GBP SBP
Databases and Indices Working Group

Summary of
Green – Social - Sustainable Bonds
Database Providers

June 2018
This material was prepared by the GBP-SBP Databases & Indices Working Group, coordinated by BNP Paribas and HSBC, with support from ICMA.

The Group expresses special thanks to the database providers, who were invited to comment on material relating to their organisation.

The working group consisted of the following organisations during mid-2017 to mid-2018:

**Working Group Coordinators:**

BNP Paribas
HSBC

**Working Group Members:**

Bank of America Merrill Lynch
California State Teachers’ Retirement System (CalSTRS)
European Investment Bank (EIB)
Natixis

This material is neither intended to be exhaustive nor restrictive. Database providers who do not appear in this material are invited to provide the Working Group with information in order to complete it.

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## Summary of Green/Social/Sustainable Bonds Databases

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<th>Information provided</th>
<th>Bloomberg</th>
<th>Climate Bonds Initiative</th>
<th>Cbonds</th>
<th>Dealogic</th>
<th>Environmental Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface accessibility</td>
<td>Bloomberg Terminal</td>
<td>Internet browser</td>
<td>Web-site, mobile application, Excel Add-In. Data in any structure forms</td>
<td>Internet browser</td>
<td>Internet browser</td>
</tr>
<tr>
<td>Number of green bonds as of Q1 2018</td>
<td>7,189 (includes all tranches, pools and bonds), 1,998 corporate and government green bonds</td>
<td>2549 deals (1)</td>
<td>670 tranches</td>
<td>1,091</td>
<td>1,432</td>
</tr>
<tr>
<td>GBPs alignment mandatory or optional?</td>
<td>Mandatory alignment with Use of Proceeds principle. Other principles not a requirement but compliance is captured in additional data fields</td>
<td>Optional framework and external review. Mandatory with respect to asset types (2)</td>
<td>Mandatory</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Number of social or sustainability bonds as of Q1 2018</td>
<td>81</td>
<td>None (3)</td>
<td>Included in Green bonds database</td>
<td>Social Bonds: 58</td>
<td>Sustainability Bonds: 43</td>
</tr>
<tr>
<td>SBPs alignment mandatory or optional?</td>
<td>Mandatory alignment with Use of Proceeds principle. Other principles not a requirement.</td>
<td>Not applicable</td>
<td>Mandatory</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Pureplayers</td>
<td>Included for green bonds with possibility to filter them out. Not included for social or sustainability bonds</td>
<td>Yes if labelled (4)</td>
<td>No</td>
<td>Renewable available: possibility of filtering in and subcategorise. Ongoing discussions on other pureplayer taxonomy</td>
<td>Not included - planning on including them once taxonomy developed</td>
</tr>
<tr>
<td>Description of Use of Proceeds</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ex-post reporting status disclosed/follow up</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Documentation</td>
<td>Final terms, prospectus, bond frameworks, external reviews</td>
<td>External reviews, frameworks, links to press releases/articles</td>
<td>Propectus, Final terms, Tender offer, Press releases</td>
<td>Final Terms, Prospectus, Second Opinions, Frameworks</td>
<td>Investor presentations, Frameworks, Second opinions, Press releases, Final terms, Prospectus, Assurance statements, Deal Flashes, Reporting</td>
</tr>
<tr>
<td>Links to articles/analysis</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Ability to arrange/filter data</td>
<td>Yes + Excel Exportability</td>
<td>Yes (partners site access)</td>
<td>Yes + Excel exportability</td>
<td>Yes + Excel exportability</td>
<td>Yes + Excel Exportability</td>
</tr>
<tr>
<td>Ability to respond to queries</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other information</td>
<td>Ability to perform real-time analytics on green bond/portfolio price, yield, performance, liquidity, volatility</td>
<td>We have two databases. The free public database has a limited number of fields. The partners’ database has more fields and is available for download.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Multi-tranche (e.g. ABS) or multi-bond deals (e.g US Muni) are counted as one deal in the main database, and individual constituent tranches/bonds are tracked separately. Taps of the same bond are treated as separate deals. Total bond count is much higher than the number of deals.

(2) GBP, GLP or labelled with appropriate assets. Labelling can be in a press release, prospectus, green bond assessment by Moody’s, green evaluation by S&P, etc.

(3) Sustainability bonds are included as green bonds if at least 95% intended to go to climate related projects.

(4) If they label the bond (e.g. press release) and/or call it green in bond documentation (e.g. prospectus) - e.g. US Muni water agencies.
Green Flag/ Taxonomy
Bloomberg tags bonds with the ‘Green Bond’ label in the use of proceeds field when an issuer a) self-labels its bond as ‘green’, or b) identifies it as an environmental sustainability-oriented bond issue with clear additional statements about the commitment to deploy funds towards projects and activities in the Green Bond Principles use of proceeds categories. Compliance with the GBP on the use of proceeds only: 100% of use of proceeds need to be aligned with the green activities, which are consistent with GBP activities. Bloomberg does not require additional reporting/assurance provider/project selection/management of proceeds for the bond to be included. However, Bloomberg tracks and discloses bond alignment to these three additional components of the Green Bond Principles. Bloomberg observes specific exclusions for green bonds’ use of proceeds including – but not limited to – those involving coal and nuclear.

Social Flag/ Taxonomy
Bloomberg tags bonds with the ‘Social Bond’ label in the use of proceeds field when an issuer a) markets their bond as a social bond, and b) clearly and transparently communicates that 100% of the proceeds will be invested in projects or activities that promote improved social welfare and positive social impact directly for vulnerable, marginalized, underserved, or otherwise excluded or disadvantaged populations. Compliance with the SBP on the use of proceeds only: 100% of use of proceeds need to be invested in market-accepted social activities with a target population. However, Bloomberg does not require additional reporting/assurance provider/project selection/management of proceeds for the bond to be included.

Sustainability Flag/ Taxonomy
Bloomberg tags bonds with the ‘Sustainability Bond’ label in the use of proceeds field when an issuer a) markets their bond as a sustainability bond, and b) clearly and transparently communicates that 100% of the proceeds will be invested in a mixture of projects or activities that promote improved social welfare and positive social impact directly for vulnerable, marginalized, underserved, or otherwise excluded or disadvantaged populations and projects or activities that promote environmentally-sustainable outcomes. Compliance with the Sustainability Bond Guidelines on the use of proceeds only: 100% of use of proceeds need to be invested in market-accepted green and social activities with a target population. However, Bloomberg does not require additional reporting/assurance provider/project selection/management of proceeds for the bond to be included.

Governance Process
- Green, Social and Sustainability Bond data governance process: tagging

Bloomberg’s relies on an issuer’s self-labeling in its issuance documentation and/or in official public communications that illustrate:
1. The bond’s use of proceeds are 100% dedicated towards environmental sustainably-oriented activities consistent with the GBP categories
2. If the issuer intends to meet certain criteria with respect to management of proceeds, transparency and/or reporting, those are identified in the database
Bloomberg requires a term sheet or prospectus containing a ‘use of proceeds’ section. Side letter; Syndicate email/Official statement from issuer; framework/SPO are optional.
**Bonds included**

**Pureplays:** In some instances where Bloomberg is fully confident that the issuer is a ‘pure-play’ (i.e. that all the company’s business activities fit solely within the list of accepted green activities), then Bloomberg may consider applying a green bond label on an issue-by-issue basis. Filter can be applied to exclude them.

**Instrument type:** ABSs, project bonds, Green Guarantees, Private Placements

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**Green Bond Portfolios**

Bloomberg provides 7 curated portfolios to allow clients to select bonds with alignment to the GBP. The portfolios are available for download on the Terminal and are categorised as follows:

1. Labelled Use of proceed corporate or government green bond
2. Labelled Asset or mortgaged backed green securities
3. Labelled Project bonds
4. Labelled U.S. Municipal green bonds
5. Unlabelled U.S. Municipal green bonds
6. Labelled pure-play green bonds
7. Unlabelled use of proceed, mortgage backed, project, pure play green bonds
**User experience**

**Interface**
Accessible on Bloomberg terminal

**Typical deal page**

1) Bond landing page (DES)

2) Use of Proceeds Indicator
3) Involved party description

4) Green Bond third party disclosures and reports attached

5) Addition component of GBP disclosure/alignment
Guide to Green Bonds on the Terminal

Understanding the Bloomberg Green Bond Universe
Dan Shurey
January 22, 2018

Social and Sustainability Bonds on the Terminal

Guide to Bloomberg’s tag
March 2018
Green Flag/ Taxonomy

Climate Bonds Initiative (CBI) database lists all bonds that are aligned with the Green Bond Principles (GBP) and their Climate Bonds Taxonomy. CBI’s taxonomy provides an overarching view on what is considered eligible use of proceeds for green bonds.

CBI’s taxonomy is available on: https://www.climatebonds.net/standards/taxonomy

Governance Process

The Markets Team reviews new self-labelled Green Bonds for alignment with the Green Bond Principles and CBI’s own taxonomy. For bonds which green credentials are more difficult to establish, the Markets Team reviews the case with the wider CBI teams, and on occasions with external experts, for confirmation.

Climate Bonds green bond database inclusion assessment explained

![Flowchart](chart.png)

The Climate Bonds Initiative screens labelled green bonds for inclusion in the CBI green bond database.

**Step 1: Identify the green bond**

The issuer of a green bond must declare that the bond is intended to be environmentally beneficial through labelling the bond. The most commonly used label is ‘green’, but other labels such as climate-awareness, climate, environmental, solar, SDG and sustainability are also eligible. The label should appear in a public document such as a press release, a green bond framework or review, the bond prospectus or by obtaining a green bond assessment, green evaluation or other green bond rating.

While we commonly refer to debt instruments included in the CBI green bond database as “bonds”, any debt format is acceptable, including sukuk, Schuldschein, loans, securitisations deals or tranches. As long as it’s green!
Step 2: Screen green projects or assets for adherence to the Climate Bonds Taxonomy
Each bond is reviewed based on the green credentials of use of proceeds. This may be earmarked proceeds for asset-linked, senior unsecured or secured bonds, projects funded by a project bond, or assets backing an ABS or secured debt. The key is that the asset is green.

At issuance, the issuer must declare the eligible asset/project categories. Most issuers specifically link their deal and green bond framework to the ICMA Green Bond Principles and obtain an external review to confirm alignment to the GBP. Going forward and alternative will the LMA Green Loan Principles in the case of loans. However, compliance with GBP or GLP does not automatically mean that the categories are aligned to Climate Bonds database inclusion criteria as the principles are indicative in respect of eligible assets, whereas CBI excludes certain assets such as fossil fuel energy, including clean coal.

Step 3: Evaluate the use of proceeds
We only include bonds with at least 95% proceeds dedicated to green projects that are aligned with the Climate Bonds Taxonomy. If more than 5% of the proceeds are used for ‘general corporate purposes’, working capital, social projects or projects that do not align to the Climate Bonds Taxonomy, the bond will not be eligible for inclusion. Lack of sufficient information to determine this also results in exclusion.

If there is insufficient information at issue, CBI will attempt to obtain further information from parties involved in the deal and the deal itself is marked as “pending”. If no further information is obtained or it is unsatisfactory, the deal will be excluded at the end of the quarter.

Previously excluded bonds may be re-classified if satisfactory information on the use of proceeds is obtained at a later date. Conversely, previously included deals may be excluded if reporting shows that the actual use of proceeds is not aligned to the framework and intended use of proceeds.

Step 4: Ongoing updates
Information on included and excluded bonds is now provided in our market blogs. The free public database and the partners database (see user interface below) are updated weekly.

Green Bonds - Included
Sustainability Bonds – May be included if they are climate focused (95%+ of proceeds)
Social Bonds – Not included

Instrument type: any debt instrument is acceptable as long as it links to assets aligned to the Climate Bonds Taxonomy. Debt instruments already featured in the database include but are not limited to senior unsecured and secured bonds, bonds under MTN/EMTN programmes, all forms of ABS, hybrids, perpetuals, private placements, Schuldschein, sukuk, all types of sovereign bonds, debentures, CPs, retail bonds and loans.

Pureplayers and project finance bonds and loans are included if labelled. Otherwise, project bonds are recorded separately on an ad hoc basis, and are not included in the online database. Pureplayers are tracked in our climate-aligned bond universe and analysed in our annual global state of the market report.

We also monitor and record repack deals, although these are not included in the database to avoid double-counting. An example of these are Fannie Mae REMICs which invest in Fannie Mae Green MBS (included in the database). Another case is IFC issuing green bonds to refinance/fund its investment in green bonds, e.g. its purchase of green bonds issued by Yes Bank (India).
User experience

Interface
Accessible on Internet Browser – free public access

Climate Bonds

Labelled green bonds data

Labelled green bonds are bonds that earmark proceeds for climate or environmental projects and have been labelled as ‘green’ by the issuer. The Climate Bonds Initiative has been tracking the green labelled market since 2009. Most of our public reporting on the market to date has been through the Climate Bonds blog and our annual State of the Market report.

Please note the following points about the data:
- The purpose of this database is to track all self-labelled green bonds, but it does not provide an opinion on whether the Climate Bonds Initiative agrees with this label.
- Second Barton documents are listed when publicly available (on a best efforts basis).
- More analysis on each bond is available via the Climate Bonds blog.
- Please note that additional “best” of the same bond are listed separately.
- Data is updated periodically and is therefore not live data.

Additional data points including issuers are available through Climate Bonds Partners through the Partner Zone of the website. To learn more about becoming a partner, click here.

For any other queries on the data provided, please visit the Data Requests page and complete the relevant form.

Bonds

<table>
<thead>
<tr>
<th>Name</th>
<th>Climate Bonds Certified</th>
<th>Amount Issued</th>
<th>Currency</th>
<th>Issue Date</th>
<th>Maturity</th>
<th>Independent Review</th>
<th>Independent Review Link</th>
<th>Blog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republic of France</td>
<td>1,096,000,000</td>
<td>DKK</td>
<td>Apr-18</td>
<td>Jun-29</td>
<td>Yes</td>
<td>Available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koenig</td>
<td>900,000,000</td>
<td>JPY</td>
<td>Apr-18</td>
<td>Apr-22</td>
<td>No</td>
<td>CERDO</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>VOP</td>
<td>100,000,000</td>
<td>EUR</td>
<td>Mar-18</td>
<td>Mar-29</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Climate Bonds

Bond Library

New issuers

The purpose of this database is to provide a comprehensive overview of new green bond issuers entering the market. The analysis and commentary of each new issuer covers:
- Details bond information
- Links to Green Bond Framework and external review documents (when publicly available)
- Issuer background
- Historical records of the debut bond
- Use of proceeds
- Climate Bonds view
- Underwriters
- Deal comments

October 2017:
- Eidasina Energi - NOK/750m (USD94m)

November 2017:
- Intersnack Cambridge and Nattus Assurances - EUR460 (USD537.7m)
- Østerburg Municipality - SEK600m (USD96m)

January 2018:
- Muthijaya Group Barud (Shah Kamal) - MYR245m (USD63m)
- SGI Astana 5th Bhd - MYR415m (USD104m)
Interface

Accessible on Internet Browser – partners site access
Welcome to the Climate Bonds Partner Zone.
The tabs below provide information about the green bond market including summary charts, data and other resources.

The table below shows green bond data from 2007 to present.
Filter the data by using the arrows next to each column heading or by typing in the box at the top of any of the column headings. Pre-filtered data can be downloaded using the download button.

**Bonds**

<table>
<thead>
<tr>
<th>Issuer Name</th>
<th>Amount Issued</th>
<th>USD Amount Issued</th>
<th>Currency</th>
<th>Issue Date</th>
<th>Country</th>
<th>Second Opinion Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBI</td>
<td>600m</td>
<td>800m</td>
<td>EUR</td>
<td>2007-09-27</td>
<td>SNAT</td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>2m</td>
<td>31m</td>
<td>EUR</td>
<td>2010-03-05</td>
<td>SNAT</td>
<td>second opinion</td>
</tr>
<tr>
<td>ECB</td>
<td>16m</td>
<td>23m</td>
<td>EUR</td>
<td>2011-05-18</td>
<td>SNAT</td>
<td>second opinion</td>
</tr>
<tr>
<td>World Bank</td>
<td>20m</td>
<td>28m</td>
<td>EUR</td>
<td>2011-07-12</td>
<td>SNAT</td>
<td>second opinion</td>
</tr>
<tr>
<td>Bn de France</td>
<td>350m</td>
<td>475m</td>
<td>EUR</td>
<td>2012-03-26</td>
<td>FRANCE</td>
<td></td>
</tr>
<tr>
<td>Provence-Alpes-C</td>
<td>120m</td>
<td>146m</td>
<td>EUR</td>
<td>2012-07-11</td>
<td>FRANCE</td>
<td></td>
</tr>
<tr>
<td>Nord-Pas de Calais</td>
<td>80m</td>
<td>103m</td>
<td>EUR</td>
<td>2012-09-30</td>
<td>FRANCE</td>
<td></td>
</tr>
<tr>
<td>EBI</td>
<td>650m</td>
<td>855m</td>
<td>EUR</td>
<td>2013-07-17</td>
<td>SNAT</td>
<td></td>
</tr>
<tr>
<td>Kreditbank</td>
<td>50m</td>
<td>67m</td>
<td>EUR</td>
<td>2013-08-19</td>
<td>GERMANY</td>
<td></td>
</tr>
<tr>
<td>EBI</td>
<td>280m</td>
<td>345m</td>
<td>EUR</td>
<td>2013-10-23</td>
<td>SNAT</td>
<td></td>
</tr>
<tr>
<td>FMO</td>
<td>500m</td>
<td>674m</td>
<td>EUR</td>
<td>2013-11-13</td>
<td>NETHERLANDS</td>
<td></td>
</tr>
<tr>
<td>EIB</td>
<td>1,400m</td>
<td>1,991m</td>
<td>EUR</td>
<td>2013-11-27</td>
<td>FRANCE</td>
<td></td>
</tr>
<tr>
<td>NRW Bank</td>
<td>250m</td>
<td>349m</td>
<td>EUR</td>
<td>2013-11-28</td>
<td>GERMANY</td>
<td></td>
</tr>
<tr>
<td>EBI</td>
<td>350m</td>
<td>479m</td>
<td>EUR</td>
<td>2014-01-14</td>
<td>SNAT</td>
<td></td>
</tr>
<tr>
<td>Nordic Investm</td>
<td>40m</td>
<td>555m</td>
<td>EUR</td>
<td>2014-02-11</td>
<td>SNAT</td>
<td></td>
</tr>
</tbody>
</table>

Source: CBI
**Green Flag/ Taxonomy**
We have a field in our database: green bond (yes/no). Cbonds use Green bond principles when mark a new issue as a green bond.
We do not cover Green bonds which:
1) Less than $30 mln (Exceptions: emerging markets and supranationals);
2) Maturity less than 1 year.

**Governance Process**
Our managers analyzed issue documents and the purpose of the issuer, then decide whether bond is a green one or not. Cbonds decisions based on extra details in the attached prospectus and others documents, news and official sites of issuer for understanding main goal of emission. New XS and US issues we add on the next day after pricing date. Domestic bonds are adding up to one week after pricing.

**Bonds included**
- Green Bonds
- Social/Sustainable Bonds

**User experience**
**Interface**
Accessible on Internet Browser, in mobile application, Excel Add-In, in any structured formats.
### International bonds: Apple, 3% 20Jun2027, USD (US037833CX61, 037833CX6)

<table>
<thead>
<tr>
<th>Status</th>
<th>Country of risk</th>
<th>Maturity (applicable)</th>
<th>Amount</th>
<th>Issue ratings (Moody's/Fitch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>outstanding</td>
<td>USA</td>
<td>06/20/2027 (03/20/2027)</td>
<td>1,000,000,000 USD</td>
<td>Aa2/A+/F+</td>
</tr>
</tbody>
</table>

**Issue Information**

- **Borrower**: Apple
- **Bond type**: Coupon bonds
- **Placement method**: Open subscription
- **Placement type**: Public
- **Par/Integral multiple**: 1,000 USD
- **Nominal of international bonds**: 1,000 USD
- **Minimum settlement amount**: 2,000 USD
- **Outstanding principal amount**: 2,000 USD
- **Amount**: 1,000,000,000 USD

**Related issues**

- Apple, 2.4% 5May2023, USD
- Apple, 1% 5May2038, USD
- Apple, 4.65% 23Feb2046, USD
- Apple, 3.25% 25Jun2026, USD
- Apple, 3.875% 4May2043, USD

**View all issues of the issuer**

### Cbonds Valuation

#### Trading floor

<table>
<thead>
<tr>
<th>Date and time</th>
<th>Bid/ask price (Yield)</th>
<th>Indicative price (Yield)</th>
<th>T-spread, bp</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/09/17</td>
<td>99.3309 / 99.6690</td>
<td>99.5995 (3.07)</td>
<td>85.24</td>
</tr>
</tbody>
</table>

**Historic bond trading data**

#### Cbonds Estimation

- **From**: 2017/06/15
- **To**: 2017/06/29

**Prices**

- 100.5%
- 99.9%
- 99.5%
- 98.9%
- 98.5%
- 98.1%
- 97.7%
- 97.3%
- 96.9%
- 96.5%
- 96.1%
- 95.7%
- 95.3%
- 94.9%
- 94.5%
- 94.1%
- 93.7%
- 93.3%
- 92.9%
- 92.5%
- 92.1%
- 91.7%
- 91.3%
- 90.9%
- 90.5%
- 90.1%
- 89.7%
- 89.3%
- 88.9%
- 88.5%
- 88.1%
- 87.7%
- 87.3%
- 86.9%
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- 85.7%
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- 79.7%
- 79.3%
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- 76.9%
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- 74.1%
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- 69.7%
- 69.3%
- 68.9%
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- 53.7%
- 53.3%
- 52.9%
- 52.5%
- 52.1%
- 51.7%
- 51.3%
- 50.9%
- 50.5%
- 50.1%
- 49.7%
- 49.3%
- 48.9%
- 48.5%
- 48.1%
- 47.7%
- 47.3%
- 46.9%
- 46.5%
- 46.1%
- 45.7%
- 45.3%
- 44.9%
- 44.5%
- 44.1%
- 43.7%
- 43.3%
- 42.9%
- 42.5%
- 42.1%
- 41.7%
- 41.3%
- 40.9%
- 40.5%
- 40.1%
- 39.7%
- 39.3%
- 38.9%
- 38.5%
- 38.1%
- 37.7%
- 37.3%
- 36.9%
- 36.5%
- 36.1%
- 35.7%
- 35.3%
- 34.9%
- 34.5%
- 34.1%
- 33.7%
- 33.3%
- 32.9%
- 32.5%
- 32.1%
- 31.7%
- 31.3%
- 30.9%
- 30.5%
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- 29.7%
- 29.3%
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- 28.5%
- 28.1%
- 27.7%
- 27.3%
- 26.9%
- 26.5%
- 26.1%
- 25.7%
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- 23.7%
- 23.3%
- 22.9%
- 22.5%
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- 21.3%
- 20.9%
- 20.5%
- 20.1%
- 19.7%
- 19.3%
- 18.9%
- 18.5%
- 18.1%
- 17.7%
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- 16.5%
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- 14.5%
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- 10.9%
- 10.5%
- 10.1%
- 9.7%
- 9.3%
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- 8.1%
- 7.7%
- 7.3%
- 6.9%
- 6.5%
- 6.1%
- 5.7%
- 5.3%
- 4.9%
- 4.5%
- 4.1%
- 3.7%
- 3.3%
- 2.9%
- 2.5%
- 2.1%
- 1.7%
- 1.3%
Stock exchange and OTC quotes

<table>
<thead>
<tr>
<th>Trading floor</th>
<th>Date and time</th>
<th>Bid/ask price (Yield)</th>
<th>Indicative price (Yield)</th>
<th>T-spread, bp</th>
</tr>
</thead>
<tbody>
<tr>
<td>US OTC MARKET</td>
<td>08/09/17</td>
<td>99.4990 / 99.6600 (3.08 / 3.06)</td>
<td>101.0000 (2.30)</td>
<td>68.54</td>
</tr>
<tr>
<td>FRANKFURT SE</td>
<td>08/09/17</td>
<td>- (-) / -</td>
<td>99.4500 (3.09)</td>
<td>87.04</td>
</tr>
<tr>
<td>BERLIN EXCHANGE</td>
<td>08/09/17</td>
<td>99.5300 / 99.9400 (3.08 / 3.03)</td>
<td>99.5800 (3.07)</td>
<td>85.47</td>
</tr>
<tr>
<td>STUTTGART EXCHANGE</td>
<td>08/09/17</td>
<td>99.4800 / 99.9900 (3.08 / 3.02)</td>
<td>99.6000 (3.07)</td>
<td>85.25</td>
</tr>
<tr>
<td>DUSSELDORF SE</td>
<td>08/10/17</td>
<td>99.9200 / - (3.03 / -)</td>
<td>()</td>
<td></td>
</tr>
<tr>
<td>MUNICH SE</td>
<td>08/09/17</td>
<td>- (-) / -</td>
<td>99.6600 (3.06)</td>
<td>84.51</td>
</tr>
<tr>
<td>OTHER SOURCES OF PRICES</td>
<td></td>
<td>- (-) / -</td>
<td>99.8133 (3.04)</td>
<td>82.17</td>
</tr>
</tbody>
</table>

Bond classification

- Subordinated: X
- Sinking fund: X
- Perpetual: X
- Convertible: X
- Structured product: X
- Restructuring: X
- Securitization: X
- MBS: X

Covered: X
Foreign bonds: X
Government bonds: X
Sukuk: X
Retail bonds: X
Supranational bond issues: X
Green bonds: X
Non-market issues: X

Codes

- ENS RegS: US037813CN61
- CUSIP RegS: 037813CN6
- FIGI: BBG01CX4H29
- WKN code: A19WAP
- Ticker: AAPL
- Spread over US Treasuries, bp: 82.00

Primary placement

Issuer rating on issue date (Moody's): Aa1/AA+/-
Initial price (yield): 99.699% (-)
Placement: 06/13/2017
Spread over US Treasuries, bp: 82.00

Participants

- Bank: America Merrill Lynch, Goldman Sachs, J.P. Morgan
- Depository: Euroclear Bank, Clearstream Banking S.A.

Payment schedule

<table>
<thead>
<tr>
<th>Coupon date</th>
<th>Coupon, %</th>
<th>Coupon size, USD</th>
<th>Redemption of principal, USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 12/20/2017</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2 06/20/2018</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>3 12/20/2018</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>4 06/2019</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>5 12/2019</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>6 06/2020</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Show following

Early redemption terms

call make whole @ 12.5 vs. UST prior to 20.01.2017;

<table>
<thead>
<tr>
<th>Date</th>
<th>Option type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/20/2017</td>
<td>call</td>
<td>100</td>
</tr>
</tbody>
</table>
Issuer information

### Issuer information

**Company:** Apple

**Full company name:** Apple Inc.

**Country of risk:** USA

**Country of registration:** USA

**Industry:** Information and High Technologies

**Address:** 1 Infinite Loop, Cupertino, CA 95014


**Profile**

Apple Inc. (Apple), along with its subsidiaries, is engaged in designing, manufacturing and marketing mobile communication and media devices, personal computers, and portable digital music players. It also sells a range of related software, services, peripherals, networking solutions, and third-party digital content and applications. The Company's products and services include iPhone, iPad, Mac, iPod, Apple TV, a portfolio of consumer and professional software applications, the iOS and Mac OS X operating systems, iCloud, and a range of accessory, service and support offerings.

**News and documents**

**Organization news:**

- **08/14/2017** - New bond issue: Apple issued international/bonds for USD 1,000.0m maturing in 2027 with a 3% coupon.
- **05/15/2017** - New bond issue: Apple issued international/bonds for EUR 1,250.0m maturing in 2025 with a 1.575% coupon.
- **05/10/2017** - New bond issue: Apple issued international/bonds for EUR 1,250.0m maturing in 2025 with a 0.675% coupon.
# Issuer Credit Rating

<table>
<thead>
<tr>
<th>Rating Agency</th>
<th>Rating</th>
<th>Rating Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moody's Investors Service</td>
<td>Aa1/Stable</td>
<td>LT-Foreign currency</td>
<td>04/27/2016</td>
</tr>
<tr>
<td>S&amp;P Global Ratings</td>
<td>AA/Stable</td>
<td>Foreign Currency LT</td>
<td>04/23/2013</td>
</tr>
<tr>
<td>S&amp;P Global Ratings</td>
<td>AA/Stable</td>
<td>Local Currency LT</td>
<td>04/23/2013</td>
</tr>
</tbody>
</table>

## Outstanding Bond Issues Amount

<table>
<thead>
<tr>
<th>Currency</th>
<th>Outstanding Bond Issues</th>
<th>Cumulative Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD</td>
<td>6</td>
<td>3,675,000,000</td>
</tr>
<tr>
<td>CHF</td>
<td>2</td>
<td>1,260,000,000</td>
</tr>
<tr>
<td>EUR</td>
<td>6</td>
<td>7,300,000,000</td>
</tr>
<tr>
<td>GBP</td>
<td>2</td>
<td>1,250,000,000</td>
</tr>
<tr>
<td>JPY</td>
<td>1</td>
<td>230,000,000,000</td>
</tr>
<tr>
<td>USD</td>
<td>51</td>
<td>60,377,000,000</td>
</tr>
</tbody>
</table>

## Debentures

<table>
<thead>
<tr>
<th>Emission</th>
<th>Volume, USD</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple 3% 20/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 0.675% 24/07, EUR</td>
<td>1,260 EUR</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 1.375% 24/07, EUR</td>
<td>1,250 EUR</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 3.2% 1/07, USD</td>
<td>2,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 1.6% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 1.6% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 2.3% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 2.3% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 2.8% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
<tr>
<td>Apple 4.3% 1/07, USD</td>
<td>1,000 USD</td>
<td>outstanding</td>
</tr>
</tbody>
</table>

Source: Cbonds 2018
**Green Flag/ Taxonomy**

Dealogic currently flags green, social and sustainability bonds it its general database.

Dealogic will try to confirm, whenever possible, a detailed description of the different uses of proceeds of the bond. Those bonds considered green or sustainable will get applied one or several Green Categories as per Dealogic’s own classification (see below), which are broadly in line with the use of proceeds categories of the GBP.

**Dealogic Green Categories:**

- Renewable Energy
- Energy Efficiency
- Sustainable Waste Management
- Sustainable Land Management
- Biodiversity Conservation
- Clean Transportation
- Sustainable Water Management
- Climate Change Adaptation
- Eco-efficient Products, Technologies and Processes
- Mixed

Reporting, and external review are not a requirement but will be identified in the database if available.

**Governance Process**

Dealogic will include a bond in the database as long as it is self-labelled as a Green/Social/Sustainable bond.

**Bonds included**

**Sustainability Bonds** (proceeds of these bonds are split between green projects and social projects)

**Green Bonds** (proceeds of these bonds are solely used to fund green projects)

**Social Bonds** (proceeds of these bonds are solely used to fund social projects)

**Instrument Types:** Dealogic provides coverage of all DCM instrument types including: Investment-grade Bonds, High-yield Bonds, ABS, MBS, Preferred Shares, and MTNs. All these can be flagged as Green, Social or Sustainable when applicable.

Additionally, Dealogic’s company classification allows subscribers to search and report on securities specifically from those issuers whose main purpose of business is renewable energy and its different sub-categories.

Discussion is ongoing with market participants to produce a taxonomy related to pure-players.

**Municipalities:** Dealogic includes Green Bonds from US municipalities only when publicly available documentation confirms their green credentials.

Schuldschein are not covered.

*Source: Dealogic Green Bond Market Guidelines 2017*
Green Storm 2016 BV

Mortgage-Backed Security - EUR500,000,000 (US$558,909,010)
Priced Wednesday, June 8, 2016

Deal Summary

<table>
<thead>
<tr>
<th>Deal Type</th>
<th>Mortgage-Backed Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deal Sector Type</td>
<td>ABS/MBS</td>
</tr>
<tr>
<td>Rule 144a</td>
<td>No</td>
</tr>
<tr>
<td>SEC Registered</td>
<td>No</td>
</tr>
<tr>
<td>Reg S Y/N</td>
<td>No</td>
</tr>
<tr>
<td>Market Type</td>
<td>Euro market public issue</td>
</tr>
<tr>
<td>Currency</td>
<td>EUR</td>
</tr>
<tr>
<td>Deal Nationality</td>
<td>Netherlands</td>
</tr>
</tbody>
</table>

Debut Product

<table>
<thead>
<tr>
<th>Tranche Class</th>
<th>Tranche Value Local</th>
<th>Tranche Value $</th>
<th>Tranche Value EUR</th>
<th>Coupon</th>
<th>Offer Price</th>
<th>Maturity Date</th>
<th>Years to Maturity</th>
<th>Effective Rating</th>
<th>Rank Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EUR 500,000,000</td>
<td>558,909,010</td>
<td>500,000,000</td>
<td>3-month Euribor +30</td>
<td>10.000000</td>
<td>31 Oct 2052</td>
<td>36.34</td>
<td>AAA</td>
<td>Y</td>
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</tbody>
</table>

Identifiers

<table>
<thead>
<tr>
<th>ISIN</th>
<th>XS1309695341</th>
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</thead>
<tbody>
<tr>
<td>Common Code</td>
<td>130969534</td>
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</table>

Deal Information

<table>
<thead>
<tr>
<th>Rank Eligible</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Proceeds</td>
<td>Refinancing; Securitisation</td>
</tr>
</tbody>
</table>

Banks

<table>
<thead>
<tr>
<th>Role</th>
<th>Rabobank</th>
<th>Bookrunner</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG Corporate &amp; Investment Banking</td>
<td>Bookrunner</td>
<td></td>
</tr>
</tbody>
</table>
Green Flag/ Taxonomy

The database lists all bonds that are self-labelled as “Green”.

The majority of these bonds are aligned with one of the following:
- The GBP
- Climate Bonds Certification, issued by the Climate Bonds Standard Board
- Green Financial Bond Directive, issued by the People’s Bank of China
- Green Bond-Endorsed Project Catalogue, issued by the People’s Bank of China Issue
- Self-labelled green bonds not aligned with any of the above standards

The database presents information in a standardised format following the Green Bond Principles

Governance Process

Environmental Finance has decided not to opine on what is or isn’t green, and will include any bond that has been self-labelled as “green”, with the intention of creating a comprehensive database where professional users can make their own judgements, based on their knowledge and supporting documents available on the database.

Bonds included

Green Bonds

Social/Sustainability Bonds: Planning on including Social/ Sustainability Bonds soon

Instrument type: all types – ABS, project bonds, Guarantees, Private Placements*, Schuldsheins etc. issued worldwide, by any kind of issuer (SSAs, Muni, Corporate, FIG)

*Private placements are included when these have been declared to Environmental Finance and that they have sufficient documentation to include in the database.
### User experience

#### Interface

<table>
<thead>
<tr>
<th>Accessible on Internet Browser</th>
</tr>
</thead>
</table>

#### Typical deals page

<table>
<thead>
<tr>
<th><strong>Issuer:</strong> Region Ile de France</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of bond:</strong> Municipal</td>
</tr>
<tr>
<td><strong>Value (M):</strong> 500</td>
</tr>
<tr>
<td><strong>Currency:</strong> Euro</td>
</tr>
<tr>
<td><strong>Exchange rate:</strong> 0.663</td>
</tr>
<tr>
<td><strong>Dollar value (M):</strong> 331.94</td>
</tr>
<tr>
<td><strong>Coupon payment frequency:</strong></td>
</tr>
</tbody>
</table>

| **Settlement date:** 14 March 2017 |
| **Maturity date:** 14 March 2029   |
| **Tenor:** 12                      |
| **Coupon:** 1.375%                 |
| **ISIN:** FR0013242356            |

| **Has second opinion:** Yes       |
| **Second opinion provider:** Vegeo Eiris |
| **Has assurance:** Yes            |
| **Assurance provider:** Deloitte   |

#### Financial information

<table>
<thead>
<tr>
<th><strong>Lead managers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays</td>
</tr>
<tr>
<td>Credit Agricole CIB</td>
</tr>
<tr>
<td>HSBC</td>
</tr>
<tr>
<td>Société Générale</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other managers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
</tr>
</tbody>
</table>

#### External reviews

<table>
<thead>
<tr>
<th>3rd party Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region Ile de France - Second opinion - Vegeo Eiris 2016</td>
</tr>
<tr>
<td>Region Ile de France - Second opinion - Vegeo Eiris 2014 04 02</td>
</tr>
<tr>
<td>Region Ile de France - External verifier's report - Deloitte 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ICMA templates</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
</tr>
</tbody>
</table>

#### Use of Proceeds

<table>
<thead>
<tr>
<th><strong>GBP:</strong> Use of proceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Transportation</td>
</tr>
<tr>
<td>Energy Efficiency</td>
</tr>
<tr>
<td>Renewable Energy</td>
</tr>
<tr>
<td>Terrestrial and aquatic biodiversity conservation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Use of proceeds in detail</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Evaluation process</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Region Ile de France - Investor presentation 2017</td>
</tr>
</tbody>
</table>

#### Reporting

<table>
<thead>
<tr>
<th><strong>Use of proceeds reports</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Region Ile de France - Use of proceeds report 2016</td>
</tr>
<tr>
<td>Region Ile de France - Use of proceeds report 2015</td>
</tr>
<tr>
<td>Region Ile de France - Use of proceeds report 2014</td>
</tr>
</tbody>
</table>

#### Additional information

<table>
<thead>
<tr>
<th><strong>Ratings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitch (AA)</td>
</tr>
<tr>
<td>Standard and Poor's (AA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Stock Exchange listings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Related news</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Additional files</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
</tr>
</tbody>
</table>
Iberdrola

Bonds issued
A table detailing all the bonds issued by Iberdrola.

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Value (M)</th>
<th>Currency</th>
<th>Dollar value (M)</th>
<th>Settlement date</th>
<th>Maturity date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iberdrola</td>
<td>1,000</td>
<td>EUR</td>
<td>1,052.51</td>
<td>March 7, 2017</td>
<td>March 7, 2025</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>100</td>
<td>EUR</td>
<td>106.112</td>
<td>February 20, 2017</td>
<td>February 29, 2024</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>750</td>
<td>EUR</td>
<td>805.98</td>
<td>December 7, 2016</td>
<td>March 7, 2024</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>700</td>
<td>EUR</td>
<td>787.15</td>
<td>September 15, 2016</td>
<td>September 15, 2025</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>1,000</td>
<td>EUR</td>
<td>1,129</td>
<td>April 21, 2016</td>
<td>April 21, 2026</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>750</td>
<td>EUR</td>
<td>1,027.67</td>
<td>April 7, 2014</td>
<td>October 24, 2022</td>
</tr>
</tbody>
</table>

Total volume ($Bn) | $4.91Bn
Volume this year ($Bn) | $1.16Bn

Environmental Finance News for Iberdrola
- SDCL to launch two funds following court GIB decision
- Green bond round-up, 12 April 2017
- Investors develop guidance on meeting TCFD recommendations
- First Solar multisale of 1gpoint3
- Voting begins for EF’s Deals of the Year awards

Source: The Green Bond Database