An infographic by

The Economist Intelligence Unit

GREEN FINANCE: MAKING THE TRANSITION TO A CLIMATE-RESILIENT FUTURE

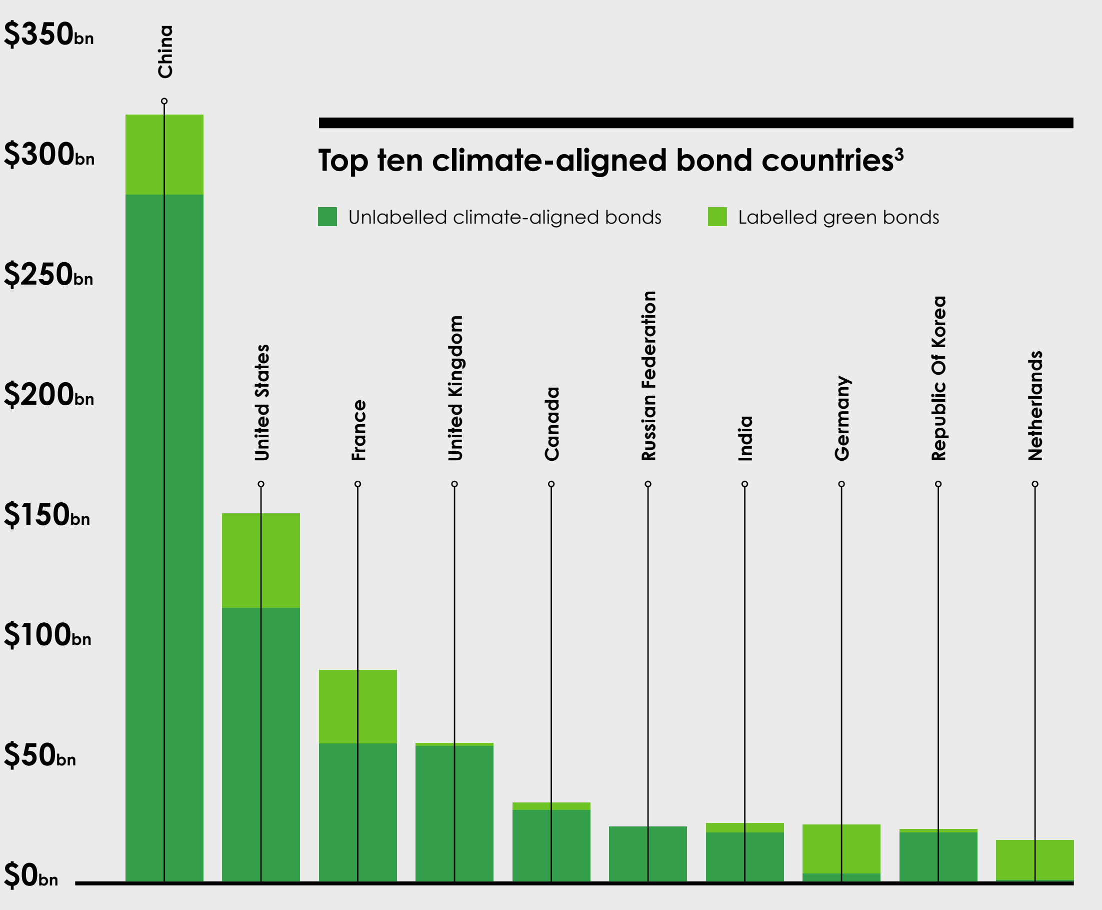
How the bond market is leading the way

Green finance is the financing of investments that provide environmental benefits in the broader context of environmentally sustainable development[1]. It includes all forms of investment, both debt and equity, which protect the environment, conserve natural resources and help mitigate or adapt to a changing climate. It is used in the implementation of 'green' infrastructure plans which aid in delivering energy security and other productivity increasing measures such as improved human health.

The main green finance instrument is a green bond. A green bond is a fixed-income instrument where the capital raised or revenue stream connected to the bond must be for projects that benefit the environment.

Climate-aligned bonds, bonds used to finance - or re-finance - projects needed to address climate change, can be labelled or unlabelled. Globally, unlabelled climate-aligned bonds are estimated at $674bn. Only a small portion of climate-aligned bonds, approximately $221bn[2], are labelled as green bonds.

Top ten climate-aligned bond countries[3]



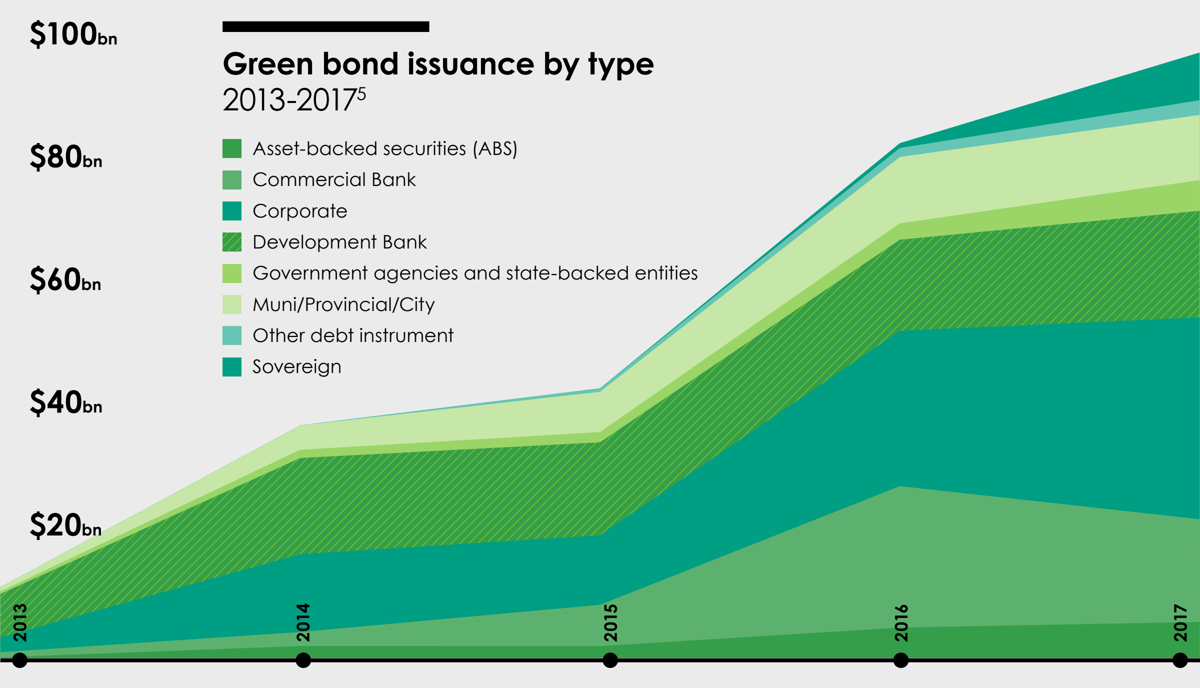
The largest green bond issuers are the development banks[4]:

European Investment Bank (EIB) $22.6bn

KfW $12.8bn

World Bank $10.6bn

Green bond issuance by type 2013-2017[5]



The average green bond size is $262m

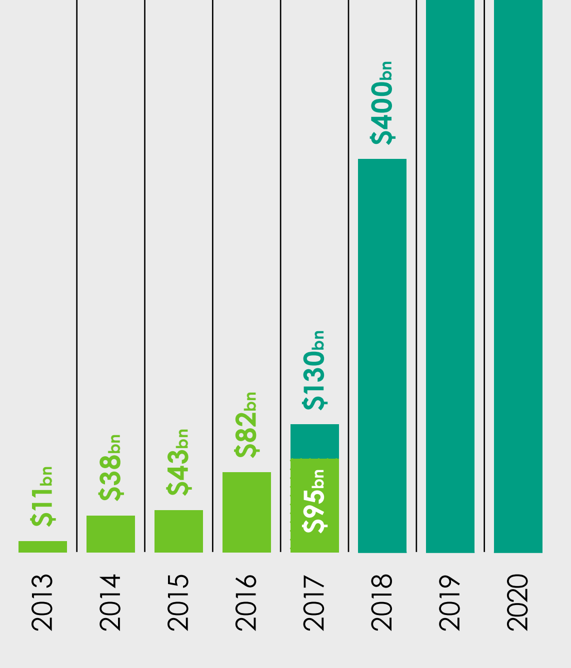
The total value of climate-aligned bonds is $895bn[6]

Sovereign and sub-sovereign agencies account for 68% of all green bonds issued

China issues the most climate-aligned bonds while the US is the biggest issuer of green bonds. The China Railway Corporation alone accounts for one quarter of all green bonds issued globally.

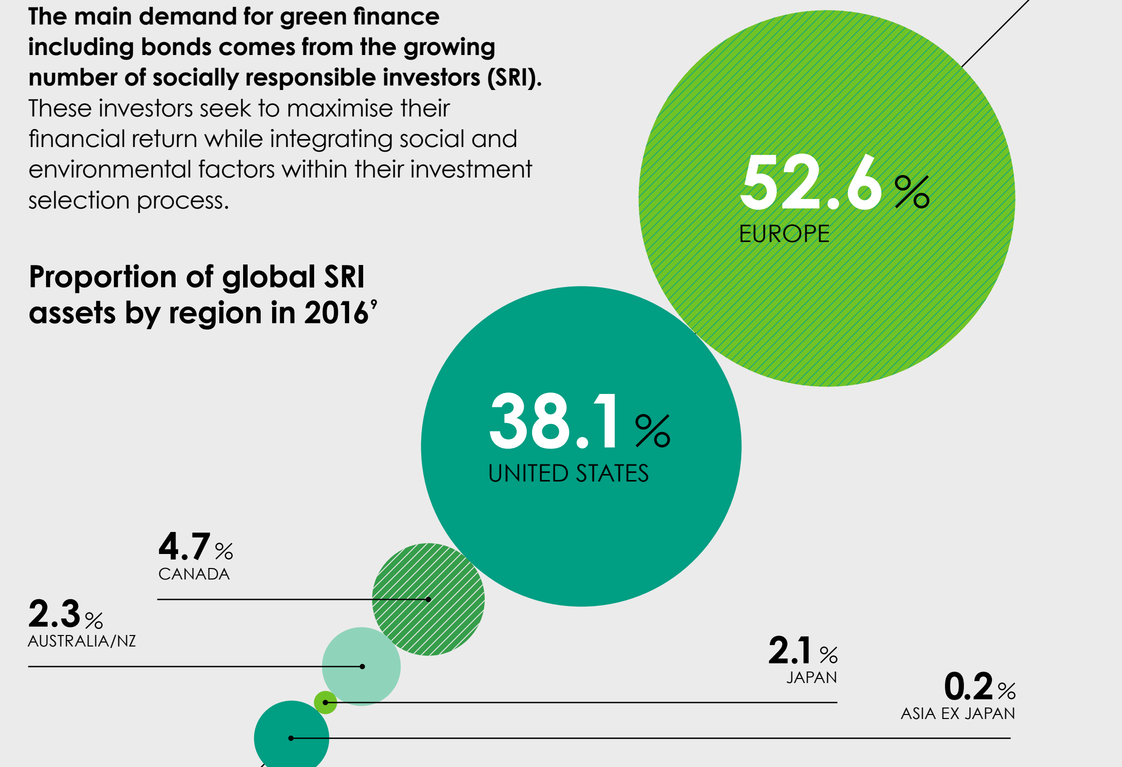
Green bond issuance could hit $180bn[7] in 2017, but is still far short of the $1trn per year needed to finance global green infrastructure improvements.

We need $1trn a year of green issuance by 2020[8]

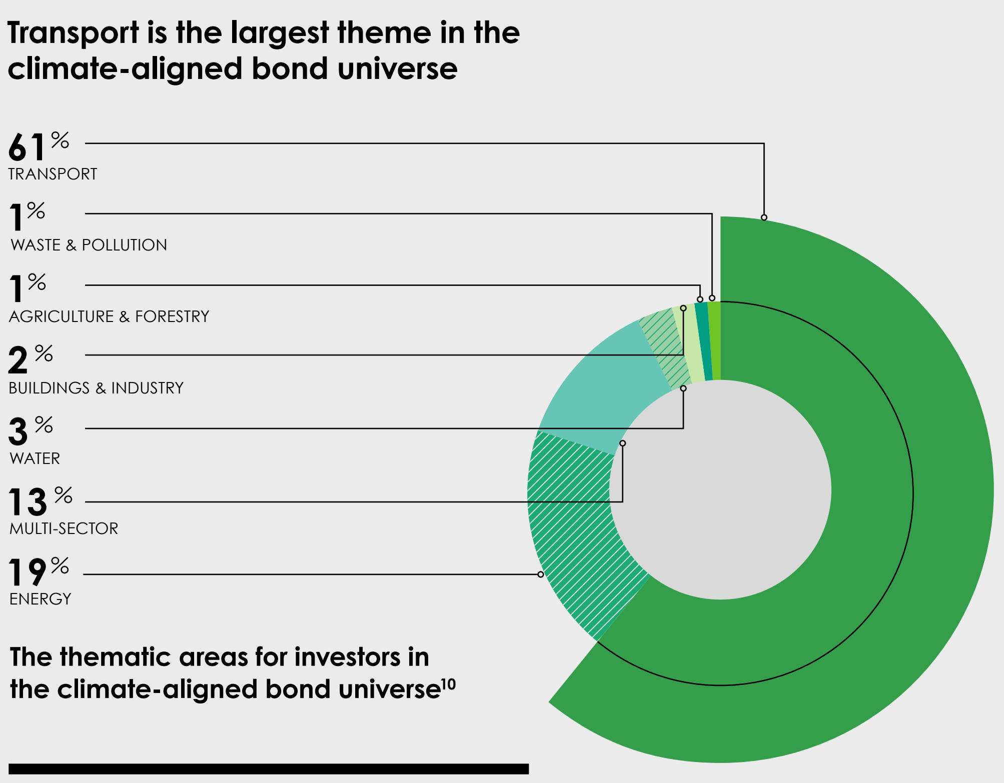


The main demand for green finance including bonds comes from the growing number of socially responsible investors (SRI). These investors seek to maximise their financial return while integrating social and environmental factors within their investment selection process.

Proportion of global SRI assets by region in 2016[9]



Transport is the largest theme in the climate-aligned bond universe



The thematic areas for investors in the climate-aligned bond universe[10]

THE DRIVERS OF GREEN FINANCE:

Ratification of the Paris agreement

The 2015 Paris Agreement, ratified by 169 countries, moved green finance and climate resilience onto investors' radars as it required national climate plans or nationally determined contributions (NDCs) and new financing approaches to meet these. IFC analysis estimates that the NDCs of 21 emerging market countries present an investment opportunity of $23trn between 2016 and 2030.[11]

The growing realisation of the material financial risk of not going green

A 2015 EIU report[12] estimated the potential impact on the value of assets from warming of 5°C could result in US$7trn in losses, while 6°C of warming could lead to a present value loss of US$43.2trn of manageable financial assets, roughly 10% of the global total. Climate change risks create liability risks and increase systemic macroeconomic risk.

A growing awareness that green growth spurs economic growth

Using green finance to develop climate solutions to build future economies with net zero greenhouse gas emissions is critical as the population grows; the world needs to spend $103.5trn[13] on infrastructure upgrades by 2030. If this spending is green, it could boost G20 economies by 4.6%[12] per year.

The UN commitment to achieve the sustainable development goals (SDGs)

The 17 Sustainable Development Goals (SDGs) adopted by 193 UN members in 2015 outline a series of environmental sustainability objectives to be achieved by 2030.

Generational shifts of attitude around the environment

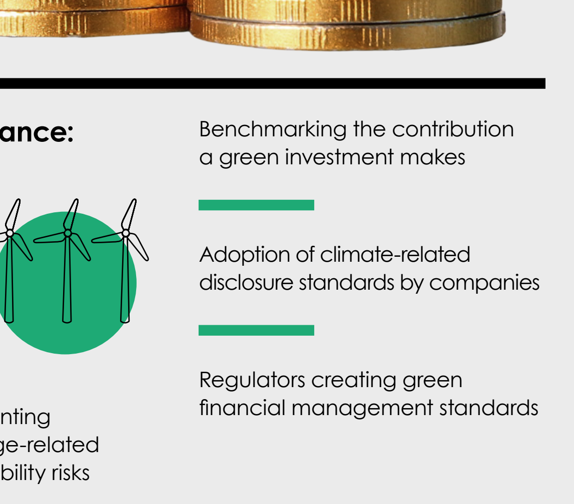
According to BlackRock[14], 67% of Millennials say they want investments to reflect their social and environments values. US SIF says social investment grew more than 33% between 2014 and 2016 in the US.

The need for portfolio diversification

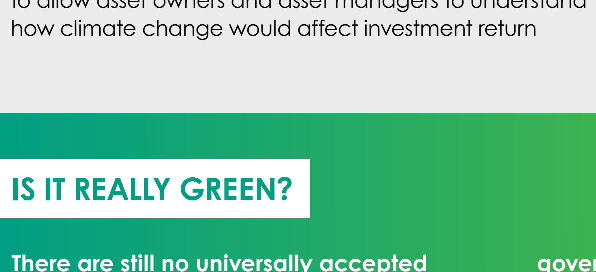
Holding green assets may reduce overall portfolio risk.

Changing national and regional regulation and legislation

In the EU, this means ensuring the capital markets union (CMU) uses green debt securities as tools to free up capacity on banks' balance sheet. In the US, the California State Insurance Commissioner launched the Climate Risk Carbon Initiative online database in January 2017.



What is needed to grow green finance:



Internationally accepted, integrated accounting standards which incorporate climate change-related risks would reduce investor and financial stability risks

Standardised and regulated scenario analysis is needed to allow asset owners and asset managers to understand how climate change would affect investment return

Benchmarking the contribution a green investment makes

Adoption of climate-related disclosure standards by companies

Regulators creating green financial management standards

IS IT REALLY GREEN?

There are still no universally accepted principles about what makes an investment green. Just one quarter of climate-aligned bonds in circulation is labelled specifically as 'green'. Investors should therefore be wary of 'green-washing'. This is when a company, government or other group claims the funds raised are being used towards an environmental initiative, but the actions are actually damaging to the environment or in contrast to the goal of the announced initiatives.

[1] http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf

[2,3,4] https://www.climatebonds.net/files/files/CBI-SotM_2017-Bonds%26ClimateChange.pdf

[5] http://www.climatebonds.net/files/files/Global_Green_Bonds_S1_Summary-2017.pdf

[6] https://www.climatebonds.net/resources/publications/bonds-climate-change-2017

[7] http://www.climatebonds.net/files/files/GB-Public_Sector_Guide-Final-1A.pdf" Climate Bonds Initiative/UNEP, Scaling up Green Bond Markets for Sustainable Development

[8] https://www.climatebonds.net/resources/publications/bonds-climate-change-2017

[9] http://www.gsi-alliance.org/wp-content/uploads/2017/03/GSIR_Review2016.F.pdf

[10] Climate Bonds Initiative, Bonds and Climate Change – The State of the Market 2017, September 2017

[11] https://www.ifc.org/wps/wcm/connect/51183b2d-c82e-443e-bb9b-68d9572dd48d/3503-IFC-Climate_Investment_Opportunity-Report-Dec-FINAL.pdf?MOD=AJPERES

[12] The cost of inaction: Recognising the value at risk from climate change https://www.eiuperspectives.economist.com/sustainability/cost-inaction/white-paper/cost-inaction

[13] OECD, Investing in Climate, Investing in Growth, June 2017 http://www.oecd-ilibrary.org/docserver/download/9717061e.pdf?expires=1510321872&id=id&accname=guest&checksum=38874D83A49CA53BA87E6EAA4419A977

[14] https://blackrockblogcom/2017/04/17/millennials-save-world-retirement/

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