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THE RISE OF GREEN BONDS

"We are close to the tipping point where global warming becomes irreversible" – those were words from the late Stephen Hawking in 2017. The green bond market is poised to rise as more institutional and individual investors seek to make an impact with climate investing. With improving liquidity and increasing diversification, mainstream investors may soon have no choice but to sit up and take notice.

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CLIMATE CHANGE DEMANDS A RESPONSE

World temperatures could rise by between 0.3°C and 4.8°C this century, leading sea levels to increase by 0.26 m to 0.98 m[1]. This will directly impact the sustainability of water, food supplies, ecosystems, coastal stability and public health, potentially inflicting grave consequences on a global scale.

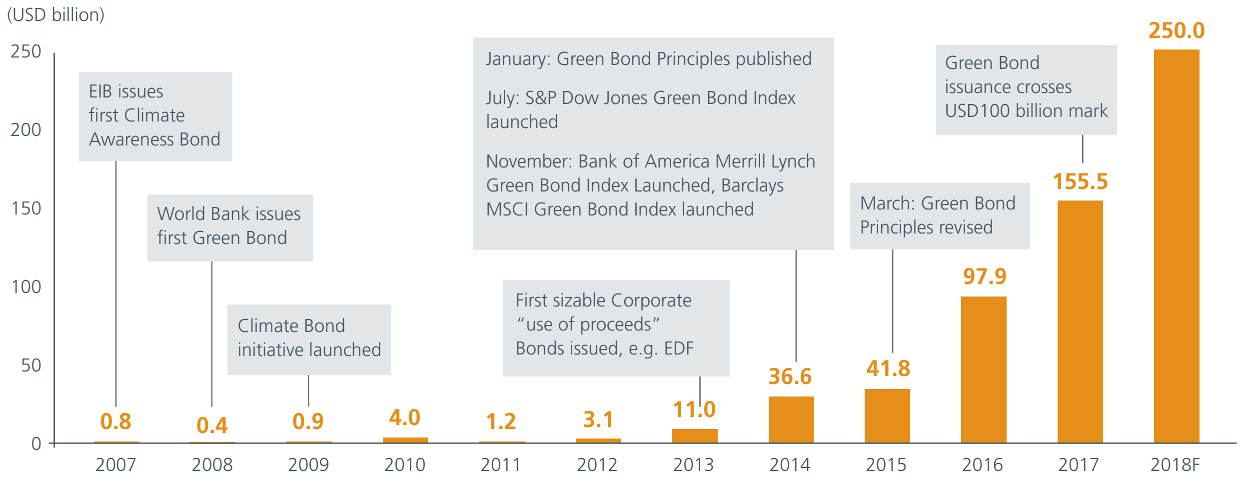
Even as the United States announced plans to withdraw from the Climate Accord, more governments and international bodies have pledged to reduce the use of hydrocarbons and emissions. World leaders across the globe united for the first time in 2016 to combat climate change through the Paris Agreement, which aims to keep global temperature increases to below 2°C. Companies are also looking to adopt more responsible growth models. Against this backdrop, there has been a rising interest in Environmental, Social and Governance (ESG) investing among investors.

INVESTING IN GREEN BONDS

Green Bonds are bond instruments where the proceeds are used to finance or refinance, in part or in full, activities, projects or assets that will contribute to environmental sustainability.

The first Green Bond (USD800 million) was issued by the European Investment Bank (EIB) in 2007 to develop renewable energy and technology

Fig.1: The Green Bond market is growing rapidly[2]



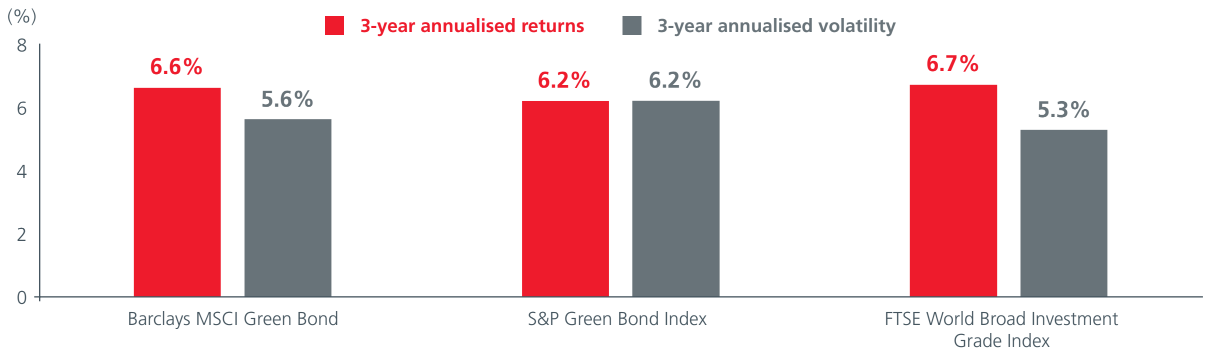
that will improve energy efficiency. By 2017, USD155.5 billion of Green Bonds has been issued, close to a 200% increase over the last 10 years. This year, Green Bond issuance is targeted to reach USD250 billion. (See Fig.1).

Green bonds have been able to deliver reasonable returns with relatively low volatility. (See Fig.2). Analysis[3] of available data on 98 green bonds from Jan 2016 to September 2017 shows that the average over subscription was 2.6x for EUR green bonds and 3.0x for USD green bonds. 73% of the bonds outperformed comparable bond indices 7 days post trading. After 28 days, 66% of the bonds continue to outperform. This appears logical given that the issues tend to be oversubscribed and investors may be looking to top up their allocations.

INCREASING DIVERSIFICATION

Investors in green bonds are increasingly able to get exposure to a diversified range of issuers, geographies and green projects. To date, green bonds have been issued in 27 different currencies with the US dollar and euro accounting for more than 70% of the outstanding amount[4].

Fig.2: Green bonds have been able to deliver reasonable returns over the last three years[5]



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While development banks including the EIB and the World Bank were early green bond issuers, more and more corporates, government-backed entities and sovereigns have been tapping the green bond market for funding.

In 2016, Poland issued the first Sovereign Green Bond while France surprised the market with a record-breaking USD10.7 billion deal in 2017. Since then, Fiji, Nigeria, Indonesia, Belgium and India have issued Sovereign Green Bonds. (See Fig.3). The strong creditworthiness of many sovereigns, along with their ability to make very large-scale issuances, makes them attractive to investors. Sovereigns are also in a unique position of being able to create policy to influence the direction of the market. Tax incentives, for example, can be introduced to make green bonds more attractive to investors.

While developed markets have been early issuers, Emerging markets are increasingly contributing to the green bond market's growth. (See Fig.4). By 2016, China has become the world's largest issuer of green bonds, although not all China-labelled green bonds meet global standards – particularly bonds that invest their proceeds in "clean coal" projects.

India was among the top 10 issuers of green bonds in 2017, largely due to government-backed entities. Interest in India's green bonds has been fuelled by Prime Minister Narendra Modi's ambitious plan to triple renewable power capacity to 175 gigawatts by 2022.

Over in Korea, the first green bond was issued by the Export-Import Bank of Korea (Kexim) in 2013 for renewable energy development. The Korean green bond market is currently the fifth largest in Asia (USD2.1 billion), behind China, India, Japan and Australia. The Korean government's commitment to a 37% greenhouse gas emissions reduction by 2030, combined with the country's emission trading scheme implemented in 2015, puts it in a strong position to be a key player in the Asian green bond market.

Besides geographical diversification, green bonds are also funding a widening range of green

Fig.3: An increasingly diverse set of issuers[6]

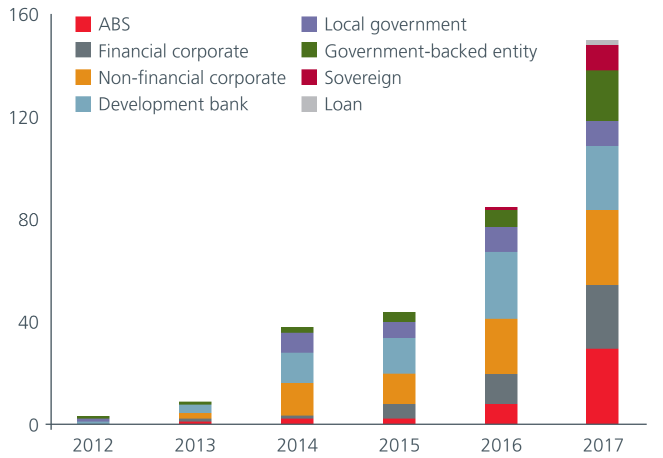
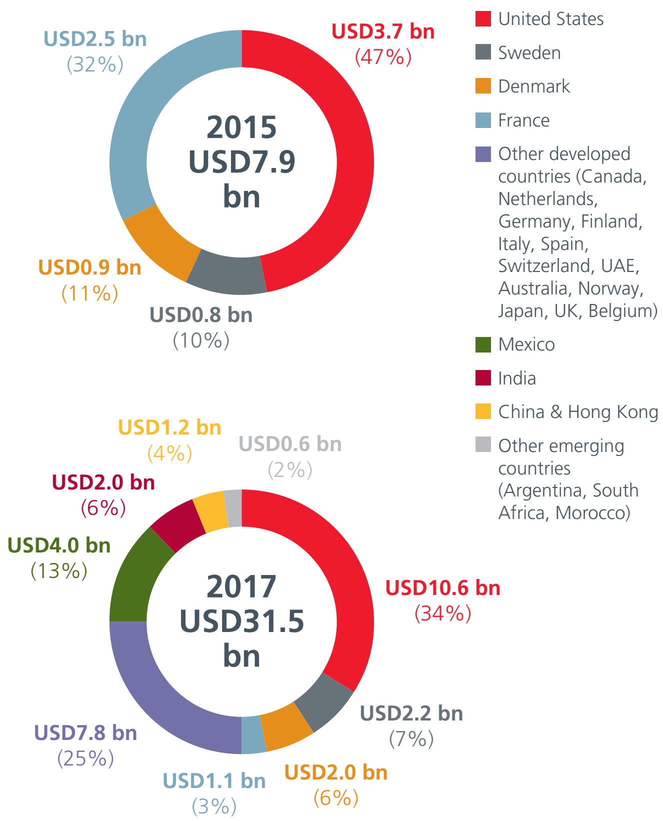


Fig.4: Greater geographical diversification - sub sovereign issuance[7]



projects. (See Fig.5). 62% of green bond proceeds were allocated to renewable energy, green building and energy efficiency projects in 2017, with transport and water accounting for 15% and 13% respectively.

DIFFERENT SHADES OF GREEN

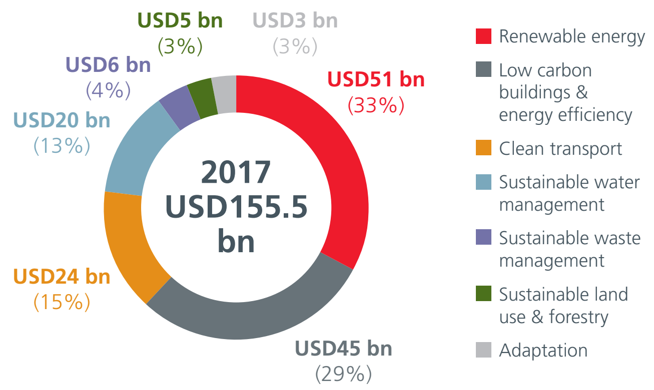
Amidst the growth, one of the key challenges for the green bond market is the lack of a universally agreed definition of green. There has also been criticism of the lack of robust ways to measure the use of proceeds and whether issuers are keeping to their "green promises". Over the years, there has been some progress to address these issues although more can be done.

The International Capital Market Association established the Green Bond Principles (GBP) in 2014 to help promote integrity in the Green Bond Market. The principles cover four core components including the use of proceeds, project evaluation, management of proceeds and reporting. The GBP also recommends that a third-party verifier checks that the projects or assets to be financed are eligible and that there are internal processes to track how the bond proceeds are being used. Climate Bond Initiative (CBI), an international, not-for-profit organisation focused on mobilising the USD100 trillion bond market for climate change solutions introduced the Climate Bond Standards (CBS), offering issuers an opportunity to have their bonds certified.

By value, the percentage of green bond issuance which has received an external review has been steadily increasing from 65% in 2015 to more than 82% in 2017. Of the bonds that have received an external review, climate bond certification accounts for 11% of total issuance in 2017, up from just 4% in 2015[8].

In response to investors' desire for greater transparency and robust disclosure on use of proceeds, Moody's Investors Service also published its Green Bonds Assessment (GBA) methodology in 2016. Moody's will score each bond issue on five key factors

Fig.5: Green bonds are funding an increasing range of projects[9]



including organisation, the use, disclosure and management of proceeds as well as ongoing reporting. A composite grade then provides an overall assessment that ranges from GB1 (Excellent) to GB5 (Poor). According to Moody's, issuers tend to have the greatest variations with ongoing reporting and disclosure commitments.

The increasing number of accounting firms, consultancies, credit agencies and even research institutes providing verification of green bonds has also triggered calls for these third party verifiers to be regulated.

TURNING MAINSTREAM

The green bond market is currently less than 1% of the global bond market[10]. The market is, however, poised to grow as issuance rises. The International Finance Corporation (IFC) estimates that the global agreement on climate change adopted in Paris can open up nearly USD23 trillion in opportunities for climate smart investments in 21 emerging markets between now and 2030. More incentives to help issuers offset the higher costs of certification, compliance as well as a harmonisation of green standards and definitions can also help to attract more issuers.

Demand currently exceeds supply. Investors controlling USD60 trillion of assets under management have signed the Principles for Responsible Investment (PRI), pledging to incorporate environmental, social and governance factors (ESG) into their investment decisions. Eastspring Investments is a signatory to PRI – we believe that understanding the investment implications of ESG factors is critical to delivering quality long-term investment outcomes. (Read Mainstreaming ESG Investing in Asia)

As the urgency for greater environmental sustainability rises, more investors are likely to incorporate ESG factors into their decision making process. During the 2017's 'One Planet Summit' in Paris, multilateral development banks including the World Bank and EIB announced their commitments to increasing capital flows directed to support the transition to a low carbon economy. Japan's Government Pension Investment Fund has also pledged to allocate 10% of its USD1.3 trillion of assets into EGS investments, up from 3%. In the UK, the independent Committee on Climate Change which monitors the government's progress in meeting its statutory targets for cutting emissions, has called for central banks to do more to ensure the availability of green finance and divest from fossil fuel companies that showed no inclination to change their business.

It is not just institutional investors who are seeking to make an impact through climate investing. Studies have shown that millennials, who stand to inherit USD30 trillon[11] in the next three to four decades, are attracted to investments that will have a positive environmental impact[12].

With improving liquidity, greater diversification and reasonable returns, green bonds provide a convenient platform for responsible investors to invest in. Currently about 50% of new green bond issues are allocated to investors with green mandates. Given the continued expansion of the green bond market, mainstream investors may soon have no choice but to sit up and take notice.

Sources: [1]Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, as at November 2014. [2]Adapted from Climate Bonds Initiative and Barclasy MSCI, as at 30 April 2018. [3]Green Bond Pricing in the Primary Market: January 2016 – March 2017, Q2 2017, Q3 2017. [4]Climate Bonds Initiative, as at December 2017. [5]Bonds and Climate Change. The State of the Market. 2017 – Prepared by Climate Bonds Initiative. [6]Climate Bonds Initiative, as at December 2017. [7]Climate Bonds Initiative, as at December 2017. [8]Bonds and Climate Change. The State of the Market. 2017 – Prepared by Climate Bonds Initiative. [9]Climate Bonds Initiative, as at December 2017. [10]SIFMA Fact Book 2017, SIFMA, as at August 25 2017. [11]"The Greater Wealth Transfer: Capitalising on the Intergenerational Shift in Wealth," Accenture, 2015. [12]"From the Margins to the Mainstream Assessment of the Impact Investment Sector and Opportunities to Engage Mainstream Investors" – World Economic Forum, as at September 2013.

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