

Green Bond Opportunities



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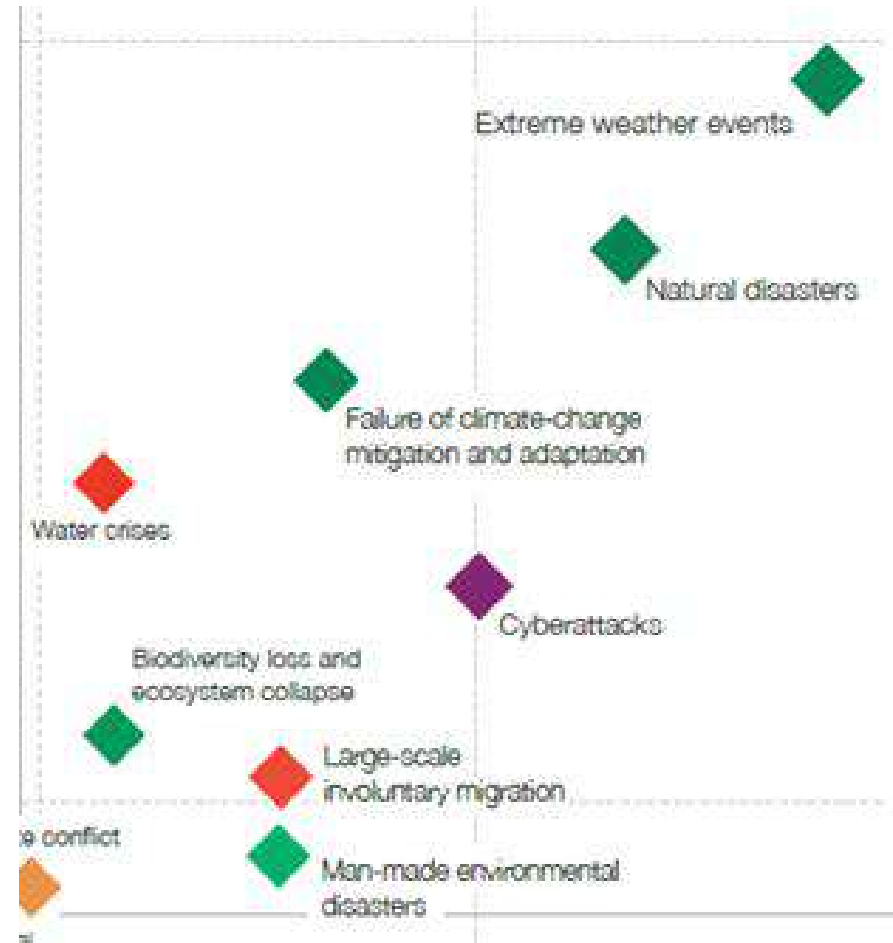
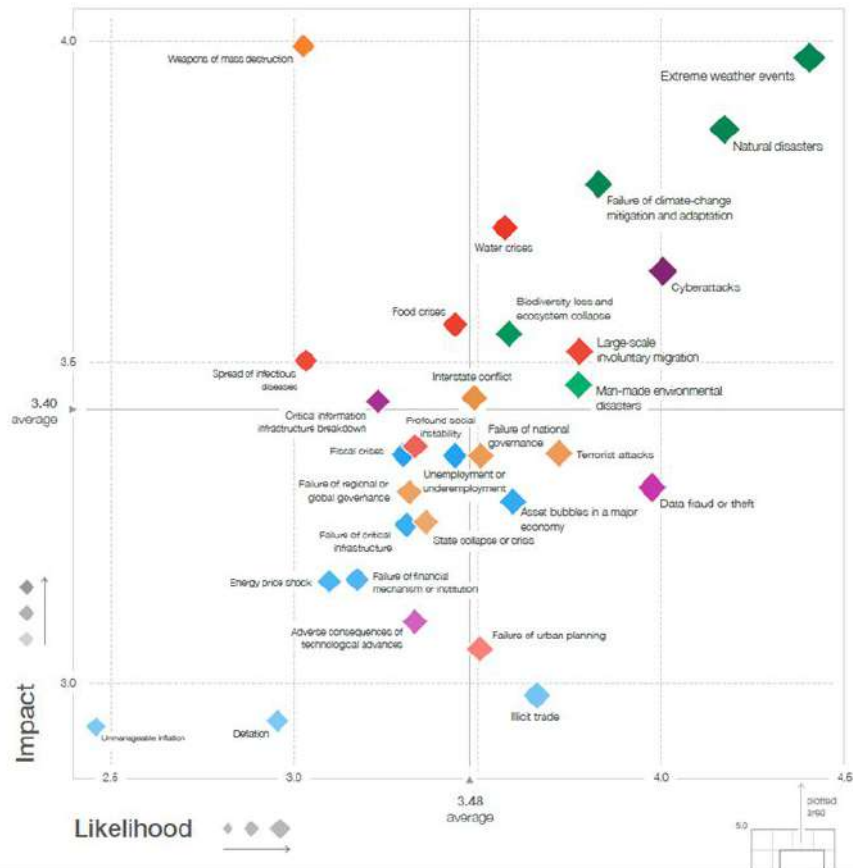
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1. Background and mega trends

Global Risk Report 2018

World Economic Forum

Figure I: The Global Risks Landscape 2018



vs Top Risks 2008

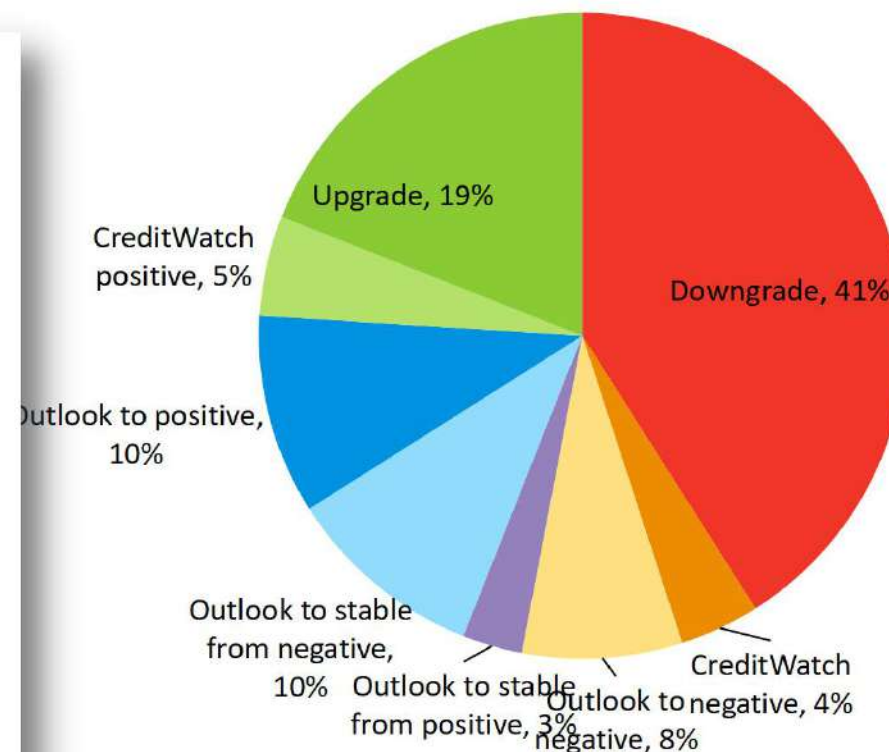


S&P found 717 ratings over last 2 years where environment and climate risks were a material factor in the analysis - 106 led directly to action

Findings

S&P found 717 ratings over last 2 years where environment and climate risks were a material factor in the analysis and 106 where these led to a rating action

- Of these 106 research updates that listed a climate or environmental factor as a key driver to the rating change, the largest share (41%) were downgrades
- However analyzing these results further, we see that when grouping results into positive and negative rating actions, the outcomes are more balanced, with 44% being in the positive direction and 56% being in the negative direction.



Moody's views Green Bond Framework as "credit positive"

Findings

The establishment of a green bond framework is credit positive because it will contribute to improving Prologis' credit quality over time by:

- » supporting stronger cash flow by helping to attract and retain tenants who are increasingly focused on environmental issues
 - » improving the portfolio's quality as a properties with high environmental classification scores are typically of newer and better quality, need less capital expenditure, and have lower operating costs
 - » helping to attract a wider and more diversified investor pool for its bonds, supporting a lower cost of capital
- Furthermore, a green designation will enhance PELF's transparency as the green bonds are accompanied by a suite of additional

Source: Moody's (2018)

MOODY'S
INVESTORS SERVICE

ISSUER COMMENT
21 February 2018

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Prologis European Logistics Fund
Planned issuance under the **new Prologis green bond framework is credit positive**

On 21 February 2018, [Prologis European Logistics Fund FCP-FIS](#) (PELF, Baa1 positive) announced plans to issue its maiden green bond with a ca. 10-12 year maturity in line with the Prologis green bond framework¹. The Prologis green bond framework is aligned to the [International Capital Market Association \(ICMA\) Green Bond Principles](#) and provides guidelines on the use of proceeds, the process for project evaluation and selection, management of proceeds, and reporting.

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Drivers of underlying green infrastructure investment

Environmental and Biophysical Stress

INVESTORS

ECONOMIC
FORCES

TECHNOLOGICAL
FORCES

SECURITY

BANKABLE
PIPELINES

POLICY
ALIGNMENT

SOCIAL
FORCES

GREEN INFRA/BOND
SPECIFIC

Investors driving sustainability

1951 investors with AUM of USD 81.7 trillion aim to integrate ESG in their investment decisions

Increasing number of investors signing off on the 6 Principles for Responsible Investments (PRI) ⁽¹⁾

- 1 Incorporate ESG⁽²⁾ into investment analysis and decision making process
- 2 Incorporate ESG into ownership policies and practices
- 3 Seek appropriate disclosure on ESG by entities in which we invest
- 4 Promote acceptance and implementation of the Principles within the industry
- 5 Work together to enhance our effectiveness in implementing the Principles
- 6 Report our activities and progress towards implementing the Principles



Source: Unpri.org

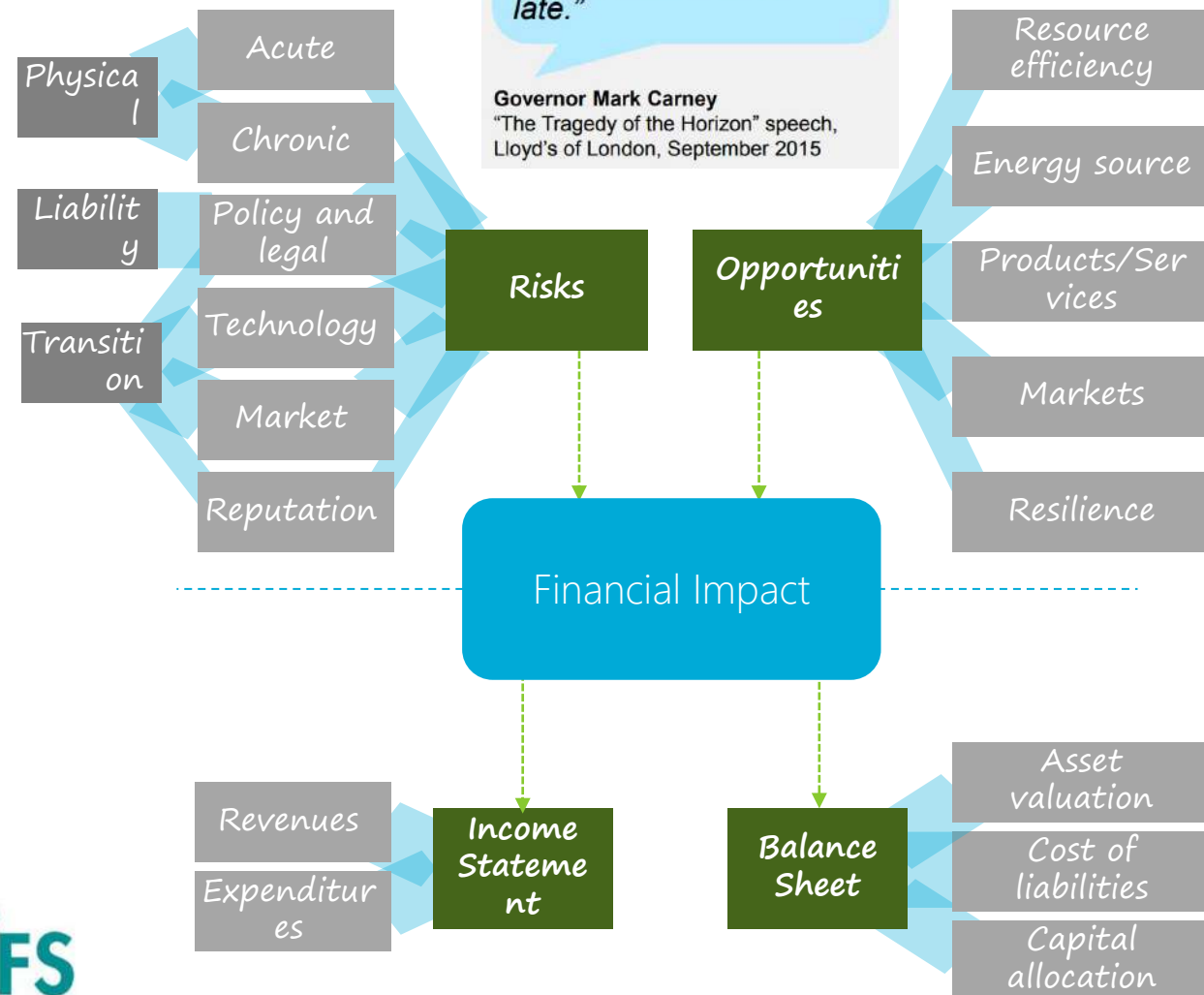
(1) PRI is an investor driven initiative in partnership with UNEP Finance Initiative and the UN Global Compact

(2) ESG=Environmental, Social & Governance

Climate-related Risk, Opportunities and Financial Stability

Consensus has emerged on how climate and environment related risks will affect our financial institutions and system, and thus the mandate of financial supervisors.

- Foundational work examining insurance sector done by Bank of England under Mark Carney
- Article 173 in France and PBC/China Green Finance 18 principles
- Established by the Financial Stability Board in response to a call from G20 Leaders, the Task Force on Climate-Related Financial Disclosures (TCFD) delivered recommendations for voluntary disclosures of material, decision-useful climate-related financial risks
- G20 Green Finance Study Group work on Environmental Risk Analysis and Publicly Available Environmental Data
- European Systemic Risk Board and EC Action Plan
- Central Banks and Supervisors Network for Greening the Financial System: October 2016 first ever academic conference on stranded assets; April 2018, the first ever



Institutions managing USD 80 trillion – equivalent to annual global GDP – publicly support the Financial Stability Board's Task Force on

Climate-related Financial Disclosures (TCFD)

Suitable for use by all companies that raise capital, the recommendations target:

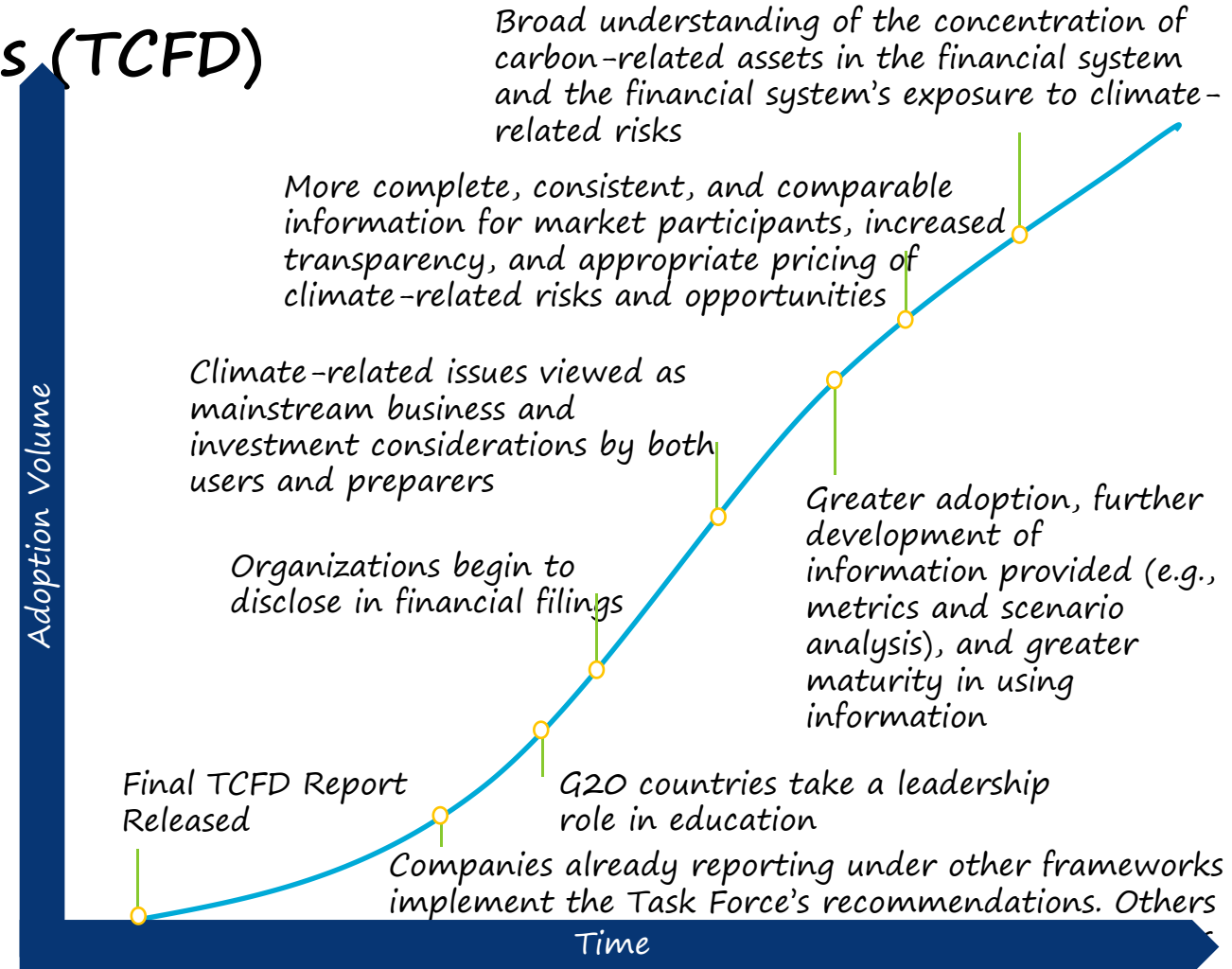


Governance – Disclose the organization's governance around climate-related risks and opportunities.

Strategy – Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

Risk Management – Disclose how the organization identifies, assesses, and manages climate-related risks.

Metrics and Targets – Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.



Snowball effects and tipping points when all stakeholders push in the same direction

Technology

- Costs for 'clean' technologies coming down very fast
- 'Clean' now cost competitive, or close to it, in many segments
- 'Clean' quickly moving from marginal to mainstream, e.g. electricity, transport

Policy makers

- Small steps forward every year
- China, India now also putting pressure
- Cities becoming relevant actors
- Most aggressive large market sets the pace

2025 business environment very different in many industries?



- Investors gradually finding their way on sustainability (e.g. reporting, fossil fuel divestment, ...)

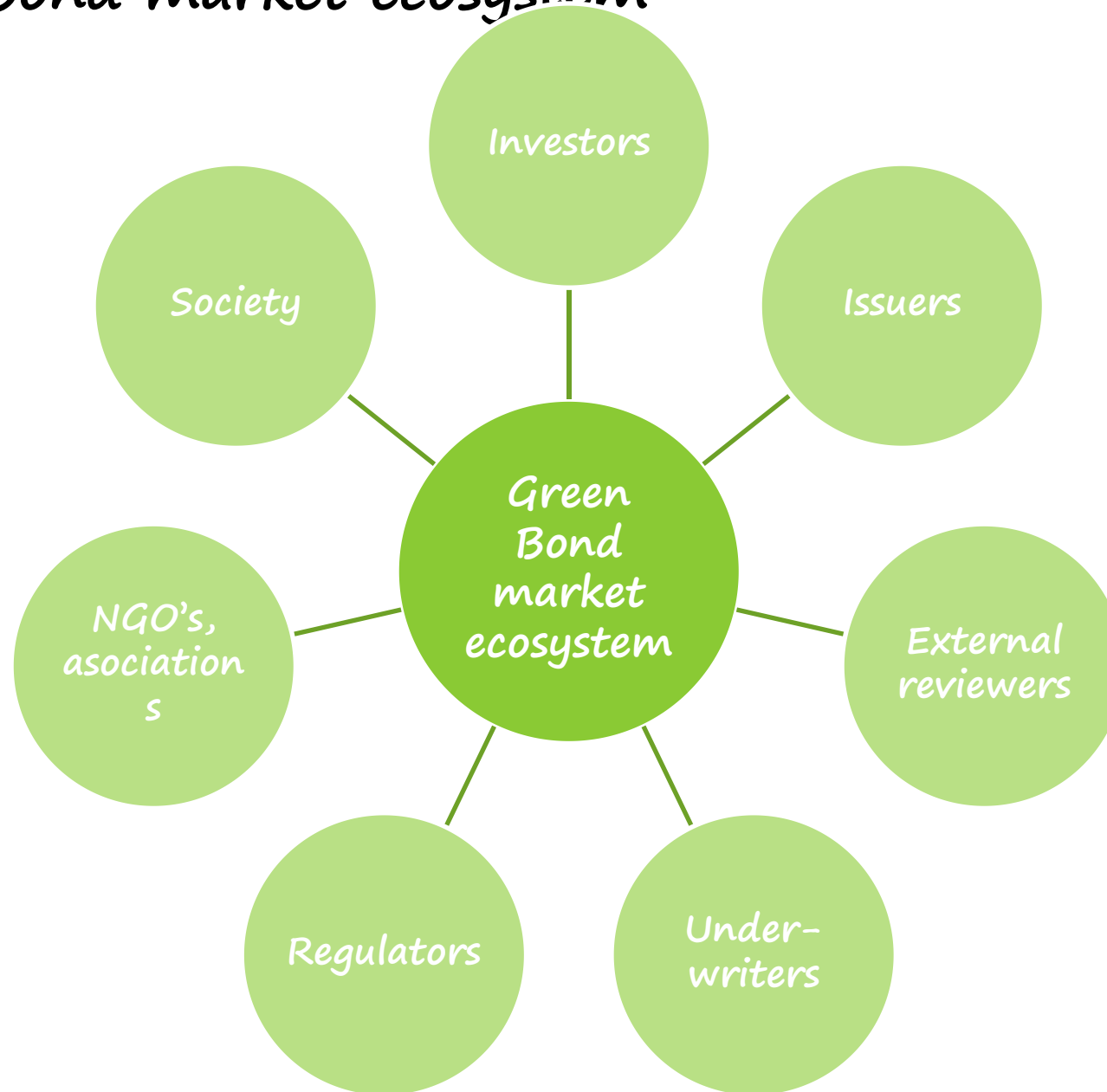
Investors

Companies

- In most large value chains, one or a few global leaders setting a (very) high pace of change
- 1 Gt emissions reduction across the supply chain 
- “-30% carbon by 2020, -100% by 2050” 

2. The five pillars of Green Bonds, ecosystem of stakeholders and the Green Bond Principles

The Green Bond market ecosystem



The five pillars of a Green Bonds Framework

- The Green Bond Principles (GBP) provide international market practice for the green bond set-up
- The guidelines were set up by a consortium of banks (SEB included) in 2014 and build on the five pillars of the "concept of simplicity" created by SEB and the World Bank in 2007/08
- The guidelines help
 - ✓ create a homogenous global green bond market; and
 - ✓ allow investors to set up strategies and investment targets around green
- In addition, where domestic guidelines are available, these may also be relevant when assessing criteria and set-up

SEB recommends to follow the 5 pillars of the green bond set to ensure solid and transparent set up

1 Definition - Use of proceeds

- Identification and definition of investment areas / assets which are eligible for Green Bond financing

The Green Bond universe is divided into the following areas that target climate stress:

- ✓ Mitigation
- ✓ Adaptation
- ✓ Environmental

2 Selection - Process for project evaluation and selection

- The Green Bond selection process ensures the right assets in line with the green bond framework are evaluated and selected

Establish procedures and secure ongoing monitoring

- ✓ It is recommended to include climate competence in the selection process
- ✓ Climate competence function(s) often has veto right in the selection process

3 Monitoring – Management of proceeds

- The proceeds raised via the Green Bond should be earmarked to support lending to the established eligible Green criteria
- ✓ There are several ways an issuer can earmark Green Bond proceeds, for example

- Earmarked account
- Balanced earmarked positions
- Virtual Green balance sheet

4 Reporting – Transparency

- To uphold credibility it is essential to be transparent towards investors and the market

- ✓ Obtained via an annual publically available investor letter
- ✓ The letter should include a list of areas financed, a selection of project examples and a summary of the issuer's green development
- ✓ Identification of relevant impact measurements

5 Verification – External review

- Credibility is essential for the long-term development of the Green Bond market place

- ✓ Second opinion conducted by an independent third party specialist
- ✓ The primary objective is to verify the 'Greenness' of the investor's projects/areas
- ✓ Additionally, external assurance providers to verify the selection process in line with the green bond framework

The Green Bond universe

- Renewable Energy
- Energy Efficiency
- Pollution Prevention and Control
- Environmentally sustainable Management of Living Natural Resources and land use
- Terrestrial and Aquatic Biodiversity Conservation
- Clean transportation
- Sustainable Water and Wastewater Management
- Eco-efficient and / or Circular Economy Adapted Products, Production Technologies and Processes
- Green Buildings
- Climate Change Adaptation

Overview of selection process

- the environmental sustainability objectives;
- the process by which the issuer determines how the projects / assets fit within the eligible Green Projects categories identified in the GDP
- exclusion criteria or any other process applied to identify and manage potentially material ESG risks with associated assets

Transparency of processes

The GBP encourage a high level of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an auditor, or other third party, to verify the internal tracking method and the allocation of funds from the Green Bond proceeds


The investor letter

The GBP recommend the use of qualitative performance indicators and, where feasible, quantitative performance measures (e.g. energy capacity, electricity generation, greenhouse gas emissions reduced/avoided, number of people provided with access to clean power, decrease in water use, reduction in the number of cars required, etc.), and disclosure of the key underlying methodology and/or assumptions used in the quantitative determination.

Types of second opinions

- Consultant review (such as second party opinions)
- Verification (such as auditors)
- Certification (such as external green assessment standards)
- Rating (such as rating institutes)

Green, social and sustainability bonds



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Green, Social and Sustainability bonds



[New ICMA Workshop: Introduction to Green Bonds, London, 5-6 March](#)

The **Executive Committee** of the Green Bond Principles (GBP) and the Social Bond Principles (SBP), which brings together a representative group of issuers, investors and intermediaries in the Green Bond market, with the support of the International Capital Market Association, has published the **2017 edition of the GBP** and the newly released **SBP**. These releases follow a wide consultation of the members and observers of the GBP - a community of more than 200 institutions representing both participants and stakeholders in the Green Bond market.

The GBP 2017 provides a recommended template to inform the market on GBP alignment. It also recommends the public disclosure of external reviews, either in summary format through a recommended template and/or in its entirety. This information can be found in the [Resource Centre](#).

The **governance framework**, sets out the **membership eligibility**, which requires organizations to have issued, underwritten, or invested in Green, Social and Sustainability Bonds, and admits others in the field of green and social finance as observers. It also establishes the Executive Committee.

The International Capital Market Association (ICMA) serves as Secretariat, assuming administrative duties, and providing guidance for the governance of the Green Bond Principles and Social Bond Principles. The Secretariat's duties include facilitating information



Green Bond Principles – a voluntary guideline

Overview

In efforts to develop standards for the green bond market, On January 13. 2014 a consortium of major banks developed a set of voluntary guidelines called the Green Bond Principles “GBP”.

- ▶ These are being updated annually since 2015

1. Use of Proceeds:

- ▶ Issuer should declare the eligible green project categories upfront, providing clear environmental benefits.

2. Process for Project Evaluation and Selection:

- ▶ Issuer should outline the process of selection and work to establish impact objectives.

3. Management of Proceeds:

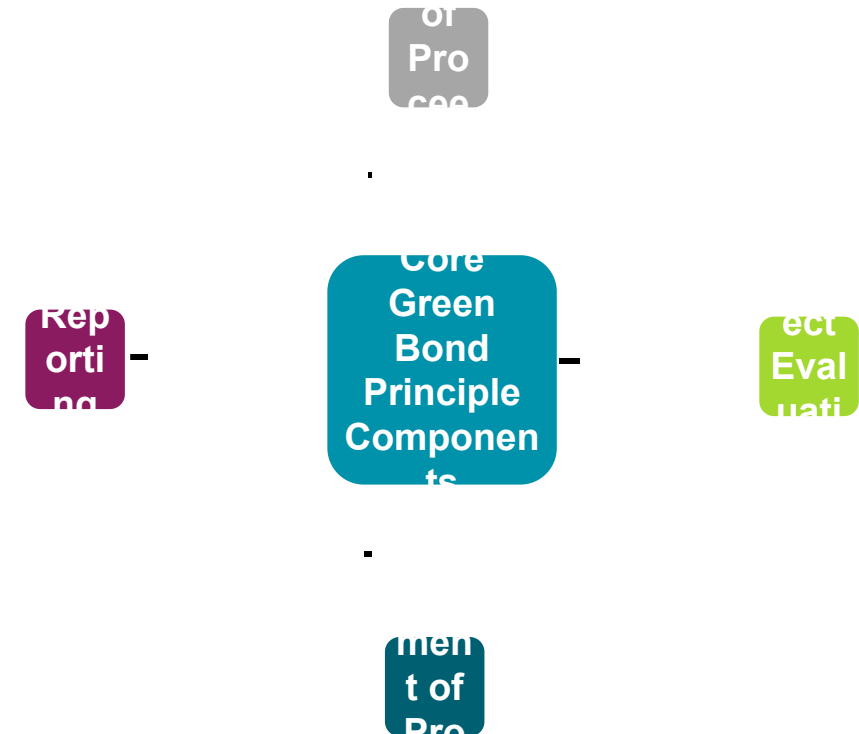
- ▶ Funds should be segregated or otherwise tracked.

4. Reporting:

- ▶ Issuers should report at least annually on the use of proceeds, allocated amounts and expected impact.

Recommendations - External Reviews:

- ▶ The GBP encourage a high level of transparency and recommended that an issuer's process for project evaluation and selection be supplemented by and external review.



The Green Bond universe*

The categories, listed in no specific order, include, but are not limited to:


- **renewable energy** (including production, transmission, appliances and products);
- **energy efficiency** (such as in new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
- **pollution prevention and control** (including waste water treatment, reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy, value added products from waste and remanufacturing, and associated environmental monitoring);
- **environmentally sustainable management of living natural resources and land use** (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally-sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes);
- **terrestrial and aquatic biodiversity conservation** (including the protection of coastal, marine and watershed environments);
- **clean transportation** (such as electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);
- **sustainable water and wastewater management** (including sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation);
- **climate change adaptation** (including information support systems, such as climate observation and early warning systems);
- **eco-efficient and/or circular economy adapted products, production technologies and processes** (such as development and introduction of environmentally friendlier products, with an eco-label or environmental certification, resource-efficient packaging and distribution);
- **green buildings** which meet regional, national or internationally recognised standards or certifications

* Description of the Green Bond universe as outlined in the Green Bond Principle June 2017

3. *Green structuring – what, why, how?*

The road to a green bond framework

- The green bond framework consists of five pillars (definition, selection, traceability, reporting, external review)
- SEB can as a long-time green bond market leader bring valuable insight when advising our clients on the green bond framework set-up
- SEB will actively support the issuer through its internal implementation process drawing on experience providing increased efficiency to

The five pillars (table below)		Considerations
Definition Use of proceeds	<ul style="list-style-type: none"> ▪ Strict criteria vs. strong governance ▪ How to navigate through requirements for strong governance ▪ What kind of technologies can be considered Green? ▪ New financing vs. refinancing 	 <div data-bbox="1702 596 2237 1278"> <p>Green Bond Framework 2018</p> </div>
Selection Process for project evaluation and selection	<ul style="list-style-type: none"> ▪ How to pool internal competence around green ▪ Implementation of Green financing into existing infrastructure ▪ How to secure ongoing monitoring 	
Traceability Management of proceeds	<ul style="list-style-type: none"> ▪ How to earmark or otherwise track the Green Bond proceeds ▪ What are the options for financial institutions ▪ How to utilise existing infrastructure to secure traceability of Green Bond proceeds 	
Transparency Reporting	<ul style="list-style-type: none"> ▪ Decide on format ▪ What impact parameters can be relevant for a specific Green Bond portfolio ▪ Efforts to develop further impact reporting 	
Verification Assurance through independent third party	<ul style="list-style-type: none"> ▪ SEB will manage the second opinion process ▪ SEB will provide support to the issuer through the second opinion process 	

Key documents in the Green Bond process

Green Bond Framework

Entra – Green Bonds Framework

2 September 2016

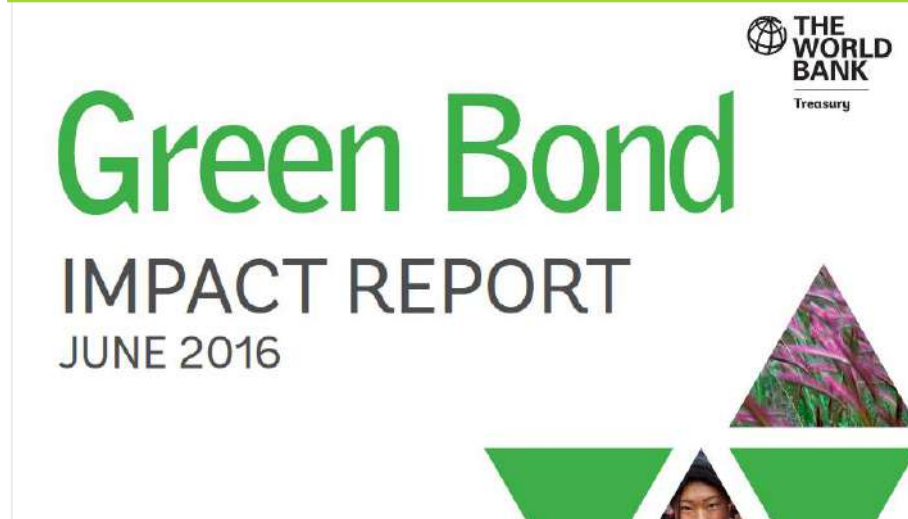
EARMARKED ACCOUNT

An amount equal to the net proceeds of the issue of the Notes will be credited to a special account that will support Entra's lending for Eligible Projects. As long as the Notes are outstanding and the special account has a positive balance, at the end of every fiscal quarter, funds will be deducted from the special account and added to Entra's lending pool in an amount equal to all disbursements from that pool made during such quarter in respect of Eligible Projects. Until disbursement to Eligible Projects, the special account balance will be placed in liquidity reserves.

ELIGIBLE PROJECTS

"Eligible Projects" means a selected pool of projects funded, in whole or in part, by Entra

Annual investor reporting



Second Opinion



'Second Opinion' on Agder Energi's Green Bond Framework

The Green Bond Principles



Voluntary Process Guidelines for Issuing Green Bonds

Introduction

The Green Bond market aims to enable and develop the key role debt markets can play in funding projects that contribute to environmental sustainability. The Green Bond Principles (GBP) promote integrity in the Green Bond market through guidelines that recommend transparency, disclosure and reporting. They are intended for use by market participants and are designed to drive the provision of information needed to increase capital allocation to such projects. With a focus on the use of proceeds,

The 2017 Edition of the GBP

This edition of the GBP benefits from the input of the Autumn 2016 consultation of GBP Members and Observers, as well as from the working groups coordinated by the GBP Executive Committee which reflected on the key themes that surfaced from the consultation. There was also an emphasis on widening the working groups beyond the GBP Executive Committee to participants with relevant expertise from GBP Members and Observers. This update also aims to reflect ongoing feedback from the wider Green Bond stakeholder community and to take into account recent market developments.

The 2017 update remains framed by the same four core components (Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds and Reporting). It also continues to underline the importance of the use of the recommended templates framing issuer alignment with the GBP and the content of external reviews available at the Resource Centre at www.icmagroup.org/gssbresourcecentre. The 2017 edition reflects overall the growing maturity of the GBP

SEB's sustainable finance platform

The Climate & Sustainable Finance team

- Dedicated team of 9 persons
- Climate finance market expert
- Flexible approach to client demand
- Provides support and market insight both pre- and post-transactions
- Drives market development (Green Bonds, Green Loans, Green Deposits etc.)

Selected engagements as thought leaders in the field

- 1 of the 14 founding banks setting up the *Green Bond Principles*
- Member of *GBP executive committee* and External Reviewer work
- *Public private partnership* with German GIZ
- Key advisor for the *joint position paper* on green bonds impact reporting, launched at the OECD Green Investment Financing Forum in Paris



Green Bond research

Monthly Green Bond research launched in January 2017



SEB is a regular speaking partner in government related and regulatory forums globally

Sustainable finance e-learning

Sustainable finance e-learning to be launched 2018



SEB has created a multi-module white label e-learning that covers a range of sustainable finance subjects

The Green Bond database

The image shows three screenshots of the Green Bond database interface. The top screenshot shows a list of green bond issuers with columns for issuer name, amount, and maturity. The middle screenshot shows a detailed view of a specific issuer's green bond portfolio. The bottom screenshot shows a search and filter interface. Arrows point from text boxes to specific features: 'Overview of Green Bond issuers with a second opinion' points to the top screenshot, 'Create your own Green universe with the help of filtering options' points to the bottom screenshot, and 'Drill-down function to explore details' points to the middle screenshot.

Overview of Green Bond issuers with a second opinion

Create your own Green universe with the help of filtering options

Drill-down function to explore details

Green Bond structural advice

Advisory to issuers on Green Bond framework set-ups and management of second opinion processes

5 Pillars of Green Bond Framework

Definition

Selection

Traceability

Transparency

Verification

SEB's ambition – to remain global thought leader in the green bond market

Investor relations

- SEB has met with circa 1000 investors worldwide in dedicated Green Bond meetings
- SEB has placed Green Bonds to around 800 investors
- SEB has been and is advising a large amount of investors on how to implement Green Investment strategies, including:
 - ✓ Nikko Asset Management
 - ✓ State Street Global Advisors
 - ✓ Zurich Insurance
 - ✓ Blackrock
 - ✓ State of California Treasury
 - ✓ The Nobel Foundation

Issuer relations


- SEB is advising issuers of all types globally in their preparation to issue Green Bonds
 - ✓ Advice on establishing Green Bond frameworks
 - ✓ Coordinating second opinions
 - ✓ Developing issuance strategies
- SEB was chosen as Sole Green Structural Advisor by more than 60 issuers of all types globally incl.
 - ✓ The World Bank (IBRD) (first ever green bond for institutional investors)
 - ✓ City of Gothenburg (first green muni-bond)
 - ✓ Vasakronan (first green corporate bond)
 - ✓ NIB

International engagement

- ✓ Kommunekredit
 - ✓ Ørsted
 - ✓ HSBC
 - ✓ KfW
 - ✓ ICBC
- Examples of international engagement:
 - ✓ SEB is active in the reference group created to support a board member of the UN Climate Fund
 - ✓ SEB is interacting with a number of governments to develop mechanisms to engage private capital in climate investments
 - ✓ SEB and GIZ have a strategic alliance on Green Bond market development in G20EM
 - ✓ SEB acted as key advisor for the Position Paper on Green Bonds Impact Reporting launched by Nordic public sector issuers at the OECD Green Investment Financing Forum in Paris 2017
- SEB has been invited and been a speaker in high profile event such as
 - ✓ UN General Assembly, UN Foundation / INCR Investor Summit, OECD Roundtable, Environmental Finance Conference, US State Department as well as lectures at prestigious universities such as Cambridge, Oxford, and Columbia



5. Global Green Bond market update



Christopher R. Kaminker, PhD
Head of Research, Climate & Sustainable Finance; Senior Advisor, Large Corporates & Financial Institutions
[SEB Green Bonds Website](#)

SPECIAL EDITION: World Water Week

Executive Summary

The green bond market shifted back into a more traditional summer lull, from its jagged pattern of issuance and growth in 2Q18 which had delivered its second highest quarterly figure to date of USD 49 bn. As predicted, issuance reverted to 2016 era levels, with July falling to USD 7.9 bn (-34% YoY) and August achieving only USD 4.7 bn (-49% YoY) with one week remaining but featuring some bright spots of activity from Municipals and Financials.

However, this modest summer outcome only slightly moderated 2018 growth, boosted by a 1H18 figure of USD 85 bn, up 21% YoY with at least 85 issuers active in 16 currencies setting a 1H period record. As such, the whole market was up by 19% YoY with USD 97 bn YTD and total cumulative green bond issuance hovering just below the USD 500 bn mark.

The summer slowdown is more a function of **global bond market conditions** than any specific to green finance. European bond deals from July 1 - August 8 were at their lowest levels in 13 years and the U.S. corporate bond market saw its quietest July in at least 5 years.

Despite this, our view remains that **positive prospects** are plentiful for the rest of the year, with the market continuing its fruitful quest of sectoral maturation and diversification with 24 repeat issuers in 1H18 and large economies featuring heightened activity alongside new sectors. A prominent pipeline of deals remained for 3Q, or later (see [Section 2](#)). Our 2018 base-case issuance scenario is held at USD 185 bn.

Agencies are on watch for a **downgrade**, falling further away from their potential almost every month (with issuance levels -50% YoY). However, due to solid growth we **upgrade** the potential for **Sovereigns** (USD 17 bn) and **Supranationals** (USD 14 bn).

Corporates have been particularly buoyant with USD 44 bn up 40% YoY. Financials have been the dynamo behind this with USD 27 bn, double last year's contribution, and look to be on track to exceed our estimate. Green securitizations are nicely on track with our scenario for 2018 with USD 14 bn. After a decent 1H, non-financial corporates reversed to -8% YoY, well below potential.

Geographic activity is widespread, with 34 jurisdictions featuring green bonds YTD. The center of gravity for the market pulled back somewhat on its shift towards Europe in 2018. This shift has been driven by European corporates and sovereigns and has been underway alongside increasing policy attention from the European Commission.

In honor of Stockholm World Water Week, SEB releases [new analysis](#) into how green bonds are channeling financing for water investments. The results of the analysis indicate that at least USD 100 bn (or ~20%) worth of green bonds from 103 individual issuers have included "sustainable water & wastewater management" as one of their use of proceeds.

SEB Climate & Sustainable Finance Review

Guest contributors welcomed in this edition:

SEB's [Marie Baumgarte](#) on the state of play of the European Commission Technical Expert Group on Sustainable Finance;

[City of Gothenburg](#), the first municipal issuer reflecting on their 5 year green bond anniversary;

[Nick Robins \(London School of Economics\)](#) on new frontiers in sustainable finance.

[CICERO](#): Scientific update after a long hot summer.

Climate & Sustainable Finance

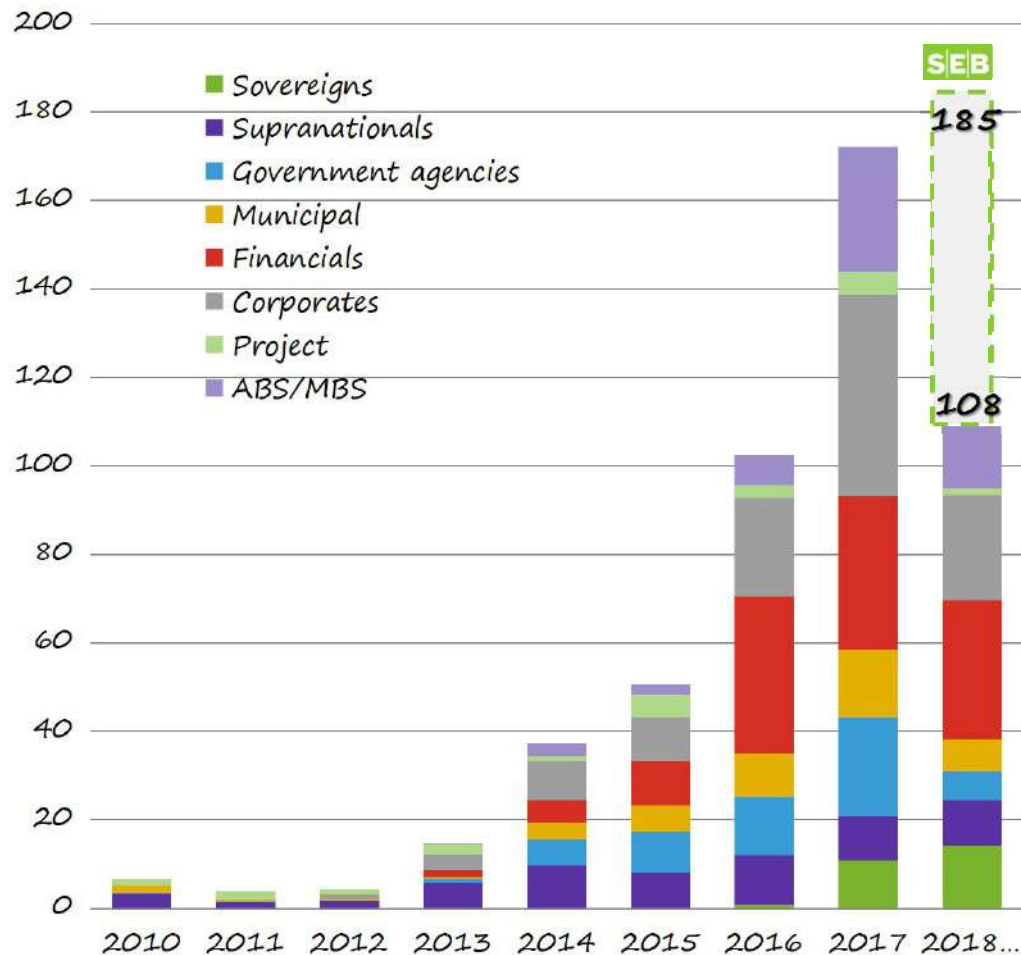
The Green Bond 3Q 2018 (1)

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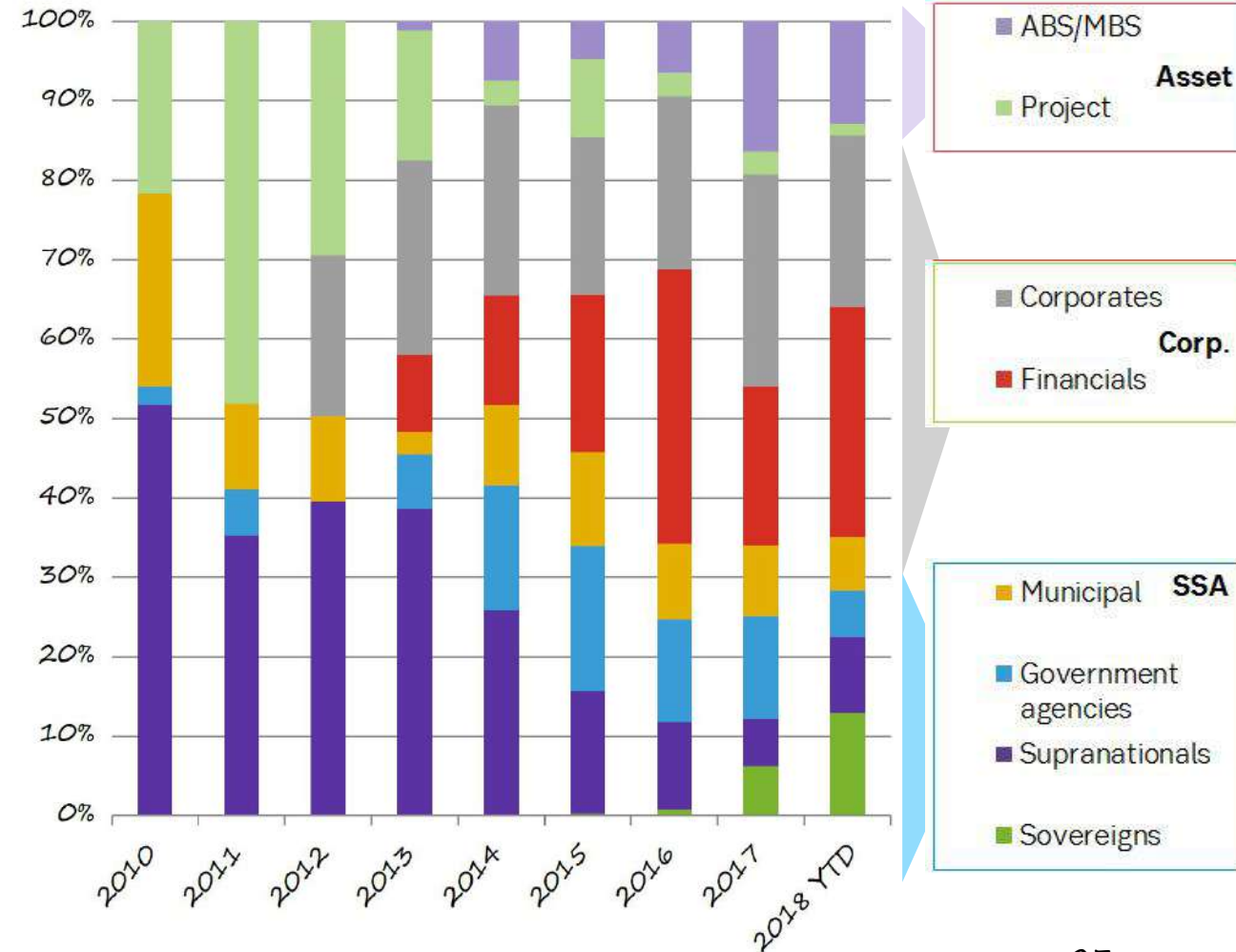
Green bond market growth and sectors of the market shifting

USD 500 bn in 10 years

Green bond market growth (USD Bn) by sector

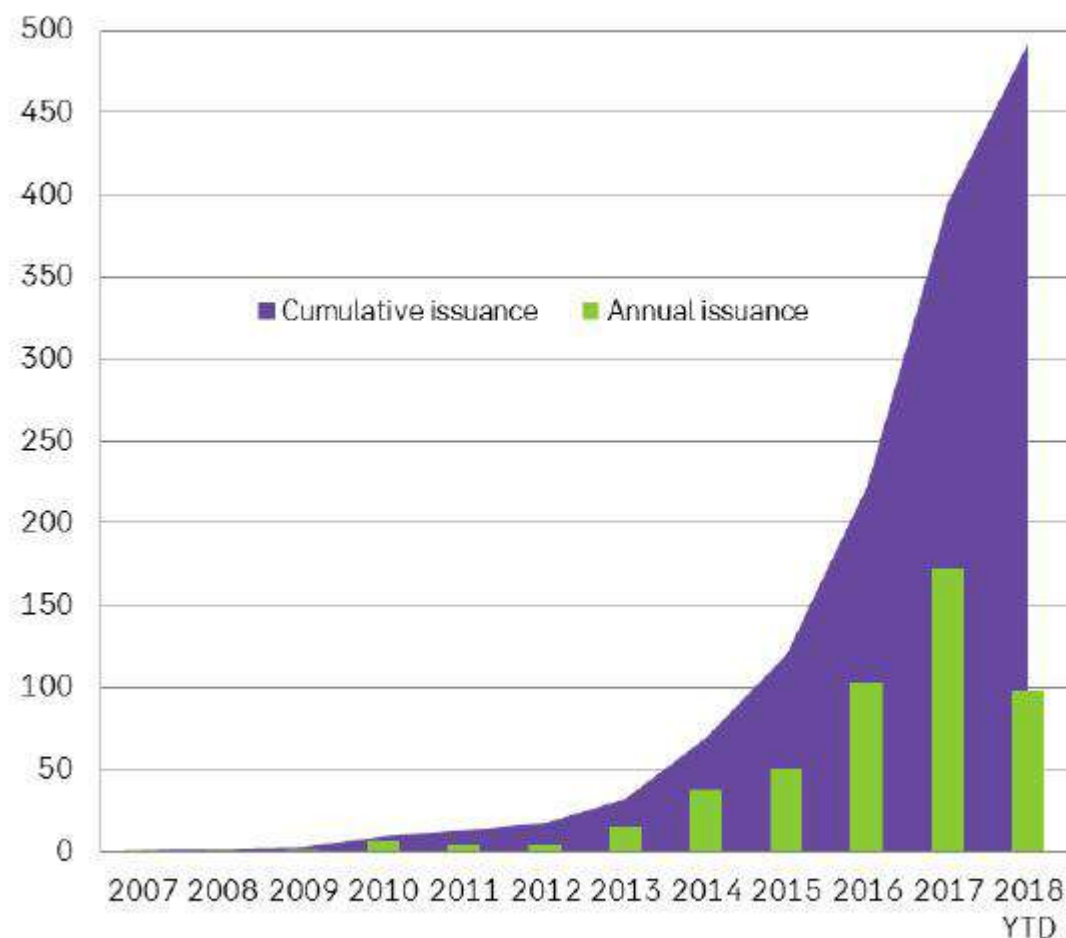


Sectoral evolution (% share of annual issuance)



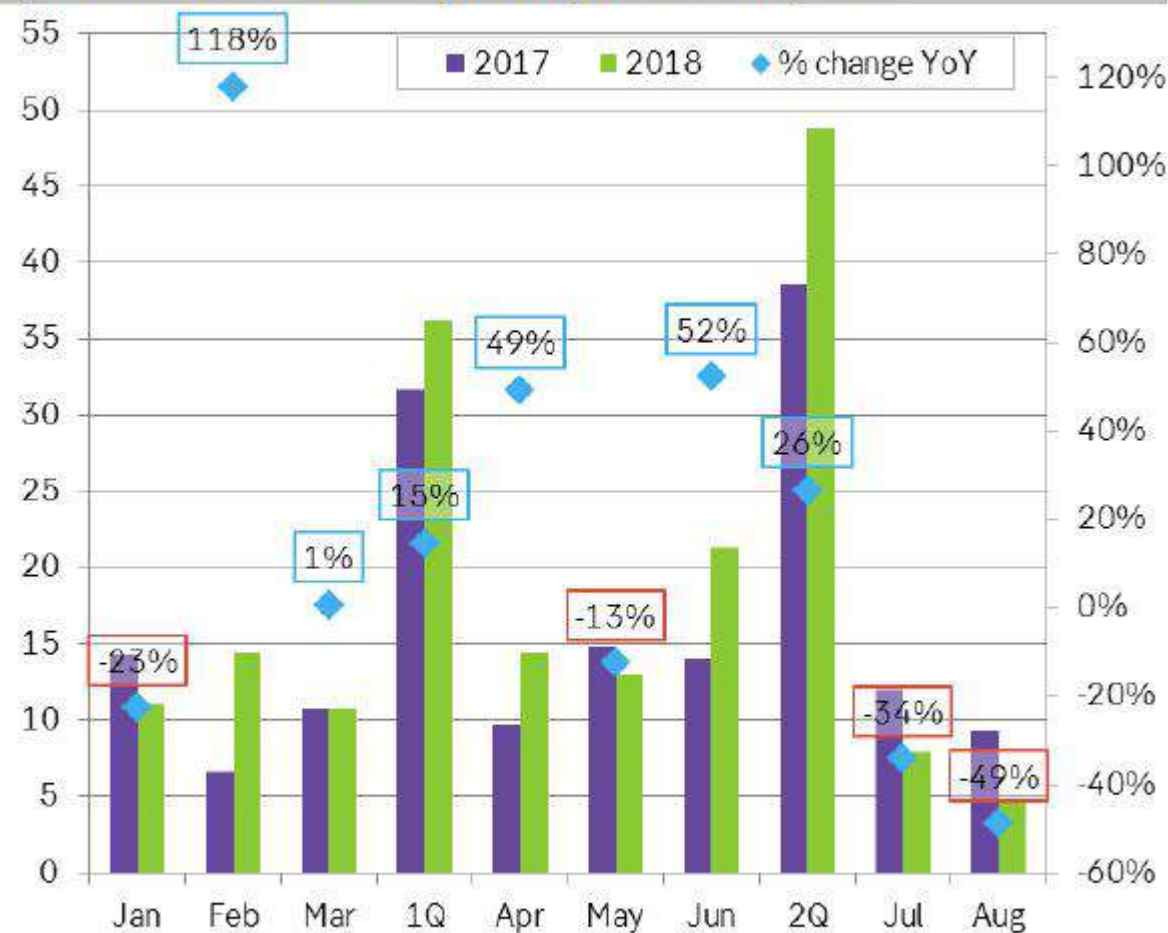
Green Bond market growth

Figure 1. Total Cumulative Issuance (USD Bn)



Source: SEB analysis based on Bloomberg and SEB data

Figure 2. Periodic issuance (USD Bn) and % change YoY



Source: SEB analysis based on Bloomberg and SEB data

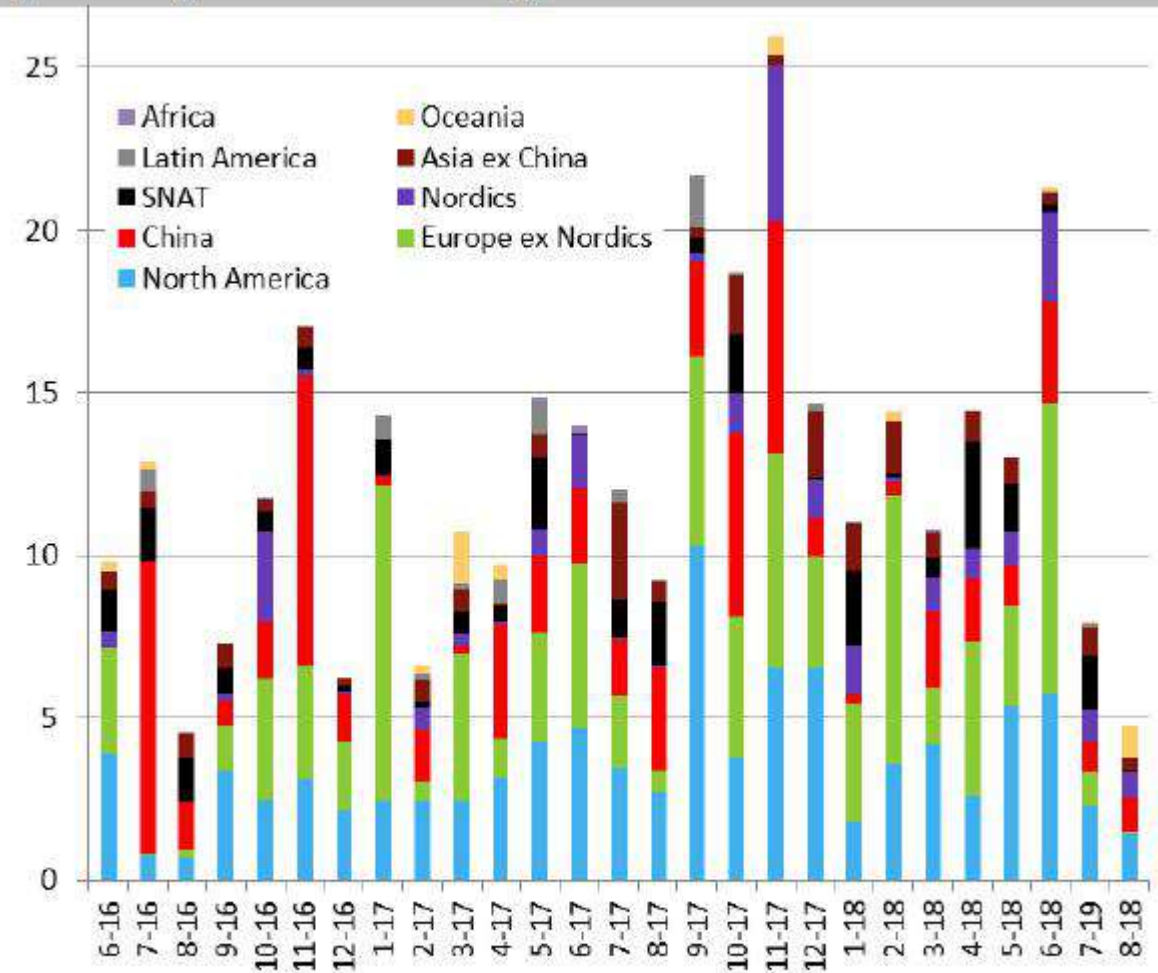
Green Bond issuance by region and country

Figure 7. Top 15 geography by issuance in 2018, incl.

Rank	Geography	YTD 8/2018 (\$ Bn)	Rank Change YoY	Issuance Volume Δ YoY
1	UNITED STATES	23.3	=	-3%
2	CHINA	11.4	=	-25%
3	SNAT	9.6	+1	23%
4	FRANCE	9.3	-1	-37%
5	BELGIUM	6.1	NEW	∞
6	SPAIN	4.9	+4	124%
7	SWEDEN	4.6	=	57%
8	CANADA	3.8	+5	139%
9	NORWAY	3.5	+18	1869%
10	GERMANY	3.4	-5	-11%
11	NETHERLANDS	2.8	-5	-16%
12	INDONESIA	2.0	NEW	∞
13	SOUTH KOREA	1.7	+7	322%
14	JAPAN	1.6	+1	176%
15	ITALY	1.5	-3	-19%

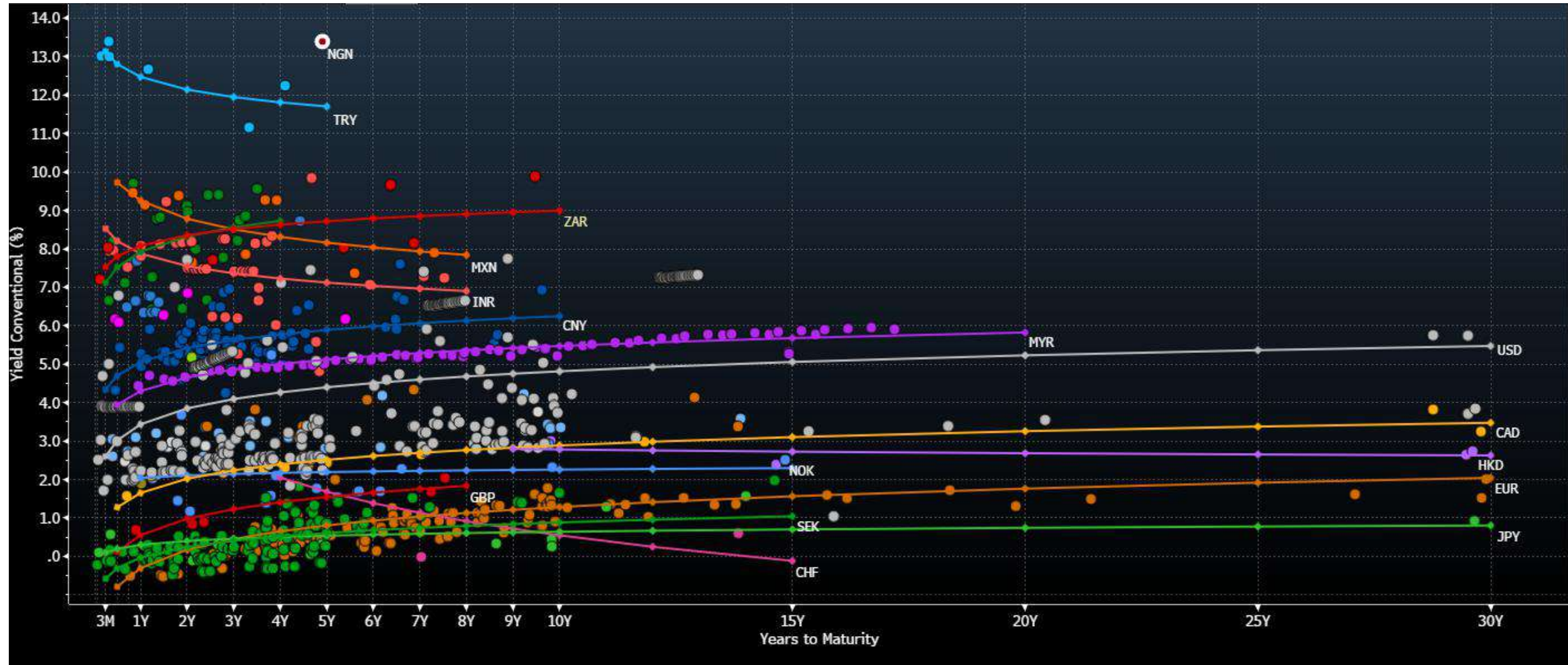
Source: SEB analysis based on Bloomberg and SEB data

Figure 8. Regional distribution of green bond issuance



Source: SEB analysis based on Bloomberg and SEB data. SNAT: Supranational

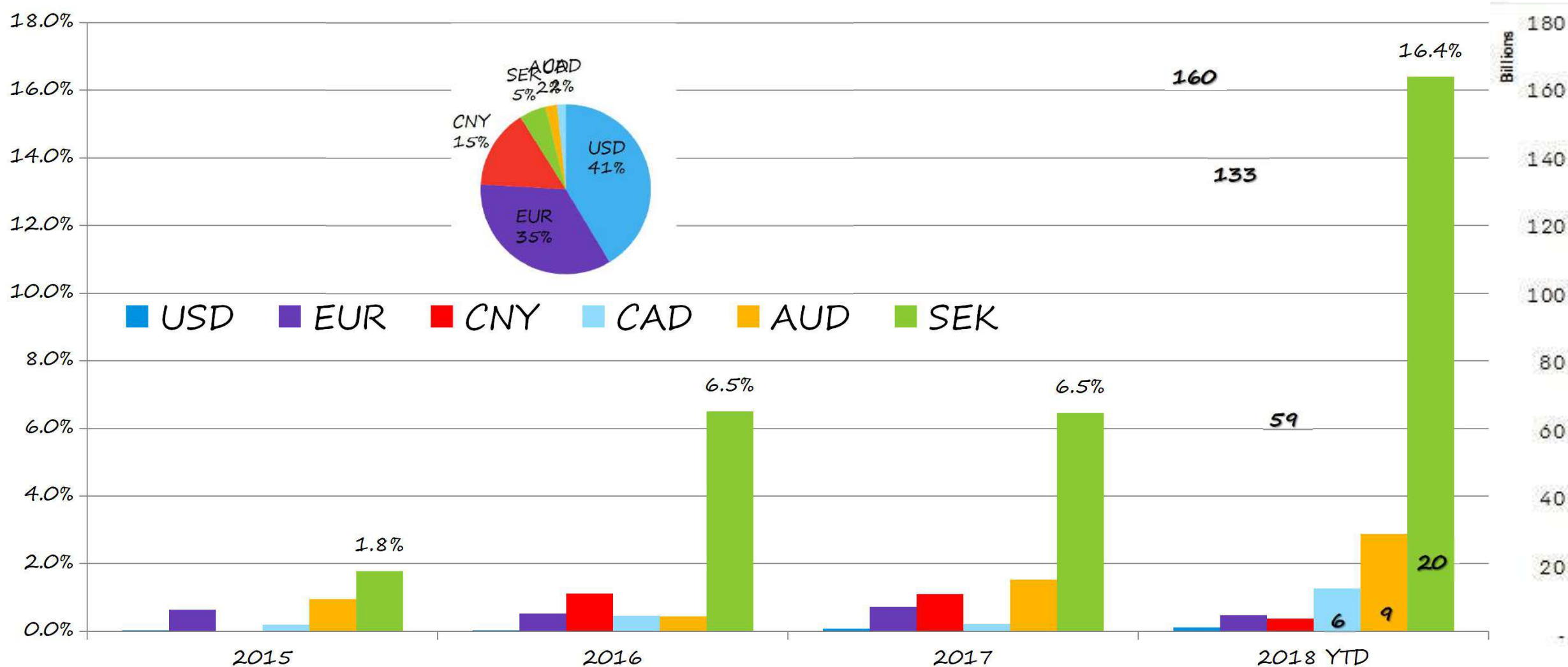
Global Green Bond market (by currency)



Note: Yield: Street Convention: Yield to Worst. Excludes project bonds, ABS.
Source: SEB analysis using Bloomberg BVAL pricing (June 22, 2018)

Green share of total bond issuance by select currency

Cumulative green bond issuance by currency (Right Axis)



Green & Sustainable Investor Strategies – Investing in the future

Why develop Green & Sustainable strategies

- Exposure to green / sustainable investment opportunities with aim not to give up on returns
- Risk management through investing in issuers that are prepared for the future
- Promote a fiduciary duty to demonstrate climate / environmental capabilities in the asset class fixed income
- Strengthen brand perception

Strategy considerations

- Vision / mission
- Focus area (Green, Social, Sustainability)
- Composition of portfolio
- Impact & performance measurements
- Expectations / timeline
- Other considerations

Decide on benchmarks - examples

Green Bond / Social Bond guidelines

International
guidelines &
market
practice



The
Green Bond
Principles
2017



The
Social Bond
Principles

Regional
guidelines



ASEAN
Capital
Markets
Forum

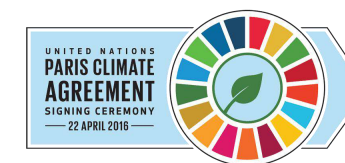


*

National
guidelines



Broader context & focus



Indices

- Solactive
- S&P/Dow Jones
- Shenzhen / Luxembourg
- Bloomberg/ MSCI
- BAML
- Various China Green Bond indices

Green Bond investors – overview

There are five main groups buying Green Bonds

- **Opportunistic:** Mainstream fixed income investors who are mainly interested in fiduciary performance but also like to have environmental benefit – purchase from general investment fund
- **Discretionary Mandates:** Mainstream asset managers that have a mandate to invest in a certain type of Green Bond
- **Dedicated:** Mainstream broad market fixed income investors who also have a dedicated SRI/Green portfolio or target
- **Specialist:** Investors that exclusively focus on Green or Sustainable Bonds

▪ **Incidental:** Purchasers who may not have a specific

Specialist investors - examples

a Green Bond



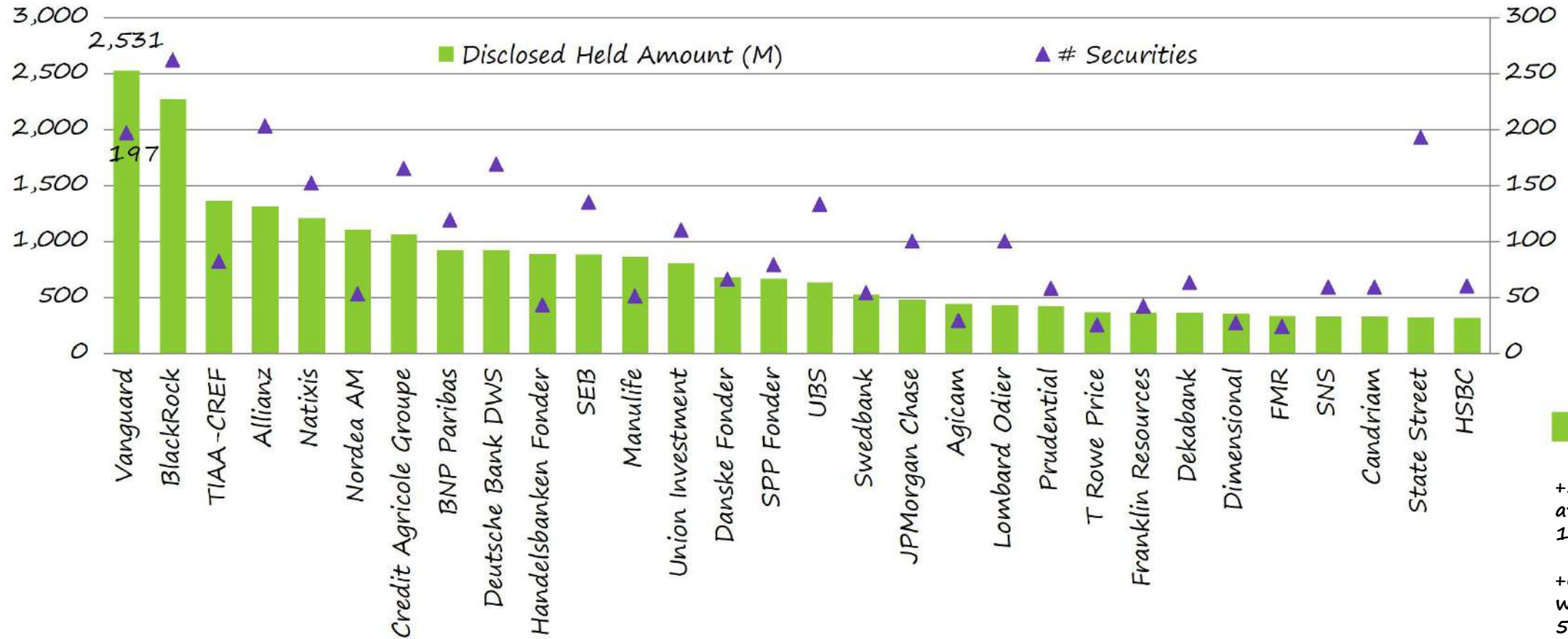
Selected Green Bond commitments and targets

Investor	Sector	Commitment
Actiam	Asset Manager	EUR 1 bn (green bonds)
Alecta	Pension Fund	SEK 20 bn (green bonds)
Folksam	Pension Fund	SEK 25 bn (green bonds)
Allianz	Insurer	EUR 2.5 bn (green bonds)
California State Treasury	Public Financial Institution	USD 1.1 bn (green bonds)
Bangladesh Central Bank	Central bank	Some of its foreign currency reserve
Aviva	Insurer	Increase holdings
AXA	Insurer	EUR 1 bn (green bonds) increased to EUR 12 bn green investments
Zurich	Insurer	EUR 2 bn (green bonds) increased to EUR 5 bn impact investments
AP2	Pension Fund	1% Strategic Asset Allocation (green bonds)
AP3	Pension Fund	SEK 20 bn (green bonds)
AP4	Pension Fund	Strong commitment and significant allocation to green bonds
KfW	Public Financial Institution	EUR 2 bn (green bonds)
IFC	Public Financial Institution	USD 325 m cornerstone in 2bn Amundi fund
PFZW	Pension Fund	EUR 20 bn green investments by 2020 (incl. green bonds)
CNP Assurances	Insurer	EUR 5bn in green investments (incl. green bonds)
Nippon Life	Insurer	JPY 200 bn in ESG (inc. green bonds)
Meiji Yasuda	Insurer	JPY 500 bn in ESG (inc. green bonds)

Largest disclosed green bond investors

1,300+ investors disclosed as holding green bonds (on behalf of 5,000+ beneficiaries)

However disclosures are low. Based on only 10% of green bond issuers* and by asset 10% to likely disclosed as held



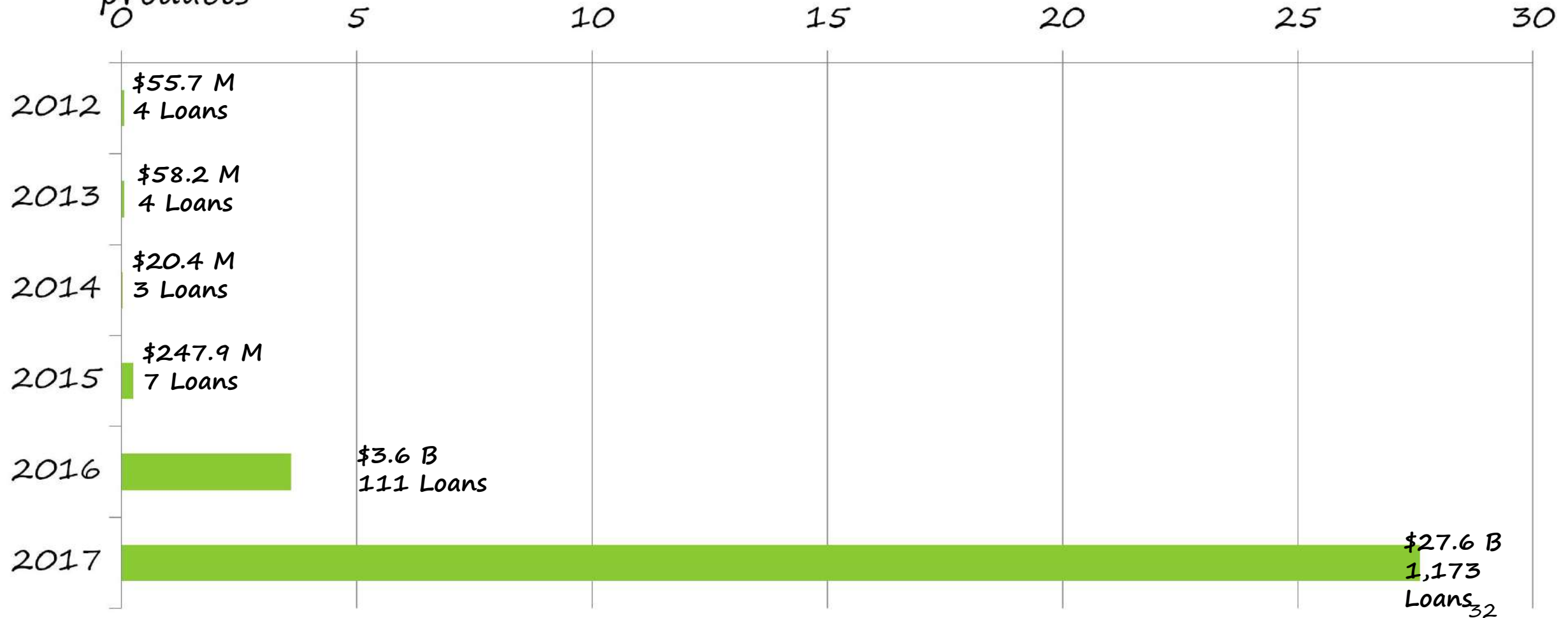
6. Recent Green Bond transactions



Federal National Mortgage Association (Fannie Mae) Green Financing

Fannie Mae Green product volumes increased in 2017 as the program developed incentives were aligned, and more borrowers were attracted to the

Fannie Mae Green Mortgage Backed Security (MBS) Issuance and Cash Loans (2012-2017, USD Billions)



Source: Fannie Mae (as of Q4 2017).

Note: Included in the Bloomberg MSCI Green Bond Index



Willhem AB

5 year dual-tranche, fixed and floating SEK 800m senior unsecured inaugural Green Bond via SEB

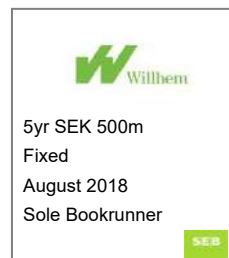
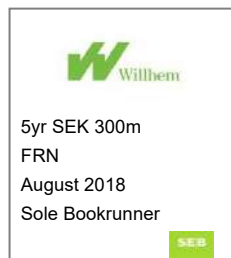
Key Terms

Issuer	Willhem AB	
Rating	A- (stable outlook) S&P	
Settlement	3 September 2018	
Maturity date	3 September 2023	
Status	Senior Unsecured Green bond	
Launch date	24 August 2018	
Tranche	300m FRN	500m FXD
Interest rate type	Floating	Fixed
Amount (SEK)	300m	500m
Issue spread	3mS+67bp	MS+67bp
Coupon	3mS+100bps, quarterly	1.103%, annually
issue price	101.660%	100%
Listing	Nasdaq Stockholm Sustainable Bond List	
Docs	MTN/Green bond framework	

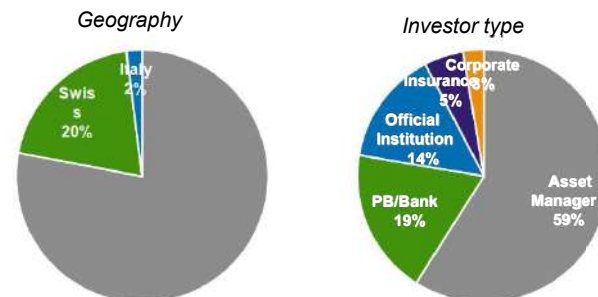
Willhem AB is a property company which is 100% owned by one of Sweden's national pension funds, AP 1. Willhem owns, develops and manages ~26 250 rental apartments in Sweden with a market value of SEK ~35bn. The company was founded in 2011 and is active in major Swedish growth cities such as Stockholm, Göteborg, Malmö, Borås, Eskilstuna, Halmstad, Helsingborg, Jönköping, Karlstad, Linköping, Skövde, Trollhättan and Västerås.

Transaction highlights

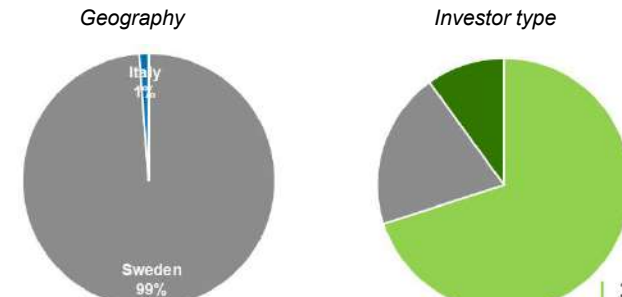
- On Friday 24 August 2018, SEB acted as Sole Bookrunner when Willhem AB, rated A- by Standard & Poor's, successfully completed their SEK 800m 5y senior unsecured inaugural green bond transaction, comprised of a SEK 300m floating tranche and a SEK 500m fixed tranche priced at MS/3mStibor +67 bps. SEB acted as Sole Green Structuring Advisor on Willhem's Green Bond Framework, which has been rated medium green by Cicero. Proceeds from the transaction will be used in line with Willhem's Green Bond Framework.
- On Tuesday 14 August Willhem pressreleased their newly established Green Bond Framework in conjunction with an announcement stating SEB was mandated for arranging an investor presentation where the Green Bond Framework was presented, followed by Willhem's inaugural green bond transaction.
- Following a Go/No Go call early in the morning on Friday the 24 August, the new issue transaction was announced and books opened at CET 9.45 as a 5 year fixed and/or floating tranche with initial price talk (IPT) of MS/3mStibor + 67 bps-area.
- The orderbook grew well throughout the day and the first update stated that the combined deal size will be set to min SEK 800m, spread set to +67 bps and that the book will close in 30 minutes.
- With the support of a high quality orderbook, the transaction priced at MS/3mStibor +67 bps and the size was set to SEK 800m split into two tranches of SEK 300m floating and SEK 500m fixed.
- The investor base consisted of 16 Swedish institutions and two European institutions, distributed well among asset managers, pension funds, official institutions, insurance companies, PB/Bank's as well as corporates.
- This successful transaction demonstrates a significant demand for the green Willhem credit and the fact that the bond is green has in addition contributed to broaden the company's investor base.



Allocation – FRN 300m



Allocation – FIX 500m



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