

For professional clients only December 2017 Investment Strategy

Outlook 2018: Twin peaks

Global growth and QE reach for the summit



From the Research & Investment Strategy team

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Green Bonds: market set for growth across regions

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- The green bond market continues to develop at a significant pace, with demand particularly strong from institutional investors
- The green bond market offers a tangible route to investing in the low-carbon economy
- In order to select green bonds in line with our environmental strategy, we have developed our own green bond assessment framework
- China has quickly emerged as a major market player but will need to address transparency issues to meet investor expectations

Global green bond market continues to expand

The green bond market continues to grow, offering investors broader investment opportunities, as more than 200 issues are available across major green bond indices. As at the end of October 2017, there were more than US\$100bn in new issuance volumes, making it a record year for green bonds, after US\$90bn in 2016 (Exhibit 3).

Exhibit 1

More diversified across sectors

Global green bonds sector breakdown



Source: BofA ML and AXA IM Research – As of 31/10/17

While the first issuances were predominately from supranational entities (the European Investment Bank issued its first green bond in 2007), the market only started to grow in earnest in 2012, as large transactions were completed by issuers from the supranational and agency sectors. In the following year, the first truly sizeable green bonds were issued by large corporates. The global green bond market has continued to develop at a significant pace and, as of October 2017, is now more diversified. As shown in Exhibit 1, supranational entities and agencies represent close to 45% of the global universe, followed by the utility sector (22%), banks (13%), corporate debts (13%), and government debts (7%). While continuously increasing, the number of issuers remains limited, at 103.

Meanwhile demand has been particularly strong from institutional investors. According to the Climate Bond Initiative (CBI), 54% of green bonds have been allocated to socially responsible and/or green investors. Institutional investors have a large share of green holdings as they have a particular appetite for this market – it offers transparency and environmental benefits at similar prices to non-green bonds from the same issuers.

Exhibit 2

Euro first currency of green bond issuance

Global green bonds currency breakdown



Source: BofA ML and AXA IM Research – As of 31/10/17

Exhibit 3

Another record year for green bond issuances

Green bond market evolution

Jan-17 First French green Strong presence in Issued amount the primary market sovereign bond (in USDbn) of Asian banks issuance Dec-16 First green Jan-14 Green bond sovereign bond principles published issuance with Nov-14 Barclays MSCI 26.7 Poland green bond index launch "AXA IM" integrates green bonds in its RI strategy First Chinese green bonds First sizeable 103.3 corporate green bond by "EDF" 81 42.2 36.6 3.1 2012 2013 2014 2015 2016 2017

Source: Climate Bonds Initiatives and AXA IM Research - As of 31/10/17

In this high demand environment, pricing is key for investors. According to the CBI, most green bonds analysed in its sample priced in line with traditional new issuances. Additionally, on occasion, performance in the secondary euro corporate debt market has been higher than traditional bonds (this has however not been the case in the US dollar sector). Strong demand sees oversubscription ratios above 2 for euro and dollar green deals. European demand is particularly dynamic, probably highlighting the fact that the euro is the first currency of issuance, with close to 55% of the total Green Bond indices priced in that currency (Exhibit 2).

Liquidity has also improved significantly over the past two years, with bid/ask spreads compressing, allowing better trading in secondary markets. Existing issuers have continued to build their curves and the green bond benchmark transaction issued by the French State early 2017 offered undisputable liquidity to investors.

2017: Robust activity in the European market

Activity has remained robust in Europe with more than 50% of new issuances coming from the European market. While 30% of the global issuances came from Chinese issuers in 2016, following Beijing's attempt to deleverage the financial system, primary market activity in the country tapered off in 2017. However, we think this halt is temporary, and issuance will resume as China accelerates its green transition. And even with this decline, China remains the second biggest issuer after France. This year has indeed been marked by the issuance of green instruments by the French government, providing investors with a new asset class from a high-quality issuer to invest in – and a large issuance of €8.6bn to ensure liquidity. The European banking sector has also been particularly active, with issuance coming from a variety of different banks and countries.

Investing in the low-carbon economy

Although businesses are slowly beginning to favour the 'green' model, the world still looks set to overshoot the +2°C temperature rise target if no large-scale, dedicated actions are taken to cut carbon emissions.

Investors can adopt various strategies to support the transition, such as divesting from the most carbon intensive assets in their portfolios – the International Energy Agency, for example, recommends keeping 80% of today's coal reserves in the ground – or investing in low-carbon projects.

In our view, the green bond market offers a tangible route to investing in the low-carbon economy. Green bonds are explicitly designed to raise capital for projects with clear environmental benefits, and there are now many issuers coming to the green bond market. As presented in the Exhibit 5, the CBI estimates that the green bond market may represent US\$1tn in 2020.

Analysis and selectivity remain key

The green bond market continues to require due diligence in order to avoid the risks of aggressive marketing techniques. Being selective is key to raising the standards in this market. Selectivity and greater transparency indeed helps ensure that the most relevant and impactful green projects receive the necessary financing.

In this respect, benefiting from strong research and insight into the issuers of green bonds is vital as the market is still in the early stages of development and investors should be mindful of potential cases of 'green washing', whereby inappropriate projects receive financing via the asset class.

As a responsible investor, the lack of common standards on green bond eligibility criteria in the global market requires dedicated analyses. Typically, proper monitoring and follow-up on green bond investments is necessary to ensure they are delivering on their promised environmental impact.

A Green Bond assessment framework

Our in house assessment aims at ensuring the environmental benefits we would expect from green bonds are met. Based on the green bond principles (GBP), we have developed a four-pillar green bond assessment methodology (Exhibit 4).

Our first pillar aims to assess the ESG¹ quality of the issuer. In order to avoid the financing of controversial companies, we meet issuers and monitor their overall ESG performance. We also discuss how much the green bond issuance is in line with the broader environmental strategy.

Second, we evaluate the greenness of the projects. We analyse eligible projects to verify that they fit with our requirements for a green bond investment. For instance, we exclude fossil fuel, nuclear energy production or large hydro construction projects. Inspired by the CBI taxonomy, the list of projects we consider green is supposed to be compatible with a 2°C scenario. The two remaining pillars – management of proceeds and impact reporting – are fully in line with the GBP.

1 Environmental, social and governance

Exhibit 4

A dedicated Green Bonds Assessment Framework





Source: AXA IM Responsible Investment

Third, we verify that the issuer has in place sufficient guarantees to ensure the proceeds of the bond will effectively finance the eligible projects.

Lastly, we question the issuer's ability to provide reporting information on a project's environmental impact. The goal of this judgemental framework is to select the right green bonds in line with our clients' ambitious environmental strategies.

2018: the expansion of private financing for the Chinese green transition

To address its environmental issues, China has started to rebalance its economy from a highly-polluting, energy-intensive and investmentdriven growth model towards a green, efficient and sustainable system, powered by consumption and services. The Chinese government has set ambitious carbon emission reduction and energy efficiency targets in its recently announced 13th Five Year Plan.

To achieve these goals, the PBoC estimates that an annual investment of at least RMB2tn to RMB4tn, (US\$320bn to \$640bn), will be required². Considering only 10% to 15% of this will be funded by public finances, an effective mechanism for channelling the remaining 85% from private-sector capital into green projects is needed.

The green bond market has been developed precisely for this purpose. China has quickly emerged as a major green bond market. Building on the projection from the CBI, our estimate shows that China is set to dominate the global supply of green bonds for the many years to come (Exhibit 5).

Exhibit 5

A growing share of the global green bond supply

China and non - China green bond issuance, with Chinese and globlal definitions



Source: Climate Bond Initiatives (CBI) and AXA IM Research

More clarity needed to increase investors' confidence in Chinese green bonds

In December 2015, the PBoC released a set of rules and regulations. By doing so, China became the first country to have clear regulations governing its green bond market. Nevertheless, the coexistence of various other standards³ beside the PBoC's can create risks and confusion that may harm the development of the market. A future harmonisation of these rules is therefore vital for improving clarity and investors' confidence in Chinese green bonds.

Common international standards for green bonds issuances on track

Comparing China's green bond standards with those of the usual international "standards" shows that there are still some deviations. Some projects, mainly relating to fossil fuel, are eligible for green bond financing in China, but are excluded by the international principles. In addition, global investors are concerned about the level of transparency and credibility of reporting, despite the fact that more than 70% of onshore issuances last year were verified by international green bond reviewers, such as EY^4 and PwC^5 . Finally, even for the interested investors, market access can be a practical hurdle given China's controlled capital account and limited convertibility of its currency.

Despite the outstanding issues, the Chinese authorities are moving fast to develop and liberalize its market. The PBoC, for example, has been in close discussions with regulators, issuers and investors in Europe, such as the European Investment Bank, to develop common standards for the green bond market. Internally, the PBoC and NDRC⁶ are expected to announce an update of their respective regulations early next year, leading to a close convergence of green bond standards in China. Finally, Beijing is determined to continue the path of capital account liberalization, which will ease foreigners' access to the onshore market going forward.

Conclusion

As noted in this paper, the green bond market is in growth mode. Driven largely by the interests of institutional investors, the market is poised to continue in its growth trajectory in the coming years. Nevertheless, investors should be mindful of the quality of the issuances and go beyond the Green Bond Principles in due diligence and quality assurance. Newer markets such as China will increasingly come on board with issuances over time. In order for the green bond market to maintain its growth, market participants across the board will need to ensure that the associated impacts are articulated, measured and transparent to meet the evolving expectations of investors.

² By Jun Ma, ex-chief economist of the PBoC, "<u>China's central bank wants private</u> capital for green investment", interview with CNBC, 25 February 2016

³ Other regulators, such as the National Development and Reform Commission, China Securities Regulatory Commission and the Shanghai Exchange, have developed their own standards

⁴ EY = Ernst and Young Global Limited

⁵ PwC = PricewaterhouseCoopers International Limited

⁶ The National Development and Reform Commission is China top economic planning agent



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