The Green Bond

17 October 2019

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From Christopher Flensborg, head of Climate & Sustainable Finance: With USD regaining momentum, Asia slowly gaining pace, Europe embracing region by region and Sweden, France, Netherlands, Canada and Australia leading the pace – it is becoming obvious, that issuers who don't (as a minimum) have a strategy on how to translate their strategies into a TCFD/PRI/NGFS language, will face reduced access to investors over the next years.

The transition to an emission-free energy system continues, with prices of renewable energy projects reaching new lows and new impressive solar and wind investment projects reported around the world every week. However, looking beyond the positive headlines, the pace of the transition remains too slow to halt the increase in the global consumption of fossil fuels. The percentage increase in the supply of clean energy remains strong, but the base is still too small for this to cover the increase in total energy consumption and the speed is not picking up.

The Green Bond market in September had the second highest monthly volume in 2019, with issuance totalling USD 29.3bn. The first weeks of October have also been strong with total issuance of USD 9.5bn. This has brought total issuance year to date (15 October) up to USD 189.5bn, which is higher than the total volume for 2018 (USD 183bn). This places the trajectory of our 2019 high-end green bond market estimate, of USD 240bn, clearly within reach. Furthermore, while green bonds historically have dominated the market, other product types are starting to have a more significant presence.

Many companies are today reporting their impact on the environment and social aspects in sustainability reports. The non-financial reporting directive made this, previously voluntary report, a requirement to companies with over 500 employees. As this is a minimum level, countries member could, if they choose, go for a wider adoption which was the case in Sweden. To guide companies on how to report and what to report, the EU-commission has developed a set of non-binding guidelines which clarifies this.

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Letter to the reader

With USD regaining momentum, Asia slowly gaining pace, Europe embracing region by region and Sweden, France, Netherlands, Canada and Australia leading the pace – it is becoming obvious, that issuers who don't (as a minimum) have a strategy on how to translate their strategies into a TCFD/PRI/NGFS language, will face reduced access to investors over the next years.

With this year ending around USD 220-240bn and the accumulated issuance above USD 800bn, we should reach the USD 1tn mark next summer!

Over the last quarter we have seen a number of interesting issuances, EIB with their Taxonomy aligned CABs and inclusion of Social through SAB Benchmark issuance. We have also seen EBRD adjusting their framework to include the transition and lastly seen Teekay, an oil tanker shipping company, issue a Green Bond backed by fuel switch technology resulting in significant fuel, CO_2, NOX and SOX reductions - so where are we heading?

At SEB we like to say that we have now defined the Goal (call it Paris aligned or Dark Green – which is most of the current Green Bond market), we now need to define the road to "Paris" – and it might look shorter or longer depending on regions and sectors. We need to have an inclusive transition to succeed and understand the role of various players. At SEB we have split the stakeholders in three3 groups:

1. the Goal (Paris aligned),
2. the Leaders (Stakeholders which will lead the movement towards "Paris") and,
3. the old economy (old houses, traditional power systems and non-upgraded transport).

Only by understanding each group – and how leaders in each group will benefit from its potential, and how laggards risk becoming stranded assets – we can re-price assets and avoid unwanted volatility in our portfolios – and consequently we need to start the discussion about what this journey will look like, what the contribution of each group is, what is accepted and not accepted – as well as – how to label it – and we think that the issuances mentioned above – all contribute to this.

Now, whereas the first two issuers are non-controversial and easy to understand the value of, the Teekay transaction is more controversial. We think the transaction (financing solutions reducing CO_2 with 47%, NOX with 85% and SOX with 95%) created a long needed debate about the transition and what it takes to contribute. We also (which was new) experienced a totally new dialogue with core investors where the focus was on ESG – and suddenly we had portfolio managers, who normally only look at cash-flow/risk vs return – being fully engaged in a discussion around the transition – and particularly in light of what we have experienced over the last decade – isn't that exactly what the Green Bond market is about? – then one can discuss if the ESG officers will be empowered to lead the same discussion in a "Transition" Bond, or not - but that is the discussion needed to reach "Paris".

Enjoy your Reading

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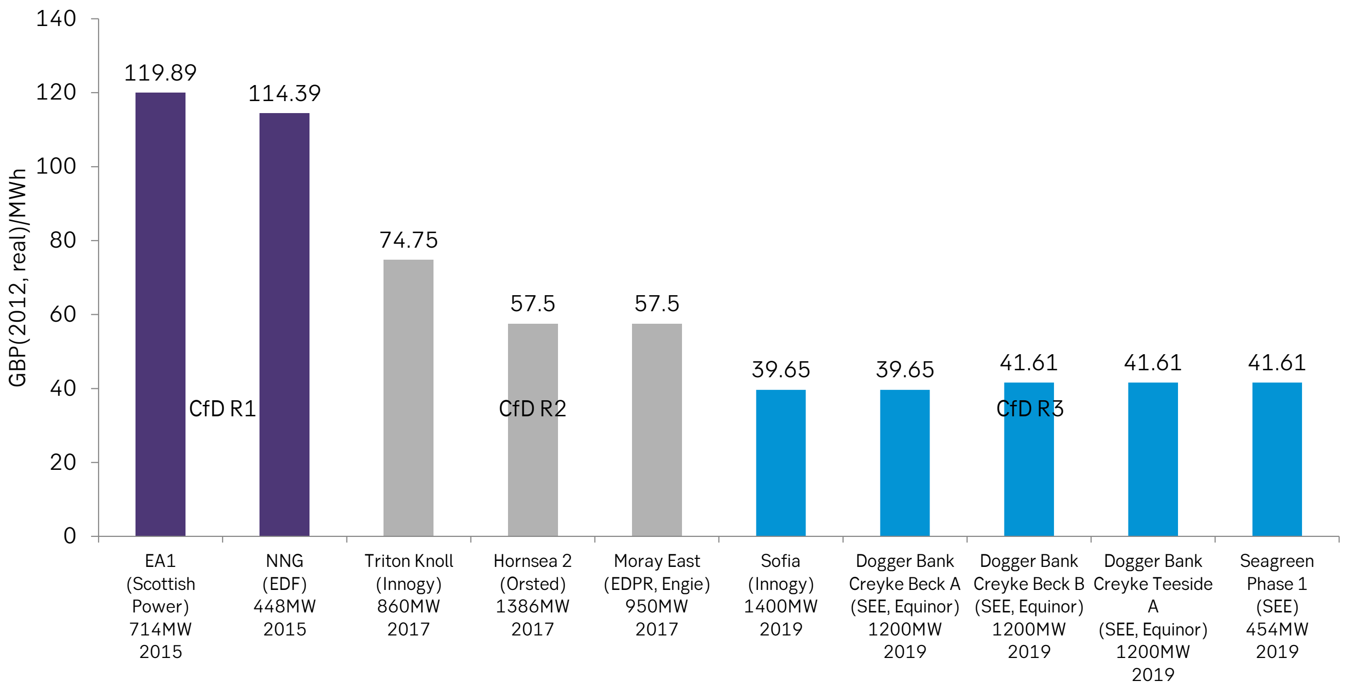
Transition update

The transition to an emission-free energy system continues, with prices of renewable energy projects reaching new lows and new impressive solar and wind investment projects reported around the world every week. However, looking beyond the positive headlines, the pace of the transition remains too slow to halt the increase in the global consumption of fossil fuels. The percentage increase in the supply of clean energy remains strong, but the base is still too small for this to cover the increase in total energy consumption and the speed is not picking up.

Renewable energy supply continues to generate positive headlines and symbolic victories. One such symbolic milestone was reached in the UK in Q3, when electricity generation from renewable energy surpassed that of fossil fuels for the first time since start of electrification in the 1880s. Similar achievements have been reached in other developed economies, and oil, gas and coal consumption has also been falling in recent years in the OECD area, where total energy consumption has been levelling off over the past decades.

At the same time, the cost of renewable energy also continues to provide evidence of rapid technological progress. September's third UK auction of wind power contracts resulted in price levels that were well below expectations. The 12 schemes awarded contracts are expected to produce some 29 TWh of electricity each year, equal to 9% of the UK's total output today, at a price of around £40/MWh. For off-shore wind, the price was 30% lower than at the latest auction in 2017 and 66% lower than at the first auction in 2014, in part because the projects involve new wind turbines that are significantly larger than earlier generations. This means prices are now low enough to remove the need for subsidies, and according to CarbonBrief, it is also lower than the cost at existing gas plants, marking an important milestone.

Figure 1: UK offshore wind strike prices

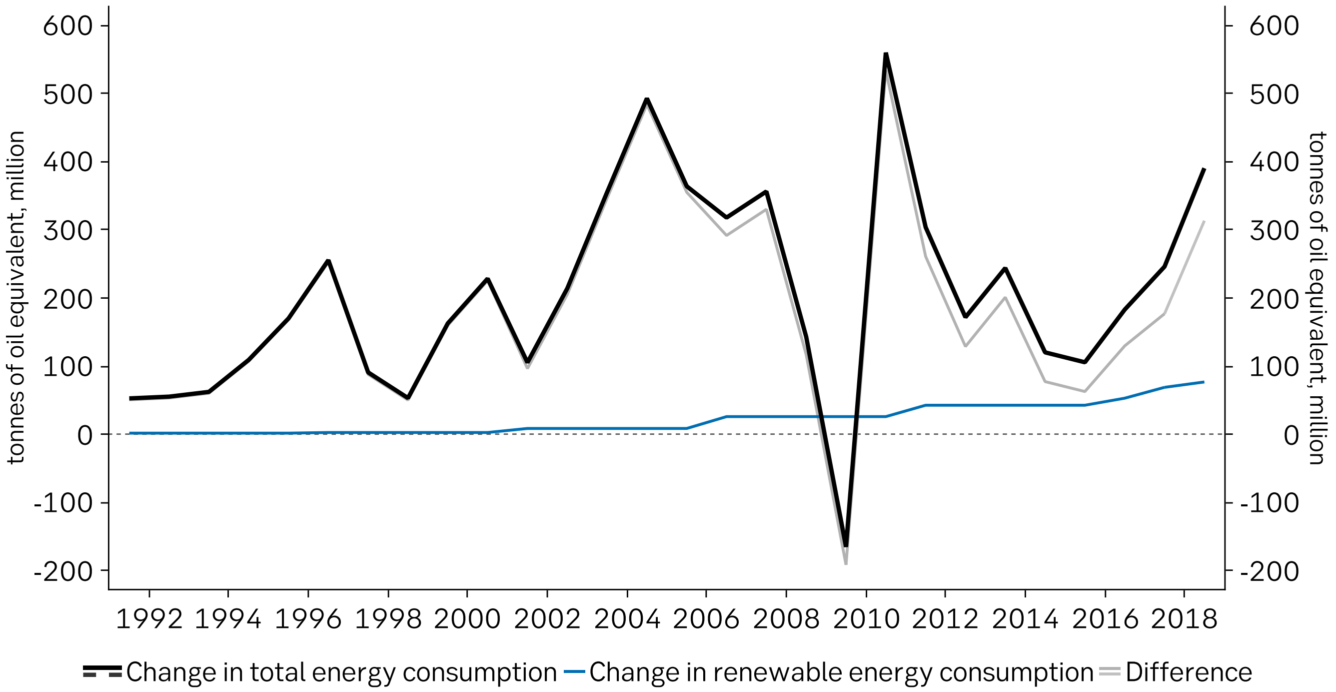


Source: OWC, SEB

However, while this is one more piece of evidence indicating that renewable energy in many parts of the world is cheaper than fossil fuels and capacity continues to increase at a pace of 10-15% per year. This is much higher than the growth rate of total energy consumption. The pace of the transition remains too slow to halt the increase in global fossil fuel consumption.

This is due to the low base that renewable supply starts from and the fact that total energy consumption continues to increase at a relative rapid pace. In 2018, global energy consumption rose more than 2% according to BP World Energy report, equivalent to almost 400 million tons of oil (TOE), and while 10-15% growth in renewable energy supply is impressive, it only amounts to less than 80 million TOE, see Figure 2. This means that total energy consumption excluding renewable energy continues to rise by more than 300 million TOE every year. Even if the current double-digit percentage growth rate for renewable energy supply is maintained, it will take more than 15 years before the annual additions are large enough to cover the total increase in energy consumption. This means that the current pace, fossil fuel consumption will not peak until the mid-2030s.

Figure 2: Annual change in energy consumption

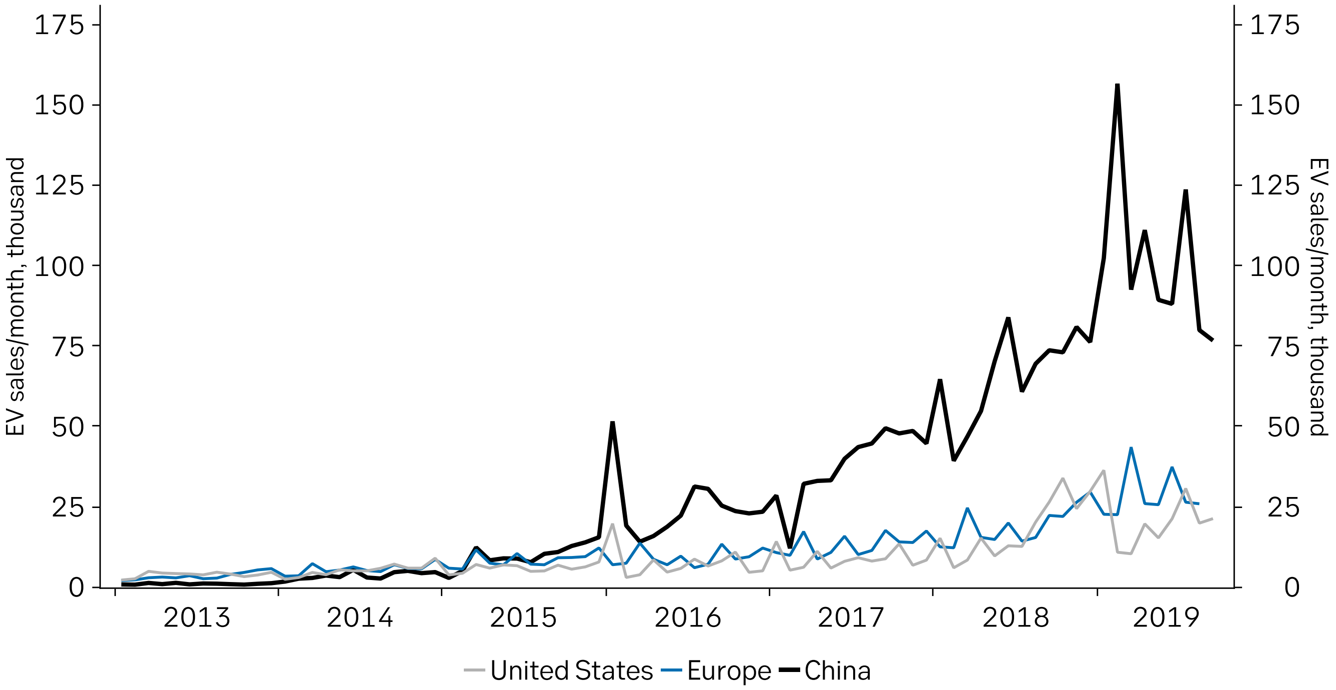


Source: BP, SEB

This suggests that the transition remains too slow to prevent an unsustainable increase in the global temperature level. In order to align with the Paris agreement goals, either total energy consumption will have to slow or the growth in renewable energy capacity has to accelerate from the current pace. Due to the close link between energy consumption and GDP growth and the continued industrialization of developing economies, the lion's share of this adjustment most likely has to come from faster growth in renewable energy supply, and even with continued declines in the price of renewable energy, this is going to require a substantial increase in the level of renewable investment. However, as we reported in August's issue of 'the Green Bond', renewable energy investment has been falling in dollar terms in 2018 and 2019, not least due to China's shift from subsidies to an auction-based system.

Similar problems are evident when we look at the other side of the story: the move towards electrification on the side of energy users. China has been leading the way in the shift to electric vehicles with powerful growth over the past five years, also in the enabling installations. According to Blomberg, China now has 8 times as many EV-chargers as the US, and EV sales had reached 5% of total car sales. However, while China has ambitions to speed this transition process up over the longer term, replacing 60% of all fossil-powered vehicles with EVs by 2035, the transition has hit a road-bump after the subsidies to EVs were scaled back earlier this year. Sales have declined sharply over the past 3 months and are no longer rising as a share of total car sales.

Figure 3: Monthly electric vehicle sales



Source: Macrobond, SEB

So, while both the installation of new renewable energy production facilities and the technological progress driving their costs down are truly impressive and on par with what we saw in earlier technology diffusion episodes, the current pace of the energy transition is not fast enough to meet the demands raised by the climate crisis. As a result, we expect that the political and social pressure on governments, regulators and investors to speed it up will continue rising in the coming years. The good intentions, which were once again displayed all around at the UN climate summit in New York in September, are not being reflected in the real world fast enough.

Green Bond Market Update

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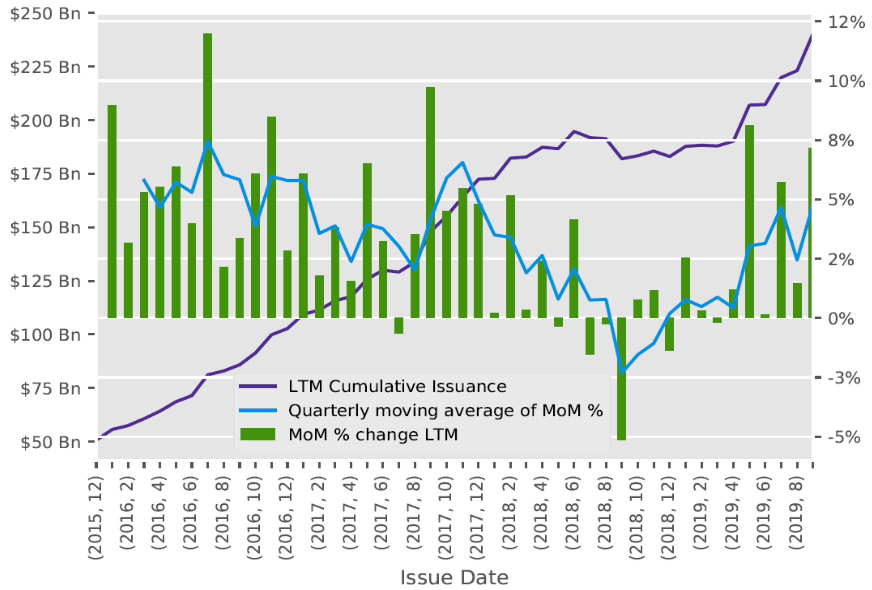
The Green Bond market in September had the second highest monthly volume in 2019, with issuance totaling USD 29.3bn.

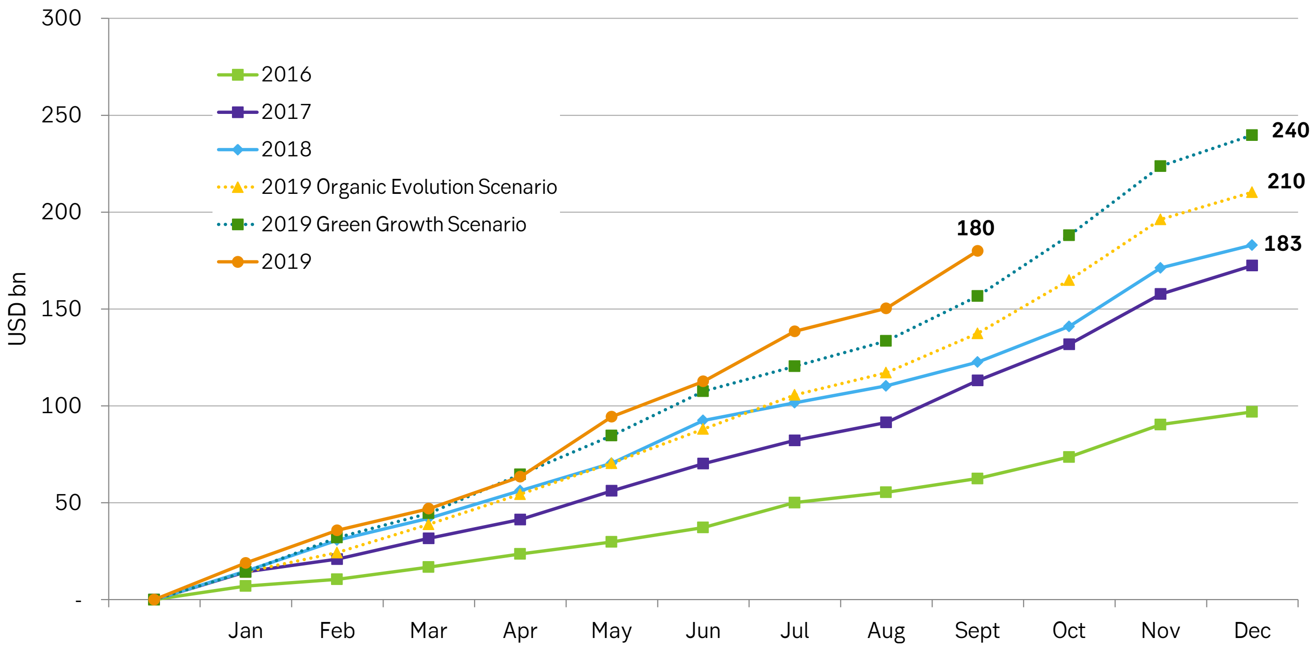
Figure 4: Green Bond Issuance – Last 12M (USD bn)



Source: SEB analysis based on Bloomberg (BNEF) and SEB data, as of 30 September 2019

The first weeks of October have also been strong with total issuance of USD 9.5bn. This has brought total issuance year to date (15 October) up to USD 189.5bn, which is higher than the total volume for 2018 (USD 183bn).

Figure 5: Cumulative annual Green Bonds issuance & scenarios (USDbn)

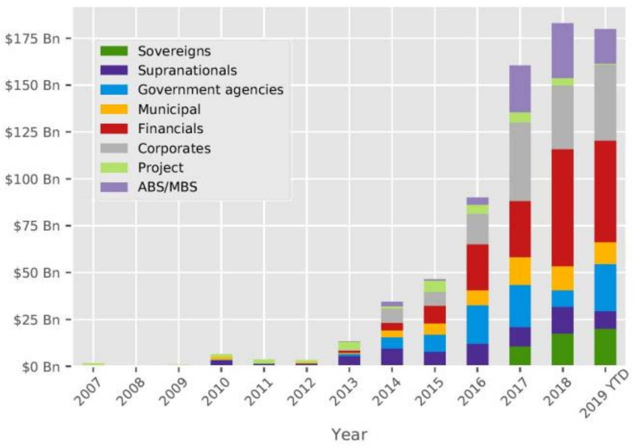


Source: SEB analysis based on Bloomberg (BNEF) and SEB data, as of 30 September 2019

This places the trajectory of our 2019 high-end green bond market estimate, of USD 240bn, within reach, see Figure 5. The total volume of issuances for Q3 reached USD 59.0bn - almost twice that of last year (USD 30.1bn). This was in part due to better diversification of issuances in terms of countries and sectors, such as government agencies and ABS/MBS, which has compensated for the European (incl. Nordic) corporate and financial markets that are typically less active during the summer months.

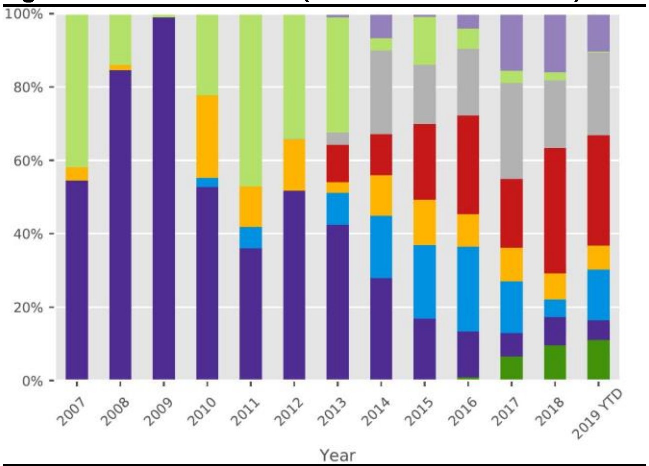
As Figure 6 below indicates, the financial sector remains the largest issuer of green bonds. The sector delivered another stellar month, with USD 11.8bn worth of green bond issuances in September representing year-on-year growth of 160%. Corporates reported USD 4.7bn of green bond issuances in September, which is 50% higher than September last year. Government agencies issued USD 3.5bn worth of green bonds in September, more than triple what was issued in September last year, and it is promising to see that government agencies continue to take a larger chunk of the market. All other sectors, except the municipal sector which was level with last year, increased significantly year-on-year in September. It will be exciting to see if this trend continues for the remainder of 2019.

Figure 6: Green Bond market growth by sector (USD bn)



Source: SEB analysis based on Bloomberg and SEB data, as of 30 September 2019

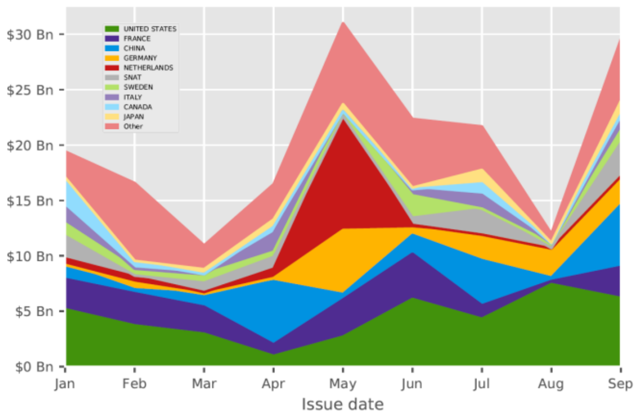
Figure 7: Sectoral evolution (% share of ann. issuance)



Source: SEB analysis based on Bloomberg and SEB data, as of 30 September 2019

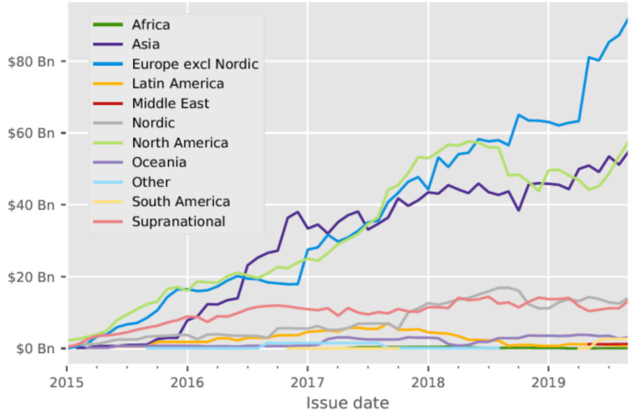
Europe (excl. Nordic) continues to be the most active region of the market, with green bond issuances of USD 9.4bn in September. This consisted of 17 issuances across 9 countries, suggesting that the green bond market is gaining traction across the continent, primarily in the corporate and financial sectors. The Asian region continued its strong performance from July and August with total issuance of USD 8.0bn in September. This was primarily due to financial sector issuances across China and Japan accounting for USD 6.3bn, or more than 80% of the total for the region, and it is interesting to observe that the USD market, for a fourth month in a row, has been a core market for issuance. The United States had issuances of USD 6.8bn in September, primarily by Fannie Mae which issued USD 4.2bn worth of mortgage backed securities. The Nordics continued to be a relatively stable issuer region with issuances of USD 1.8bn in September, evenly split between 18 issuers across the government agencies, financials, corporate and municipal sectors.

Figure 8: Green Bond issuance by countries (USDbn)



Source: SEB analysis based on Bloomberg and SEB data, as of 30 September 2019

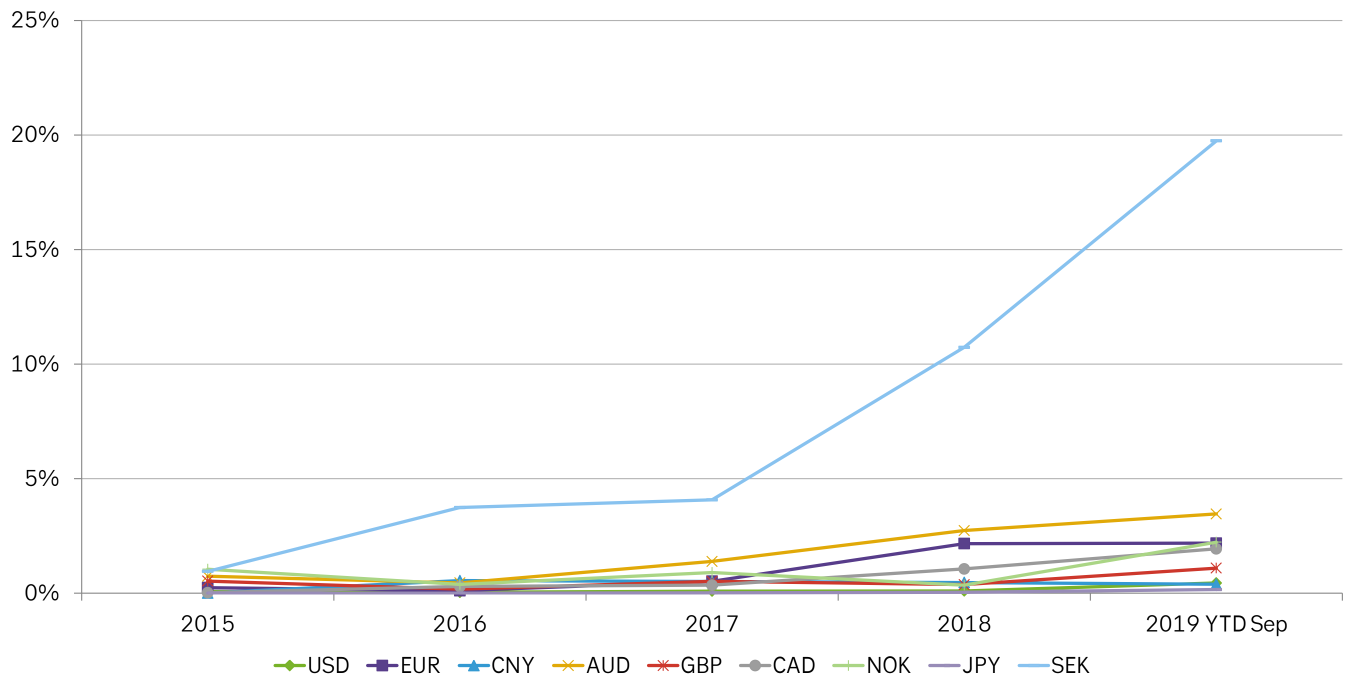
Figure 9: Last 12M moving sum of issuance, regions (USDbn)



Source: SEB analysis based on Bloomberg and SEB data, as of 30 September 2019

In the last few years the green bond market has shown tremendous growth, yet it still remains a small fraction of the total bond market. Figure 10 below illustrates that green bond issuance in 2019 represents less than 4% of total bond issuance in most major currencies, although the positive trend over the last two years should be noted. None of the major currencies, however, have experienced an impact close to that of Sweden - green bonds accounted for as much as 21% of all issuances thus far in 2019. The future of the market is bright if green bonds issued in the major currencies can climb to anything close to a similar share of the total market.

Figure 10: Green Bond issuance as a percentage of total bond issuance



Source: SEB analysis based on Bloomberg (BNEF) and SEB data, as of 30 September 2019

Sector analysis

The financial sector has raised USD 54.3bn through Green Bonds so far in 2019, of which USD 11.8bn was issued in September. As a result, financial sector green bond issuance in Q3 2019 was USD 19.7bn, almost twice as high as Q3 2018 (USD9.9bn). The largest issuer from the financial sector in September was, by far, the Chinese bank ICBC. The bank had two USD 1bn green bonds issuances (3 and 5 year tenors) for the purpose of financing or refinancing eligible projects in the Guangdong/Hong Kong/Macau region, and another two issuances of HKD 4bn (USD 510.3m) and USD 500m. Several other Asian institutions also issued green bonds in September, including Bank of Guiyang and Qilu Bank in China, Bank of the Philippine islands, Mitsubishi UFJ Financial Group, Mitsui Fudosan. As a result, Asian institutions accounted for over half of all financial sector green bond issuances in September at a total of USD 6.3bn. In Europe, several financial institutions issued USD +500m sized green bonds, including Raiffeisen Bank (Austria), Covivio (France), Assicurazioni Generali (Italy), EDP Finance (Portugal), de Volksbank (Germany), Sparebank 1 SMN (Norway) and Zug Estates Holding (Switzerland). The largest issuance from North America during the month was Host Hotels & Resorts (USD 650m). The most exciting news in the financial sector comes from Kenya, where Acorn Holdings issued the first Kenyan green bond for the purpose of building environmentally friendly accommodation for 5000 students in Nairobi.

The corporate sector is usually at around USD 3-5bn of green bond issuances per month and September took the higher end of this range at USD 4.7bn. As a result, the green bond corporate sector year to date is now 50% ahead of last year. The largest issuance, and the only corporate issuance from North America in September, was Northern States Power USD 600m 30 year green bond. Corporates from Europe (incl. Nordics) issued 8 green bonds in September with a total volume of USD 1.5bn. Of these issuances Scottish Hydro Electric Transmission (Great Britain) was at the top in terms of volume, with a GBP 350m (USD 437m) green bond, followed by Akiem Group from France with a EUR 360m green private placement (USD 398m) and PostNL from the Netherlands with a EUR 300m green bond (USD 330m).

Government agencies raised USD 3.5bn from green bonds, continuing the positive trend of recent months. As a result, total issuance year to date exceeds USD 10bn, which is 1bn more than the full year of issuance in 2018. KfW, the German development agency, issued a green bond of USD 2.0bn while NWB Bank (the Netherlands) issued a EUR 500m (USD 545m) water bond, the first EUR dominated water themed bond from the bank since 2015. Other government issuances in September included Kommuninvest (municipality investments) in Sweden, Chongqing Rail Transit Group in China, Japan Housing Finance and Kommunalbanken (Norway), demonstrating that a variety of government agencies from a wide range of countries are issuing green bonds.

Following a hiatus in August, several major supranationals raised funding through green bonds in September, including EBRD, IFC, NIB and ADB. This meant total green bond issuance for the month totaled USD 2.4bn, the highest so far in 2019, and issuances in Q3 were 71% ahead of last year. The largest single issuance came from EBRD with a 5 year USD 700m climate resilience bond, upsized from USD 500m in order to provide good allocation to investors with sustainability mandates. This was EBRD's first transaction since the release of their Framework for Climate Resilience Bonds in September.

Municipals issued green bonds totaling USD 600m in September. This was a below average month for the sector and significantly down from August's issuances of USD 3.9bn. As usual, the United States (6 issuances) and Sweden (4 issuances) dominated the municipality sector; the City of Toronto was the only municipality issuer not from these countries in September.

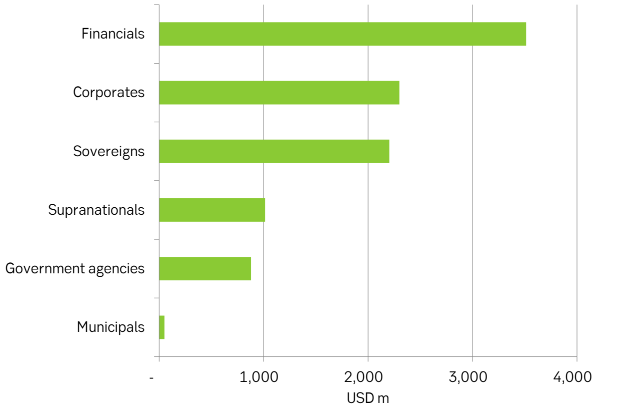
Fannie Mae issued USD 4.2bn of mortgage backed securities in September, making it the highest volume month for the ABS/MBS green bond market recorded. This follows a trend whereby Fannie Mae's monthly issuance has increased steadily from the lower range of 1-3bn in 2018 and early 2019 to USD 3-4bn in the last four months, which makes the market level with the corporate sector and government agencies so far in 2019.

October update

The green bond market has had a promising start also in October with total green bond issuance for the period 1 – 15 October totaling USD 9.5bn. The financial sector has been most active so far in October with 10 transactions, of which Banco Santander issued the largest green bond at EUR 1bn (USD 1.1bn). PepsiCo issued the largest corporate green bond so far in October at USD 1bn, while Ireland did a tap from the sovereign green bond of EUR 2.0bn (USD 2.2bn), the largest transaction so far in October.

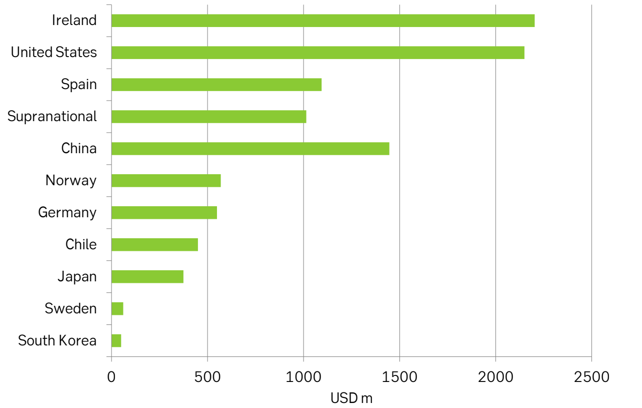
United States has besides Ireland been the most prominent country in the green bond market so far in October due to issuances from UDR and MidAmerican Energy in addition to the aforementioned PepsiCo issuance.

Figure 11: Issuance 1-15 October, by sectors (USDm)



Source: SEB analysis based on Bloomberg and SEB data

Figure 12: Issuance 1-15 October, by country (USDm)

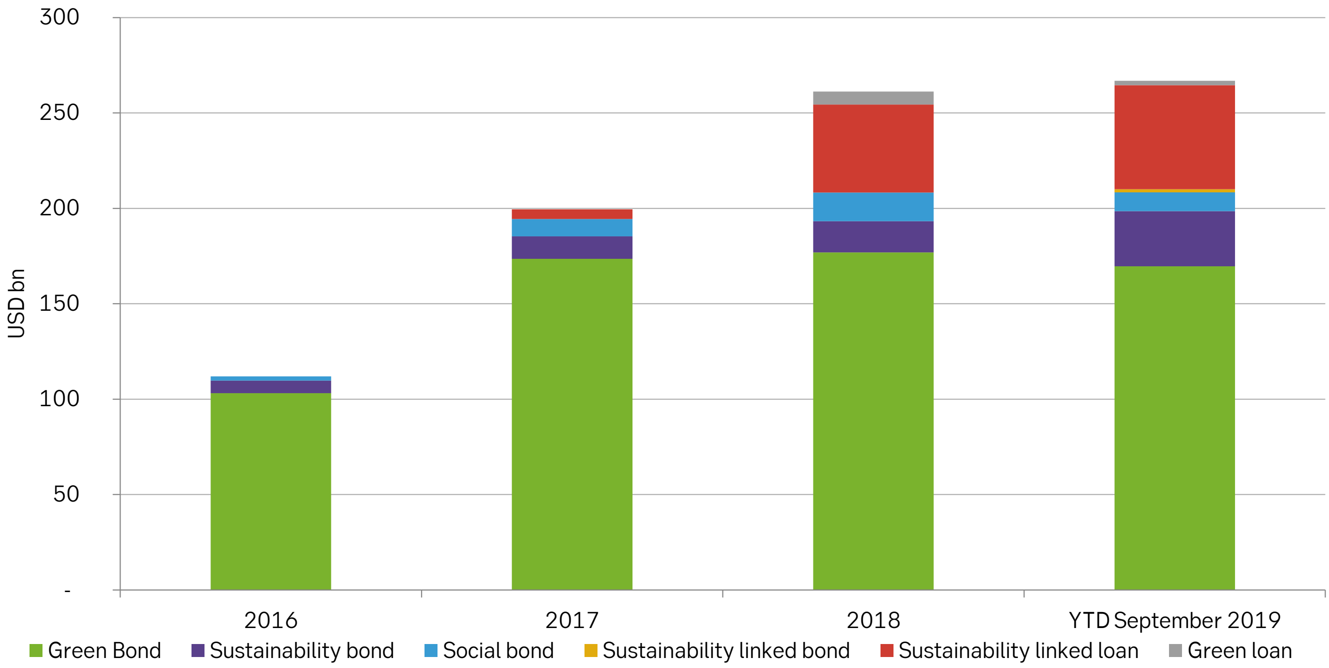


Source: SEB analysis based on Bloomberg and SEB data

Sustainable finance debt products beyond green bonds

Sustainable finance consists of a wide range of products. Historically green bonds have dominated the market but other product types are starting to have a more significant presence. Social bonds have expanded into new markets, such as social housing, while sustainability bonds, which typically include both green and social product categories, have blossomed in recent years. The loan market was up until the beginning of 2018 dominated by green loans - usually in the form of eligible projects within the green bond framework of a financial institution. However, Sustainability linked-loans, where the margin is typically linked to the sustainability performance of the borrower, have experienced tremendous growth over the last two years and accumulated more than USD 50bn worth of loans. September also saw the first issuance of a sustainability-linked bond; Enel issued an SDG-linked bond whereby the coupon rate will increase by 25bps if the company does not achieve 55% of installed capacity from renewable energy sources by 2021.

Figure 13: Sustainable debt finance annual issuance (USDbn)



Source: BNEF (Bloomberg New Energy Finance) , as of 30 September 2019

Publicly Announced Green, Social & Sustainability Bond Pipeline[1]

- China Construction Bank (EUR 500m 3 year green bond)
- Fannie Mae USD 1.1bn GeMS Multifamily Green MBS (announced)
- Eurogrid Green Bond Framework roadshow (mandate)
- Bank of Montreal Sustainability Bond (mandate)
- Caffil EUR Green Covered Bond Roadshow (mandate)
- Credit Agricole EUR 6 year Green Bond (mandate)

[1] As of 16th October 2019

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Climate related disclosures

As you might be aware of many companies are today reporting their impact on the environment and social aspects in sustainability reports. The non-financial reporting directive made this, previously voluntary report, a requirement to companies with over 500 employees back in 2014. As this is a minimum level, member countries could, if they choose, go for a wider adoption which was the case in Sweden.

To guide companies on how to report and what to report, the EU-commission has, as the underlying directive stipulates, developed a set of non-binding guidelines which clarifies this.

Since 2014 the temperature in Europe has reached new highs, both literally and figuratively. It probably hasn't escaped anyone that the Commission means business when it comes to sustainable finance. Due to obvious reasons the Taxonomy has got the majority of the spotlight; however one should not forget that an update of the non-binding guidelines with respect to climate in the non-financial reporting directive was published in the official journal of the European Union on the 20th of June this year. As goes for name, the non-binding guidelines are not twisting your arm to use them.

However, according to the directive companies should disclose issues which are deemed material to the company. This means that companies should not report on climate related risks if these are deemed not material to the company, however they should explain why this is not the case. One could quite easily make the argument that climate is a material risk for quite many companies as companies should, according to the guidelines, take a long term view when assessing the materiality of climate change's impact on the company and the companies impact on climate change.

This leads us quite easily to the conclusion that a lot of companies will, moving forward, report climate related information to investors. Thankfully, the guidelines guide companies on how to do this. As the TCFD has created recommendations on how to report on climate related risk the Commission simply chooses to incorporate its recommendations in their new guidelines.

One again, these are non-binding guidelines, which means that companies doesn't have to report according to the TCFD, however as of now, it's either TCFD or some other method which meet the legal requirements. But considering that TCFD is supported by governments and/or supervisors in Australia, Canada, Hong Kong, Japan, Singapore and South Africa it might not come to anybody's surprise if TCFD will be the name of the game for companies in the EU as well and in a sustainability report near you next year.

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