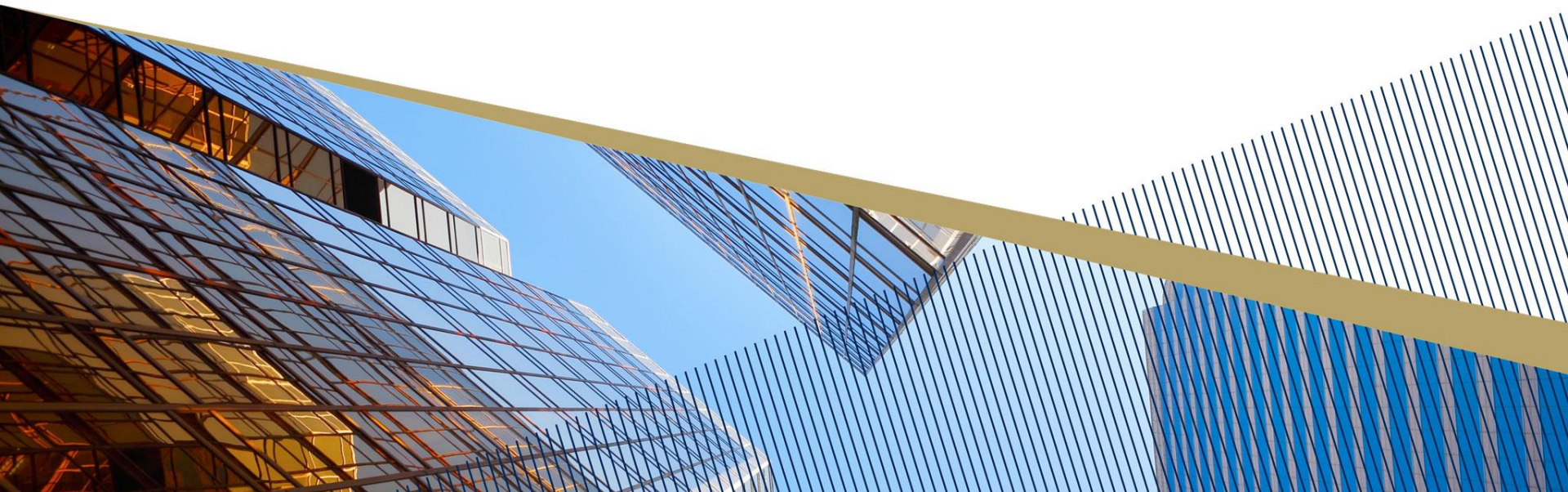


Green Bonds: into the mainstream

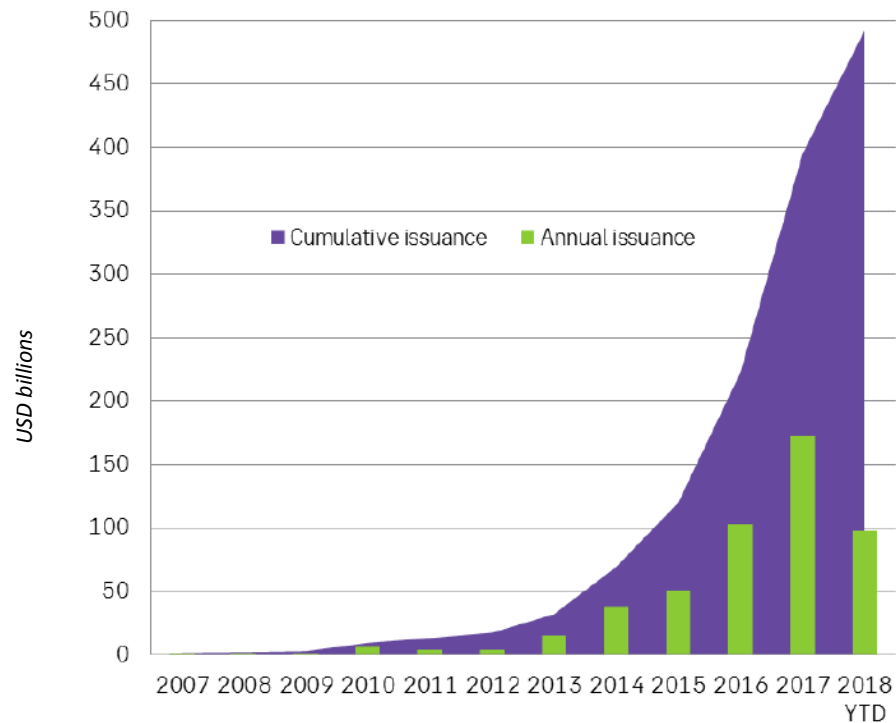
November 2018

Beijing, China

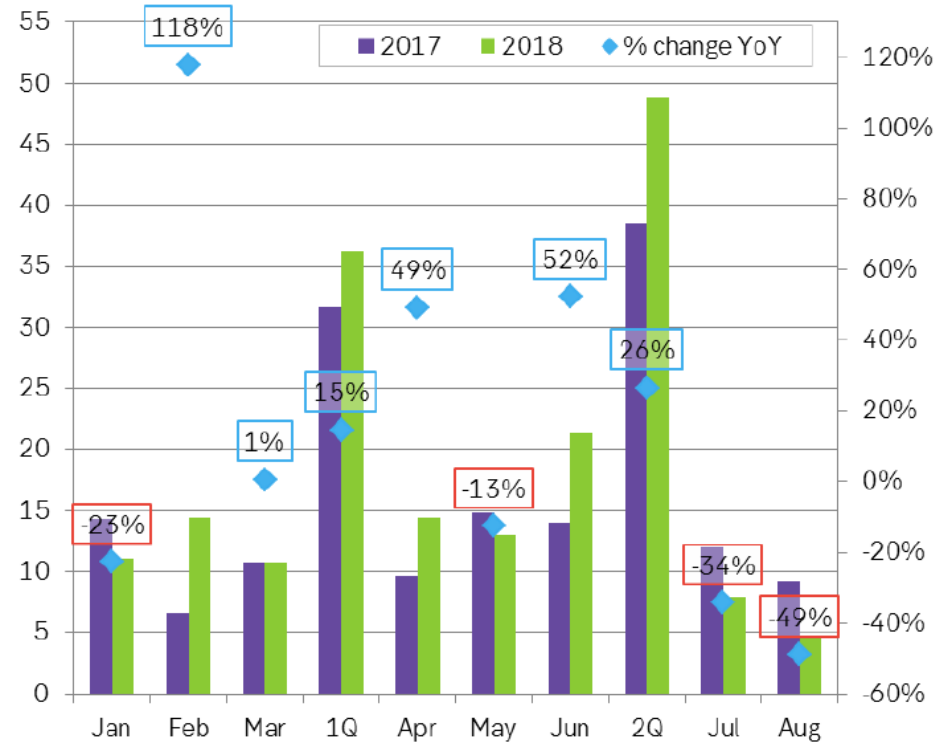


Historical and YTD Market Issuance

Green Bonds Cumulative and Annual Issuance



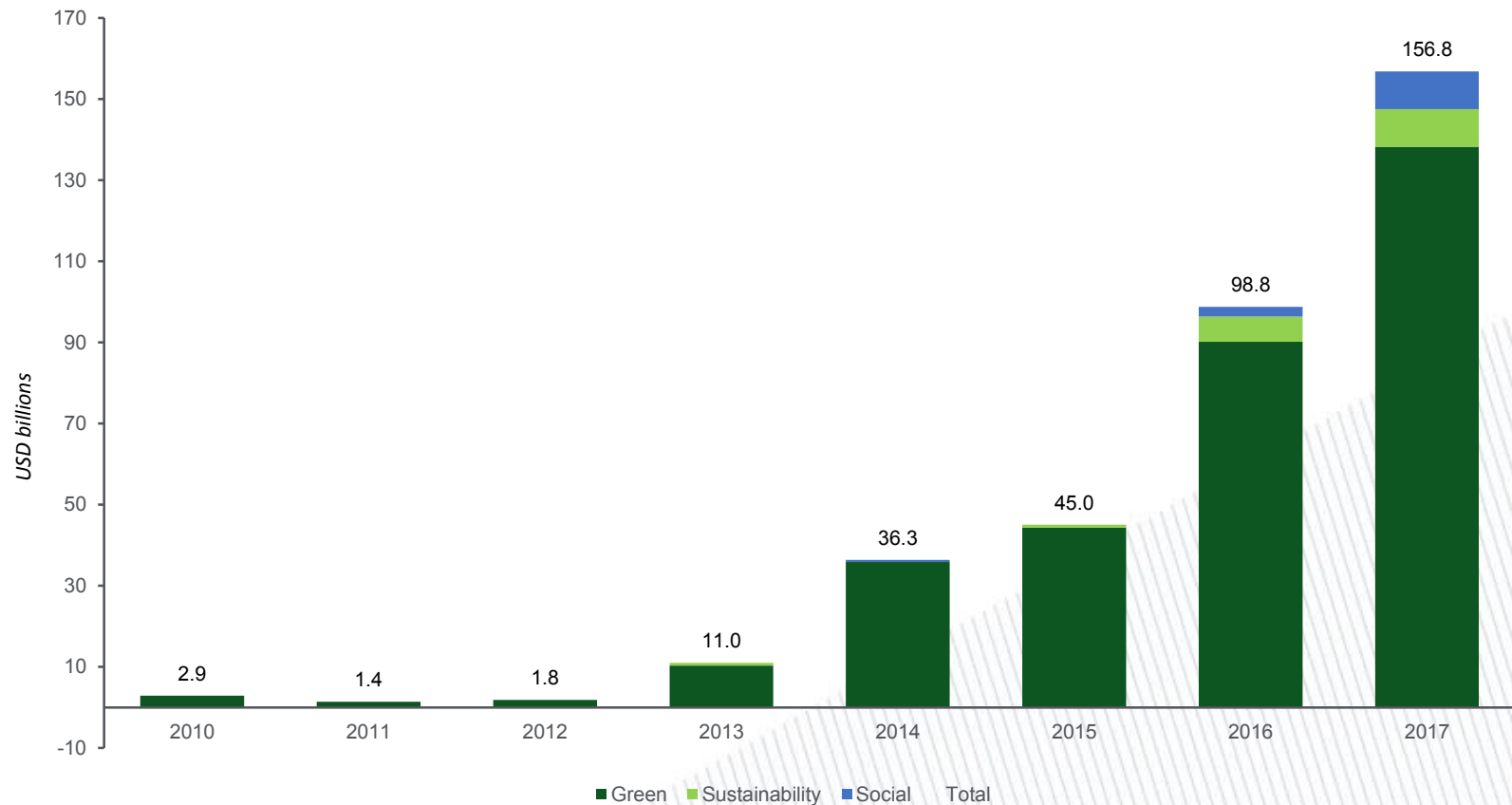
2018 YTD Periodic and YoY



Source: SEB analysis based on Bloomberg (BNEF) and SEB data as at August 2018

Social and Sustainability Bonds

Green, Social and Sustainability Bonds Annual Issuance



Source: Citi, HSBC

Green, Social and Sustainability Bonds

- A market has arisen for bond investors looking for opportunities that incorporate environmental, social and sustainability considerations. **Green, Social and Sustainability Bonds** have evolved out of this demand.
- Green, Social and Sustainability Bonds are **any type of bond instrument where the proceeds will be exclusively applied to eligible environmental and social projects**.
- ICMA's **Green Bond Principles (GBP)** and **Social Bond Principles (SBP)**, as well as the **Sustainability Bond Guidelines (SBG)**, referred to as the "**Principles**" have become the leading framework globally for issuance of green, social and sustainability bonds.
- Green, Social and Sustainability Bonds are regulated instruments subject to the same capital market and financial regulation as other listed fixed income securities.

Bond Type	Use of Proceeds
Green Bond	Finance projects with a clear environmental benefits (e.g. renewable energy, energy efficiency, climate change adaptation)
Social Bond	Finance projects that address social issues and/or seek to achieve positive social outcomes especially for a target population (e.g. poor, vulnerable, unemployed, uneducated etc.)
Sustainability Bond	Finance a mix of green and social projects

Recent Developments

In June 2018 in HK updated versions of the key documents comprising the Principles were released: the Green Bond Principles (GBP), the Social Bond Principles (SBP) and the Sustainability Bond Guidelines (SBG).

In addition, important new publications were released that provide guidance designed to further strengthen and interconnect the market ecosystem:

- Guidelines for External Reviews promoting best practice and integrity in the provision of external review services for Green, Social and Sustainability Bonds.
- A High-Level Mapping of the Principles' eligible project categories to the UN's Sustainable Development Goals recognizing investor and wider market interest in referencing SDGs within this context.
- The Framework for Impact Reporting of Social Bonds designed to accelerate progress on impact reporting for social and sustainability bonds



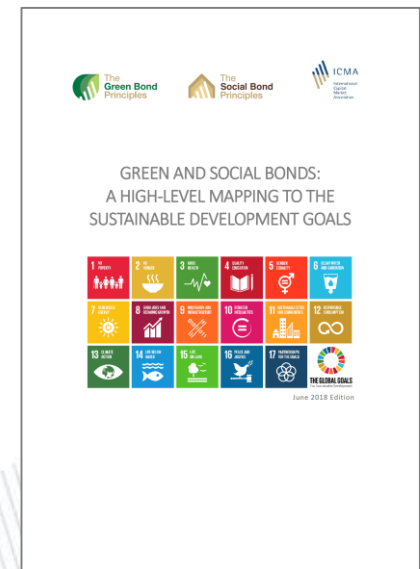
2018 Guidelines for External Reviews

- The Guidelines were produced in consultation with over 30 external reviewers and include:
 - Updated typology of External Reviews
 - Ethical and professional standards
 - Organisation and Content
- The Guidelines are designed to contribute to the integrity of Green, Social and Sustainability Bond market and to provide further clarity on the role of External Reviews
- They are also evidence of the continued leading role of self regulation in the Green, Social and Sustainability Bond market and its ability to work together to promote quality standards through a constructive dialogue with all of its participants



SDG Mapping

- The High-Level Mapping of the Principles' eligible project categories to the UN's SDGs released in June 2018 illustrates how the SDGs may be considered by both the private and the public sectors when issuing Green, Social, and Sustainability bond
- It is the result of a high level review of each of the 169 targets associated with the 17 goals in order to identify those that may be relevant to either the GBP or the SBP project categories.
- Thus far, 15 of the SDGs have been identified as being relevant to the Principles. It is important to note that the mapping meant to serve as a reference and that projects should be reviewed individually for alignment.
- Alignment with the SDGs does not automatically ensure alignment with the Principles. Issuers should identify the SDGs that correspond with their work and consider these and other indicators as they align with their strategies and national, regional, or legal circumstances.



Green Loan Principles

- The release by the LMA and the APLMA with the support of ICMA of the **Green Loan Principles** in March 2018 was designed to promote consistency within sustainable finance and to facilitate capital market refinancing of green loan portfolios
- The GLP aim to create a high-level framework of market standards and guidelines, providing a consistent methodology for use across the wholesale green loan market, and preserving the integrity of the green loan market while it develops.
- The GLP build on and refer to the Green Bond Principles of the ICMA, with a view to promoting consistency across financial markets. They set out a clear framework of recommendations, to be applied by market participants on a deal-by-deal basis based around four core components that are similar to those of the GBP

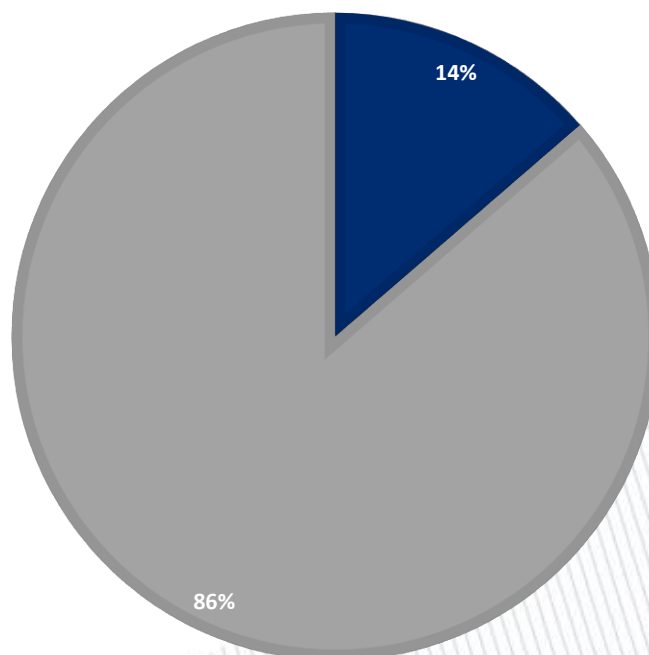


Green Bonds Principles Application

- An estimated 86% of the Green bonds issued in 2017 were aligned with the GBP and CBI's standards

GREEN BONDS ISSUED IN 2017

■ Other Green Bonds ■ Green Bonds aligned with GBP



Green Bond “Standards”

- The GBP is the market’s leading framework; CBI provides a green taxonomy, and a standard for the certification of green bonds
- International Organization for Standardization is currently developing Green Bonds Standards ISO 14030 expanding on the GBP

	Green Bond Principles	Climate Bonds Initiative
Recognition	<ul style="list-style-type: none"> • Global self-regulatory reference for international Green Bond market • Recognised and reflected in markets that have or are considering regulation e.g. China, EU, India and ASEAN countries 	<ul style="list-style-type: none"> • CBI standard and taxonomy is widely looked to by the official sector and the market • CBI has played key role in advising China on set-up of its GB market and is a full member of the EU’s HLEG on Sustainable Finance
Output	<ul style="list-style-type: none"> • GBP provides high level principles for GB issuers focused on transparency and reporting 	<ul style="list-style-type: none"> • CBI produces (i) a standard for GB certification, (ii) a green taxonomy and (iii) a GB list
Representativity	<ul style="list-style-type: none"> • Represents a consensus view based on input of entire market via GBP and its near 250 members and observers 	<ul style="list-style-type: none"> • CBI represents in particular a buy-side view as reflected by the composition of its Climate Bond Standard Board (CBSB)
Defining Green	<ul style="list-style-type: none"> • Provides only high level guidance on green through its Eligible Project Categories 	<ul style="list-style-type: none"> • Detailed guidance through a green taxonomy
Market Guidance	<ul style="list-style-type: none"> • The GBP is not involved in vetting individual GB issues • Provides broad market guidance through its online Questions & Answers 	<ul style="list-style-type: none"> • CBI manages a bond certification scheme that can be renewed post issuance and uses independent “accredited verifiers” • CBI’s GB list is largely used by the market and is a reference point for indices & database providers

Regulatory Initiatives

ASEAN	<ul style="list-style-type: none">• ASEAN Capital Markets Forum (ACMF) Launch ASEAN Green Bond Standards to drive Sustainable Investments for ASEAN Green Bonds aligned with the GBP (Nov 2017)
China	<ul style="list-style-type: none">• China has released Government guidelines largely based on international market practices referring to the GBP and with an official green taxonomy
EU	<ul style="list-style-type: none">• The European Union has created a High Level Expert Group (HLEG) on sustainable finance that has made recommendations such as an EU sustainable taxonomy and a Green Bond standard that references the GBP (January 2018)
India	<ul style="list-style-type: none">• The Securities Exchange Board of India has released listing disclosure requirements for Green Bonds based on the GBP and international market practice
Japan	<ul style="list-style-type: none">• Japan released Green Bond guidelines in March 2017 following an extensive consultation process

Comparison of Official GB Regulations & Guidelines

	ASEAN	China	India	Japan	EU HLEG proposal
Scope	• Guidelines	• Regulation	• Regulation	• Guidelines	• Regulation
4 core components of GBP	✓	✓	✓	✓	✓
Taxonomy	• High level categories	• Taxonomy	• High level categories	• Detailed project categories	• EU Taxonomy
Incentives	• No	• Yes, comprehensive incentives	• No	• No	• Optional
Verification	• Recommended	• Strongly recommended	• Recommended	• Recommended	• Obligatory with verifier scheme

EU Action Plan on Sustainable Finance

EU Commission Action Plan on Financing a Sustainable European Economy Priority Recommendations

Following the [final report](#) of the EU HLEG on sustainable finance, the European Commission has identified **10 priorities** in its subsequent [Action Plan](#):

1. Establishing an EU classification system for sustainable activities
2. Creating Standards and labels for green financial products
3. Fostering investment in sustainable projects
4. Incorporating sustainability when providing financial advice
5. Developing sustainability benchmarks
6. Better integrating sustainability in ratings and market research
7. Clarifying institutional investors' and asset managers' duties
8. Incorporating sustainability in prudential requirements
9. Strengthening sustainability disclosure and accounting rule-making
10. Fostering sustainable corporate governance and attenuating short-termism in capital markets

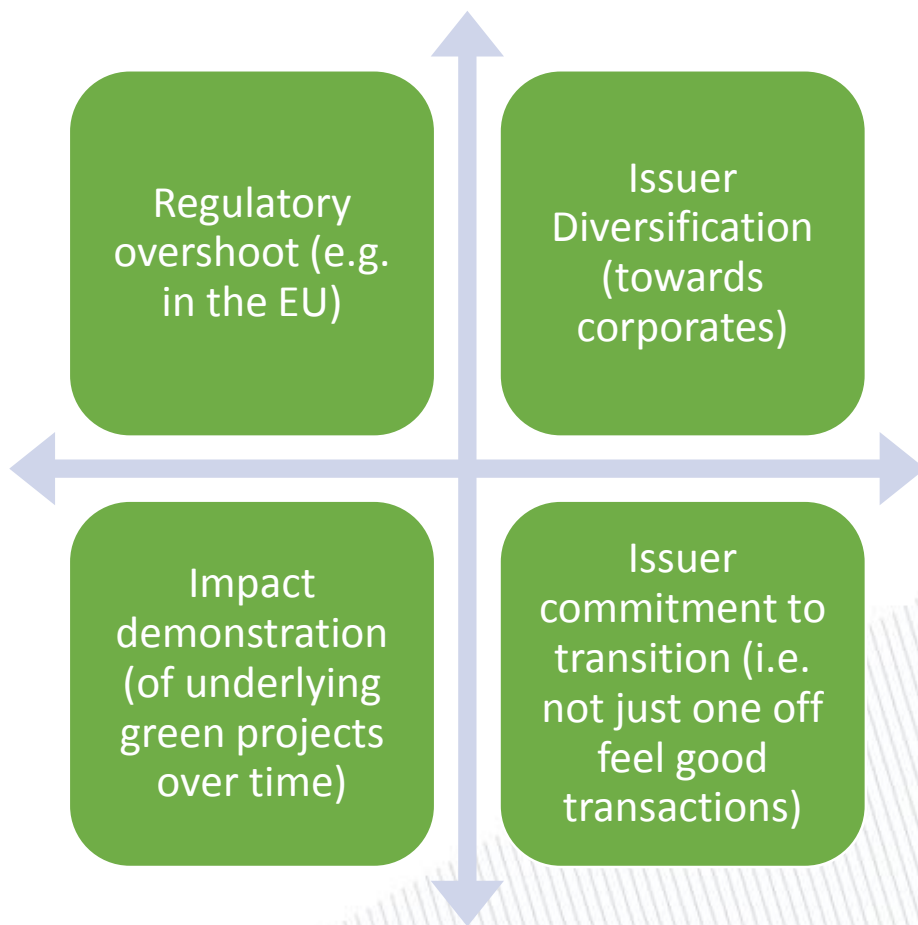
EU Action Plan: Legislative Proposals

(May 2018)

In May 2018, the Commission adopted a package of measures implementing several key actions announced in its [action plan on sustainable finance](#). The package includes:

- A [proposal for a regulation on the establishment of a framework to facilitate sustainable investment](#). This regulation establishes the conditions and the framework to gradually create a unified classification system ('taxonomy') on what can be considered an environmentally sustainable economic activity.
- A [proposal for a regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive \(EU\)2016/2341](#). This regulation will introduce disclosure obligations on how institutional investors and asset managers integrate environmental, social and governance (ESG) factors in their risk processes.
- A [proposal for a regulation amending the benchmark regulation](#). The proposed amendment will create a new category of benchmarks comprising low-carbon and positive carbon impact benchmarks, which will provide investors with better information on the carbon footprint of their investments.
- The Commission held a public consultation on [investor duties](#) between 12 November 2017 and 28 January 2018. The next step is to prepare delegated acts regarding the duties of institutional investors and asset managers. EIOPA and ESMA have been invited to provide [technical advice](#) for these delegated acts by 30 April 2019
- In addition, the Commission has already sought feedback in June 2018 on amendments to delegated acts under the [Markets in Financial Instruments Directive \(MiFID II\)](#) and the [Insurance Distribution Directive](#) to include ESG considerations into the advice that investment firms and insurance distributors offer to individual clients.

Market challenges



Key Points

- The Green Bond market appears likely in 2019 to match or exceed its 2018 record issuance level of USD 161 billion
- Very significantly it has also crossed the threshold of USD 500 billion in stock with positive implications for future liquidity and portfolio relevance
- The GBP & SBP have evolved into a comprehensive suite of self-regulatory guidance for the market covering issuance, reporting, technical issues and external reviews
- The GBP & SBP have also become the reference global market-based standard for an increasing number of national and regional regulatory initiatives
- The GB market is also a model for other areas of green and sustainable finance as illustrated with developments in the loan markets, and in technical areas such as project taxonomies and impact reporting
- The GB still faces a number of challenges such as the risk of regulatory overshoot in some jurisdictions (e.g. in the EU) and continuing to demonstrate the impact of underlying projects over time

Contacts




International Capital Market Association (ICMA)

Ricco ZHANG, Director, Asia Pacific
ricco.zhang@icmagroup.org

GBP Secretariat
greenbonds@icmagroup.org

[WEBSITE](#)



This presentation is provided for information purposes only and should not be relied upon as legal, financial, or other professional advice. While the information contained herein is taken from sources believed to be reliable, ICMA does not represent or warrant that it is accurate or complete and neither ICMA, nor its employees, shall have any liability arising from or relating to the use of this presentation or its contents.

© International Capital Market Association (ICMA), Zurich, 2018. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without permission from ICMA.

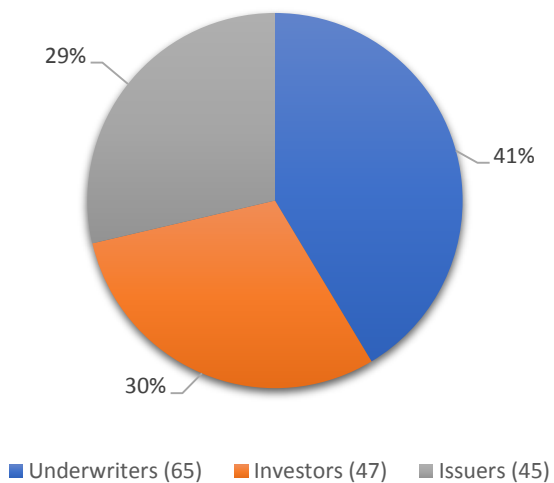
Annex



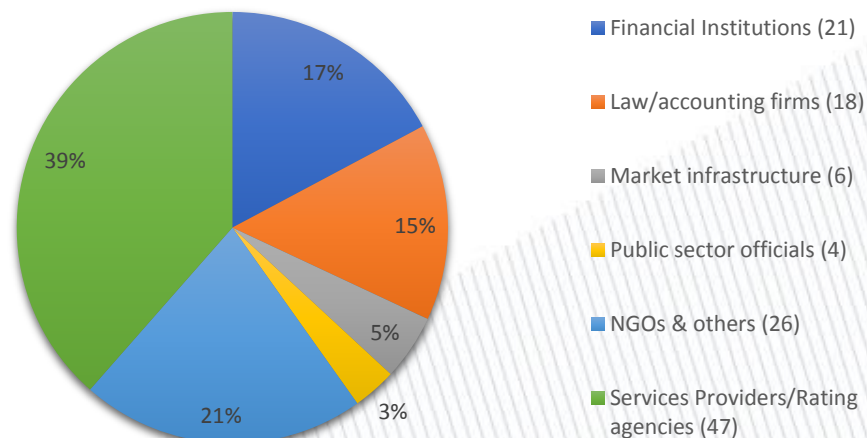
Green & Social Bond community

as of 23 January 2018

Members (157)



Observers (122)



GBP 2017 Executive Committee

Investors	Issuers	Underwriters
AMUNDI AM*	BANK OF CHINA*	BofA MERRILL LYNCH
AXA IM*	EDF*	BNP PARIBAS
BLACKROCK	EBRD	CREDIT AGRICOLE CIB
CalSTRS	EIB	HSBC
KFW	IFC	JP MORGAN
MIROVA	KBN*	NATIXIS*
TIAA-INVESTMENTS	NIB	RABOBANK
ZURICH INSURANCE GROUP	WORLD BANK	SEB

*newcomers

GBP Working Groups



Case study – financial issuer – ICBC

ICBC's Inaugural Green Bond - The 1st Belt and Road Climate Bond

Transaction highlights



On 28th September 2017, Industrial and Commercial Bank of China (ICBC) printed its **inaugural Green Bond**

This is the 1st **Green Bond** in alignment with both **ICMA Green Bond Principles** and **PBOC Green Bond Categories** by a Chinese FI. It is also the 1st **Belt and Road¹ Climate Bond**

HSBC acted as a Joint Global Coordinator and **Joint Structuring Advisor**

On the back of positive investor feedback and a strong market backdrop, ICBC announced a triple-tranche transaction on the Asian open, EUR 3yr FRN, USD 3yr FRN and USD 5yr FXD with guidance 3mE+ 75bps, 3mL+100bps and T+120bps respectively

The transaction gained strong momentum enabling ICBC to tighten the guidance at by 15bps, 20bps and 20bps respectively

Given the material strength of the orderbook, ICBC was able to price at the tight end of the guidance for all three tranches
At 3mE+55bps, 3mL+77bps and T+99bps respectively

This trade is a testament to the strength of ICBC's green credentials and their continued global recognition by investors

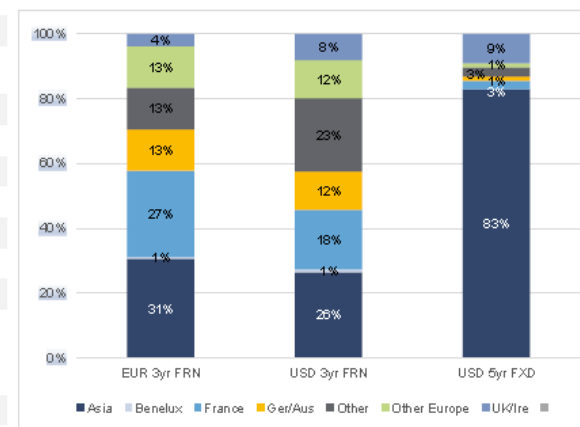
Summary terms and conditions

Issuer	Industrial and Commercial Bank of China Ltd., Luxembourg Branch		
Expected Ratings	A1 (Moody's)		
Status	Senior, Unsecured, Drawdown from MTN Programme Issued under their Green Bond Framework		
Tenor	3yr FRN	3yr FRN	5yr FXD
Size	EUR1.1bn	USD450m	USD400m
Coupon	3mE+55bps	3mL+77bps	2.875%
Pricing Date	28 th September 2017		
Settlement Date	12 th October 2017		
Reoffer Price	100	100	99.880
Re-offer spread	3mE+55bps	3mL+77bps	T+99bps
Use of Proceeds	To finance and/or refinance Eligible Green Assets under the Green Bond Framework in Renewable Energy, Energy Efficiency, Low Carbon/Low Emission Transportation, Sustainable Water and Wastewater Management		
External Review	CICERO/Zhongcai Green Financing/CBI certification		
HSBC Role	Joint Global Coordinator, Joint Green Structuring Advisor		

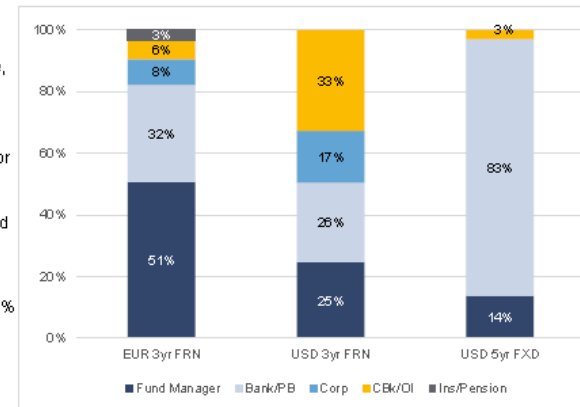
Execution highlights

- On the morning of the 28th of September, ICBC announced a EUR 3yr FRN, a USD 3yr FRN and a USD 5yr FXD triple tranche offering with IPGs set at 3mE+ 75bps, 3mL+100bps and T+120bps respectively,
- As the European market opened, the books grew strongly, in particular the EUR tranche, which reached a demand of over 1bn by 09:30am UKT
- When combined books reached USD4.7bn, ICBC revised guidance to 3mE+ 60bps (+/- 5bps WPIR), 3mL+80bps (+/- 3 WPIR) and T+100bps (+/- 1bps WPIR) respectively
- Given the strength of the book, ICBC was able to set the final spreads at 3mE+55bps for a EUR1.1bn, 3mL+77bps for a USD450m and T+99bps for a USD400m
- From a distribution perspective, Asian investors formed the backbone of the USD 5yr FXD, accounting for 83% of orders. On the 3yr tranches, Asian investors led the demand with 31% on the EUR tranche and 26% on the USD tranche. The book also saw strong demand from the European investor base, mainly from French, German and Austrian investors
- The USD 5yr FXD tranche book consisted of high quality investors with Banks taking 83% of the allocation
- Fund Managers were particularly active in the EUR 3yr FRN tranche, taking 51% of the allocation. Meanwhile the final book of the USD 3yr FRN tranche consisted mainly of CBk/OI and Fund Managers

Distribution by Geography (% of allocation)



Distribution by Investor Type (% of allocation)



Case study – financial issuer – ICBC



ICBC Green Bond Framework – in alignment with both ICMA Green Bond Principles and PBoC Green Bond Categories

I. Use of Proceeds

1	Renewable energy	2	Low Carbon and Low Emission Transportation	3	Energy Efficiency	4	Sustainable Water and Wastewater Management
	<p>Generation and transmission of energy from renewable energy sources.</p> <p>Renewable energy sources include offshore and onshore wind, solar, tidal, hydropower subject to conditions, biomass and geothermal</p>		<p>Low energy or emission transportation assets, systems, infrastructure, components and services excluding any infrastructure or rolling stock assets used for the transportation of fossil fuel products</p> <p>Examples include Rail Tram, Metro, Bus Rapid Transit Systems, Electric Vehicles</p>		<p>Development of products or technology and their implementation that reduces energy consumption of underlying asset, technology, product or system(s)</p> <p>Improved efficiency in the delivery of bulk energy services</p>		<p>Water collection, treatment, recycling, re-use, technologies and related infrastructure</p> <p>Examples include water pipes and collection facilities to collect water/rainwater, dams, treatment plant facilities</p>

Exclusion: (1) Fossil related assets; (2) Large scale hydropower plants; (3) Nuclear and nuclear related assets

II. Process for Project Evaluation and Selection

Eligible Green Assets will firstly be identified and proposed by ICBC business units globally, including its subsidiaries and branches.

Eligible Green Assets will then be reviewed by a dedicated Green Bond Working Group at ICBC Head Office, which comprises representatives of various business units and representatives with environmental experience and knowledge

The experts with environmental experience and knowledge enjoy a veto power to the final decision on the selection. The assets vetoed by them shall be excluded from the Eligible Green Asset List.

Annually, the Green Bond Working Group will review the allocation of the proceeds to the Eligible Green Asset List and determine if any changes are necessary and facilitate ongoing reporting.

III. Management of Proceeds

Prior to the issuance of a Green Bond, ICBC shall evaluate the recent and pipeline capital spending and develop a preliminary Eligible Green Asset List in accordance with the Project Evaluation and Selection procedures

A Green Bond "allocation register" will be established to record the allocation of Green Bond proceeds. The proceeds of each ICBC Green Bond will be deposited in the general funding accounts and "earmarked" pending allocation.

Any balance of issuance proceeds not allocated to Eligible Green Assets will be held in accordance with ICBC's normal sound and prudent liquidity management policy.

The unallocated proceeds shall not be invested in highly polluting or energy intensive projects.

VI. Reporting

ICBC commits to publish an Annual Green Bond Report, which will provide information on allocation and impacts.

Allocation reporting:

Amount allocated to the various Eligible Green Asset Categories and Unallocated balance
Examples of Eligible Green Assets
Confirm that the use of proceeds conforms Green Bond Framework.

Impact reporting:

Where possible, ICBC will report on the environmental and social (where relevant) impacts resulting from Eligible Green Assets.
Impact indicators include but not limited to: kWh of power generated from renewable energy; Tonnes of CO2 (or other GHG) avoided; No. of passenger