4,809	72,467,798	4	45,843
Green Banking	15	592	*IFC methodology is only for GHG calculation*			829,384
Agribusiness	4	63	*IFC methodology is only for GHG calculation*			81,305
Transport	3	91	*No IFC methodology exists for such impact calculation*			
Industrial Energy	3	118	N/A	450,238,615	N/A	155,317
TOTAL	**73**	**2,103**	**4,506,814**	**522,706,413**	**1,838**	**3,750,538**

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