

Sustainaweekly

Transition commodities an obstacle to Net Zero

- ▶ **Economics Theme:** Transition commodities – the key raw materials used to produce green technologies at scale – could become a bottleneck to Net Zero. Our proprietary transition commodity price indexes are soaring, especially the index for commodities necessary for energy storage. The secular demand shift could also over time lead to problems in supply.
- ▶ **Strategy Theme:** We explore greeniums in the credit space. We find that they exist with regards ESG bank bonds, in the both primary and secondary markets although they are becoming smaller. For corporates, we find little evidence of a greenium in the primary market, but we do see clear evidence for one in the secondary market.
- ▶ **ESG Bonds:** New issues this week - DZ Hyp and Deutsche Bank – saw strong demand with new issue premiums below this year's average.
- ▶ **Policy and Regulation:** ESMA has recently published a Call for Evidence on ESG ratings, with the goal to gather information on the market structure for ESG rating providers in the EU. This is an early step towards increased regulation of the sector.
- ▶ **Company and Sector news:** We review the investment policies of the three biggest Dutch pension funds towards the fossil fuel sector, following the announcement of PFZW. There are similarities in approach but also some variation in the 'divesting to engaging' spectrum.
- ▶ **ESG in figures:** In a regular section of our weekly, we present a chart book on some of the key indicators for ESG financing and the energy transition.

We were delighted with all the reactions we received following the launch of the first edition of this publication last week. In this second edition, we follow up with analysis of a number of themes. We have been struck by the soaring prices of transition commodities and how this might impact the economics of the energy transition. Most notably, the material costs for energy storage have seen a 185% increase since May 2020! We also explore the greeniums of ESG bonds in the primary and secondary markets, early steps to regulate ESG scores providers and the policies of the largest Dutch pension funds towards the fossil fuel sector. If you have any feedback on this publication, please let us know. We hope you enjoy reading!

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Transition Commodities an obstacle to Net Zero

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- ▶ **Transition commodities – the key raw materials used to produce green technologies at scale – could become a bottleneck to Net Zero**
- ▶ **Our proprietary transition commodity price indexes are soaring, especially the index for commodities necessary for energy storage**
- ▶ **The secular demand shift could also over time lead to problems in supply**
- ▶ **In the absence of new technologies, shortages of zero-emission vehicle metals is a matter of time**

Transition commodities an obstacle to Net Zero

Sustained growth in green innovation and production at scale is a necessity for achieving net zero carbon emissions by 2050. This means, however, that nothing must stand in the way of the necessary technological innovation, investment and production of the goods necessary to support the transition. In order to let the process, run as smoothly as possible, breaking down and overcoming obstacles – and certainly not creating them – is a precondition. This often goes hand-in-hand with intensive cooperation between different stakeholders in the chain, attractive financial conditions and, above all, supportive government policy, especially when it comes to infrastructure. The idea is that only then can innovation and production at scale of green technologies - such as the further development of solar, wind, geothermal, electric cars and battery technology - can see the necessary development. However, it is also important not to lose sight of the cost and availability of the materials necessary to produce these transition technologies. In particular, the production of these technologies, mainly requires a lot of 'transition' raw materials, such as aluminium, copper, nickel, zinc and steel. We have constructed a price index of these commodities. And the average price index of these 'green' raw materials together, has recently reached a new all-time high. This potentially makes the economics of the green transition an obstacle.

Average price trend commodities necessary for energy transition



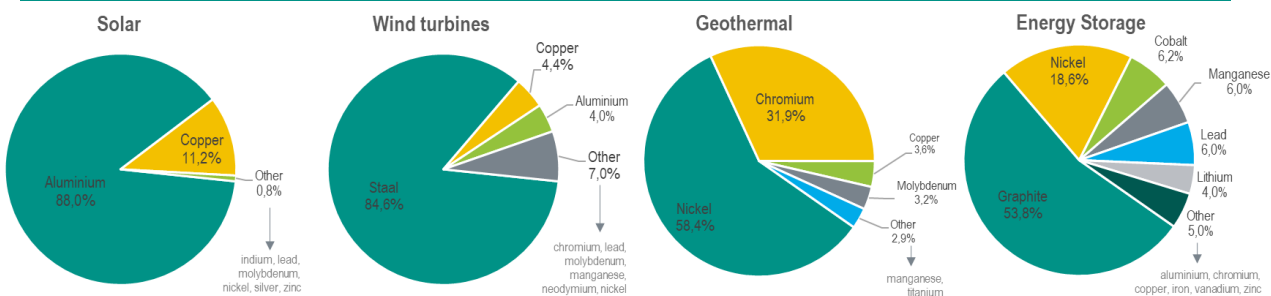
Source: Refinitiv, ABN AMRO Group Economics

An [analysis by the World Bank](#) from May 2020 seemed to be the starting signal for the price rally of 'transition' commodities. The entire report provides a detailed insight into the growth in demand for all kinds of raw materials needed in the energy transition. It shows that demand growth will remain rapid in the coming decades. Eventually, this additional demand will cause supply problems. Not only are minerals becoming scarcer and more difficult to extract, but the mining industry itself is also confronted with all kinds of stricter green regulations and environmental requirements. It increases the pressure on the supply of ores and minerals.

The likelihood of a secular demand shift for these commodities has been factored in by participants in these markets, which has triggered the sharp increases in prices we have seen over the last few years. Since the publication of the World Bank report, the average price of raw materials needed in the energy transition has risen non-stop. The index is now already 117% higher compared to May 2020, breaking the record set in 2010-2011. The biggest outliers since May 2020 are the prices of manganese (+349%), lithium (+292%) and cobalt (+137%). These metals are mainly needed in the production of wind turbines, of geothermal technologies and of electric cars. In particular, due to the strong growth in the battery sector and further development of the battery technology, the World Bank report attributes a lot of growth potential to the demand for cobalt and lithium. The problem with these raw materials, however, is that they are extremely difficult to recycle. For the long term, the question is how to deal with this upcoming mountain of green technology waste.

However, the consumption volumes of lithium and cobalt are in stark contrast to the volumes of metals such as steel, aluminium, copper, nickel and zinc. These metals remain widely needed to make all the necessary green technologies for the energy transition, according to the World Bank. The major advantage of these metals is that recycling rates are very high and thus puts less pressure on total supply.

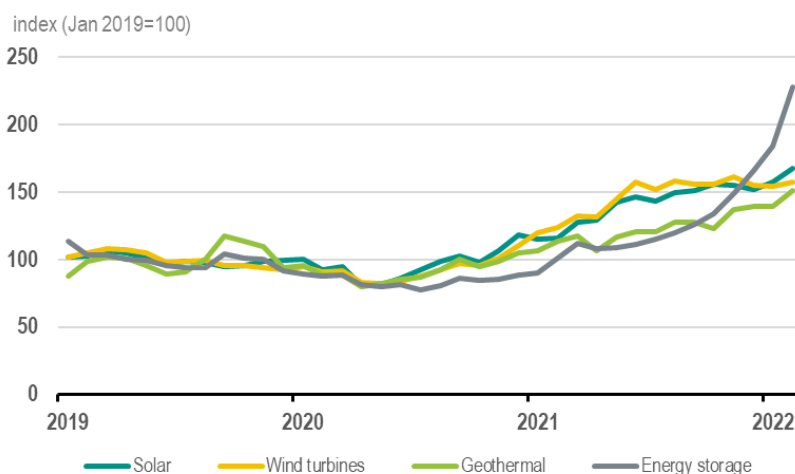
Share of metals in green technologies



Source: World Bank, IEA, ABN AMRO Group Economics

As the new price record is reached, the material and commodity costs of making the green technologies are increasing. Each technology requires a wide range of metals and each metal has its own erratic price pattern. The material costs for metals of all the techniques mentioned have more than doubled since May 2020 for solar panels (+105%), while the material costs for metals for wind turbines and geothermal energy have increased by 91% and 84% respectively since May 2020. The material costs for energy storage were, however, the outlier, with a 185% increase since May 2020.

Metal material cost trends for transition technologies



Source: Refinitiv, ABN AMRO Group Economics

Figures like these significantly lengthen the payback period. Manufacturers with knowledge of market trends may have been able to hedge their price risks through long-term contracts with suppliers or through financial instruments. An additional problem, however, is that suppliers of the raw materials are less willing to enter into long-term contracts in the current market conditions.

Shortage of zero-emission vehicle metals just a matter of time

While most of the commodities discussed above are becoming much more expensive, perhaps an even more important potentially obstacle is whether supply can meet demand. The case of the commodities needed for energy transition in transportation is particularly pertinent. According to IEA minerals used in clean energy technologies for transport are copper, lithium, nickel, manganese, cobalt, graphite, rare earth elements, aluminium (see the IEA's report on [The role of Critical Minerals in Clean Energy Transitions](#)). A metal is scarce if the abundance is low in the Earth's crust. This is measured by percentage or parts per million (ppm) in mass. Oxygen is the most abundant element followed by silicon in the crust while osmium and rhodium are very scarce. Next to being scarce, a metal can also be defined as critical. Critical minerals are metals and non-metals that are considered vital for the economic well-being of the world's major and emerging economies, yet whose supply may be at risk due to geopolitical scarcity, geopolitical issues, trade policy or other factors. We focus here on critical metals for greening road transportation.

Governments have set out regulations to stimulate the adoption of zero-emission vehicles. For example, the Netherlands has said that in 2030 all new car sales should be zero-emission cars. The European Commission proposed in the Fit-for-55 the following EU fleet-wide CO₂ emission reduction targets for new passenger cars and vans as compared to the 2021 target:

- From 1 January 2030: 55 % for cars, and 50 % for vans,
- From 1 January 2035: 100 % for cars, and 100 % for vans.

To reach these targets the car manufacturers need to produce more zero-emission cars and the prices need to be attractive for mass adoption by consumers. However, to produce these cars a lot of metals are used.

According to *WardsAuto*, 76 million vehicles were produced globally and 77 million sold in 2020. Data from the *International Organization of Motor Vehicle Manufacturers* (OICA) show that 73% of these were passenger cars, 22% light duty vehicles, 0.3% heavy busses and 4.5% heavy trucks. Of the 77 million vehicles, only 4% were zero emission cars. In 2021 around 79 million cars were sold and the share of zero emission cars could have doubled. In the last four years sales of zero-emission vehicles have increased by eight times from very low levels but there is still a very long way to go to meet the zero-emission guidelines set for example by the European Commission.

In the last four years demand from vehicles for battery metals such as lithium, cobalt, manganese and graphite have increased five-fold and demand from vehicles for nickel by nine times. This has resulted in substantially higher prices for these metals. Demand for rare earth metals that are used in the motor of battery electric vehicles have also risen substantially. In the motor there are permanent magnets, which contain rare earth elements dysprosium, neodymium and praseodymium. These metals have very high magnetic strength at low temperatures.

We are relatively early in the process of adopting electric vehicles. If we aim to reach these zero-emission targets, there will be in a few years from now substantial shortages of battery metals and rare earth metals barring new technologies. A shortage of these metals could prove to be a significant obstacle to the ambition of achieving Net Zero in the mobility sector.

Greenium behaves differently in financials versus corporate space

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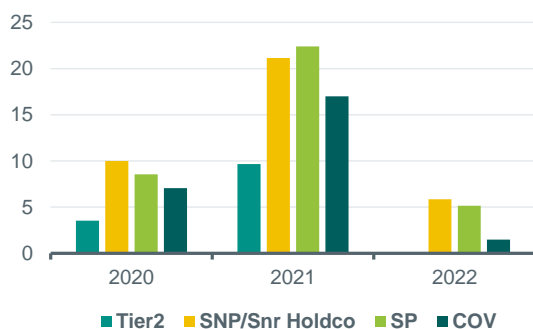
- Issuance of euro ESG bank bonds has risen strongly in the past few years
- ESG bank bonds still benefit from relatively stronger demand and lower new issue premiums
- But the gap becomes smaller, likely reflecting the sharp increase in supply
- On the corporates side, the greenium is failing to materialize in the primary markets...
- ..., yet in the secondary markets it is clearly noticeable and sticky
- Issuers from sectors with high environmental impact tend to command a larger greenium

A closer look at greeniums in the (primary) market of euro bank debt

New issuance of ESG bonds has taken off over the past two years, also in the market for euro bank debt (including covered bonds). The share of ESG bond issuance in total euro bank debt issuance of bonds with a minimum size of EUR 250mn jumped from 9% in 2020 to 20% in 2021, and has been roughly 15% so far this year. A split by ESG type shows that banks still mostly issue green bonds, followed at a significant distance by social bonds and sustainability bonds. Indeed, green bonds have a share of more than 70% in total issuance of euro ESG bank debt.

Euro ESG bank bond issuance 2020-2022 by debt rank

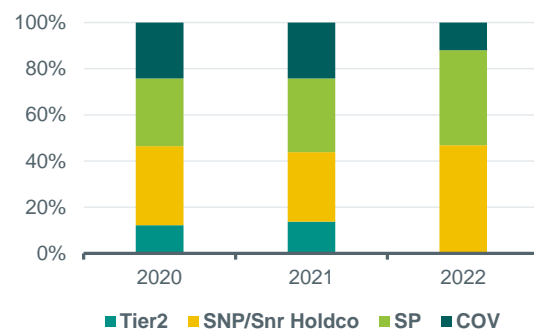
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

Euro ESG bank bond issuance by debt rank, % share

%-share in total ESG euro bank debt issuance



Source: Bloomberg, ABN AMRO Group Economics

Euro bank debt issuance, 2020-2022

EUR bn

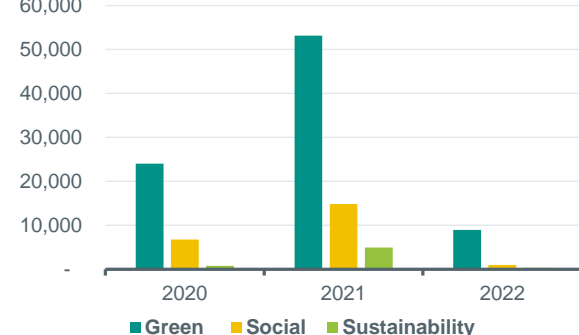
ESG volume (% share)



Source: Bloomberg, ABN AMRO Group Economics

Euro ESG bank bond issuance 2020-2022

EUR mn



Source: Bloomberg, ABN AMRO Group Economics

A split by debt type shows that senior preferred (SP) and senior non-preferred (SNP) account for the largest chunk of ESG bank debt issuance. They had a share of 62% in total ESG euro bank debt issuance on average in the past two years, followed by covered bonds with a 24% share. Although subordinated bank debt has also been issued in ESG format in 2020

and 2021, it accounts for the smallest amounts, likely reflecting, among others, discussions related to questions about the ESG nature for this kind of debt type in resolution. In 2022, the bulk of ESG bank bonds has been in senior format, while the market still awaits the first green capital trade.

ESG-covered bonds clearly show higher bid-to-cover ratio's than non-ESG bonds, although the gap between bid-to-cover ratios of ESG and non-ESG euro bank bonds have diminished slightly compared to 2020 (although the volume of ESG issuance in 2022 is still limited, making it difficult to draw any firm conclusions for this year). This can perhaps be explained by the fact that issuance of ESG bank bonds has increased during the years, which is likely to have made investors also selective resulting in lower bid-to-cover ratios. Meanwhile, the difference between demand for green and other ESG (i.e. social and sustainability) bonds has also become roughly similar, while investors seemed to have a preference for green bank bonds still in 2020. This might be related to the fact that the green bond market was already more mature a few years ago, while social bonds are now getting more traction. Now that social bonds have also been an established format, demand for them seems to have caught up with that for green bank bonds.

Covered bonds bid-to-cover ratio



Source: Bloomberg, ABN AMRO Group Economics

Senior non-preferred bid-to-cover ratio



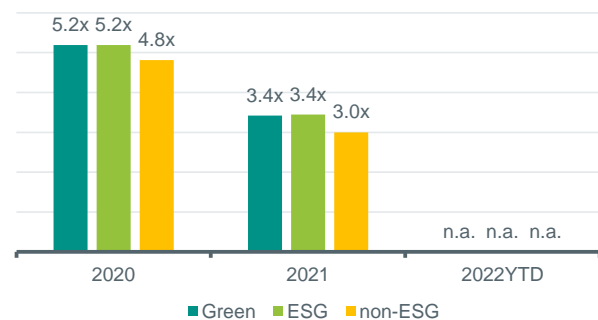
Source: Bloomberg, ABN AMRO Group Economics

Senior preferred bid-to-cover ratio



Source: Bloomberg, ABN AMRO Group Economics

Tier 2 bid-to-cover ratio

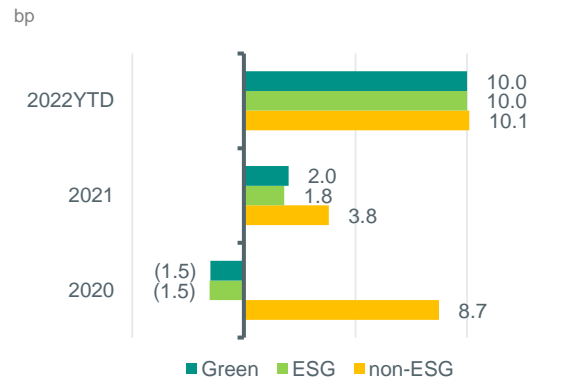


Source: Bloomberg, ABN AMRO Group Economics

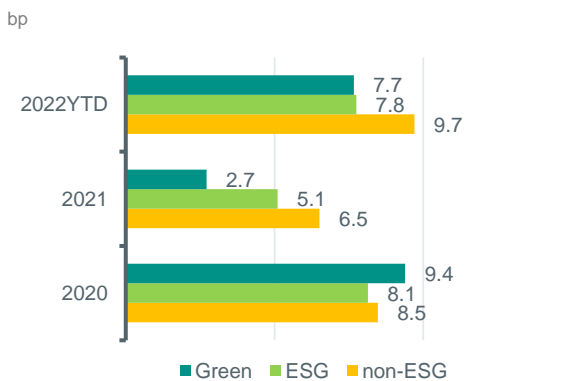
Regarding pricing dynamics, measured by the new issue premium (NIP), it becomes apparent that issuers of ESG bank bonds pay on average lower NIPs than those issuing non-ESG bonds. The graphs below show that the gap narrowed somewhat for most ranks of bank debt last year, except for senior preferred paper. The narrowing gap between NIPs of ESG and non-ESG bank bonds probably also largely reflects the sharp increase in amounts issued, with more supply resulting in wider spreads being offered, or to put it differently, of ESG bonds getting an increasingly similar treatment by investors as non-green bank bonds. Meanwhile, the difference between green and other ESG bank bonds seems not to be significant.

Covered bonds NIP, bp

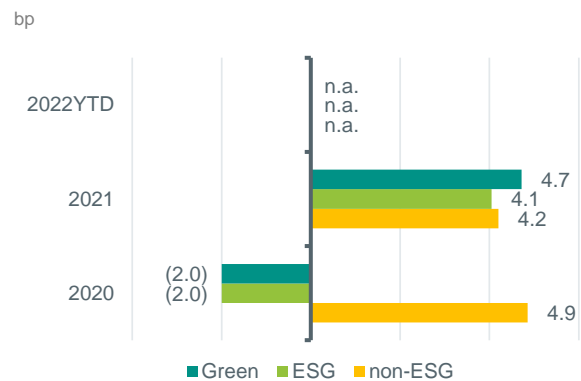
Source: Bloomberg, ABN AMRO Group Economics

Senior non-preferred NIP, bp

Source: Bloomberg, ABN AMRO Group Economics

Senior preferred NIP

Source: Bloomberg, ABN AMRO Group Economics

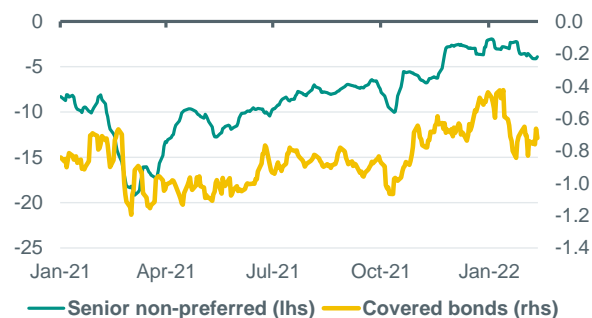
Tier 2 NIP

Source: Bloomberg, ABN AMRO Group Economics

Finally, we had a look at the existence of a greenium in the secondary market. We calculated the difference in I-spread of ESG bonds and non-ESG bonds of the same issuer and with a similar duration. This makes the ESG element the most differentiating factor. We did the calculations for covered bonds and senior non-preferred bonds, with the figures showing that a greenium indeed exists. However, the greenium has recently become smaller. This seems to fit with some of the other evidence, such as the narrowing gap in bid-to-cover ratios, which could be a tentative sign that investors have more selective in the ESG bond market. This, in turn, can probably be explained by the rapid growth of the market. As such, it will be interesting to see what will happen this year, as the market for euro ESG bank debt is set to continue to expand further this year. So far, the evidence is mixed, as well as for bid-to-cover ratios as for NIPs, although it is still early days, while markets have been volatile.

Greenium in secondary market for euro bank debt

Average difference in I-spread of green and non-green comparables, bp



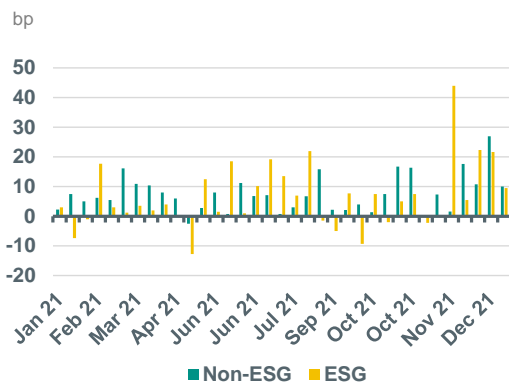
Source: Bloomberg, ABN AMRO Group Economics

In the corporate space the greenium truly comes alive in the secondary market

For the EUR IG corporate bond space we note a difference between the primary and secondary markets when it comes to premiums for ESG. While the primary market has proven to be a difficult spot for issuers to achieve greeniums, the lower spread on a ESG bond to an equivalent non-ESG bond is still clearly prevalent in the secondary market. For clarification, ESG bonds in our analysis include green bonds, social bonds, sustainability bonds, transition bonds and sustainability linked bonds.

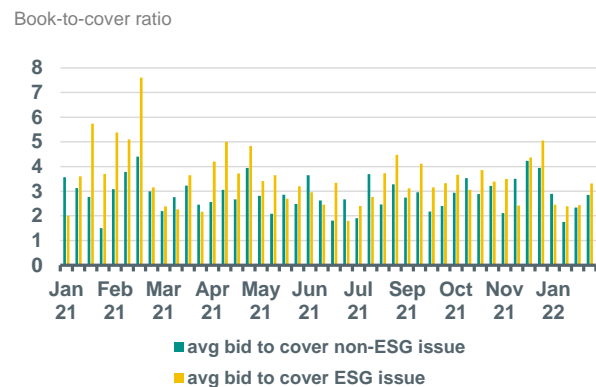
To illustrate the dismal showing of the greenium in the primary market, the chart below shows the new issue premiums (NIP) on ESG new issue bonds vs non-ESG new issue bonds across 2021. The left-hand chart below shows clearly that throughout the year it was a mixed environment of conditions. Indeed, there have been occurrences of negative new issue premiums in the ESG new issue space, but overall we note that ESG issues had to pay more in some periods and less in other periods during the year. We note that from an investor demand perspective for the new ESG issue, ESG bid-to-covers did consistently land at higher levels than on non-ESG related deals, suggesting that appetite for ESG new issues was clearly there. Also, during the months of higher concessions on ESG, it is important to highlight the higher offered maturity on ESG deals. Actually, during the months of April and September 2021 when the maturities on ESG deals did considerably exceed those on non-ESG deals being offered, the concessions on ESG deals were mainly lower.

2021 average NIP – ESG vs non-ESG bonds



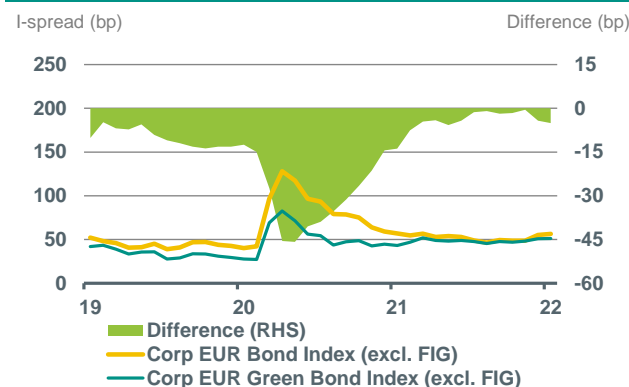
Source: Bloomberg, ABN AMRO Group Economics

Average book-to-cover - ESG vs non-ESG bonds



Source: Bloomberg, ABN AMRO Group Economics

Corporate green bond indices illustrate greenium



Source: Bloomberg, ABN AMRO Group Economics

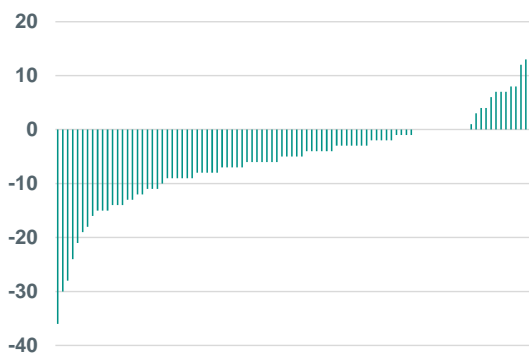
The secondary market however paints a different picture with regards to greeniums. To show this, we first demonstrate the spread between the corporate green bond indices and the broad market index (the latter remains largely populated by non-green bonds). We have stripped both indices from financial institution bonds. The remaining corporate (or non-financial) bonds, as well as their corresponding weights (re-based to 100%), have all remained the same. The chart below shows that

the green bond index credit spreads have traded consistently inside their largely non-green equivalent, with periods of excessive greeniums such as just after the pandemic broke out in 2020 reflecting a flight to safety in for example utility issuers which make-up a large part of the green corporate index. Given the sharp rise of the corporate greenium during the pandemic induced sell-off in early 2020 (it touched 45bp at one point) and the return of the greenium during the recent weak patch in credit markets, one might even conclude that the corporate greenium is market sensitive.

In order to further confirm the greenium in corporate ESG bonds, we have skimmed through the full universe of outstanding EUR IG senior corporate bonds to see how the ESG bond trades versus its non-ESG equivalent. To do so, we look at the purest comparisons, i.e. same issuer and same maturity. In certain cases where there's no same maturity non-ESG bond to compare with, we use curve interpolation if the ESG bond maturity falls between the maturity of two non-ESG bonds with shorter & longer maturities. We leave out issuers where the majority of outstanding bonds are ESG related, due to lack of non-ESG bond comparison base. The results are shown as a histogram with nearly a 100 observations in the left hand chart below.

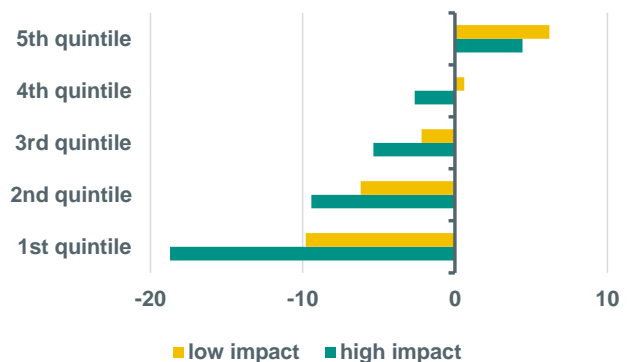
Secondary market scan also confirms greenium

Difference ESG bond and non-ESG equivalent (bp)



Source: Bloomberg, ABN AMRO Group Economics

High environment impact ESG bonds outperform



Source: Bloomberg, ABN AMRO Group Economics, X-axis = average greenium per quintile. High impact sectors include Utils, RE, Materials, Autos, Transport, Energy, Low impact sectors include Food, Telco, Toll roads, Healthcare, Apparel

Clearly there's a skew in this chart towards a negative difference, implying that in the majority of cases in our sample there is a greenium for corporate bonds. Hence, this implies that investors become more aggressive after the bond has been issued, presumably as the inflow of money in ESG funds remains strong (or stronger than what is being supplied by issuers in the primary markets). What is also interesting is that this greenium tends to be stronger in sectors that can contribute highest to carbon reduction, as shown in the right hand chart. Admittedly, the share of ESG bonds coming from low impact sectors has been smaller, yet if one were to imply the argument of portfolio diversification or scarcity the greenium should have actually been stronger in low-impact sectors. Hence, one can deduce that environmental impact has a large weight in the decision making process with investors happy to pay more on a bond from the automotive, materials, utilities or real estate sectors. The SLB universe has a small representation in our sample. Still, we can conclude that energy companies such as Eni and Repsol, but also heavy carbon emitters such as Holcim are not yet receiving a warm welcome in the secondary on their SLB's. The Holcim SLB trades 16bp wider spread than its non-ESG equivalent. The issuer remains on track to achieve the 550kg CO₂ per cementitious tonne target, and the ultimate 2030 475kg CO₂ per cementitious tonne target was also validated by SBTi to be net-zero pathway consistent. Perhaps investors have suddenly become uninspired against a one-time only 75bp step-up being provided should the company eventually fail to meet its target in 2030.

Overall, we think that the secondary greenium will still remain present in 2022 for corporate bonds, and could even rise compared to the previous year due to shaky general market conditions. Also, upcoming regulation will likely have a positive effect on demand. Fund managers will be required to adjust to the EU Sustainable Finance Disclosure Regulation (SFDR), and this will likely result in an attempt to further "green" their investment portfolios. Hence, as demand continues to outstrip supply, green bonds will remain an attractive investment from a greenium perspective. Especially if these bonds can be sourced under a new issue concession in the primary.

ESG bonds: Strong investor appetite for green bank bonds

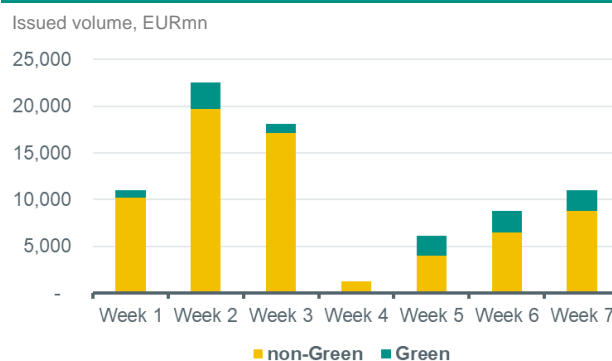
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- ▶ **The euro bank debt market welcomed another two green bonds this week**
- ▶ **Both deals were met with strong demand**
- ▶ **New issue premiums were also below this year's average**

This year there has been a rather steady deal flow of euro bank debt in ESG format, with a focus on green euro bank bonds (see section [above](#)). Last week was no different, as two German banks issued a covered and a senior non-preferred bond, both in green format. In total, they raised EUR 2.25bn, which was 26% of total supply of euro bank debt (including covered bonds) last week.

Green versus non-Green issuance volume in 2022



Source: Bloomberg, ABN AMRO Group Economics

DZ Hyp issued its inaugural green mortgage Pfandbrief (*ABN AMRO joint lead manager*). The largest German Pfandbrief issuer priced the EUR 1bn 7y deal even around its fair value level on the back of solid demand. Indeed, the book was reported at around EUR 2bn. Demand largely stemmed from banks (43%), asset managers (27%) and central banks (23%), while the geographic split showed that investors came from a wide variety of countries, from Germany (63%), Asia (9%), Austria/Switzerland (9%), the Nordics (7%), Benelux (5%), and France (4%). The fact that the bond priced at our fair value estimate was relatively unique, given that this year's average new issue premium (NIP) stands at around 1.6bp. Actually, the only two bonds that recently priced at around their fair value levels have been the two green covered bonds issued so far this year (see graph below).

The German bank issued the bond out of its green bond framework from January 2022 (see [here](#)). The framework targets the UN SDG goals 11 (sustainable cities and communities) and 13 (climate protection). Indeed, the bonds' proceeds will be used to (re)finance construction, acquisition, or refurbishment of energy efficient residential and commercial properties. This implies that eligible buildings meet strict criteria regarding maximum energy use per square meter, have certain certificates (DGNB (gold and platinum), LEED (gold and platinum), and BREEAM (very good and better), or meet minimum requirements of the German Energy Saving Ordinance of 2016. The issuer has also indicated that it plans to integrate the technical screening criteria set out in the EU Taxonomy in its framework over time.

ISS ESG provided a Second Party Opinion ([here](#)), noting that the framework is in line with the issuer's sustainability strategy, while it is aligned with the ICMA Green Bond Principles. Furthermore, the bank's green mortgage portfolio (of which around EUR 2bn has been included in the cover pool) also got a positive evaluation. DZ Hyp itself has a C (medium) grade at ISS ESG.

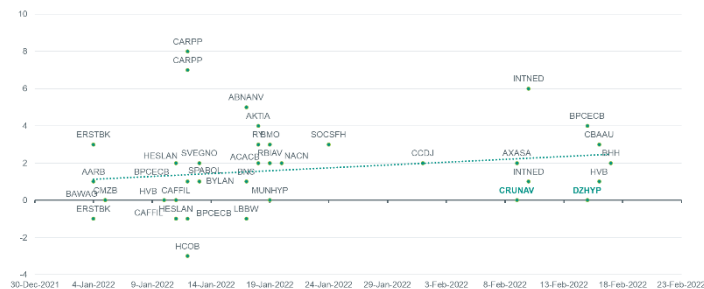
Meanwhile, **Deutsche Bank** raised EUR 1.25bn by issuing a green 6NC5 senior non-preferred bond. The deal received strong investor demand, as the books eventually reached EUR 3bn. In the end, the bond was printed at MS +138bp, offering

a NIP of around 10bp. The figure below nicely illustrates that the NIP of the new green deal of Deutsche Bank was at the low side of this year's issued green senior non-preferred deals, while also being lower than the average NIP seen in the asset class so far this year. This against a backdrop of more volatile market conditions having pushed up NIPs somewhat during the year.

The use of proceeds of the bond will go to the (re)financing of green assets according to the issuer's green financing framework of 24 September 2020 (see [here](#)). In September 2020, DB updated its framework in order to widen the scope of financing instruments available, while it also tightened the minimal certification requirements for green buildings. The framework is aligned with the ICMA Green Bond Principles and to Deutsche Bank's overall Sustainable Finance Framework, which identifies activities contributing to the bank's sustainable finance target. Furthermore, it takes into account the recommendations for technical screening criteria of the Technical Expert Group for the EU Taxonomy. ISS ESG provided a Second Party Opinion (see [here](#)), assigning the framework a positive evaluation. Deutsche Bank has a rating of C, which classifies it as 'Prime' by the methodology of the ISS ESG Corporate Rating. At Sustainalytics, it has a ESG Risk rating of 27.4 (medium risks), which stems from a 54 'medium' risk Exposure Score and a 53 'strong' Management Score.

Covered bonds new issue premia in 2022

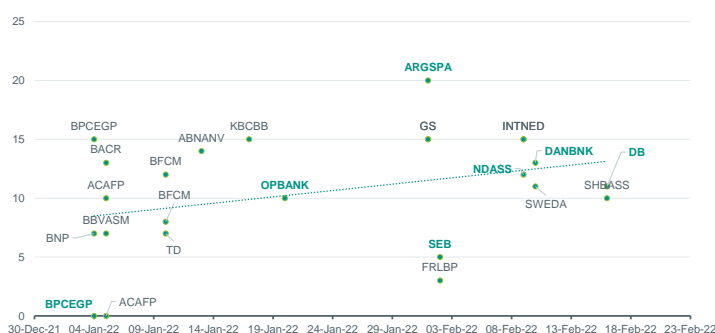
New issue premium (bp), green bonds are marked bold



Source: Bloomberg, ABN AMRO Group Economics

Senior non-preferred bonds new issue premia in 2022

New issue premium (bp), green bonds are marked bold



Source: Bloomberg, ABN AMRO Group Economics

ESMA on track to increase supervision of ESG ratings

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- ▶ **ESMA published a Call for Evidence on ESG ratings, seeking to develop a picture of the size, structure, resourcing, revenues and product offerings of the different ESG rating providers operating in the EU**
- ▶ **The information gathered under this Call for Evidence will be used alongside a further public consultation to develop an impact assessment on the costs and options of a possible EU supervision**
- ▶ **ESG ratings are currently a key tool for investors to assess ESG performance of corporates**

The **European Securities and Markets Authority (ESMA)** has recently published a Call for Evidence on ESG ratings, with the goal of gathering information on the market structure for ESG rating providers in the EU. Comments can be sent until 11 March 2022.

ESMA's call for evidence is part of a new publication from the European Commission ("Strategy for financing the transition to a sustainable economy", released on 6 July 2021), where the EC highlights the need to take action to improve the reliability, comparability and transparency of ESG ratings in the EU. One recurring point of criticism is, for example, that ESG rating providers currently do not disclose whether the rating was issued on a solicited or unsolicited basis – further contributing to the opaqueness of the current market. Hence, as a starting point towards the journey to further enhance supervision of ESG ratings, the EC has requested ESMA to support with providing data on current ESG rating providers. ESMA's call for evidence seeks to develop a picture of the size, structure, resourcing, revenues and product offerings of the different ESG rating providers operating in the EU.

The questionnaire (see [here](#)), which is divided into 3 sections (one for ESG rating providers, one for users of these ratings and one for entities covered by the ESG ratings), requires a fair amount of detailed data be disclosed. Examples include: the percentage of clients located in the EU (including also a breakdown by member state), the amount of revenues that came from ESG ratings and ESG data products (as well as their corresponding breakdown for EU clients), whether their fee model is offered on an investor pays or issuer pays basis, and the amount of FTEs performing analytical functions per business unit and per location.

Hence, while the data gathered by ESMA plays an important role towards painting a better picture of the current market for ESG rating providers, it relies on these providers submitting such detailed (and also mostly private) information.

Nevertheless, while ESMA's supervisory mandate does not currently extend to ESG rating providers, ESMA does have existing supervisory relationships with entities affiliated with ESG rating providers through their wider group structure (e.g. ESMA supervises credit rating agencies, which are sometimes the ultimate owner of an ESG rating provider). This might incentive the disclosure of data.

Following the call for evidence, it is likely that a complementary consultation by the EC will follow, seeking to gather views about the use of ESG ratings, as well as the functioning and the dynamics of this market.

ESMA – through its participation at the International Organization of Securities Commissions (IOSCO) - has also earlier been involved in recent work to promote good practices for ESG rating providers, the users of these products as well as entities covered by these providers, at a global level. In November 2021, IOSCO, which groups securities watchdogs from the United States, Europe, Asia and Latin America, has published 10 recommendations for its members to apply in day-to-day work. ESMA has also previously highlighted the need to "match the growth in demand for these products with appropriate regulatory requirements". ESG rating providers are estimated to currently be part of a USD 2.2bn industry, which is expected to grow to USD 5.1bn by 2025 as the importance of these players increase in the market.

According to KPMG, there are currently over 160 ESG ratings and data products providers worldwide. At a regional level, a report prepared for the European Commission (EC) in November 2020 identified 30 to 40 other smaller providers of ESG ratings, data and research products and services domiciled in the EU.

ESG ratings are the most useful sources to assess corporate ESG performance...

% of respondents who selected that option (n=17)



Note: Results refer to the question "What sources of information on corporate ESG performance do you find most useful when making investment decisions?" Source: SustainAbility, ABN AMRO Group Economics

...And are mostly used as a tool to supplement investment decisions

% of respondents who selected that option (n=22)



Note: Results refer to the question "If you do use ESG ratings, why?" Source: SustainAbility, ABN AMRO Group Economics

In March 2020, a report by SustainAbility indicated that 55% of investors nowadays rely on ESG ratings to assess ESG performance of corporates. 65% also disclosed that they make use of such ratings at least once a week. The report also indicated that ESG ratings are mostly used by investors to either gather information/data to assess investment corporate performance (71% of the respondents have selected this option) or to supplement their own organization research (65% of the respondents).

Given the high relevance that these ESG ratings currently have in today's market, and the growing importance of incorporating ESG into investment decisions, it is very likely that providers will have to comply with upcoming regulation and supervision in the near future.

Dutch pension fund policies towards the fossil fuel sector

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- ▶ **PFZW is the most recent Dutch pension fund to set out an investment policy with regards to companies in the fossil fuel sector**
- ▶ **It has disclosed this week it will only invest in companies that have, by 2024, a climate transition strategy in line with the Paris Agreement**
- ▶ **This is in contrast with ABP's policy, the largest Dutch pension fund, who has committed to fully divest from fossil fuel**
- ▶ **IEA's Net Zero pathway sees the share of fossil fuels in overall energy supply falling from 80% in 2020 to a little over 20% in 2050**

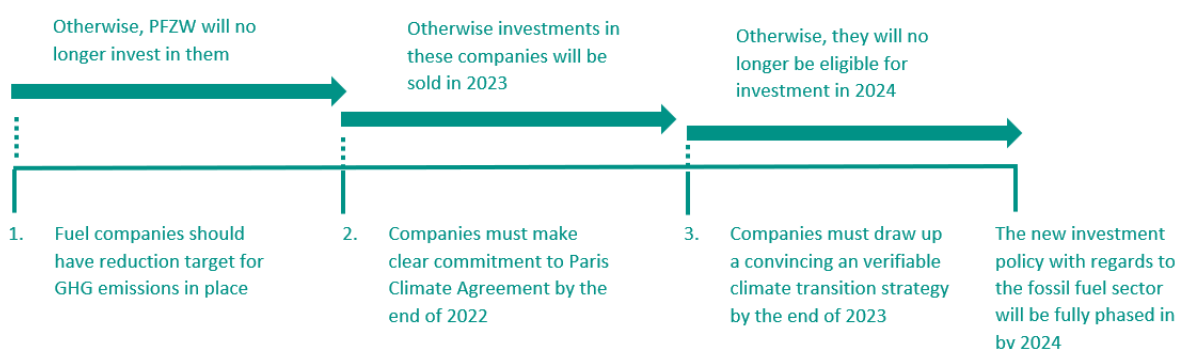
PFZW supports fossil fuel companies that are committed to Paris

The second largest Dutch pension fund, PFZW, with assets of around EUR 280bn, set out its investment policy with regards to companies in the fossil fuel sector this week (see [here](#)). The pension fund manages the pension capital of current and former employees in the care and welfare sector via its asset manager PGGM. In general, we notice that more and more Dutch pension funds are changing their investment policy with regards to this sector. We will explain the changes in the investment policy of PFZW. In addition, we will compare it with the investment policy of the largest Dutch pension funds. Last but not least, we will elaborate on the path to Net Zero for this sector.

Set out the changes in the investment policy of PFZW

The growing concerns about climate change in combination with the role of the fossil fuel sector are leading to a further tightening of PFZW's investment policy. So far, PFZW has reduced the carbon footprint of its equity portfolio and it now wants to go the extra mile. Indeed, PFZW will only remain invested in fossil fuel companies that have a convincing and verifiable climate transition strategy in line with the Paris Climate Agreement by 2024. Hereby, PFZW will support fossil fuel companies that will contribute to limiting global warming to no more than 1.5 degrees Celsius. In addition, the ultimate goal is to encourage these companies to actively contribute to a climate-neutral world by 2050. PFZW will divest from fossil fuel companies in the coming three years, which are not Paris Climate Agreement proof. The pension fund will phase in the new investment policy towards this sector via 3 steps as shown in the figure below.

PFZW's timeline of divestments for fossil fuel companies which are not Paris Agreement Proof



Source: PFZW, ABN AMRO Group Economics

Firstly, PFZW will no longer invest in companies, which do not have a reduction target for GHG emissions in place. Secondly, companies must make a clear commitment to the Paris agreement by the end of 2022, otherwise these investments will be sold in 2023. This means that PFZW will only invest in fossil fuel companies that commit to the 1.5 degrees Celsius target. Finally, fossil fuel companies must draw up a climate transition strategy to support their commitment by the end of 2023 including short and medium-term targets, which should be aligned with the Paris agreement.

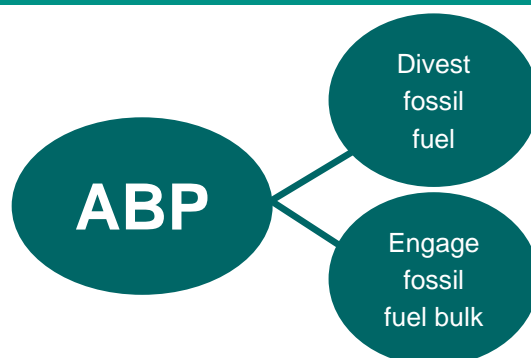
The plan should be convincing and verifiable. If this is not the case, then PFZW will no longer invest in these companies. Hence, PFZW gives fuel companies the opportunity to reform their business models in such a way that they are aligned with

the Paris agreement within 3 years. Meanwhile, PFZW is focusing on engagement with the fossil fuel sector. Indeed, it will use its voting rights more in climate-related topics and will intensify its shareholder dialogue with companies. We see that not all Dutch pension funds have the same investment policy with regards to the fossil fuel sector. Below we will compare this for the 3 largest pension funds in the Netherlands.

Investment policies of Dutch pension funds for the fossil fuel sector vary from divesting to engaging

The three largest pension funds in the Netherlands manage about EUR 1,000bn. The largest pension fund, ABP, with assets of around EUR 630bn managed by its asset manager APG, changed its investment policy towards this sector last year, whereby they will take a different approach to PFZW (see [here](#)). Indeed, they will divest from fossil fuel producers in phases, whereby the majority is expected to be sold by the first quarter of 2023. This implies that ABP will sell about EUR 15bn in assets which is almost 3% of its total assets in about a year. They made this choice as they saw insufficient opportunity as a shareholder to push for the necessary, significant acceleration of the energy transition at these companies. Meanwhile, ABP will focus on bulk users of fossil fuels, like electricity companies, the car industry and aviation via engagement as shown in the figure below. Indeed, they will use their influence as a shareholder, whereby ABP encourages companies that use fossil fuels to become more sustainable. Moreover, the pension fund will also tighten its sustainable and responsible investment policy in other areas, such as conservation of natural resources, digitalization and human rights, which we expect to be disclosed later this year.

ABP's investment policy with regard to fossil fuel producers and bulk users



Source: ABP, ABN AMRO Group Economics

The third largest pension fund, PMT, with assets of around EUR 100bn managed by its asset manager MN Services, would like to support fossil fuel companies that will fight climate change. Indeed, PMT will strengthen its shareholder dialogue with 44 companies in the fossil fuel industry and 8 utility companies in their equity portfolio. Hereby, they would like to reduce the CO2 emissions of these companies. These companies have two years to come up with an improvement plan, including concrete and clear goals for the transition. If this is not the case, then PMT will divest in these companies, but the aim is to remain invested in the precursors.

Concluding, PFZW and PMT would like to remain invested in companies which produce fossil fuels if they fight climate change, whereas ABP already decided to divest in the fossil fuel sector. In the end, it could well be the case that also PFZW and PMT need to divest in this sector. Of course, it all depends on the steps fossil fuel companies will take to become net zero in 2050. Below we set out the net zero pathway for this sector.

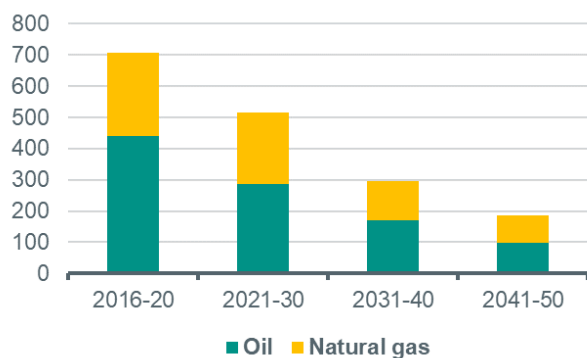
Net Zero pathway for the fossil fuel sectors

In Net Zero scenarios, the importance of fossil fuels declines significantly. For instance, under the IEA's pathway, annual average investment in the oil and natural gas sectors declines from around USD 700bn in the last decade, to USD 500bn in the current one and down to below USD 200bn in the decade to 2050. This of course reflects the shift from fossil fuels to renewable energy sources. Global spending on fossil fuels declines from close to 65% in the last decade to less than 10% in 2050. This is mirrored largely by rising expenditure on electricity, which is sourced increasingly from renewable energy sources such as wind and solar, as the sourcing from fossil fuels declines. Indeed, by 2050, almost 90% of electricity

generation comes from renewable sources. As a result, in terms of overall energy supply, the share of fossil fuels falls from 80% in 2020 to a little over 20% in 2050.

Investment in oil and gas sectors in Net Zero pathway

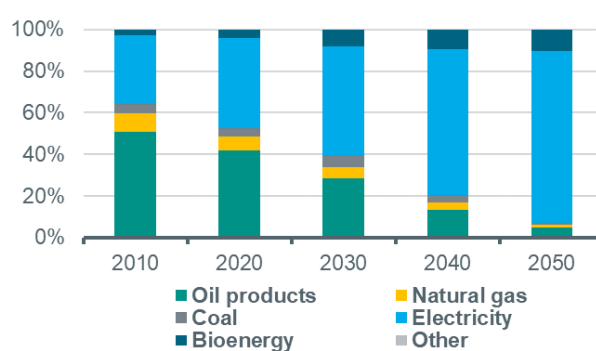
Average annual investment, USD bn



Source: IEA, ABN AMRO Group Economics

Global energy spending by fuel in Net Zero pathway

% of total

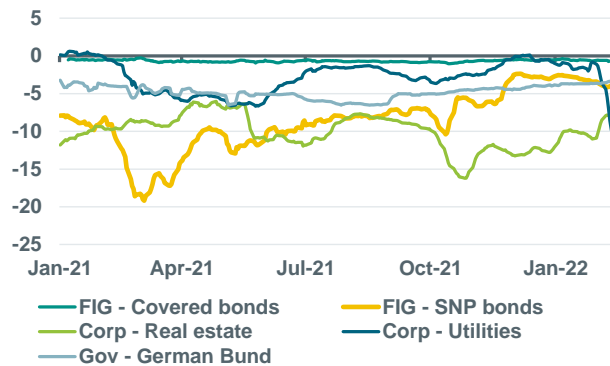


Source: IEA, ABN AMRO Group Economics

ESG in figures

ABN AMRO Secondary Greenium Indicator

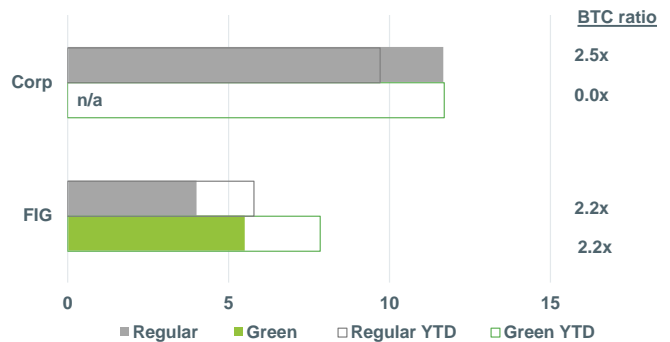
Delta (green I-spread – regular I-spread)



Note: Secondary Greenium indicator for Corp and FIG considers at least five pairs of bonds from the same issuer and same maturity year (except for Corp real estate, where only 3 pairs were identified). German Bund takes into account the 2030s and 2031s green and regular bonds. Delta refers to the 5-day moving average between green and regular I-spread. Source: Bloomberg, ABN AMRO Group Economics

ABN AMRO Weekly Primary Greenium Indicator

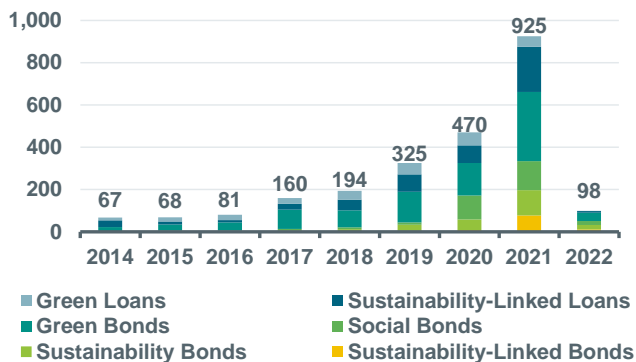
NIP in bps



Note: Data until 17-2-22. BTC = Bid-to-cover orderbook ratio. Source: Bloomberg, ABN AMRO Group Economics.

Sustainable debt market overview

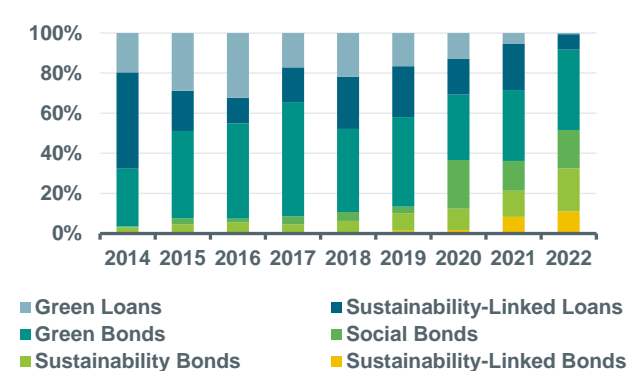
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

Breakdown of sustainable debt by type

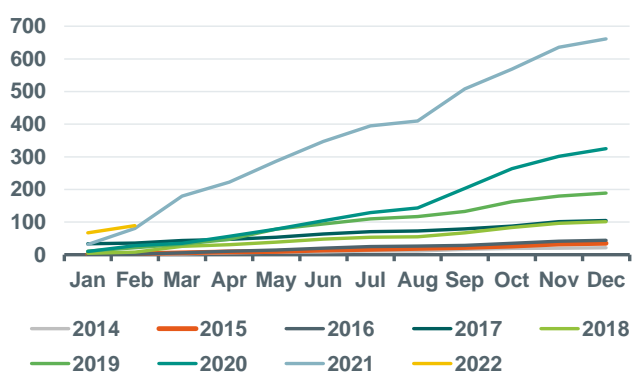
% of total



Source: Bloomberg, ABN AMRO Group Economics

YTD ESG bond issuance

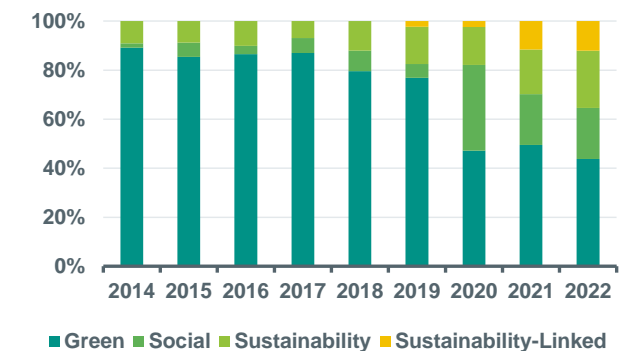
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

Breakdown of ESG bond issuance by type

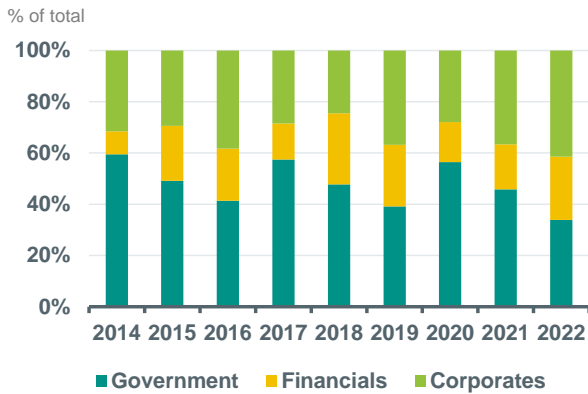
% of total



Source: Bloomberg, ABN AMRO Group Economics

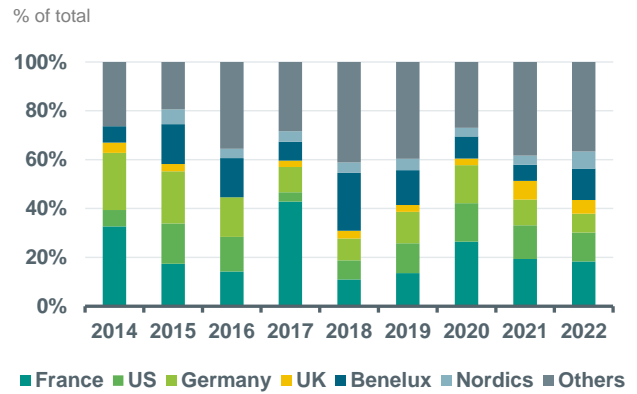
Figures hereby presented take into account only issuances larger than EUR 250m and in the following currencies: EUR, USD and GBP.

Breakdown of ESG bond issuance by sector



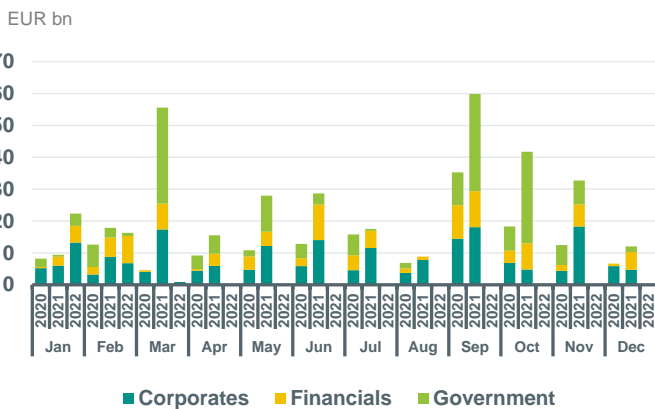
Source: Bloomberg, ABN AMRO Group Economics

Breakdown of ESG bond issuance by country



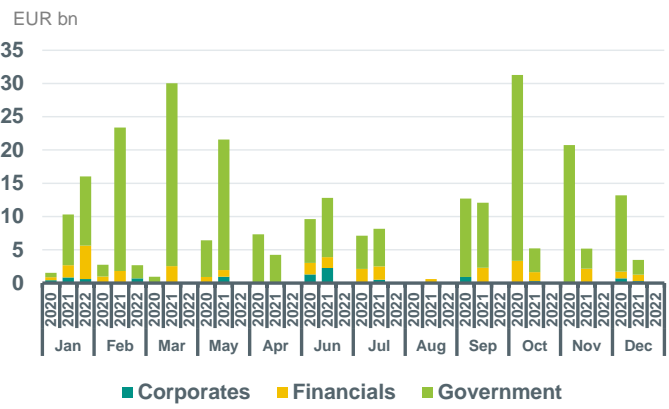
Source: Bloomberg, ABN AMRO Group Economics

Monthly Green Bonds issuance by sector



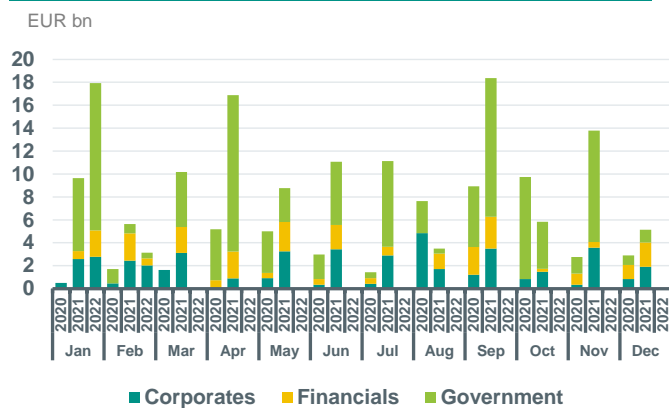
Source: Bloomberg, ABN AMRO Group Economics

Monthly Social Bonds issuance by sector



Source: Bloomberg, ABN AMRO Group Economics

Monthly Sustainability Bonds issuance by sector



Source: Bloomberg, ABN AMRO Group Economics

Monthly Sust.-Linked Bonds issuance by sector



Source: Bloomberg, ABN AMRO Group Economics

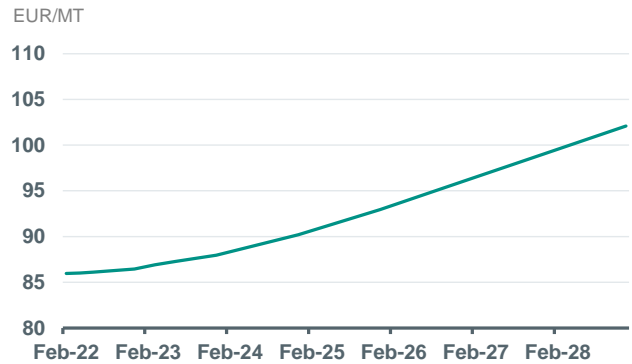
Figures hereby presented take into account only issuances larger than EUR 250m and in the following currencies: EUR, USD and GBP.

Carbon contract current prices (EU Allowance)



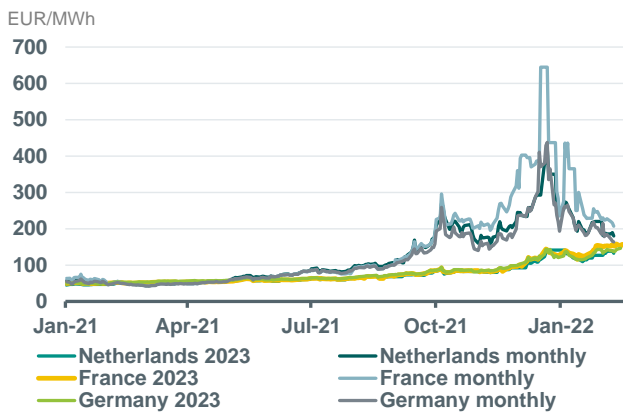
Source: Bloomberg, ABN AMRO Group Economics

Carbon contract future prices (EU Allowance)



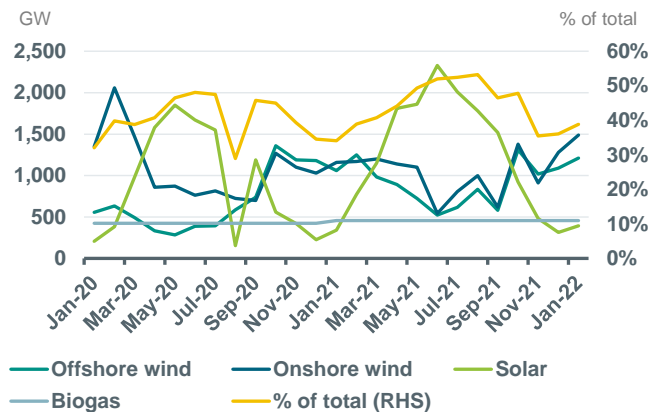
Source: Bloomberg, ABN AMRO Group Economics

Electricity power prices (monthly & cal+1 contracts)



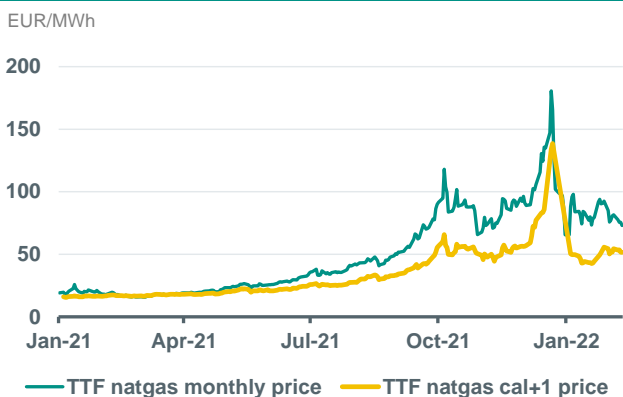
Source: Bloomberg, ABN AMRO Group Economics. Note: 2023 contracts refer to cal+1

Electricity generation from renewable sources (NL)



Source: Energieopwek (Klimaat-akkoord), ABN AMRO Group Economics

TTF Natgas prices



Source: Bloomberg, ABN AMRO Group Economics

Price of commodities necessary for energy transition



Note: Average price trend of 'transition' commodities, such as: corn, sugar, aluminium, copper, nickel, zinc, cobalt, lead, lithium, manganese, gallium, indium, tellurium, steel, steel scrap, chromium, vanadium, molybdenum.
Source: Refinitiv, ABN AMRO Group Economics

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