Green Bonds: mobilising institutional investors’ capital for climate investments

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Challenge

• Global infrastructure investment needs to 2030 amount to USD89 trillion

• IPCC, IEA on track for dangerous warming 4-5C; 2C already in the system

• We need a rapid change approach: low-carbon + climate resilience
  – Parallel transitions
  – $53tn mitigation investment till 2050 + $40tn adaptation = $2.65tn p.a.

• Good news: investment not cost!
  – Debt capital markets
  – Green infrastructure

“The emergence of green bonds represents one of the most significant developments in the financing of low-carbon, climate-resilient investment opportunities,” UN Secretary-General - Climate Finance Report October 2015
Bringing solutions to capital

**Investment required $2.6tn+ p.a.**

**IEA:** Investment, not cost

**A world awash in capital**

**Discovery**

**Risk-Bridging**

**Deal flow generation**

**50% bonds**

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*Climate Bonds Initiative*
Investor demand is strong

$90^{tn}$ institutional: insurance, pension, SWF, etc
SRI = $21^{tn}$ global
$43^{tn}$ represented at UN Climate Summit

Targets and mandates
- Zurich Insurance, ACTIAM, Aviva
- Deutsche Bank treasury, Barclays treasury
- KfW, Norges Bank

PRI
$45$ trillion

IIS
International Insurance Society

IIGCC
Institutional Investors Group on Climate Change

Investor Network on Climate Risk

Investor Group on Climate Change

Asia Investor Group on Climate Change

Climate Bonds
Creating a financial market for green (e.g. bonds)

Growth is coming from EU corporates, global banks and US municipals

Use of Proceeds:
- Transparency & reporting
- Vanilla
- Comparable pricing
- 90% investment grade
- Refinance as well as projects

Corporate and municipal green bonds have become a key part of the market

USD Billions

- ABS
- Bank
- Corporate
- Dev bank
- Muni/ provincial/ City
- China
- Forecast
Green proceeds: Renewable energy is largest

**Energy:** Vestas, KfW, Terraform

**Buildings & Industry:** DBJ, Regency, BRF

**Transport:** Full universe shows potential to grow much larger. TfL

**Water:** DC Water, US munis

**Waste:** Paprec

**Climate Adaptation:** Commonwealth of Mass, World Bank, IFC

**Agriculture & Forestry:** SCA
But there’s more

Climate-themed bonds
$597.7bn

Green Bonds
$65.9bn

Project Bonds
$13.9bn
Mitigation *and* adaptation/resilience

- Renewable energy
- Nuclear, bioenergy
- Geothermal

- Low-carbon buildings
- Greening industry

- DFIs, munis, banks, financing mixed projects

- Low emission vehicles
- Electric Vehicles
- Rail, BRTs

- Sustainable water management
- Water infrastructure
- Storm adaptation

- Waste & pollution management
- Methane reduction
- Recycling

- Agriculture
- Food supply chain
- Forestry, wood, paper

Science-based definitions: [www.ClimateBonds.net/Taxonomy](http://www.ClimateBonds.net/Taxonomy)
### Standard definitions for green

#### Climate Science Framework

Potsdam Institute Climate Science + IIASA, PBL, FEEM

#### Expert Committees

- Wind, solar
- Low-carbon Property
- Low-carbon Transport
- Agriculture & Forestry
- Water
- Hydropower
- Geothermal
- Bioenergy
- Industrial Energy Efficiency
- Broadband
- Energy storage
- Energy grid

#### Advisory Committees

Investors, investment banks, verifiers

#### Independent verifiers

- EY
- DNV
- KPMG
- Moody's
- oekom
- Climate Bonds
Challenges for Green Bonds

- Lack of bankable projects and robust project pipelines
- Lack of well functioning bond markets
- Lack of commonly acceptable green standards
- Risk adverse investors with limited capacity to analyse green investments
- Small investments that would not be attractive to large institutional investors
- Involvement of many stakeholders that lack coordination
Green Bonds: the role for the public sector

**Fundamental Actions**
- Establish green project pipeline
- Strengthen local bond markets
- Strategic public green bond issuance
- Develop green standards

**Proven Support Tools**
- Strategic public green bond investment
- Credit enhancement
- Provide tax incentives
- Develop instruments to aggregate assets and structure risks

**Innovative Additions to Explore**
- Adjust risk weightings for green investments
- Preference green investments in central bank operations

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Climate Bonds Initiative
From the investor perspective, what’s missing are investible deals.

**Aims**
- Present pipelines of investible projects
- Examine barriers to capital flows and propose solutions
- Encourage deal flow

**Activities**
- Investible pipeline promotion
- Investment proposition roundtables
- Supporting: deal profiles, credit support offerings, intermediaries
www.climatebonds.net