



EeMap Initiative – Financial Solutions

BNP Paribas, Sustainable Capital Markets

CORPORATE & INSTITUTIONAL BANKING

Sustainable Capital Markets

October 2018



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Sustainability Drivers in the Financial Markets

For Banks

- Respond to regulatory pressures to mitigate climate risk
- Demonstrate sustainability leadership
- Position Banks as innovative partners
- High profile business, measured in league tables
- Fulfil role as an intermediary between SMEs and the market
- Strategic transactions for our clients

For Clients

- Access differentiated investor base, with possible pricing advantage
- Positive public relations message
- Market solution to social and regulatory pressure to demonstrate responsible behavior
- Part of a holistic approach to sustainability, to include financing strategy



Social Responsible Investing – Policy Drivers



BANK OF ENGLAND



- Green Bonds are a key worldwide policy instrument, for the G20, the BoE, the People's Bank of China, OECD and the EU amongst others
- Task Force on Climate-Related Financial Disclosures: international cooperation to formalise a framework for the provision of “decision-useful climate related risk information”
- All listed companies to be subject to the EC Directive on Extra-Financial Information
- Requirement for European workplace pension schemes to disclose how they incorporate ESG factors into their risk factors

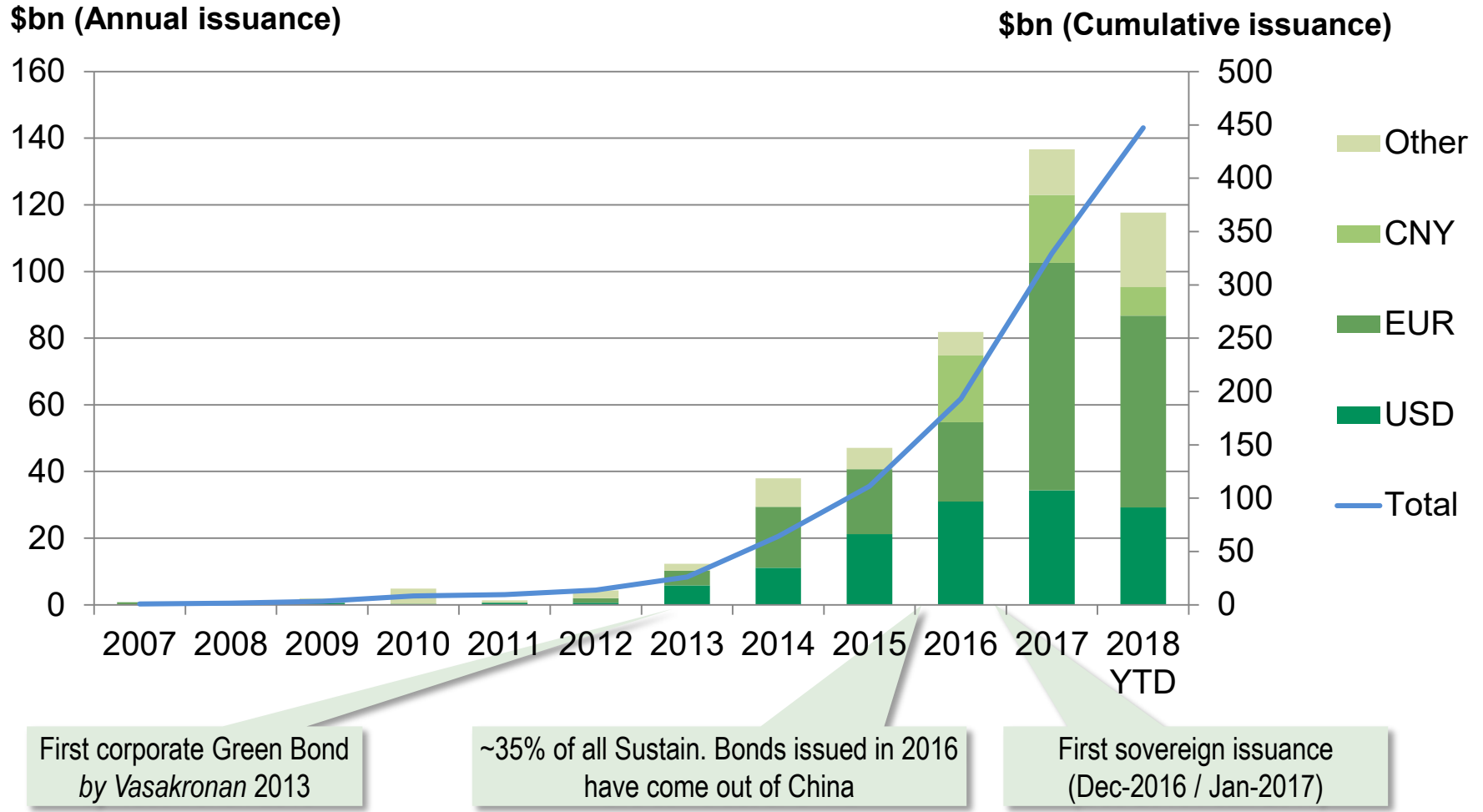


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Green/Sustainable Bond Market at a Glance

Sustainable Bond Issuance by Currency



Source: Bloomberg, BNP Paribas, Climate Bonds Initiative, as of 2nd October 2018



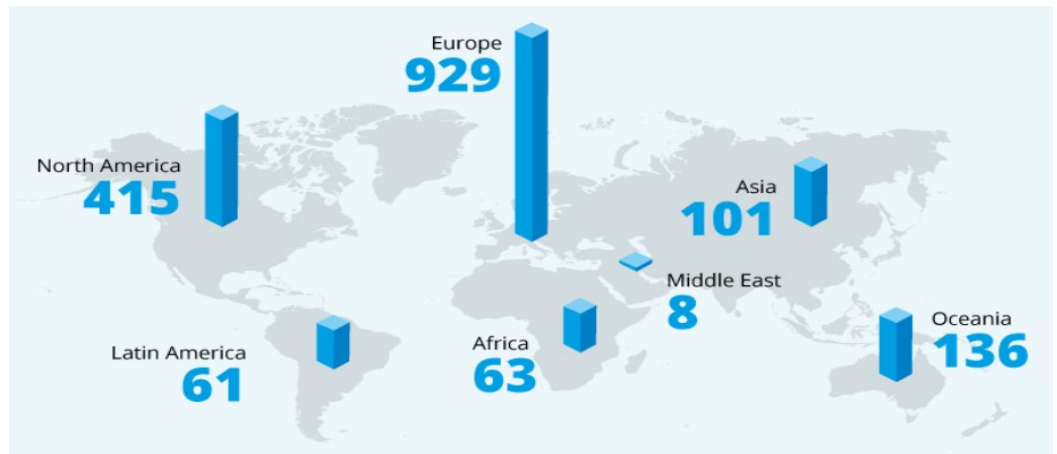
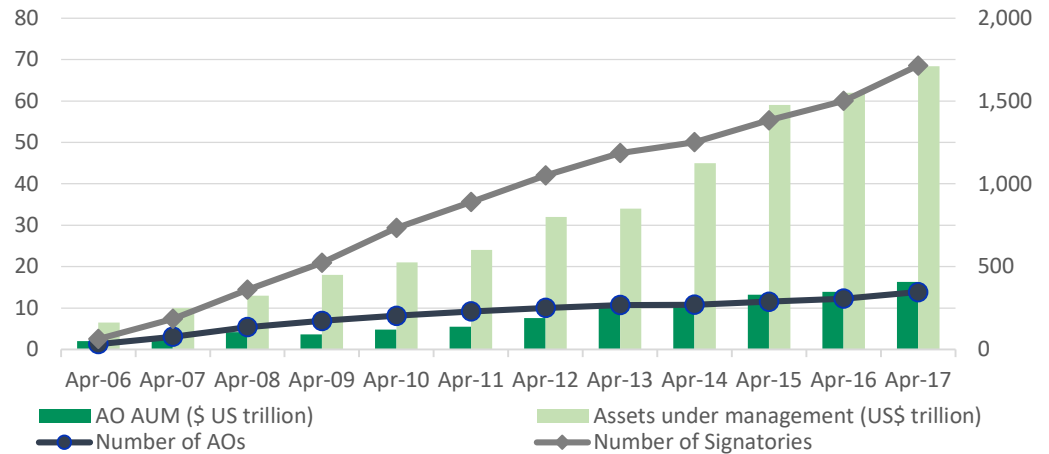
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A Growing Demand from Socially Responsible Investors

> Growing number of signatories of the UN -PRI

- Europe continues to host the largest pools of SRI focused investors, with almost 55% of the UN-PRI signatories located in the region
- Policy, regulation and general sensitivity to sustainability within the European ecosystem has supported the rapid expansion of Sustainable Capital Markets
- Growth of SRI and dedicated Green and Social funds has outstripped supply, making Europe the destination of choice for borrowers to showcase their sustainable credentials and issue green/sustainable/ social bonds



Source: UN PRI



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Responsible Investing – What, Why and How?

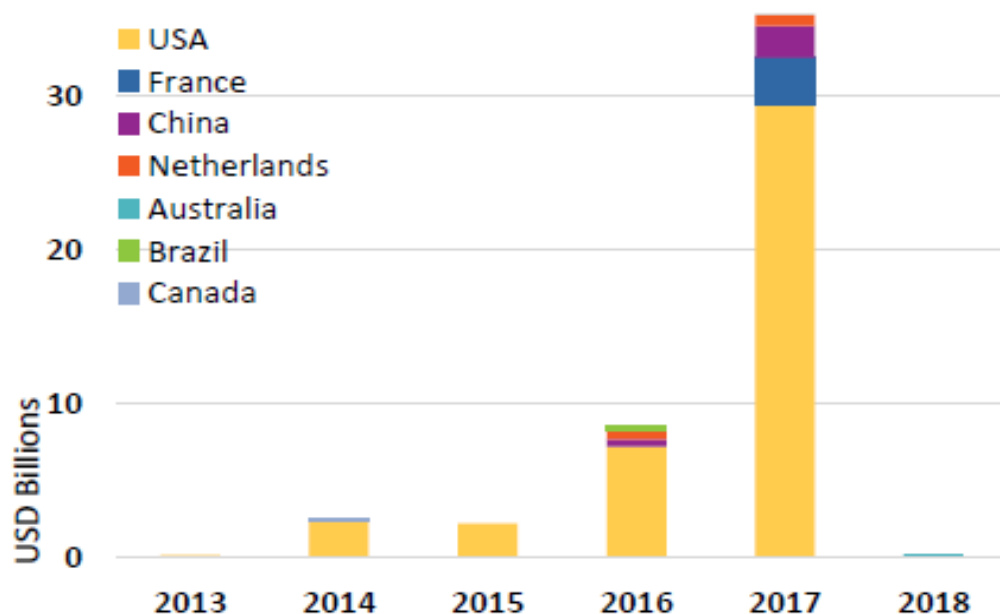
- **What?** - “Responsible” investment: **financial motivation** combined with **social responsibility**
- **Why?** - Motivations include:
 - Risk mitigation (financial and reputational)
 - Social and ethical concerns
 - Regulatory (statutory exclusions or sanctions)
- **How?** - Different approaches and strategies:
 - Negative screening (e.g. exclude controversial sectors)
 - Positive screening (e.g. choose companies who comply with UN Global Compact)
 - Integration of environmental, social and governance (“ESG”) factors into financial analysis

➤ **There is a wide range of approaches and methodologies captured under the broad heading of Socially Responsible Investments (“SRI”)**



Asset Backed Securitisation Overview

> ABS issuance by country



- The ABS market is dominated by issuance from the U.S.
- Fannie Mae has issued the largest proportion of Green ABS
- Fannie Mae have issued USD 12.82bn of Green MBS in 2018YTD, however, they have not issued any Green RMBS transactions
- Obvion issued the first Green RMBS under their “Green Storm” program, followed by NAB’s AUD 300mn Green RMBS tranche

Issuer Name	Country	Green issues	2016	2017
Fannie Mae	USA	1221 MBS	\$3.5bn	\$26.4bn
Obvion: Green Storm	Netherlands	2 RMBS	\$595m	\$667m
NAB RMBS Trust	Australia	1 RMBS tranche		



TCFD Regulation and the EeMAP Pilot Project

> TCFD on retail mortgage lending



- Fundamental shifts in climate over the longer term will have impacts on value chains (revenues, costs, expenditures).
- **i.e. in the retail mortgage sector there is likely to be an increased demand for loans for home improvements to cool houses due to rising temperatures**

> Challenges in the Green RMBS Market

- A barrier to scaling the RMBS market remains the lack of or access to energy performance related data from residential homes

> Solutions: The Eemap project



- The success of the Eemap standardisation of energy efficient mortgages could facilitate scalability in the RMBS market
 - Lending institutions are encouraged to identify and tag existing mortgages that already meet the requirements
 - New energy efficient mortgages should be tagged in the lending institutions' IT-systems
 - The data collection exercise for lending institutions is being developed through the EeDaPP* initiative
 - The EeDaPP Initiative will seek to identify and define standardized reporting criteria



➤ Obvion issues 1st Green RMBS globally

- **Obvion** issued the first RMBS globally in 2016 under the name “Green Storm 2016” for a total transaction amount of EUR 500mn
- Proceeds from the RMBS were used to refinance Obvion’s mortgage loans from the top 15% of Dutch residential buildings in terms of energy performance or which have achieved a least a 30% improvement in energy efficiency.
- **New residential buildings (constructed after 2002)**
 - Energy certificate rating A or B by the Netherlands Enterprise Agency
- **Residential buildings (constructed before 2002)**
 - Buildings with a final Energy Performance Certificate of A; or,
 - Building with a definitive Energy Performance Certificate of C or higher that have demonstrated a 2 level improvement

➤ Obvion's Green Storm 2017 and 2018

- Obvion was awarded the Asset-backed/asset-based bond of the Year Award by Environmental Finance for a second consecutive year after their EUR 500mn under Green Storm 2017
- The issuer returned to the capital markets in May 2018 with their third RMBS green bond for EUR 550mn
- Obvion’s RMBS project “Storm” now has total outstanding securities equal to EUR 17.6bn

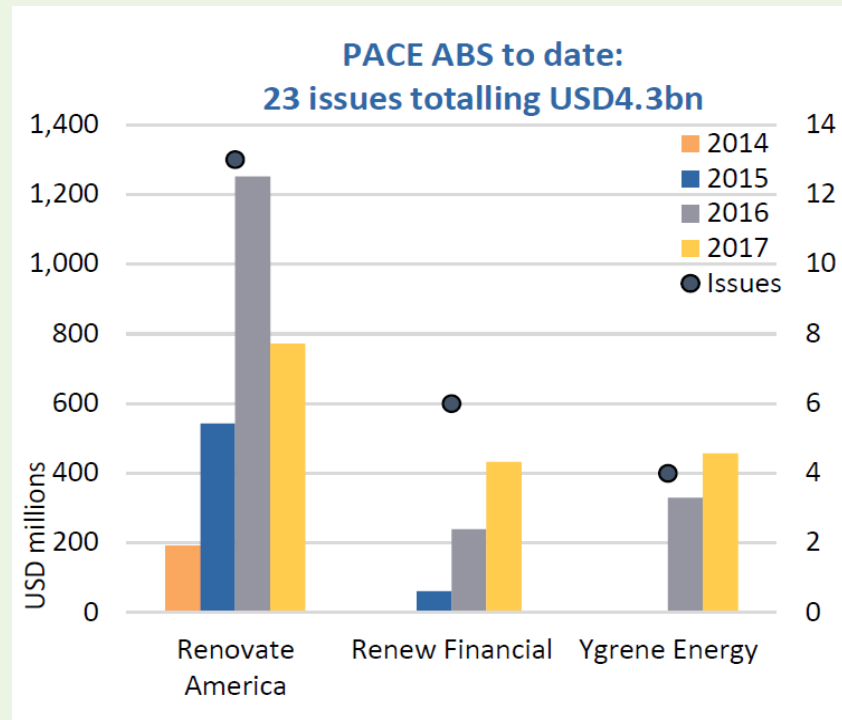
Source: EMF ECBC Market Insight & updates



A Comparable Green Mortgage Program in the U.S.

> The U.S. Property Assessed Clean Energy Model

■ The U.S. Property Assessed Clean Energy (PACE) model is used to finance energy efficient and renewable energy improvements



■ PACE loans fund the upfront cost of energy improvements on residential and commercial property, which are paid back over time through property tax bills and funds are then redistributed to the lending agencies

The funding and credit risk is passed onto ABS investors through the securitisation of the loans



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