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Research & Strategy Insights

China: Riding the green wave

How AXA IM invests in the world's second-largest green bond market

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Key points

- Beijing's emphasis on balancing growth and sustainability has reinforced the importance of developing a well-functioning green bond market to support China's transition to net zero
- Despite strong demand for green assets, global investors have so far been side-lined in the world's second-largest green bond market due to concerns over the "green-ness" of Chinese bonds
- Our analysis suggests a significant quality convergence between Chinese green bonds and their global peers in recent years. However, gaps remain in parts of the onshore market where regulations and standards still lag those in developed markets
- As an early international investor in this market, AXA IM has developed strict standards to analyse Chinese green bonds, consistent with those applied to our global green bond investments, to minimise the risk of 'green washing'
- Besides their sustainability appeal, Chinese green bonds also provide a yield premium. Contrary to the experience in Europe, investors in China are effectively paid to hold 'green' in their portfolio. This has helped Chinese green bonds to deliver strong performance compared to conventional Chinese bonds and global green bonds

After a year of tepid primary issuance – held back by the global pandemic – activity in the Chinese green bond market came roaring back in 2021. The supply of new bonds jumped to a record of $60.7bn year-to-date, crowning China once again the world's largest green bond market by issuance (and the second largest by bond outstanding).

Apart from recovering market activity, the regulatory environment has been fast-moving too. The release of the 2021 Green Bond Endorsed Project Catalogue, which removed all fossil fuels from being eligible investments for green bond financing, went a long way to harmonising green bond standards between China and developed markets. Beijing is also working on a joint green taxonomy with the European Union to further align green bond standards and promote international cooperation in market development.

Despite these changes, many foreign investors remain sceptical of Chinese green bonds. They often question the "green-ness" of these bonds against the perception of loose regulatory standards and worry about misuse of proceeds due to weak information disclosure.

As an early international investor in this market, AXA IM has developed a robust proprietary analytical framework for analysing Chinese green bonds designed to avoid greenwashing (the phenomenon where operational reality fails to live up to stated goals and standards). This paper presents the key features of this framework, helped by actual examples to demonstrate its rigorous application to the Chinese market. It also highlights compelling risk-reward features of the asset class, relative to Chinese conventional bonds and green bonds globally, that make it appealing to investors focused on environmental, social and governance (ESG) themes.

A four-pillar framework

AXA IM has long been an attentive observer of green bond developments in China and started to invest in the market in 2017. The investment is guided by the same principles and standards applied to our global green bond investments. The framework consists of four pillars:

1. **The ESG quality of issuers:** This differentiates our framework the most from prevailing standards in China. Instead of focusing only on the bond – as most standards do – our validation process starts with an examination of the ESG credentials of the issuer. In particular, it requires issuers of green bonds to have ESG scores above a minimum threshold and to be excluded from any of AXA IM's ESG or Responsible Investment (RI) sectoral exclusion lists[1]. In addition, we examine issuing documents and corporate information, and, through management engagement, make sure that issuers demonstrate ESG commitments by highlighting past achievements, future targets and how they plan to reduce ESG risks[2]. Those with convincing strategic plans to grow green assets and reduce their carbon footprint will be viewed favourably by our framework.

2. **The use of proceeds:** We focus on the quality of projects to be financed by the green bonds. Our standard requires 100% of the bond's proceeds to be allocated to designated projects that meet the strict criteria of AXA IM's green taxonomy. The latter is built on the International Capital Market Association (ICMA)'s Green Bond Principles (GBP)[3] and relates to the Climate Bond Initiative's (CBI) Climate Bond Taxonomy[4]. Some notable differences include the exclusion of nuclear energy and large hydro projects from our framework. If more than one project is involved in the issuance, issuers should also disclose detailed breakdowns of each investment.[5]

3. **Management of proceeds:** This requires full transparency on the use of bond proceeds. Eligible issuers should have in place sufficient guarantees – including establishing a segregated account and robust tracking process – to ensure that all funds are channelled to specified green projects.

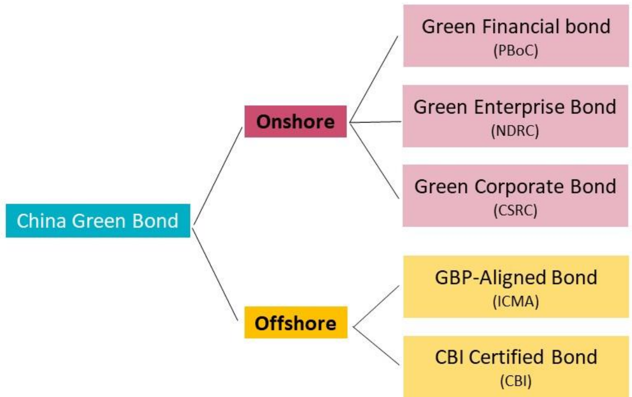
4. **ESG impact:** The final requirement is for issuers to reveal pre-and-post-issuance information on the use of proceeds, progress of green projects, and most importantly, the environmental impact of investments. Common indicators on 'impact' include the amount of greenhouse gas emission reduction, improvement in energy efficiency, pollution reduction, and a matrix of climate risk mitigation.

Any Chinese green bonds must satisfy all four pillars of our standard to be considered an eligible investment. Failure to meet any one of the requirements will disqualify it from proceeding to the next phase of the investment process.

Setting a higher bar

One challenge in analysing green bonds is the existence of multiple standards. Globally, bonds aligned to the GBP principles are viewed as green bonds by some investors, whereas the CBI follows a different, and more stringent, standard that comprises of an explicit taxonomy and special requirements on the use of proceeds. Most Chinese green bonds in the offshore market are aligned to either one of the two frameworks (Exhibit 1).

Exhibit 1: China green bonds by types and regulations



Source: AXA IM Research, as of 19 Oct 2021

The onshore market is further complicated by additional regulatory and standard segmentations. Currently issuance of CNY-denominated green bonds is governed by three regulators under three sets of rules: The green financial bonds traded in the interbank market are regulated by the People's Bank of China (PBoC); the green corporate bonds on the exchanges are overseen by the China Securities Regulatory Commission (CSRC); and green enterprise bonds are governed by the National Development and Reform Commission (NDRC) (Exhibit 1).

[1] In addition, the ESG and controversy scores of the issuer must be greater than two and less than five respectively. These scores are constructed by our RI team using a set of comprehensive metrics.

[2] This means, for instance, that a bond issued by a coal mining company to finance a solar farm project, which could be labelled as a green bond by others, will most likely be rejected by AXA IM because the issuer may fail to meet our ESG requirements.

[3] "Green Bond Principles", International Capital Market Association (ICMA), June 2021

[4] "Climate Bonds Taxonomy", The Climate Bond Initiative, September 2021

[5] We also look for clear disclosure on green standards (e.g. Green Bond Principles or the PBoC's Green Catalogue) or certifications referenced in project selection. This pillar is particularly important because at AXA IM we believe the proceeds set up for a green bond should reflect the issuer's efforts towards improving the environment and its overall environmental strategy.

Exhibit 2: The differences between AXA IM, CBI and Chinese green bond standards

Comparison of Green Bond Frameworks

	AXA IM	CBI	China (PBoC, NDRC, CSRC)
ESG quality of issuers	Above a minimum ESG score Not on AXA IM ban list Have long-term sustainability strategy	No requirement	No requirement
Projects	AXA IM Texonomy, built on ICMA Green Bond Principles, similar to CBI Taxonomy	CBI's Taxonomy	The 2021 Green Bond Endorsed Project Catalogue unifies PBoC, CSRC and NDRC
Proceeds allocation	100%	100%	PBoC: 100% CSRC: At least 70% NDRC: At least 50%
Management of proceeds	Segregation of proceeds required	Segregation of proceeds required	Segregation of proceeds required
Reporting	Post-issuance reporting is required	Post-issuance reporting is required	PBoC: reporting is required CSRC: reporting is required NDRC: no specific requirement

Source: CBI, PBoC, China Energy Conservation and Environmental Protection (CECEP) and AXA IM Research, as of 19 October 2021.

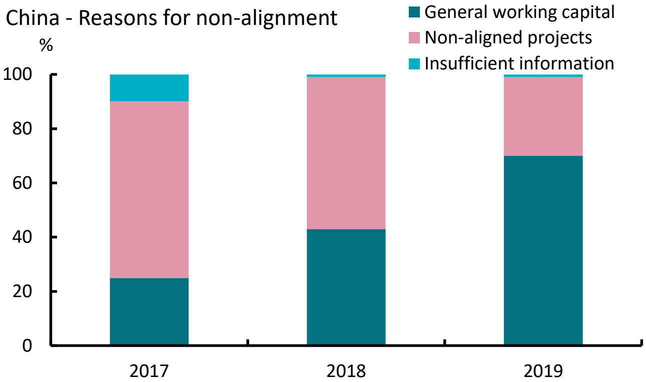
Even though green bond regulations – under the three governing bodies – have converged over time[6], important differences still abound that make investing in this market challenging for foreign investors. Exhibit 2 compares China's local green bond standards with those of the CBI and AXA IM.

As discussed, the first notable difference involves an assessment of the issuers' ESG quality. This is designed to avoid the risk that our investment is used to finance companies where the majority of their business poses ESG risks – despite a smaller involvement in environmentally-friendly projects. One example could be the exclusion of a bond financing renewable energy projects issued by a thermal power company – whose primary business is in traditional fossil fuels – unless the issuer can demonstrate credibly that a rapid transformation in their entire business is underway. Neither the CBI nor Chinese standards have such requirements.

On project eligibility, our standards reject all fossil fuels, similar to the CBI Taxonomy and current Chinese regulations. In addition, AXA IM also excludes bonds that finance nuclear energy and large hydropower projects to avoid damages to ecology and the natural environment. The 2021 Green Bond Endorsed Project Catalogue[7] in China, which unifies all onshore regulations on project classifications, has a broader coverage of projects relating to environmental protection, pollution reduction and ecological conservation, in addition to mitigating greenhouse gas emissions.[8] Nuclear energy, for example, is still included in the Catalogue.

The different requirements on the use of proceeds is another important driver of green bond classification in China. The AXA IM standard requires 100% of bond proceeds to finance, or refinance, green projects consistent with our taxonomy. This is the same as the CBI rule, which was updated from its previous requirement of a minimum of 95% of proceeds for green financing. Amongst Chinese standards, the PBoC is the only one that demands all proceeds to be channeled to the designated green investment, whereas the CSRC and NDRC allow up 50% of the funds to be used for general working capital or debt repayment. The lower percentage of bond proceeds earmarked for green projects is a key reason why many Chinese green bonds – mostly enterprise and corporate bonds – fail to meet our own and the CBI standards (Exhibit 3).

Exhibit 3: Use of proceeds remains a concern



Source: CBI and AXA IM Research, as of 19 October 2021

An important mechanism to ensure proper management of proceeds is to require issuers to set up segregated accounts. This is the third pillar of AXA IM's standard. In China, a significant regulatory convergence on this has taken place,

[6] An important regulatory harmonisation is achieved on project classification under the 2021 edition of the Green Bond Endorsed Project Catalogue.

[7] The first version of the Catalogue was released by the PBoC in 2015. The latest version was published jointly by the PBoC, NDRC and CSRC in April 2021, and harmonised the eligibility of projects that can be financed by green bonds. From July 2021 onwards, all onshore green bonds need to follow this taxonomy.

[8] The coverage of projects by China's Green Bond Endorsed Project Catalogue is similar to the principle guidance of GBP principles, but broader than that of the CBI which narrowly focuses on reducing CO_2 emissions aligned to the Paris Agreement.

such that all onshore standards, except those for green enterprise bonds, now have such requirements.

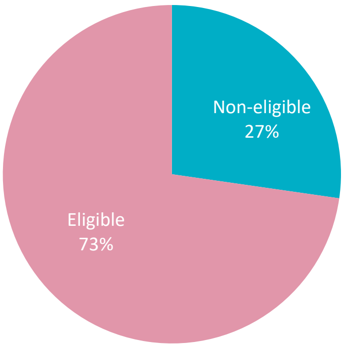
Finally, rules on post-issuance reporting are the least standardised. The PBoC has the most stringent requirements on issuers, requiring disclosures on the use of proceeds and progress of projects on a quarterly basis. An annual report to bond holders and the regulator is also required together with a special auditor report. Green corporate bond issuers, under the CSCR rule, need to disclose similar information at least annually. The NDRC's requirement is the least clear and non-mandatory, undermining the attractiveness of green enterprise bonds.
For the offshore market, post-issuance information disclosure is required by GBP and CBI labelling. For bonds to be viewed favourably by AXA IM, issuers also need to report information on the environmental impacts of green projects including the relevant – quantitative and qualitative – key performance indicators (KPIs).

Putting the concept to work

AXA IM started investing at scale in Chinese green bonds in 2020.[9] Our more stringent framework means not all Chinese labelled-green bonds pass the validation test. Exhibit 4 shows that around 30% of the bonds we examined were rejected for failing at least one of the four pillars. What is encouraging, however, is that the quality of green bonds has improved markedly as local standards converge with international ones. More importantly, the degree of information disclosure and reporting transparency has also advanced to such an extent that investors, like AXA IM, who adopt a different green bond standard, can gather enough information to perform those analyses. Our experience so far suggests no major impediments to investing in this market under a stricter set of rules.

Exhibit 4: Majority of CNY green bonds make the cut

China - Percentage of analysed onshore green bonds



Source: AXA IM Research, as of 19 October 2021

Of the 30% of bonds that failed our test, Exhibit 5 shows the most common reason for rejection was the use of proceeds.

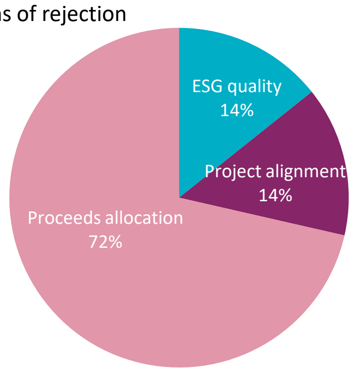
AXA IM's requirement that 100% of the bond proceeds to be allocated to green projects contrasts with NDRC and CSRC rules that allow up to half of the funds to be used for general purposes. This factor accounts for over 70% of the bonds rejected, and the information needed to make this assessment is usually readily available in standard issuance documentations.

A smaller percentage of bonds were rejected due to project misalignment. The exclusion of nuclear energy and large hydropower projects has led to 14% of bonds excluded.

The remainder is due to weak ESG credentials of issuers. Some are because of lower ESG scores than our minimum threshold. Others are due to ESG concerns over issuers' existing businesses, and their failure to commit credibly to environmental transition. One example of this is a major Chinese airport operator issuing a bond for a new terminal. The building itself is certified by Leadership in Energy and Environmental Design[10] (LEED) and considered an eligible green project by the CBI and local standards. However, the bond was rejected by AXA IM on the grounds that the vast majority of the company's existing assets are not LEED-aligned, and it has failed to demonstrate a long-term plan to reduce ESG risks in its core business. Looking beyond the near-term investment by considering the ESG quality of the issuer's entire business is what AXA IM deems necessary to reduce greenwashing risks.

Exhibit 5: Use of proceeds drives bond rejection

China - Reasons of rejection



Source: AXA IM Research, as of 19 October 2021

Back to basics on investment

Our discussion thus far has focused primarily on assessing the 'greenness' of Chinese green bonds. But for investors, earning a decent return on an investment is just as important as making a difference for the environment. Globally, plenty of research[11] shows that investors, particularly those in Europe, pay a premium for green bonds – known as 'greenium'– because of excess demand. In contrast, Chinese

[9] Our first investment in Chinese green bonds dates back to 2017, but more active engagement in this market started in 2020.

[10] LEED certification is the most widely used green building rating system in the world.

[11] Nanayakkara, M. and Colombage, S., "Do investors in Green Bond market pay a premium? Global evidence", Taylor&Francis Online, 14 Mars

green bonds are often priced at a discount to normal bonds, benefiting investors with higher yields[12] (Exhibit 6). A FTSE China green bond index – capturing onshore paper aligned with the CBI standard – currently yields 2.95%, some 20 basis points (bp) higher than a conventional bond index with similar average maturity, duration, and credit rating. One can argue then that for now, not only do buyers of Chinese green bonds not pay for 'green', they are in fact being paid to hold 'green'. Partly because of that, Chinese green bonds have outperformed conventional bonds by some 350bp cumulatively since 2016 (Exhibit 7, top chart).

Exhibit 6: Chinese green bonds are higher yielding

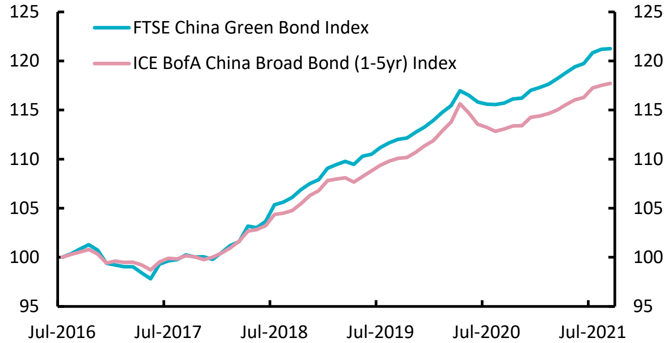
Yield differential between green bonds and conventional bonds

Source: China International Capital Corporation Ltd (CICC) and AXA IM Research, as of 19 October 2021

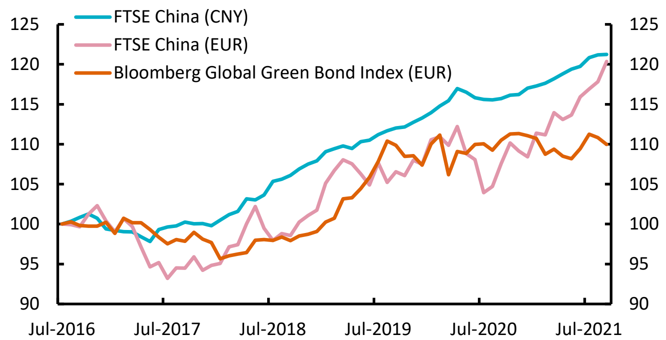
Nominal yields of Chinese green bonds are also higher than those of global green bonds (at 0.57%) due to higher base rates in China. However, earning this yield premium requires dollar and euro-based investors to bear currency risks. Exhibit 7 (bottom chart) shows historical performance of Chinese green bonds has outpaced global peers in both local and foreign currency terms. Hence, for ESG investors – reluctant to pay a 'greenium' in matured markets – Chinese green bonds could offer an opportunity for yield enhancement and risk diversification.

Exhibit 7: Performance of China green bonds versus alternatives

Performance of green and conventional bonds in China



Performance of China green bonds and global green bonds



Source: Bloomberg and AXA IM Research, as of 19 October 2021

12 Wu, Y.M. (2018) "Does a premium exist in Chinese Green bonds" CFA Institute Research Exchange

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