After COP 26 – the burden shifting to corporates?

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Abstract

Governments from around the world will parade their climate credentials at the COP 26 summit ... but when the dust has settled, much of the pressure to implement their plans will be delegated to corporates. Post-COP, firms will be pushed via policy or social pressure to spend more to mitigate climate change. The cost may be high but proactive firms are already being rewarded by customers and investors. Those that delay may face penalties.

Our analysis shows the cost of change is a key worry for managers. Mentions of this have jumped in corporate documents this year. That is particularly the case as corporates with the greatest carbon intensity (even within each sector) have lower cash reserves and lower profit margins. This makes it harder for them to bear the cost of reducing their carbon profile.

The good news is our surveys show that customers increasingly seek brands where they believe the company’s climate story. Investors are also snapping up climate-focussed corporate bonds. Still, this is a double-edged sword. Where a company is deemed to lag its peers, product boycotts are becoming more common.

Companies must be profitable to fund the change necessary to decouple their profits from emissions. This is possible as climate-related financial products have gone mainstream, particularly since covid. Sustainability-linked bonds and Assets-as-a-Service are two that are growing in popularity. As more ESG-based financial products emerge, the corporates that use them will receive a double benefit: greater profitability and better relations with governments, investors, and customers.

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COP 26 has already witnessed new announcements from governments about reducing emissions. In reality, it will fall to corporates (either directly or indirectly) to fulfil these promises. Incentives and punishments will be part of the deal. Government initiatives will come on top of customer and investor pressure.

The responsibility will fall on corporates because they are massive polluters. The following chart shows that the top 40 listed polluters in the US and Europe emit roughly the same amount of carbon as all countries in Africa combined, and about a third more than all the countries in South America combined.

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**Emissions 2019 (m tonnes)**

![Chart showing emissions by region](chart.png)

Source: MSCI, OurWorldinData, Deutsche Bank
The delegation of climate responsibility to corporates is already happening. Just one example is the recent announcement of Europe’s Carbon Border Adjustment Mechanism. This will require certain companies to pay a levy on the carbon they emit, regardless whether their products were made in the EU or not.

Corporates are being asked to do more across other environmental aspects. Maine recently became the first US state to shift recycling costs from taxpayers to companies that produce packaging. There are similar programmes in some European countries and Canadian regions.

Pushing corporate responsibility for the environment is popular with voters. The following chart can be read in two ways. The first is that people expect corporate manufacturers to deal with waste more than anyone else. The other way is that 80 per cent of people think someone else should act on the problem. Corporates are the main target.

Large corporates are particularly in the spotlight due to their deteriorating public perception. They are perceived as contributing the most to climate change given the volumes of their business and supply chains. The charts below show the negative view of large corporates has accelerated in recent years. Essentially, people feel that large companies are not pulling their weight in society.
People believe they are doing their bit

While people think companies should do more, they generally think they themselves are doing enough for the environment.

I am doing enough to tackle climate change

One example of where people see themselves as taking personal responsibility is in food consumption. In short, fewer people are eating meat because of its environmental impact. In fact, beef and lamb necessitates using by far the largest amount of land when compared with other protein-rich nourishment. The amount of land that is used for beef production brings an opportunity food loss of 96 per cent. This means that the land used to feed four grams of beef can yields 100 grams of plant-based protein.

The following charts show the trend towards vegan or vegetarianism is especially prevalent in young people. That has forced the restaurant industry to respond over the last ten years.
### People who are likely to stop eating food transported from another country in the next 6-12 months

<table>
<thead>
<tr>
<th>Country</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
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<tbody>
<tr>
<td>France</td>
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</table>

Source: Deutsche Bank Primary Research

### People who are likely to change their diet to be predominately plant based in the next 6-12 months

<table>
<thead>
<tr>
<th>Country</th>
<th>0%</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
<th>25%</th>
<th>30%</th>
<th>35%</th>
<th>40%</th>
<th>45%</th>
<th>50%</th>
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</tbody>
</table>

Source: Deutsche Bank Primary Research

### Proportion of each age group who classify themselves as vegan or vegetarian (by age group)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
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<tr>
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<td>30-44</td>
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<td>45-64</td>
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<td>65+</td>
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<td></td>
</tr>
</tbody>
</table>

Source: YouGov America, Deutsche Bank

### Non-meat restaurants in Europe

<table>
<thead>
<tr>
<th>Year</th>
<th>Vegan</th>
<th>Vegetarian</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>12,000</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>14,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Happy Cow

### Just as people see themselves as doing enough, they are increasingly changing their purchasing habits. The following chart shows that far more people are buying more products from companies based on their climate record than those who are actively avoiding the issue.

I buy more now from companies that address climate change than I did 12 months ago

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10%</td>
<td></td>
<td></td>
<td></td>
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<td>20%</td>
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<td></td>
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<tr>
<td>60%</td>
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</tr>
</tbody>
</table>

Source: Deutsche Bank Primary Research
The stick to this carrot is the fact that customers are increasingly happy boycotting a company’s product if they see bad press about them in relation to their environmental behaviour.

**Proportion of US customers who have boycotted a product due to environmental factors**

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>8% growth</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank Primary Research

**Proportion of US customers who did not rebuy from a company after boycotting its products**

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>7% growth</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank Primary Research
Can companies afford to change?

People believe corporates can afford the cost of doing more on climate change. That is particularly the case since governments (ie taxpayers) have now bailed out corporates twice in the last 13 years.

From one point of view, corporates certainly can afford the cost of doing more. Despite the pain of covid, overall corporate cash piles have soared during the pandemic. The following chart show that the median cash pile of a company in the MSCI US index jumped nearly 50 per cent during 2020. Across the Atlantic, the median company in the MSCI Europe index saw its cash increase by nearly 35 per cent at the end of 2020.

In addition to having large cash piles, corporate profitability is strong. It is true that profit margins fell last year. However, they were coming off generally high levels. In the US, margins were at multi-decade highs in 2019, while in Europe they were at cyclical highs in the years leading up to the pandemic. This gives corporates a buffer to absorb the costs of adapting to climate change.

Median cash on company balance sheets

Company net profit margins

Source: Factset, Deutsche Bank
The first steps have been taken

While there is a perception that many companies are not doing their bit to decrease the carbon intensity of their operations, actually, they have taken some positive first steps.

A 2021 report showed that 338 large companies globally reduced their emissions by 25 per cent between 2015 and 2019. This is a difference of 302m tonnes, which is equivalent to the annual emissions of 78 coal-fired power plants.

If we consider ‘Scope 1 and 2‘ emissions (i.e. those emissions generated directly from a company’s operations or the energy it uses), the median company in Europe cut its emissions by 14 per cent in the decade to 2019. Beyond that, covid restrictions artificially reduced many companies’ carbon footprint in 2020. The US showed a different picture as overall emissions from the median company rose over the decade, however, they have since fallen to a three-year low.

<table>
<thead>
<tr>
<th>Median scope 1+2 emissions (tonnes): MSCI Europe and US indices</th>
</tr>
</thead>
</table>

Source: MSCI, Factset, Deutsche Bank

A better judge of how companies are addressing emissions in their business comes from measuring the carbon intensity of their business with respect to sales. The following chart shows that since the financial crisis, the median European company has decarbonised its operations by 45 per cent. Even if the series is cut short at 2019 (pre-covid), companies have still reduced the intensity of their sales by 23 per cent.
The drop in emissions intensity is relatively broad based across sectors. The following chart shows that only three sectors increased the intensity of their emissions with respect to sales in the decade to 2019.

The data are not perfect. A better analysis would use ‘Scope 3’ emissions as well as that covers all the indirect emissions from a firm’s operations, including its supply chains. However, many companies do not report this. Therefore, we use the ‘Scope 1 and 2’ analysis to give an initial understanding of the trends in a company’s carbon footprint.

There is still a long way to go until most firms have clear and ambitious targets to reduce future emissions. Indeed, only 16 per cent of the emissions generated by companies in the S&P 500 are covered by science-based targets.
The first step in reducing corporate emissions has been relatively easy. Many have tackled the easiest, high-polluting issues first. They have replaced fuels with greener alternatives and updated factory machinery to be more energy efficient.

The next step will generally cost more per tonne of emissions reduced. This is a fast-growing corporate concern. Indeed, mentions of “ESG” and “cost” in global corporate documents have jumped in the last two quarters.

Mentions of ”ESG" and "cost" in global corporate documents (12m rolling)

Whilst it looks like corporates have plenty of cash to fund emissions reductions, and high profit margins to absorb the cost, a look under the covers shows the corporates with the biggest need to change are the ones that can least afford to do so.

Specifically, corporates with more carbon-intensive operations have less cash and lower profits margins to absorb the costs.

The following chart shows that European companies (ex financials) that have the lowest levels of cash are 70 per cent more carbon intensive (emissions per $1m of sales) compared with companies that have higher levels of cash. Similarly, the second shows that companies that have below-median profit margins have more than twice the intensity of carbon in their operations as companies with high profit margins.
This effect – that lower margin, lower cash companies have the highest emissions – also applies within sectors. The following chart shows that for almost all sectors in Europe, and most sectors in the US, the companies in that sector with the highest emissions tend to have lower margins.

This has been an issue for some time. The following chart shows that low-margin companies have consistently reported higher carbon intensity for at least a decade.

Company size is not an issue. When large companies (by market value) were compared in each sector were more (or less) carbon intensive than their smaller peers, the results were split with six sectors seeing a ‘big company advantage’ and four sectors showing a disadvantage. Breaking the effect down further merely failed to prove any sizable ‘big company advantage’.
Corporates can decouple growth and emissions

The task ahead for corporates may seem daunting but history has proven that it is possible to decouple growth and emissions.

Throughout most of our history, carbon emissions have grown roughly in tandem with economic growth. That led economists to think that emissions were simply the necessary by-product to achieve higher economic growth and improve living standards. This was generally the case for major developed countries, including the US, UK and Germany. The following chart shows the relationship up to 1900 in the UK.

More recently, however, emissions have decoupled from growth. Since the 1970s, the UK has reduced the amount of carbon it produces in the country even as economic growth has continued on its long-term trend. Germany has seen a similar effect since the 1970s.

The way economic growth is possible even in a low-emissions world is through creating business models that support it. One post-covid report found that by engaging in nature-positive models, a total of $10.1tn can be added in annual business value and a total of 395m new jobs can be created by 2030. The new possible jobs represent around one fifth of the total projected increase in the global labour force between now and 2030.

Another report estimated that 39m nature-positive jobs could be created if governments reallocated one year’s worth of subsidies that harm biodiversity to a nature-positive stimulus instead. Separately, Google said its own sustainability investment should generate more than 20,000 jobs in clean energy and associated industries in the next five years. At a time when automation and artificial intelligence can lead to redundant jobs, this creates opportunity to reskill people into new industries.
It is true that traditional measures of carbon emissions mask the true extent of developed nations’ pollution. Rich countries emitted carbon at home, as well as abroad, where it made its assets. Globalisation, particularly over the last 40 years, has led nations to take advantage of cheaper labour costs in emerging markets, particularly China, and shift manufacturing processes overseas. Finished products are then imported.

Consequently, countries like China are net exporters of emissions while other developed countries are net importers. For example, the US has a net import of carbon equal to 7.7 per cent of domestic emissions. Other service-based economies such as the UK and Germany are in similar positions. Europe’s Carbon Border Adjustment Mechanism aims to change that for the continent.

Yet, even accounting for emissions on a ‘consumption basis’ (where emissions are recorded in the country in which the product is consumed) many developed countries have reduced emissions whilst increasing growth. This solidifies the decoupling trend we mention above and means there is hope that corporates can foresee a decarbonised future alongside profit growth.

Source: OurWorldinData, Deutsche Bank
Corporates must be profitable to drive change – otherwise they will cease to exist. Thus, corporate solutions require financial solutions. Amongst the options, there are two key ways that finance can create positive change: through ESG bonds and facilitating asset-light business models via assets-as-a-service.

Investors are helping drive demand for ESG bonds. Indeed, issuance has exploded over the past couple years and it is plausible that, in the medium-term, companies wishing to issue debt may need to prove their climate credentials to access funding from certain large investors.

Green bonds remain the most popular type of ESG bond. That is because they are backed, in large part, by property assets. Specifically, they tend to fund the construction or renovation of energy efficient buildings. Because they are relatively secure, the cost of a green bond is very similar to that of regular bonds. In other words, the ‘greenium’ is very low.

The biggest growth in ESG bonds, though is not in green bonds, but three other types including social, sustainability, and sustainability-linked bonds.

Sustainability-linked bonds have become particularly popular as they directly link an ESG outcome to the interest payable on the bond. In effect, the corporate receives a discount if it hits the target, and a penalty if it does not.

Companies have noticed the signalling effect that sustainability-linked bonds offer. This has become particularly important to show investors that the company is serious about its ESG goals. As a result, growth in sustainability-linked bonds has been particularly strong this year. The amount issued rose exceeded $50bn per month twice in 2021 with the vast majority of demand coming from non-financial corporates.
Minimalism has been rewarded by investors for some time. In general, the share prices of companies that are asset-light outperform those that are asset-heavy. Yet, being asset-light can also reduce corporate emissions.

Looking at the US specifically, the more asset light a company, the better its ESG score tends to be. The following chart illustrates the point.

### Median Gross PPE/Total Assets per Environmental Score, MSCI US

![Chart showing the relationship between Gross PPE/assets and Environmental Score.]

Source: MSCI, Factset, Deutsche Bank

Asset-as-a-Service is a growing way for corporates to become more asset light. In short, when using AaaS, someone else owns the assets a company uses to run its business. The firm pays for those assets based on time, output or another factor.

Companies are increasingly aware of the benefits of being asset light. Mentions of “as a service” in corporate documents have increased exponentially this year.

### Mentions of “as a service” in global corporate documents by quarter

![Graph showing mentions of “as a service” in corporate documents by quarter.]

Source: AlphaSense, Deutsche Bank
AaaS does not merely shift emissions from one party to another. Rather it creates incentives for both the user and owner of the asset to treat the asset more efficiently, thereby reducing emissions across the entire lifecycle.

First, an AaaS arrangement lessens waste. This is because the company generally pays for the asset in question based on its usage (output, time etc). This incentivises the business to use the machine efficiently. It eliminates the thought that “I might as well use it because it’s sitting there anyway”. Resources are saved; emissions are reduced.

It is not just the user of the machine that saves resources and emissions. Asset owners that rent AaaS machines are becoming more specialised. That means they become more precise about optimising the financial returns on their machines. Thus, they are incentivised to extend the life of a machine as long as possible and maintain it accordingly. This has several environmental benefits. A well-maintained machine runs more efficiently and thus generates fewer emissions. In addition, increased longevity of a machine means a longer replacement cycle and thus less waste. In turn, that means fewer resources are used and emissions generated by making new machines.
There are many legitimate reasons why corporate should be the focus of public attention for combatting climate change. There are also some political reasons why companies will be increasingly have this responsibility delegated to them.

The upside and downside of this responsibility will only become more pronounced in the short term. Already, those companies that are proactive are increasingly benefiting from increased customer loyalty. Conversely, customers are growing used to boycotting products they believe do not live up to environmental expectations.

Setting corporate targets is key. These provide companies with a measurable goal to which its employees, customers and investors can align. The targets need to be made public as, psychologically, humans tend to meet higher achievements if they let others hold them accountable. To be sure, these targets must be credible if companies want to avoid public criticism. Following scandals surrounding green and pink washing, it is important to set targets that drive real change.

Beyond targets, corporates can make the biggest difference if they are growing. To do this, they need financial solutions. Products such as ESG bonds and Assets-as-a-Service are a start. As more ESG-based financial products emerge, the corporates that use them will receive a double benefit. Not only will they boost their profitability, but they will ingratiate themselves with governments, investors, and customers for contributing to the fight against climate change.
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After COP 26 – the burden shifting to corporates?

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