

# SustainaWeekly

## ETS companies face profit squeeze

- ▶ **Economist:** Sharp rises in energy and carbon allowance prices have pushed up end-pricing at big Dutch industrial emitters by 44%, still a full cost pass-through is difficult to enforce due to global competitive forces. This puts pressure on profit margins, but also makes investing in sustainability more attractive for companies.
- ▶ **Sectors:** The Dutch government has set a policy that every new car to be sold from 2030 onwards has to be a zero-emission car, which should make a significant contribution to a net zero trajectory for the mobility sector. However, a key obstacle is that battery electric cars are much more expensive to buy even taking into account government subsidies.
- ▶ **ESG Bonds:** The new issue concession on corporate green bonds reached a multi-year high, despite green offerings having a similar credit quality of that of regular bonds. In secondary markets the green bond index suddenly trades at a wider credit spread than the regular index. The dismal performance of real estate credit this year is one explanation.
- ▶ **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.

In this week's SustainaWeekly, we start with an analysis of how big Dutch industrial emitters are faring against the background of the sharp rise in energy and carbon-allowance prices. We conclude that profits have been squeezed significantly, but also that this is part of the transmission that increases the incentive to decarbonize. We go on to look at the Net Zero trajectory for passenger cars in the Netherlands. The Dutch government has put in place tough measures, though the cost of electric cars remains a challenge, even taking government subsidies into account. Finally, we explore why the new issue concession on corporate green bonds reached a multi-year high, while in secondary markets the green bond index suddenly trades at a wider credit spread than the regular index.

Enjoy the read and, as always, let us know if you have any feedback!

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## ETS producer prices follow trends in energy prices and CO2 price

Casper Burgering – Economic Transition Economist | [casper.burgering@nl.abnamro.com](mailto:casper.burgering@nl.abnamro.com)

- ▶ **Gas, electricity and CO2 prices rose sharply last year**
- ▶ **This makes investing in sustainability more attractive for companies**
- ▶ **Higher energy and CO2 prices increase the producer price index for ETS-companies**
- ▶ **However, in order to maintain competitiveness, producer prices do not increase as much**

It is the period when most listed companies announce quarterly results. Many companies publish their company figures and results. The press releases of many industrial companies - as large consumers of energy - will undoubtedly have a reference to the impact of the rising cost of gas and electricity on the result and also on producer prices. However, this reference alone will not stop there, especially for large industrial greenhouse gas (GHG) emitters. The trend in the CO2 tax (or price) will also have a significant impact on the producer prices of Dutch EU ETS companies and indirectly on the result.

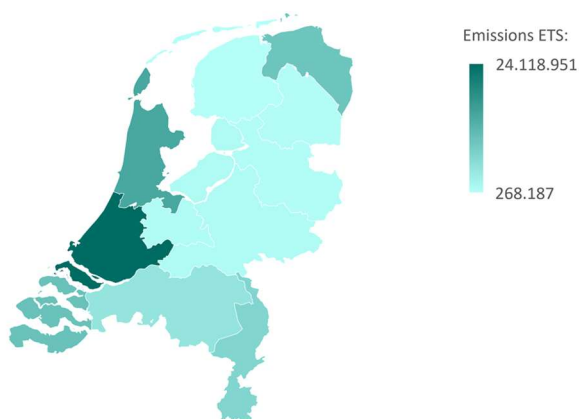
### EU-ETS-companies

Within the *European Emissions Trading System* (EU-ETS), GHG emissions allowances are traded. With this system the EU is able to reduce GHG emissions in an effort to meet climate targets towards 2030 and 2050. This allows the EU to annually limit the number of available free emission allowances. It increases the price for an emission allowance, also known as the carbon price. By doing this, investing in sustainability automatically becomes more attractive for companies.

According to the *Netherlands Emissions Authority* (NEA), the EU-ETS is the largest of its kind globally. In total, about 10,000 European companies are covered by the system. Collectively, they are responsible for about 45% of EU CO2 emissions. In the Netherlands, about 400 companies participate in the EU-ETS. These companies are mainly active in energy supply (such as electricity and heat production), energy-intensive industrial sectors (such as chemicals, oil refining, food production and metals) and intra-EU commercial aviation. Shipping and built environment will be added later to the system. Most of the current ETS-companies are located throughout the Netherlands, but with a strong concentration in the western Netherlands.

#### ETS companies by province

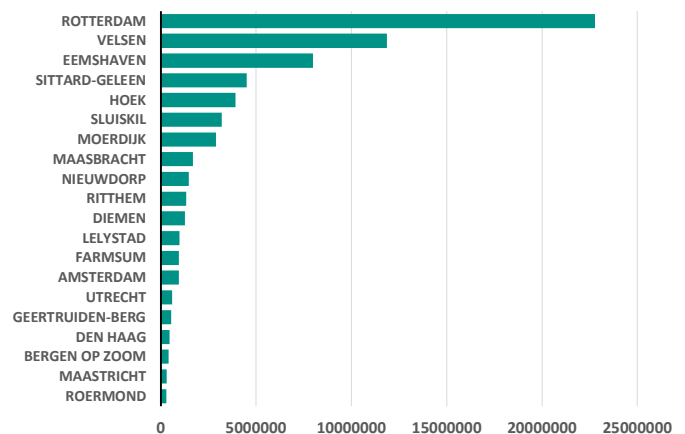
emissions in tons CO2



Source: NEA, ABN AMRO Group Economics

#### ETS companies by region

emissions in tons CO2



Source: NEA, ABN AMRO Group Economics

South Holland is home to most ETS companies, particularly around the port of Rotterdam. This includes a multitude of industries, such as petrochemical companies, chemical companies and offshore/onshore-related companies. In North Holland, emissions are mainly caused by steel production in Velsen (Tata Steel). In Groningen, energy supply in particular accounts for a large share of emissions, especially in Eemshaven.

## EU-ETS & CBAM

Since its introduction in 2005, the EU-ETS system has been revised three times: in 2008, 2013 and 2021. Most of these revisions were aimed at making the system more restrictive and effective. From 2005-2007, emission allowances were so generously distributed in sectors, which kept the CO2 price extremely low. From 2008-2012, more companies and plants were added. Moreover, nitrogen emissions also became part of the EU ETS system. The CO2 price started to rise again. From 2013-2020, even more GHGs were added to the system and the *Market Stability Reserve* (MSR) was introduced, creating more flexibility in the supply of allowances for more balance in supply and demand, and thus price stability.

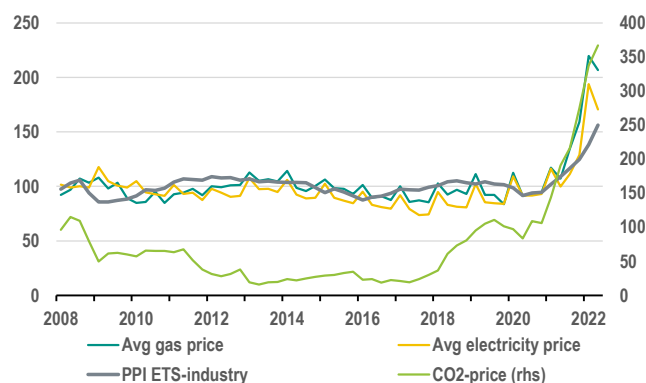
However, with the introduction of the EU-ETS, concerns about carbon leakage also increased. Once the producer price of EU manufacturers increases due to the additional cost of emissions, those same EU manufacturers thereby lose out on competitiveness against non-EU manufacturers (who do not face a price on emissions). EU manufacturers are then more likely to decide to move their production facilities to regions outside the EU-ETS while global emissions are not reduced. Moreover, this reduces the number of jobs in Europe. To address the problem of carbon leakage and create a level playing field for EU producers, the *Carbon Border Adjustment Mechanism* (CBAM) is being phased in. A three-year transition phase starting on 1 January 2023, with only a reporting requirement for importers. Thereafter - from 1 January 2026 - importers must actually start buying CBAM certificates, the price of which is linked to the CO2 price.

## Price trends in industrial ETS-sectors

It is interesting to see how producer prices have behaved under the recent sharp rise in the price of energy (gas and electricity) for non-households and the price of CO2. For instance, the price of gas and CO2 have both increased by over 90% in one year and the price of electricity has risen by over 70%.

### PPI versus energy prices and CO2-price (index)

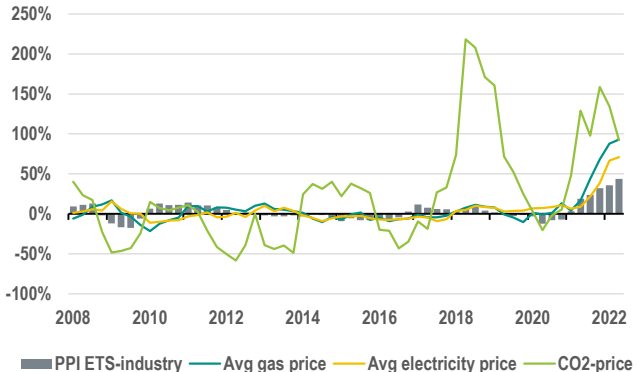
index (2008=100)



Source: CBS, ABN AMRO Group Economics

### PPI versus energy prices and CO2-price (in %)

% yoy



Source: CBS, ABN AMRO Group Economics

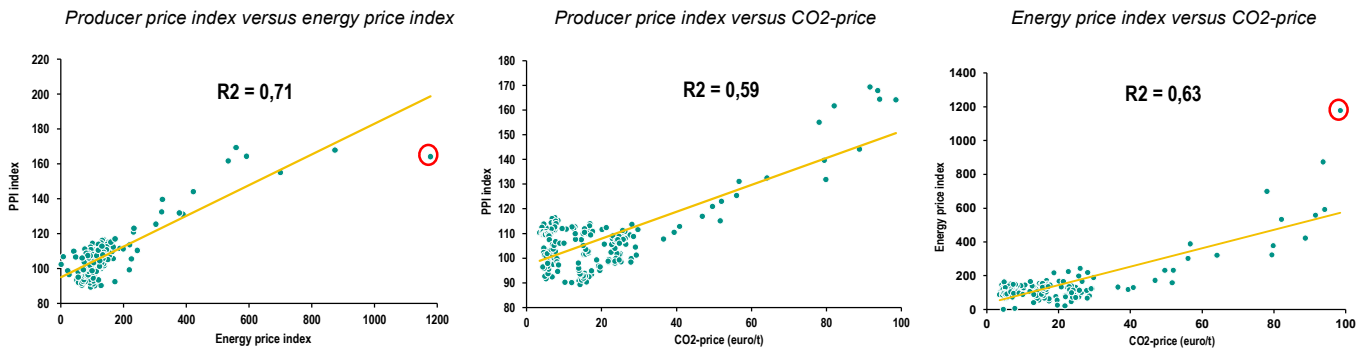
Such sharp price increases have also affected the producer prices of firms in sectors covered by the EU-ETS system. In this case, the producer price index in the figures above is the result of the average of the producer price index of the paper industry, petroleum industry, chemical industry, basic metal & metal products industry and construction materials industry. This average price index increased by almost 44% in one year. This is not with the same sharp increases in energy prices and CO2 prices, but still a relatively strong increase, given the historic trend in the producer price index.

Ultimately, producer prices rose less sharply than energy prices. This probably has a strong correlation with companies' strong desire to maintain competitiveness in particular. For instance, the same industrial companies in the US pay five times less for gas than counterparts on the European continent. This makes sharply rising prices for end users of EU-producers highly undesirable. In the end, this will ultimately translate into a squeeze on profits. Many ETS companies are therefore already tempering expectations about results for the rest of this year. After all, energy prices remain relatively high for the time being. Some companies in the chemical industry are also doubly affected by this. This is because natural gas is not only used as a source of energy, but natural gas is also an important ingredient for the final product. For instance, natural

gas is an important raw material for making ammonia. And ammonia, in turn, is an important raw material for making fertilisers.

The relationship between gas and electricity prices with producer prices in the aforementioned sectors is strong. Since 2008, the series have followed each other almost closely, with energy prices showing slightly more volatility.

### Correlations PPI ETS industry, CO2 price and energy prices



Source: CBS, Refinitiv, ABN AMRO Group Economics

In particular, the relationship between the producer price index and the energy price index is high with a correlation coefficient of 0.71. When corrected for the outlier in the energy price index (red circle in the left figure above), the correlation coefficient increases to 0.86. It indicates that the trend in energy prices is usually an important driver of the trend in producer prices. When energy prices increase too sharply, the effect on competitiveness is also considered.

The correlation is more difficult to observe between producer price index and CO2 price (with a correlation coefficient of only 0.59). There also appears to be a seemingly moderate correlation between energy prices and CO2 price (with a correlation coefficient of only 0.63), but if we correct for the outlier in CO2 and energy price here too (red circle in right figure), the correlation is high with a correlation coefficient of 0.80. The CO2 price is strongly influenced by fundamental trends in energy markets. A study (published in the journal *Applied Energy*) shows that economic activity and natural gas prices are responsible for most of the variation in the CO2 price. However, this role has gradually diminished somewhat. Because variables such as oil and especially coal prices have now also gained more influence. In addition, other factors also influence the trend in the CO2 price, including energy and climate policies and speculative shocks.

## Share of zero-emission passenger cars continues to rise

Georgette Boele – Senior Economist Sustainability | [georgette.boele@nl.abnamro.com](mailto:georgette.boele@nl.abnamro.com)

- **The Dutch government has set a policy that every new car to be sold from 2030 onwards has to be a zero-emission car, compared to 20% last year**
- **However, a key obstacle is that battery electric cars are much more expensive to buy even taking into account government subsidies**

### Introduction

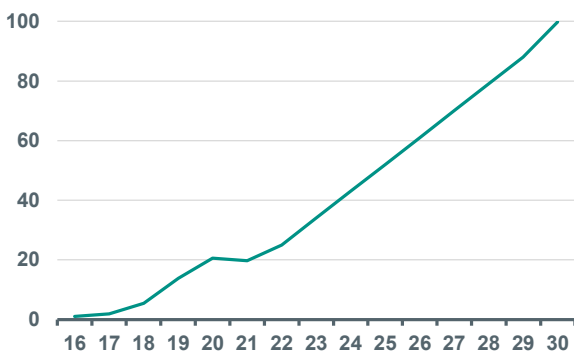
In 2021 the mobility sector in the Netherlands was responsible for 30.8 Megaton of greenhouse gas (GHG) emissions including 30.1 megaton CO<sub>2</sub> emissions. This was 18% of the total greenhouse gas emissions and 21% of the total CO<sub>2</sub> emissions in 2021. Road transport is the biggest emitter. It is responsible for around 85% of the total emissions of the mobility sector. Passenger cars emit around half of the total of mobility. It is clear therefore that to bring down greenhouse gas emissions the mobility sector needs to play a significant role. In this note we look at what needs to happen, how it aligns with policy plans and some of the obstacles.

### Share of zero-emission passenger cars continues to rise...

The Netherlands has set a policy that every new car to be sold from 2030 onwards has to be a zero-emission car. This can be battery electric car or a fuel cell electric car. At the end of August 2022 the car fleet was around 8.87 million passenger cars and around 440,000 new passenger cars are sold annually (average 2005-2021). The fleet of battery electric cars stood at 296,522 passenger cars and 562 fuel cell electric cars at the end of August 2022 ([RVO](#)). In 2030 the amount of zero-emission new passenger cars should be equal to the now total sold new passenger cars of around 440,000. To get there, the share in sales of battery electric passenger cars needs to rise substantially from 20% in 2021 ([RVO](#)) to 100% in 2030 – in just 9 years (see graphs below).

#### Share of BEV of new sales to rise substantially ...

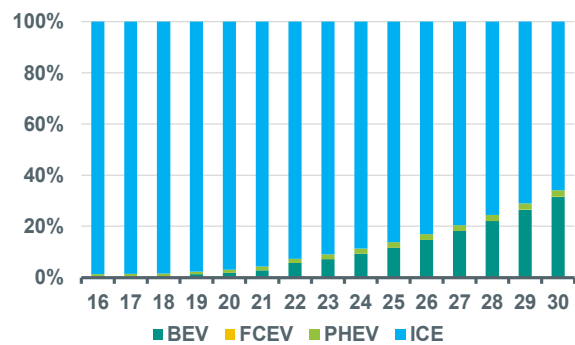
% of total new sales passenger cars



Source: RVO, ABN AMRO Group Economics

#### ...the share in the fleet

%



Source: RVO, ABN AMRO Group Economics

Currently a fleet of 8.87 million passenger cars is responsible for roughly 15.4 megaton greenhouse gas emissions in 2021. In 2030 the fleet of cars that emit greenhouse gasses is expected to be 5.8 million passenger cars. The total greenhouse gas emissions of these 5.8 million passenger cars will likely be around 10.8 megaton. So, by introducing the measure that all new passenger cars in 2030 have to be zero-emission cars, greenhouse gas emission will probably drop from 15.4 megaton to 10.8 megaton or a reduction of 4.6 megaton by 2030. The Coalition Agreement included green measures for personal transport and the way of travel. Sustainable urban logistics and freight traffic are also supported, the rollout of charging infrastructure is accelerated and blending of sustainable biofuels will be encouraged. Moreover it increases taxes on air travel. In 2030 the government will also introduce pay for use for all cars (Betalen naar Gebruik).

Battery electric cars are much more expensive to buy even taking into account government subsidies. The average purchase cost in 2021 was EUR 51.000 while the average price of petrol car was around EUR 10.000-15.000 lower. The government buying incentive program is considerably lower than the price gap. So it is still on average more expensive to buy an electric car than to

buy a petrol car. However, the running costs per 100km are lower. These costs depend on the electricity costs (including or excluding charging at home with solar panels) versus the fuel price. Moreover government policy also determines the running costs. To achieve the goal of getting more zero-emission passenger cars on the road, purchase costs will have to fall so that electric driving becomes accessible to a large number of people.

#### **...as well as the number of charging points**

The total number of charging points has increased to 102,463 in August. There are 63,414 regular public charging points that are 24/7 publicly accessible, 39,049 semi-regular semi-public charging points and 3,345 fast charging points. Regular charging points (public and semi-public) have smaller or equal than 22kW capacity while fast charging points have larger than 22 kW ([RVO](#)). There are also an estimated 270,000 private charging points. The RVO published a survey on charging in the Netherlands (National Laadonderzoek). According to this survey, 68% of electric car users have solar panels and 95% of this group would like to use solar power for charging or are already doing so.

Currently there are 6.1 cars (BEV, PHEV) per public and semi-public charging points. If we also take into account the private charging points then there are 1.7 cars per charging point. In China this is 5 cars per charging point and in Germany 12 cars per charging point. So looking at other countries the number of charging points should currently be enough. However, in densely-populated areas where there is also limited possibility for private charging points, it is likely that the number of cars (BEV, PHEV) per charging point is much higher and that there are not sufficient charging points. The government aims to have 1.8 million public, semi-public and private charging station in 2030. Meanwhile, there are 7 hydrogen fuelling stations and 3 under construction. This means around 80 fuel cell cars per fuelling station.

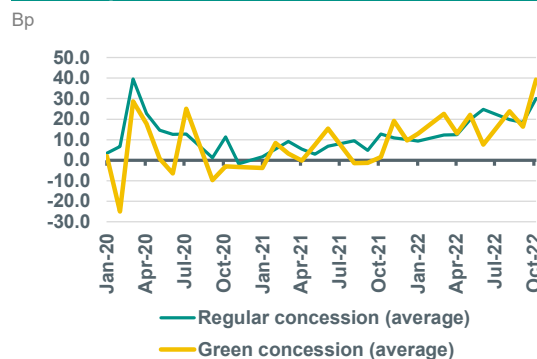
## ESG Bonds – Green bond investors are reclaiming losses in the primary

Shanawaz Bhimji, CFA – Head of Corporate Debt Research | [shanawaz.bhimji@nl.abnamro.com](mailto:shanawaz.bhimji@nl.abnamro.com)

- ▶ The new issue concession on corporate green bonds reached a multi-year high, despite green offerings having a similar credit quality of that of regular bonds
- ▶ In secondary markets the green bond index suddenly trades at a wider credit spread than the regular index
- ▶ Real estate credit makes up nearly 14% of the green bond index vs 7% of the regular corporate bond index
- ▶ The dismal performance of real estate credit this year and the higher weight in the green bond index could therefore necessitate higher concession in primary deals to make up for poor performance on green bonds
- ▶ A turn in the fortunes in real estate credit could drive new issue concession on all green bond deals down again

We actively track how much issuers end up paying above or below what the market would have commanded if it was unaware of a new bond deal being marketed (where we obviously look at secondary bond markets for guidance). Greeniums in the primary market, i.e. negative new issue concessions, are rare. Yet during the 30 month time horizon since we have been tracking new issue concessions on green bonds, the picture against regular bonds is quite mixed, especially since 2021. Green bonds price at both a lower and higher concession vs regular bonds during different periods. The chart displays the average concession over all deals for a particular month.

### Green bond deal concessions sometimes higher and sometimes lower than regular bond



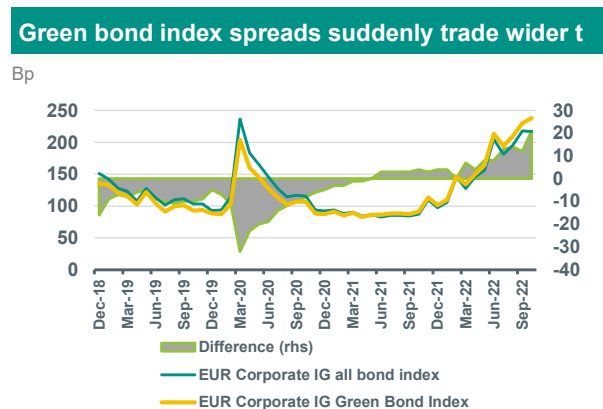
Source: Bloomberg, ABN AMRO Group Economics

The difference could normally be explained by the variation in issuers coming to the market. For example, in March 2022 the chart on the previous page shows that higher concessions were paid on green bonds but this made sense since not only was the average composite credit rating on the 8 green bond deals a BBB1, these bonds were also offered at a longer maturity of 7.8 years on average. The 31 regular bonds priced during the same period had a composite rating of A3 and a 6.7 years of maturity on average. Paying higher concessions on weaker quality and higher duration risk makes perfectly sense to us, especially in the risk-off market at the time.

We are seeing a similar 10bp of higher new issue concession being paid on green bonds offered in October as we did in March. In terms of maturity being offered there is, again, a 1y difference in favour of the regular offering. But surprisingly, the green bond and regular bond offering quality has the same BBB1 composite credit rating. One could perhaps argue that perhaps the **TenneT** (a Dutch utility company) 20y green bond would pushed up the average new concession on green bond deals. But then we saw a higher concession being paid by **Bouygues** (a French conglomerate company) on a regular deal for a 10 year maturity, while Bouygues and TenneT have the same A3 composite credit rating. A slightly longer average maturity on green bond deals being offered this month was not the defining factor. But green bond investors have incurred bigger losses than broad based corporate bond investors because of their higher allocation towards real estate credit. Perhaps covering this through the primary is a way to cover a part of these losses incurred in the secondary. Indeed, there was nearly 60bp been paid in new issue concession on the TenneT 20y bond deal and after nearly two weeks spreads are 2bp tighter vs re-offer, while spreads on all other very long dated issuance, such as the Bouygues 20y, went wider reflecting ongoing weakness in longer dated credit risk.

#### A reversal in real estate credit could imply lower new issuance concessions

The EUR IG corporate green bond index came into existence at the end of 2018, perhaps at a same time when green bond issuance was surging. This green bond index has lower composite quality and higher duration than the broad EUR corporate IG index, yet still it managed to trade at tighter or similar spreads, until recently. Secondary green bond spreads today trade a record 20bp wider than the broad index.

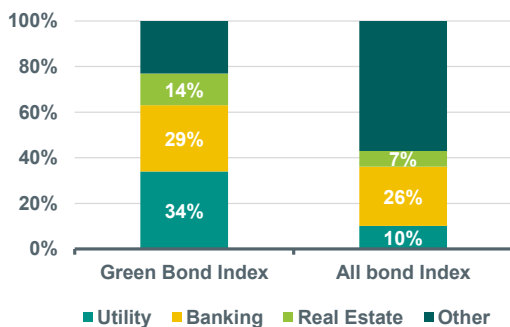


Source: ICE BofAML, Bloomberg, ABN AMRO Group Economics



The charts below show the difference in sector weights between the Corporate green bond index (Bloomberg ticker ERGN) and the Corporate all bond (regular and green) index (Bloomberg ticker ER00). Banks are included in these corporate indices. Real estate clearly has a bigger weight in the green bond index and the right hand chart shows that real estate has been a clear underperformer in terms of spread widening this year and the green real estate bonds were no exception. We note for example that 8y and 9y remaining maturity green bonds issued by less familiar real estate issuers such as Dutch **CTP** and Belgian **VGP** are trading close to 50% of face value and a corresponding yield of 9 to 11%!

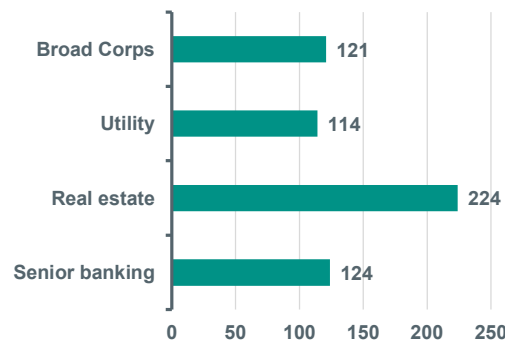
#### Green vs regular corporate bond index – sector weights



Source: ICE BofAML, Bloomberg, ABN AMRO Group Economics. Other sectors do not make up more than 10% of the total

#### Real estate clear loser in corporate credit

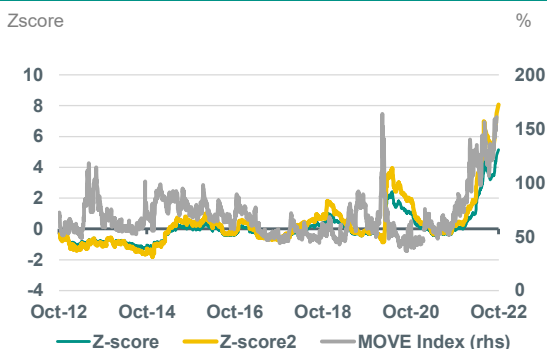
Change in spread over govies (bp) since start of 2022



Source: ICE BofAML, Bloomberg, ABN AMRO Group Economics

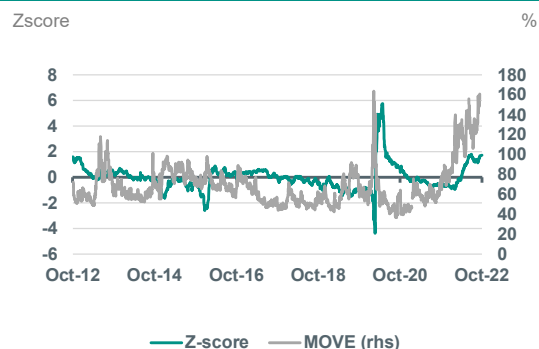
Performance in the overall green bond corporate index therefore depends on a reversal of fortunes in the real estate credit space. A couple of weeks ago we showed in our dedicated credit publication called the ABN AMRO Monday Credit Crisp (see [here](#)) that the pricing of real estate credit had become so extreme, that for example the difference in credit spread between real estate and the broad corporate bond market, as expressed in Z-scores, had breached values which normally either flag oversold conditions or severe distress on issuer level. The chart on the left shows that this Z-score moves in tandem with interest rate volatility (proxied by the MOVE index). But interest rate volatility in the US has been strong as well. Actually the MOVE index captures US interest rate volatility, but since rates have also aggressively moved up in Europe we feel comfortable to use the MOVE as a gauge of European volatility as well. Still, the right hand chart shows that US real estate credit, in contrast to European real estate credit, has been more resilient as the Z-score remains under 2.

#### EUR IG real estate Z-scores vs MOVE



Source: ICE BofAML, Bloomberg, ABN AMRO Group Economics. Note: Z-score2 excludes the the drag on averages and standard deviation from observations seen since the start of this year.

#### US IG real estate Z-scores vs MOVE



Source: ICE BofAML, Bloomberg, ABN AMRO Group Economics

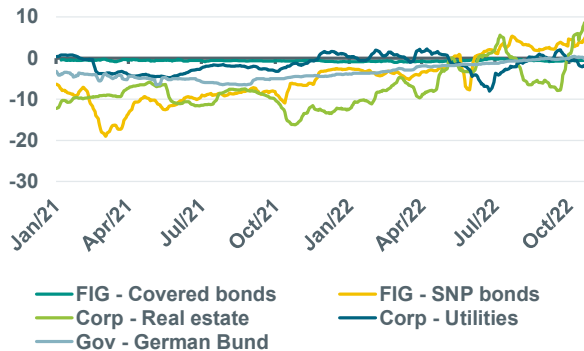
The most likely pivot in the fortune of European real estate credit will come when interest rate volatility starts to moderate. The good news is that we are likely approaching the peak in the Eurozone rate hike cycle and we should also see long term yields come down next year. Perhaps the higher leverage used by European real estate issuers vs their US peers could explain the more extreme reaction on this side of the pond to European real estate credit as a lower starting equity implies less cushion for bond holders when valuations drop. However, the imminent recession, where we expect 0.9% contraction in 2023 as a whole in the Eurozone, is unlikely to cause a heavy decline in property values due to a spike in vacancies or massive downward pressure on rents upon renewals.

Therefore, if spreads in real estate credit come down faster and stronger than the broad corporate space, perhaps green bond investors will see outperformance and then also do not need to be greedy in demanding new issue concessions.

## ESG in figures

### ABN AMRO Secondary Greenium Indicator

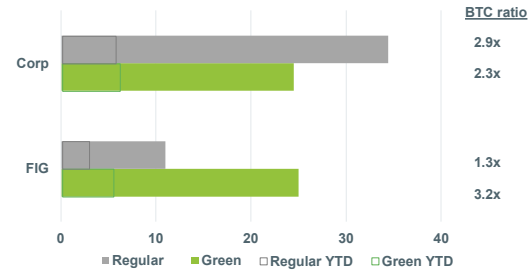
Delta (green I-spread – regular I-spread)



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

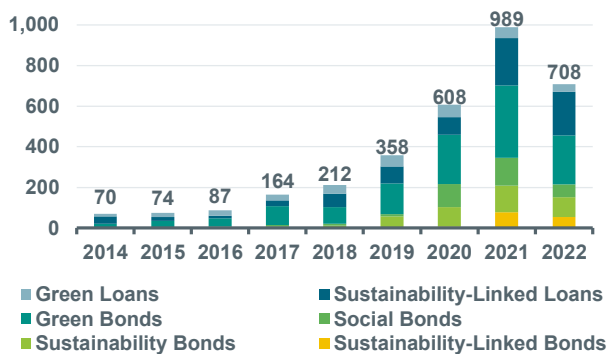
NIP in bps



Note: Data until 21-10-22. BTC = Bid-to-cover orderbook ratio. Source: Bloomberg, ABN AMRO Group Economics.

### Sustainable debt market overview

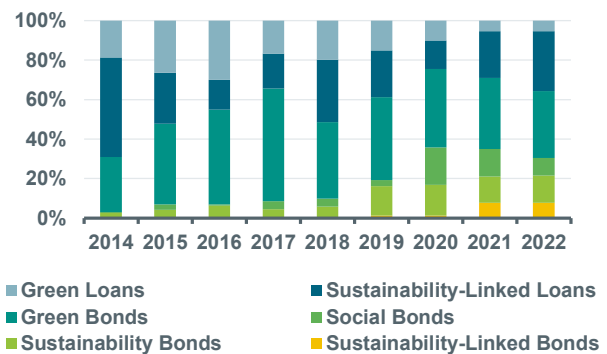
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

### Breakdown of sustainable debt by type

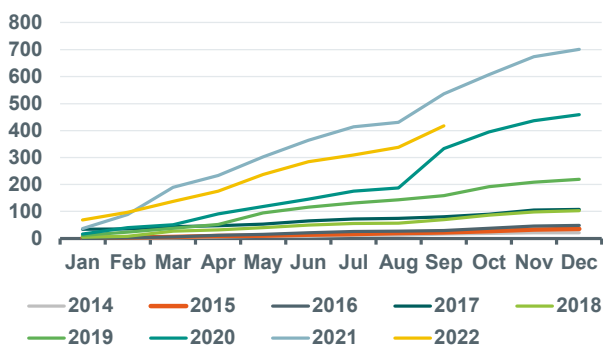
% of total



Source: Bloomberg, ABN AMRO Group Economics

### YTD ESG bond issuance

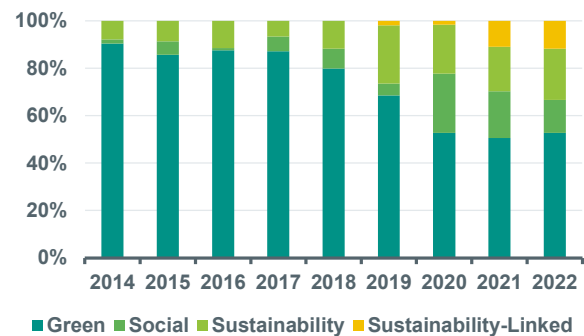
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

### Breakdown of ESG bond issuance by type

% of total

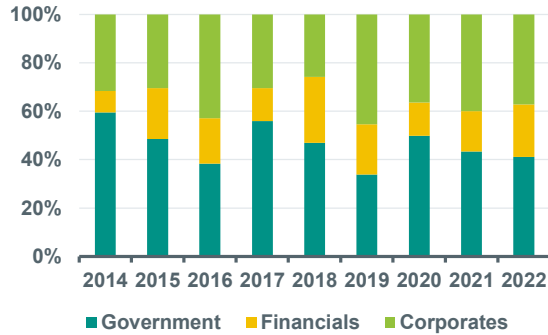


Source: Bloomberg, ABN AMRO Group Economics

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

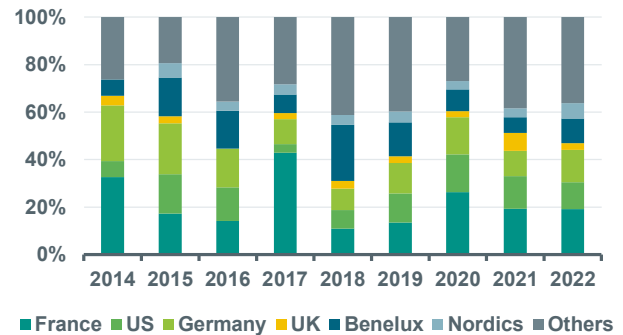
% of total



Source: Bloomberg, ABN AMRO Group Economics

### Breakdown of ESG bond issuance by country

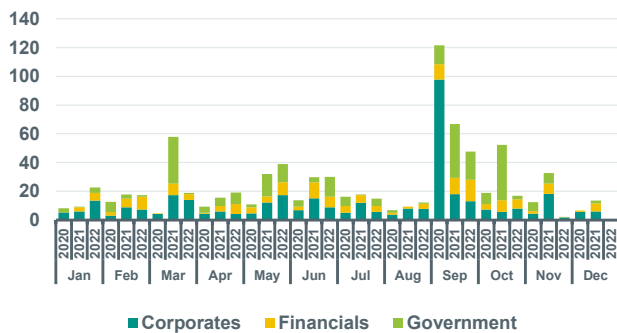
% of total



Source: Bloomberg, ABN AMRO Group Economics

### Monthly Green Bonds issuance by sector

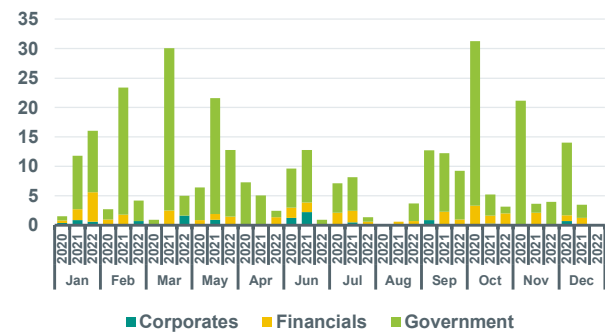
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

### Monthly Social Bonds issuance by sector

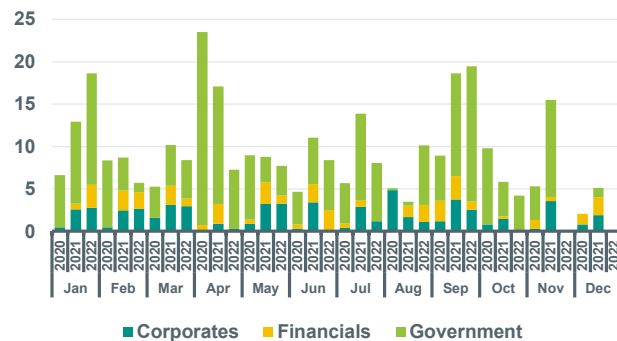
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

### Monthly Sustainability Bonds issuance by sector

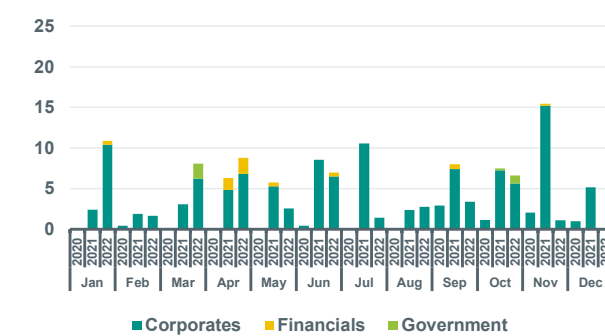
EUR bn



Source: Bloomberg, ABN AMRO Group Economics

### Monthly Sust.-Linked Bonds issuance by sector

EUR bn



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)

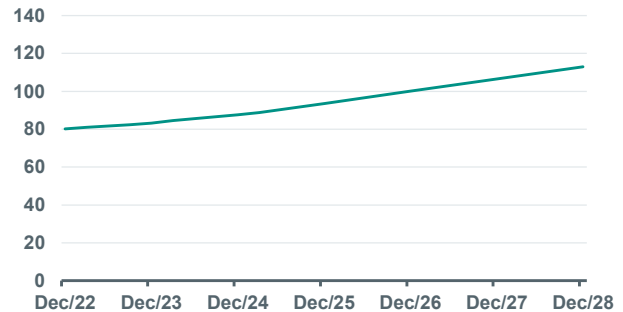
EUR/MT



Source: Bloomberg, ABN AMRO Group Economics

## Carbon contract future prices (EU Allowance)

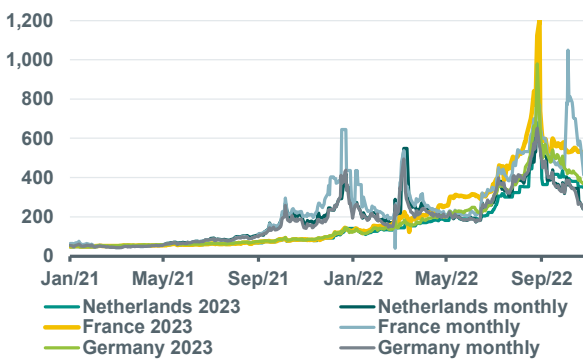
EUR/MT



Source: Bloomberg, ABN AMRO Group Economics

## Electricity power prices (monthly &amp; cal+1 contracts)

EUR/MWh

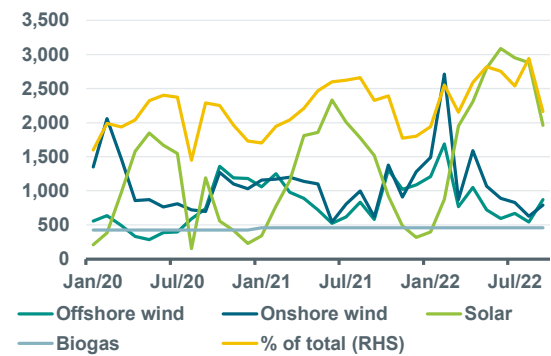


Source: Bloomberg, ABN AMRO Group Economics. Note: 2023 contracts refer to cal+1

## Electricity generation from renewable sources (NL)

GW

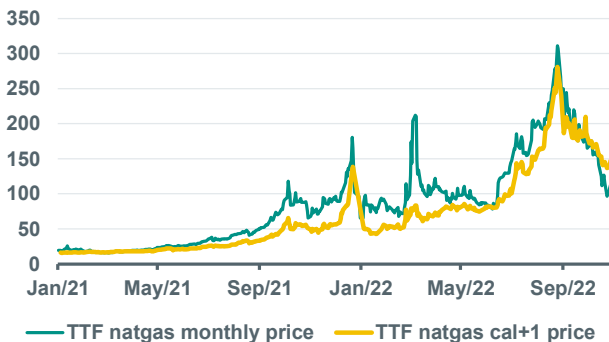
% of total



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

## TTF Natgas prices

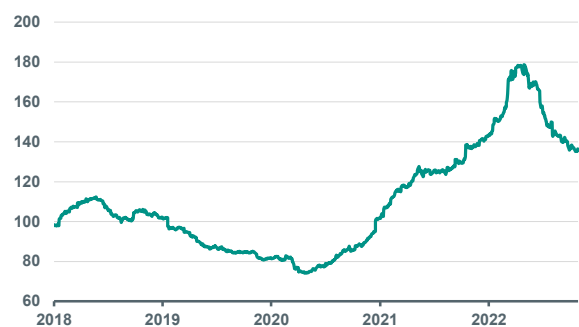
EUR/MWh



Source: Bloomberg, ABN AMRO Group Economics

## Transition Commodities Price Index

Index (Jan. 2018=100)



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, silver and titanium. Source: Refinitiv, ABN AMRO Group Economics

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