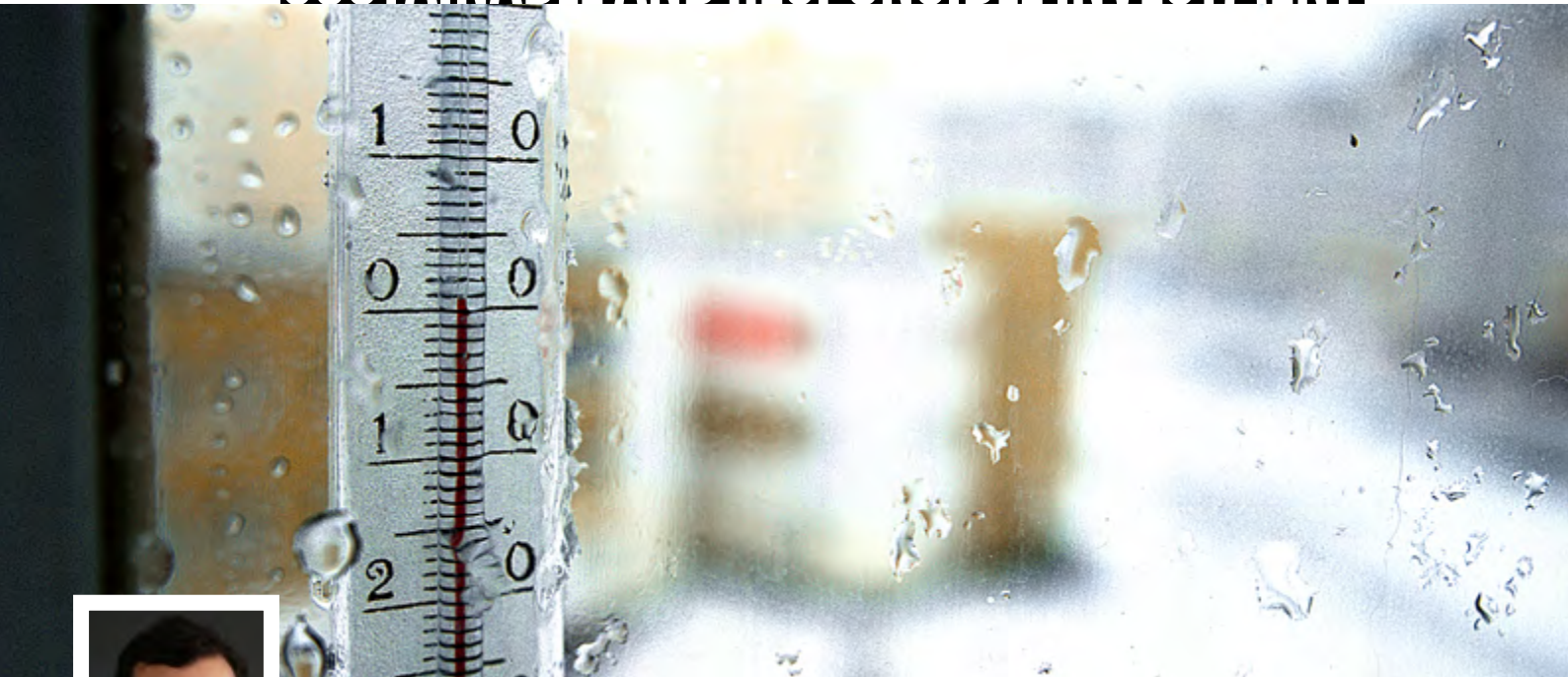


# SUSTAINABLE AND RESPONSIBLE INVESTMENT



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## Green bonds: a key financing tool for a world under 2°C

The International Energy Agency (IEA) estimates that between now and 2050<sup>1</sup>, USD 44 000 billion of investments, or USD 1.3 trillion a year, will be required to launch an energy transition towards a new economic system. By way of comparison, according to the European Fund and Asset Management Association (EFAMA)<sup>2</sup>, in 2014 the European asset management industry managed a total of USD 20 trillion, while asset managers worldwide managed USD 55 trillion. In this context, the financial sector has a leading role to play in mobilising the long-term financial assets needed to finance the energy transition.

<sup>1</sup> IEA, 2014. "World Energy Investment Outlook". Website: <https://www.iea.org/publications/freepublications/publication/WEIO2014.pdf>

<sup>2</sup> EFAMA, 2015. "Asset Management in Europe. 8th Annual Review". Pages 2, 12-14. Website: [https://www.efama.org/Publications/Statistics/Asset%20Management%20Report/150427\\_Asset%20Management%20Report%202015.pdf](https://www.efama.org/Publications/Statistics/Asset%20Management%20Report/150427_Asset%20Management%20Report%202015.pdf)

## How should assets be allocated to best tackle climate change?

According to the consulting firm Mercer<sup>3</sup>, given that 90% of the variation in a portfolio's returns can be attributed to asset allocation, the current situation is worrying because traditional asset allocation approaches are not capable of factoring in climate risk.

The Institutional Investor Group on Climate Change (IIGCC)<sup>4</sup> suggests two courses of action to deal with this situation and integrate climate risk into investment decisions on a permanent basis:

1. Climate risk management, which involves measuring portfolios' carbon intensity, and reducing investments in those sectors and assets which are highly impacted by major climatic events and strengthening environmental regulation.
2. To increase investment in sectors with a strong environmental impact, such as renewable energy infrastructure, energy efficiency and forestry, and developing appropriate investment vehicles such as green bonds, private equity and environmentally-themed funds<sup>5</sup>.

BNP Paribas Investment Partners believes that green bonds are a key tool for driving changes in the allocation of capital. We see these instruments as serving the interests of our clients. For these reasons, it is our goal to significantly increase the amount invested in these instruments as part of our strategy to tackle climate change<sup>6</sup>.

## Is a consensus emerging on the definition of green bonds?

A green bond is a debt instrument which differs from a so-called traditional bond in terms of the investment use for the capital raised. Typically, the financing raised through the issue of green bonds is used to finance or refinance environmental assets, projects or commercial activities<sup>7</sup>. Thanks to the contribution of self-regulated initiatives, a consensus is beginning to emerge around the definition of green bonds.

For example, the Green Bond Principles set out voluntary guidelines with the aim of promoting transparency and integrity in the green bond market. This initiative is the de facto benchmark for the green bond market, with four fundamental pillars that issuers can follow<sup>8</sup>:

1. use of proceeds
2. process for project evaluation and selection
3. management of proceeds
4. reporting

Other organisations, such as the Climate Bonds Initiative (CBI)<sup>9</sup> and the Global Real Estate Benchmark (GRESB)<sup>10</sup>, also offer sector guidelines to identify projects eligible for green bonds.

However, there is still work to be done to clarify and harmonise the various standards and thereby ensure that green bonds are effective in combating climate change and avoid any reputational or "green washing"<sup>11</sup> risk.



**The financial sector has a leading role to play in mobilising the long-term financial assets needed to finance the energy transition.**

3 Mercer, 2015. "Climate Change Scenarios - Implications for Strategic Asset Allocation". Pages 8 & 97. Website: <http://www.mercer.com/content/dam/mercer/attachments/global/investments/responsible-investment/Climate-change-scenarios-Implications-for-strategic-asset-allocation.pdf>

4 Institutional Investor Group on Climate Change - IIGCC, 2015. "Climate Change Investment Solutions: A Guide for Asset Owners", Page 11. Website: <http://www.iigcc.org/publications/publication/climate-change-investment-solutions-a-guide-for-asset-owners>

5 See inset on low-carbon products for details of our product offer.

6 See the description of our strategy for combating climate change in the article, "The Paris Pledge for Action", in SRI News Spring 2016, page 2.

7 International Capital Market Association, March 2015. "Green Bond Principles, 2015. Voluntary Process Guidelines for Issuing Green Bonds". Website: <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>

8 Ibid. page 3-4.

9 The CBI offers a detailed taxonomy of eligible projects, with currently available standards covering the solar and wind energy, construction and transport sectors. Website: <https://www.climatebonds.net/standards/about>

10 The property sector has an environmental performance measurement culture thanks to the implementation of "green building" benchmarks and certification, such as BREEAM, HQE and LEED. Website: <https://www.gresb.com/insights/2015/06/green-capital-for-greener-buildings-gresb-green-bond-guidelines-for-the-real-estate-sector/>

11 Website: <http://www.novethic.fr/isr-et-rse/actualite-de-lisr-isr-rse/obligations-vertes-les-investisseurs-appellent-a-la-standardisation-143791.html>

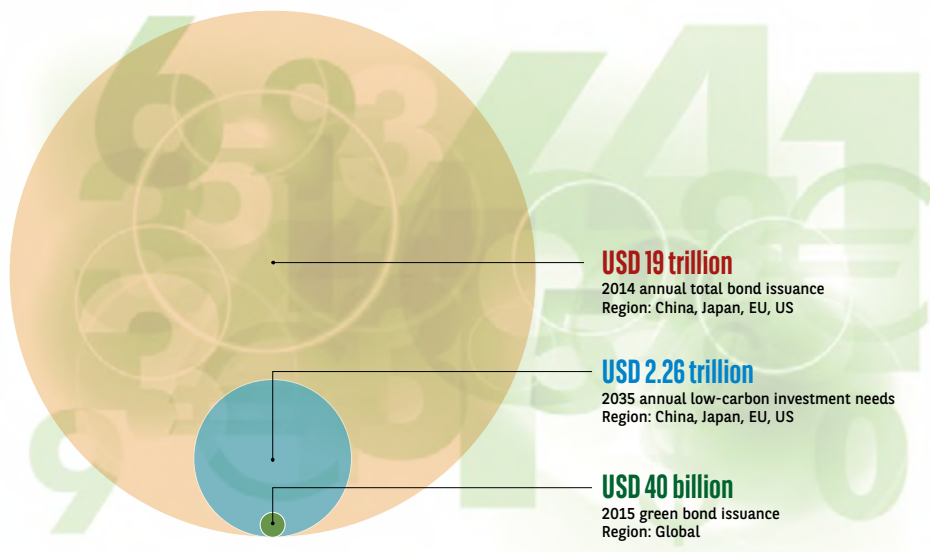


In December 2015, a working group comprising 11 international development agencies including the World Bank, the Agence Française de Développement and the European Investment Bank, developed a harmonised framework for impact reporting<sup>12</sup> for energy efficiency and renewable energy projects. This framework constitutes a first step towards the harmonisation of standards and the protection of the integrity of green bonds.

### Why are green bonds so important in financing the energy transition?

In 2014, global bond issuance totalled close to USD 19 trillion. One year later, the amount of green issuance had risen to USD 37 billion, with corporate issuers accounting for half of the value of green bond issuance in 2014.<sup>13</sup> Green bonds therefore represent less than 0.19% of overall bond issuance. So it is legitimate to ask why an instrument that today represents a minute proportion of the global bond market has so much potential for financing the energy transition.

#### EXHIBIT 1: LOW-CARBON INVESTMENT NEEDS, NEW BOND ISSUANCE AND GREEN BOND ISSUANCE (USD, ANNUAL)



Source: OECD - "Green bonds: Mobilising the debt capital markets for a low-carbon transition" - Policy perspectives - December 2015

The first reason is that today, the majority of infrastructure project financing is debt-based. According to McKinsey<sup>14</sup>, the average debt-to-equity ratio for a non-green infrastructure project is 70:30, while for renewable energy projects the proportion of debt can be up to 75:25.

The second reason lies in the capacity of bond markets to provide sources of cheap, long-term capital. Green bonds, for example, make it possible to raise funds directly in the capital markets without having to use a traditional financing structure organised by banks, which can be more expensive. According to the OECD<sup>15</sup>, the reduced cost of capital for renewable energy projects can have a material impact on the cost of producing this type of energy, as financial charges account for between 50% and 70% of production costs.

12 Website: <http://www.eib.org/attachments/press/20151202-0530-finalrevised-proposal.pdf>

13 CBI, 2015. "Bonds and climate change. The state of the market in 2015". Page 16. Website: <https://www.climatebonds.net/files/files/CBI-HSBC%20report%207July%20IG01.pdf>

14 McKinsey Global Institute, 2013. "Infrastructure productivity: How to save 1 trillion a year". 2016.

15 OECD, 2015. "Mobilising the debt capital markets for a low-carbon transition". Website: [http://www.oecd.org/environment/cc/Green%20bonds%20PP%20\[3\]%20\[tr\].pdf](http://www.oecd.org/environment/cc/Green%20bonds%20PP%20[3]%20[tr].pdf)

The third explanation is that debt products can be easily tailored to the needs of institutional investors. Indeed, bonds are the preferred asset class of OECD-country pension funds and insurance companies<sup>16</sup>, which respectively invested 53% and 64% of their portfolio in fixed income securities in 2013.

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### What is stopping the mass development of green bonds?

The obstacles most frequently cited by green bond market participants can be grouped by supply and demand factors<sup>17</sup>.

On the supply side, the insufficient number of low-carbon projects corresponding to climate change objectives is an often-cited factor, the relatively small size of the projects and the lack of aggregation mechanisms.

There are two types of demand-side constraints, the first being the perception of low-carbon projects as high-risk, particularly those undertaken in emerging countries. The second is the limited capacity among certain investors for analysing the long-term characteristics of green issuings.

### Fiduciary duty and support for the green bond sector

We are thus aware of the importance of green bonds as a crucial facilitator of a new asset allocation better aligned to the risks and opportunities of climate change. BNP Paribas Investment Partners is moving in this direction as part of its "2°C" strategy.

Firstly, the size of BNP Paribas Investment Partners' bond management activity represents a significant driver. The EUR 217 billion<sup>18</sup> we have invested in global fixed income markets enables us to leverage support for the sector and give our clients access to diversified green bond exposure, covering corporate bonds, project bonds, local and regional authority bonds, as well as asset-backed securities, covered bonds and sub-sovereign, supranational and quasi-government bonds.

In addition, we are committed to improving practices within the sector. In December 2015, BNP Paribas Investment Partners supported the "Paris Green Bonds Statement"<sup>19</sup>, an appeal to institutional investors representing more than USD 11.2 trillion of managed assets, aimed at encouraging issuers to work towards better harmonisation of standards in this sector.

Lastly, BNP Paribas Investment Partners participates via the European Commission and the Energy Efficiency Financial Institutions Group (EFFIG)<sup>20</sup> in working groups whose objective is to overcome obstacles to the mass development of green bonds related to the lack of an aggregation mechanism for energy efficiency projects in the European property and manufacturing sectors.



16 Ibid. Page 4.  
 17 Natixis, 2015. "Green Bonds II: Reality check. Analysis of Green Bond issues and reporting" Page 19.  
 18 Source: BNP Paribas Investment Partners, as at the end of March 2016  
 19 Website: <http://www.climatebonds.net/resources/press-releases/Paris-Green-Bonds-Statement>  
 20 EFFIG, 2015. "Energy Efficiency - the first fuel for the EU Economy. How to drive new finance for energy efficiency investments". Website: <http://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20EFFIG%20v%209.1%2024022015%20clean%20FINAL%20sent.pdf>



It is our fiduciary duty to ensure investments' sustainability and manage the associated risks. Today, we have entered the Paris "post-adoption" era, this means increasing support for the green bond sector and increased exposure to products with a positive environmental impact.

**Fiduciary duty and support for the green bond sector**

**GREEN PFANDBRIEF - COVERED BONDS**

Issuer	Berlin Hyp AG
Ticker	BHH Corp
Issue date	27 April 2015
Term	7 years
Size	EUR 500 million
Second opinion	oekom research AG
ESG -Sustainability team opinion	Berlin Hyp has made the innovative move of issuing the first-ever covered mortgage bond (Pfandbriefe).  Berlin Hyp selects for its portfolio property assets that have obtained a good level of environmental certification such as BREEAM, LEED or DGNB. The issuer has committed to improving the average level of certification through acquisitions or renovation work.

**GREEN ASSET-BACKED SECURITIES**

Issuer	Renovate America Inc. SPV – Hero Funding Trust
Ticker	HERO 2013-3A A Mtge
Issue date	25 November 2015
Term	25.5 years
Size	USD 217 million
Second opinion	Sustainalytics
ESG – Sustainability team opinion	This is Renovate America’s first green bond securitisation of loans covered by Property Assessed Clean Energy (PACE), a Californian residential sector energy efficiency programme.  An innovative aspect of the PACE programme is that the loan is attached to the property rather than the individual. This involves financing energy improvement projects with municipal tax revenues, which protects the bondholders in the event of default.





## LOW-CARBON PRODUCT OFFER

We have so far invested:

- ✓ Almost EUR 2 billion in exclusively environmentally-focused businesses (source: BNP Paribas Investment Partners, ESG research team - 31/12/2015).
- ✓ EUR 567 million in green bonds (as of 31/12/2014).
- ✓ EUR 65 million (as of 30/12/2015) in our low carbon strategy, launched in 2008, which tracks the performance of the Euronext Low Carbon 100 Europe index.
- ✓ EUR 15.5 billion (31/12/2015) in large and medium-cap companies which are best placed in their respective sectors to reduce their emissions. For carbon-intensive sectors such as utilities, CO<sub>2</sub> management accounts for 56% of the overall rating; thermal coal mining is prohibited and a policy on coal power has been implemented.
- ✓ EUR 840 million (31/12/2015) in ESG (environmental, social and governance) sovereign bonds for which national strategies and performance in carbon reduction and energy efficiency represent 42.5% of the overall score that determines their eligibility.

