

## FROM MOLTEN BROWN TO LIQUID GREEN

### Liquidity in the Green Bond Market

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It is not without irony that the green bond market was born in the midst of the global financial crisis of 2008, a liquidity-driven crisis culminating in a credit crunch and worldwide recession. General concerns about bond liquidity have persisted ever since. Corporate bond liquidity, in particular, has diminished as a result of tightening regulation, shrinking inventory and quantitative easing (see Figure 1 below).

In spite of this backdrop, a small subset of the overall market, green bonds have been able to thrive. The success and growth of this market is the result of a distinct shift towards sustainable finance over the past decade.

There are lingering doubts, however, as to whether green bonds can truly transform capital markets by becoming a significant component of the debt market. Most of these concerns relate to the lack of liquidity within the market.

One of the more frequently asked questions that we encounter when speaking to prospective clients is, “How liquid is the green bond market?” The query stems from an awareness that not only is the market relatively young—just over 10 years old—it is also comparatively small, accounting for less than 1% of the broader public debt market.<sup>1</sup>

What does liquidity really mean in the green bond context? In its simplest form, bond liquidity is the ability to facilitate the quick purchase or sale of a bond, without causing a drastic price change. From a fund manager’s perspective, it is the ability to manage a portfolio effectively—both active and passive—by selling or buying bonds to reflect market views and in order to meet flows in or out of a fund or portfolio. From the end investor’s perspective, it is the knowledge that money will be deployed quickly when investing and can be raised quickly when selling.

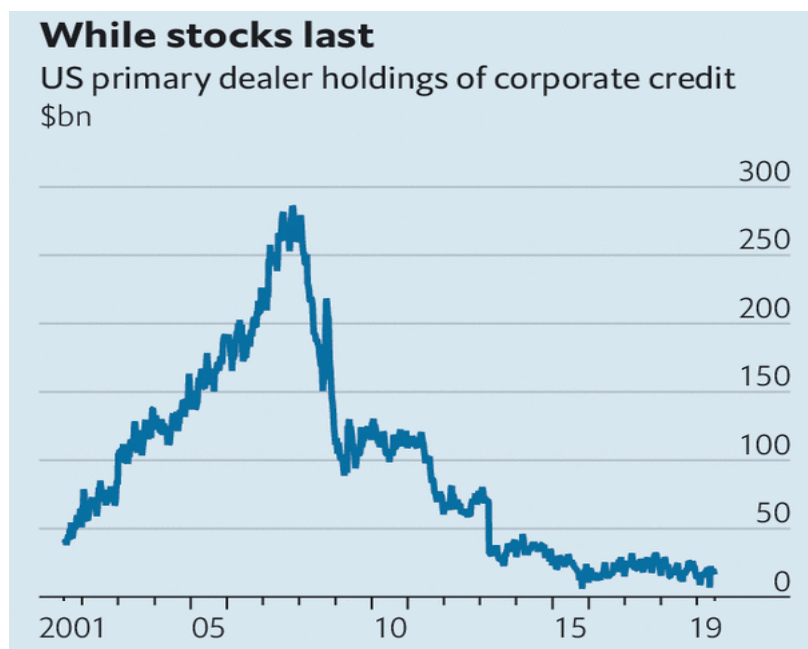


Figure 1: US primary dealer holdings of corporate credit – The Economist (July 2019)

Source: New York Federal Reserve

With regard to green bonds, the ability to sell is similar to all other conventional bonds. Green bonds, in the main, have the same characteristics as a conventional bond in terms of credit rating, parent guarantees and legal characteristics. The major difference with a green bond is the commitment to ring-fence proceeds for a specific purpose. The ring-fencing element does not differentiate the bond when selling into the secondary market—therefore,

it makes no difference whether the bonds are green, brown, or have no colour at all. What really matters when selling, as with all bonds, are factors such as the size of issue, the credit rating, the currency of issue and maturity.

However, a different situation presents itself on the buy side, since green bonds are currently such a small segment of the overall market. The US corporate bond market, for example, is estimated to be \$9trn in size—US\$ corporate green bonds amount to approximately \$100bn<sup>2</sup>, a much smaller pool of bonds from which to buy. Therefore, the relative scarcity of green bonds, all else being equal, should make them less liquid for buyers. How does this play out in reality?

When analysing traditional measurements of liquidity within the green bond space, the evidence is encouraging. Bond liquidity is evaluated using factors such as market growth, new issuance activity, dealer inventories, and the bid/offer spread in the marketplace.

The following assesses each of these one by one, in the context of green bonds:

### Market Growth

The market has experienced substantial and sustained growth over the past five years. Outstanding issuance in the market is estimated to have risen above \$650bn<sup>2</sup> in 2019, but equally important has been the growing diversification of issuance in recent years. The green bond market is becoming increasingly reflective of the broader investment grade bond market. The graph below illustrates how the market was initially dominated by the multilateral development banks, but has broadened to include government-related entities, corporate issuance and, more recently, sovereigns.

Sovereign issuance into the market is significant in the context of liquidity—for example, the French OAT green bond issue is now over €20bn in size, having been tapped on seven occasions following the original launch size of €7bn in January 2017.<sup>2</sup> France is now one of more than ten sovereigns issuing green bonds, with others such as Germany and Sweden set to soon follow.<sup>2</sup>

Telecommunications has been the most recent sector to begin to issue green bonds, with Verizon and Telefonica helping pave the way to an initial \$3bn of issuance from this area in the first half of 2019.<sup>3</sup>

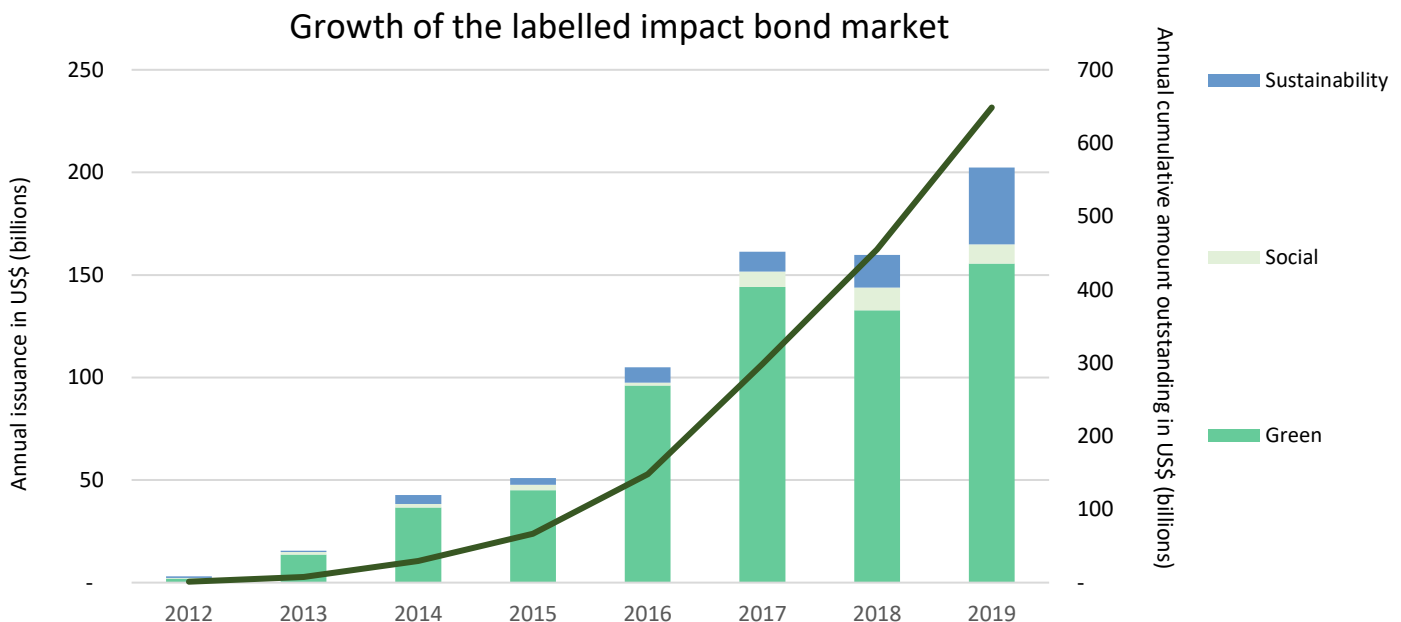


Figure 2: Growth of the impact bond market  
Source: Bloomberg. Labelled bonds only. All figures as at 30 September 2019

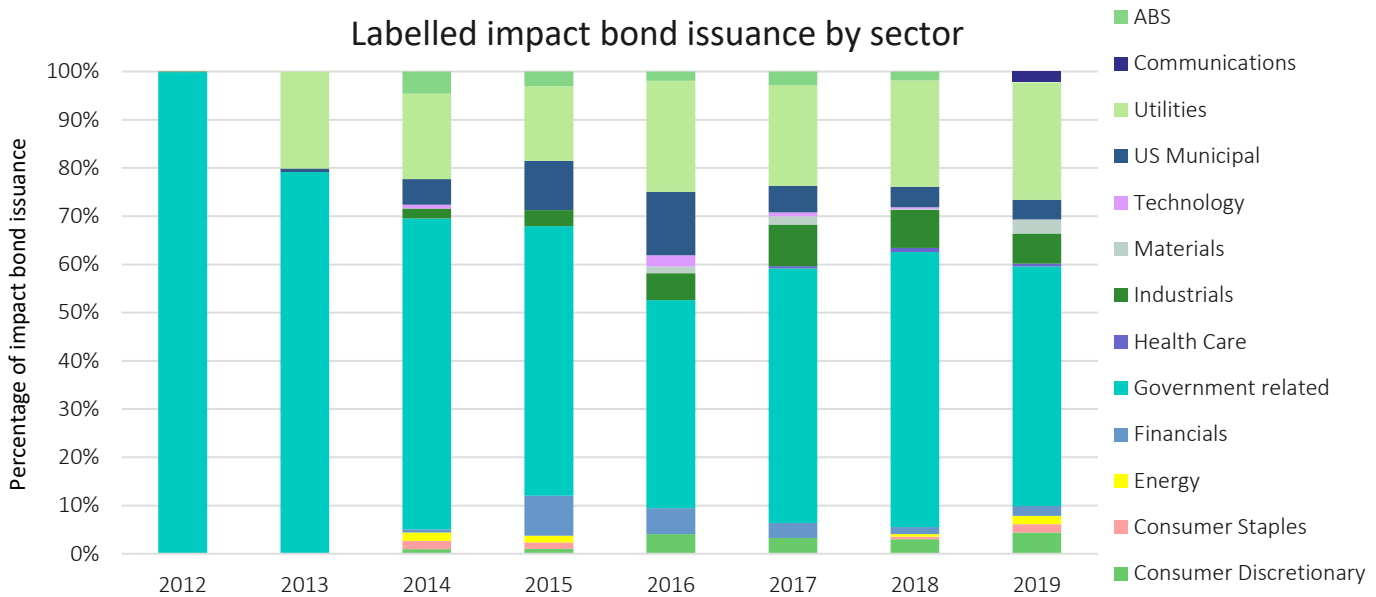


Figure 3: Impact bond issuance by sector  
Source: Bloomberg. Labelled bonds only. All figures as at 30 September 2019

**New Issuance**

The green bond market has seen record issuance in 2019, with almost \$200bn of primary issuance recorded already year to date. Primary issuance is key to improving liquidity going forward, as it is not only an indicator of financing activity, but also provides an indirect measure of the health of the secondary market. On the issuer side, we have seen a continual increase in number of issues. According to Bloomberg, in 2008 there were only 8 issues originated; by 2014 the number had increased to 131 during that year and, in 2019, the number of issues launched is already approaching 600.<sup>2</sup>

Similarly, the number of issuers continues to rise—from just a couple in 2010, to well over 500 (excluding US municipal green bonds) as at end-September 2019. We have also seen a notable increase in issuance size. The IFC was the first issuer in 2013 to launch a \$1bn size issue—since then, the number of \$1bn+ size issues has grown steadily each year. So far this year, there have been 34 separate \$1bn+ issues, which accounted for over \$60bn of total issuance (representing 30% of all issuance this year).<sup>2</sup>

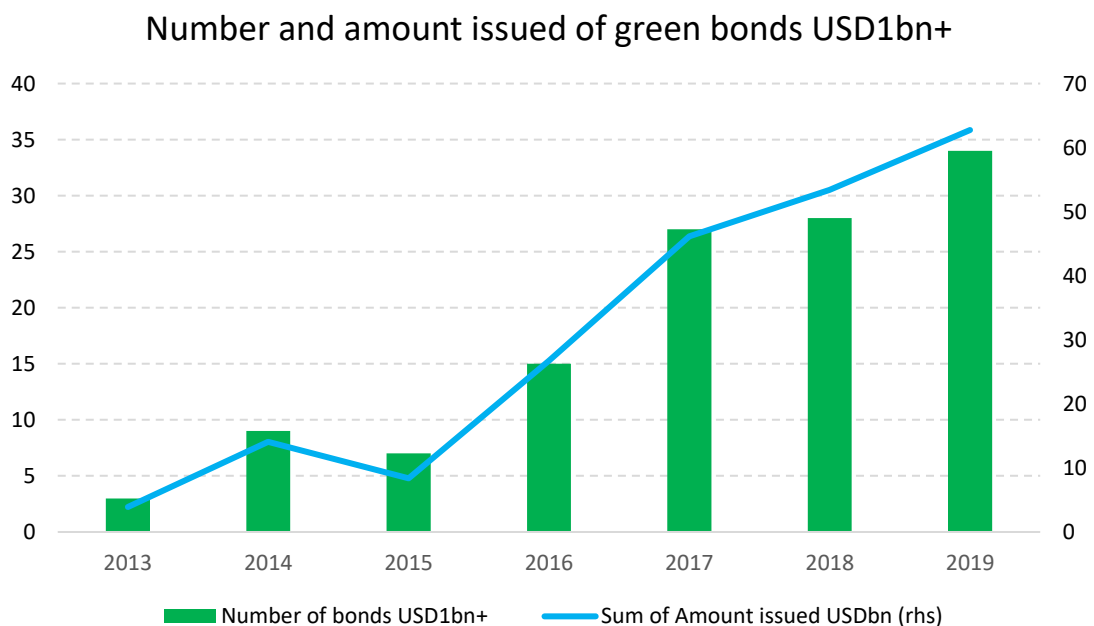


Figure 4: Number and amount issued of green bonds of US\$1bn+ issue size  
Source: Data and graph provided to AIM by Climate Bonds Initiative.

### Increased Number of Market Participants

The increasing number of institutions participating in the market effectively multiplies the opportunities to transact and an increase in the number of active participants implies a growing level of activity and liquidity. On the investor side, we have seen a marked increase in the number of bonds funds. In 2010, there was just one green bond fund available to international investors; by early 2019 Environmental Finance had identified 29 active dedicated green bond funds<sup>4</sup> and, more recently, a small number of ETFs. Anecdotally, many non-specialist asset managers also invest in green bonds within their conventional fixed income mandates.

On the intermediary side, there has also been a surge in participants. According to Bloomberg data in 2013, there were barely a dozen brokers/banks involved in trading and originating green bonds—by 2019, the number has risen sharply to well over 100 institutions.<sup>2</sup>

### Bid/Offer Spread

The bid/offer spread for an individual bond is effectively the transaction cost associated with buying/selling a bond. The wider the spread, the higher the transaction cost and, by implication, the less liquid the bond is. Bid/offer spreads are largely impacted by a combination of factors, including whether it is a government issue, the size of the issue, the credit rating, the free float in the market and the currency risk. The bid/offer spread for green bonds will, like all other bonds, be determined by the above factors. So, for example, the French government OAT green bond trades on a bid/offer spread of 0.9bps yield (as at 30 October 2019)<sup>2</sup>, which is very much in line with the rest of the French government bond market.

### Market Activity and Trading Volumes

Trading volumes are greatest in the highly rated investment grade segment of the bond market. Green bonds largely sit within this bucket and, as a result, are part of the bond market with the greatest liquidity. In our proprietary SPECTRUM universe of impact bonds (largely green bonds), over 90% are investment grade, with a high portion in the AA or better category - the most liquid section of the publicly traded bond market.<sup>2</sup>

## Number and green bond transactions and average transaction size

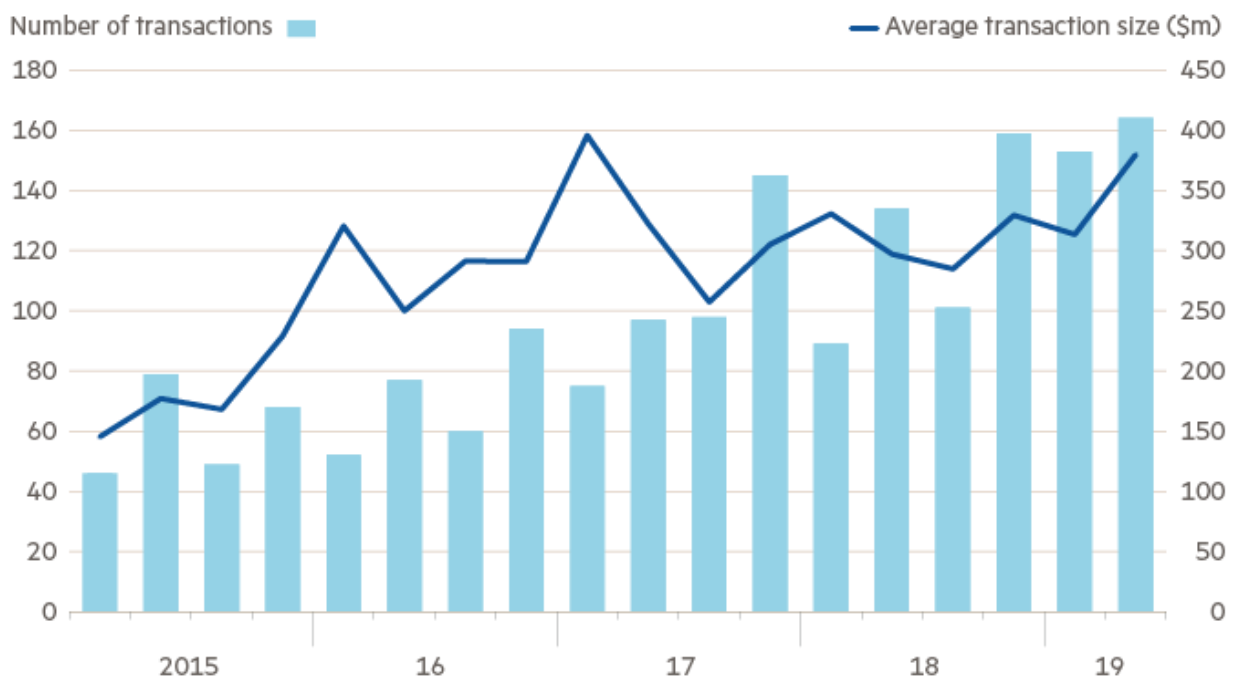


Figure 5: Number of green bond transactions and average transaction size  
Excludes Fannie Mae green bond issuance  
Sources: Climate Bonds initiative, Moody's Investors Service  
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### Liquidity Status

There is little disputing that, as the green bond market evolves and moves from niche to mainstream, many of the above liquidity measures are improving. However, this does not detract from the fact that accessing green bonds on the offer side in the secondary market remains a challenge. Therefore, what has been the actual experience of dedicated green bond investors, including AIM, in facing these challenges?

AIM is a pure play asset manager whose objective is to run dedicated ‘impact bond’ strategies which can substitute for mainstream fixed income portfolios, without compromising performance returns on a risk-adjusted basis. If liquidity were insufficient in the marketplace, this would be near impossible to achieve.

Our experience has shown that, despite the relatively small size of the market and the growing interest in this space, we have been able to manage daily dealing portfolios and deploy monies in newly awarded mandates within short timeframes. We have succeeded in mitigating some of the ‘illiquidity’ in green bonds as a result of the following:

**Engagement:** as a green bond specialist, we have offered an open door to prospective and new issuers. We are happy to share advice and collaborate. We have been involved in direct reverse enquires and we have had memorandums of understanding with issuers. Our close working relationship has helped us gain access to an increased and more flexible supply in the primary market.

**Primary market allocations:** historically, AIM has benefitted from above market allocations in the primary market, when green bonds have frequently been four times oversubscribed when coming to market. As the graph below shows, in the 12-month period up to October 2018, we received a full allocation in almost 50% of the primary issues it participated in, and received an above average market allocation on more than 90% of occasions. The Climate Bonds Initiative, in its most recent green bond pricing report, estimates that 53% of new issuance is allocated to *green bond investors* and this is supported by issuers disclosing publicly their intent to allocate favourably to green investors. For example, the Dutch State Treasury Agency, when launching the inaugural Netherlands sovereign green bond earlier this year, gave priority allocations to investors prepared to declare their green credentials.

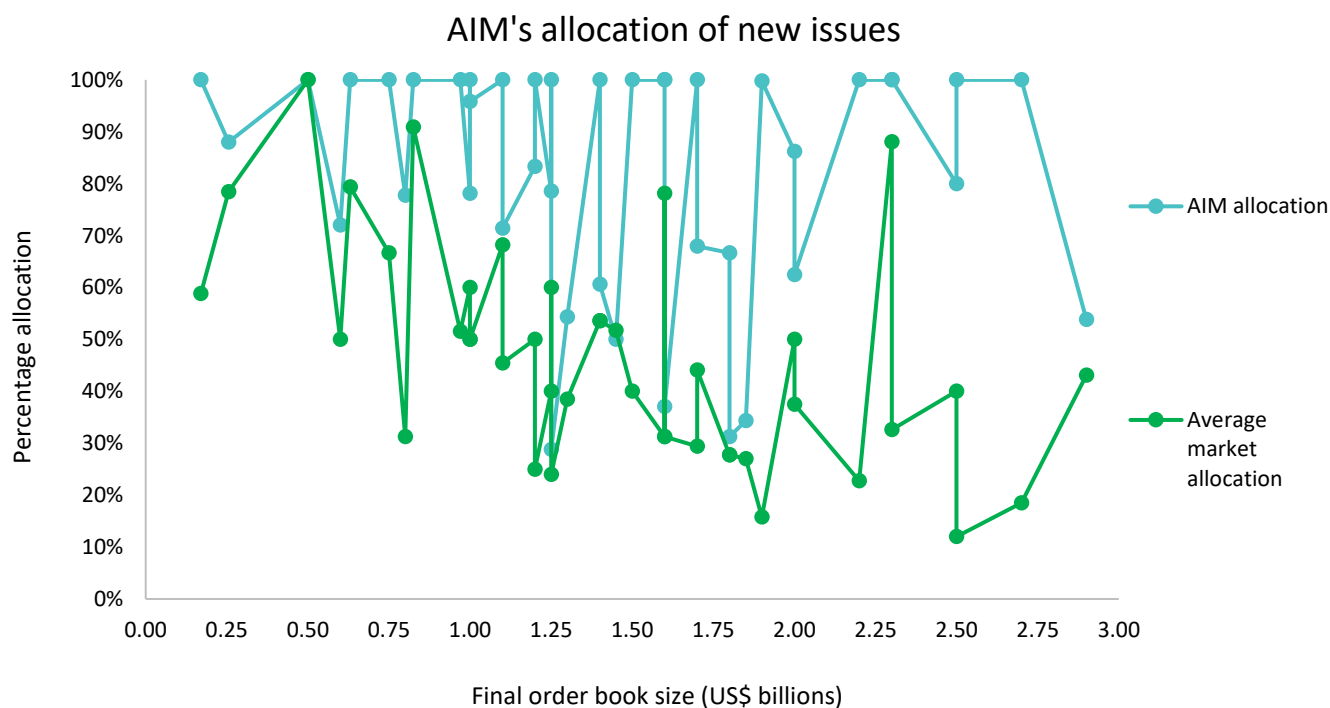


Figure 6: AIM’s allocation of new issues

Source: AIM and Bloomberg data. Based on a sample of 42 new issues between September 2017 and October 2018.

Reputation and presence: having a strong and long-standing presence in the market has enabled our portfolio management team to benefit from increased awareness of secondary offerings. The intermediaries supporting the origination of new issues are keen to receive feedback on structuring deals and this close interaction places a specialist, such as AIM, in pole position for secondary activity, with our expert knowledge and ongoing demand.

Inclusion of social and sustainability bonds in the investable universe: although we are a green bond specialist, we have always included other impact bonds, namely social and sustainability bonds, in our permitted investable universe. This is consistent with our ethos to invest in bonds that generate a positive environmental and/or social impact. Social and sustainability bonds, according to our database, account for approximately 15% of all impact bonds and the ability to invest in these issues adds an extra source of liquidity for portfolio management.

## Summary

From the above analysis we can draw three overarching conclusions:

1. Liquidity in green bonds has been encouraging, given the backdrop of diminishing corporate bond liquidity over the past decade.
2. Strong and diversified growth in the green/impact bond market is set to continue.
3. While challenges remain in accessing and buying bonds, we believe these can be addressed by dedicated managers. An experienced and focused specialist manager is able to overcome liquidity challenges on the buy side, through close dialogue, collaboration and engagement with issuers. Being recognized as a genuine, impartial adviser, aligned to market integrity, brings increased access to the market.

One of the conundrums for the green bond market, when it comes to liquidity, is that many investors opt to hold green bonds, once purchased, as many so-called ethical investors regard themselves as long-term stewards of capital. As a result, there is probably less free float available in the market.

Even though it reduces short-term liquidity, this should be considered a positive feature for two reasons. Firstly, it has encouraged new issuers to issue green bonds in order to broaden their investor base, in the knowledge that their debt will be held in more stable hands. Secondly, it is unlikely that, in times of crisis, these investors will rush to sell their holdings, providing more stability for green bonds and potentially offering strong defensive qualities in times of stress. As Paul Volker, the former Federal Reserve Chairman, once said, “When I hear complaints about less liquidity, remember there is such a thing as too much liquidity.”

**Liquidity can be a double-edged sword. It just might be that green bonds can benefit from sufficient liquidity in good times, while providing stability in times of stress.**

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<sup>1</sup> Bank for International Settlements 2018

<sup>2</sup> AIM/Bloomberg data

<sup>3</sup> <https://www.environmentalleader.com/2019/09/green-bonds/>

<sup>4</sup> <https://www.environmental-finance.com/content/analysis/green-bond-funds-underperform-in-tough-2018.html>