

# Refinitiv Carbon Market Survey 2020

## Persistent confidence in EU ETS, but Covid-19 brings down price expectations

### To the point:

- European survey respondents see the EU ETS as a more important emission abatement driver than policy measures implemented on member state level. That is a change compared to 2019, when the latter was seen as the most important.
- Respondents expect key ETS parameters to change, notably the annual supply of EUAs (increased linear reduction factor). Most believe the intake rate to the market stability reserve will be set at 24% also after 2023.
- The survey was ongoing when Europe entered a coronavirus lockdown, with most responses collected before 15 March. For price expectations, we see a clear effect of the lockdown leading to a more bearish view, both for 2020 and the years to come.
- We do not see a similar strong effect on expectations for policy changes before and after 15 March. This suggests respondents are confident reforms will go ahead as planned despite the coronavirus.
- Within the subset of EU respondents that are regulated emitters, a majority expect the EU 2030 overall emission target to be ramped up.
- This year, a much larger share of survey respondents is involved in the emerging Chinese ETS. Most of them expect trading in the national market to begin this year, as signalled by the Chinese government.
- According to a new section of our survey on how companies' increased focus on environmental, social and governance aspects might help support the so-called voluntary market for climate credits, carbon offsetting is generally perceived as an environmentally responsible activity - even among those who do not offset their emissions themselves.

6 May 2020

Analysis by Refinitiv Carbon Research team

## REFINITIV CARBON RESEARCH

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Our carbon team (originally Point Carbon) provides an unrivalled knowledge of emission trading dynamics that positions us as the number one supplier of in-depth market intelligence.

The survey has been conducted by a team of Refinitiv Carbon Research analysts: Aje Singh Rihel, Anders Nordeng (Oslo); Maria Kolos (Kiev), Yuan Lin, Cathy Liao (Beijing); Lisa Zelljadt (New York). They have cooperated to make the questionnaire, interpret the results and draft this report.

For citations please refer to: “Refinitiv Carbon Market Survey 2020, A. Nordeng et al., May 2020”.

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## EXECUTIVE DIGEST

European survey respondents see the EU ETS as the most important driver of emission abatement in the years to come. Some 43% think Europe's carbon market will have a major impact on emissions - that is more than the share who think "other EU-wide climate policies" and "national climate policies" will drive emission reduction, especially compared to 2019.

This shows more confidence in the EU ETS, which is interesting given the fact that the European Green Deal has dominated climate policy discussions since the Commission presented its roadmap in December 2019. The Green Deal will eventually entail substantial changes also to the EU ETS, but so far the discussion has revolved around the 2050 Climate Law draft presented in early March.

We asked respondents when, if ever, they expect six potential adjustments to Europe's climate change regulatory framework to be implemented. A solid majority believe the ETS's Linear Reduction Factor (LRF) will be increased to reflect a more ambitious climate target (hence that the overall annual supply of EUAs will dwindle at an accelerated rate). Some 37% think this will be decided by 2023, another 28% by 2025.

The Market Stability Reserve (MSR) intake rate is currently at 24%, but will by default switch to 12% after 2023. A majority of the respondents expects lawmakers to change rules in order to keep the high rate even beyond 2023. Some 35% expect this decision by 2023, while 20% think the change to a higher rate will be re-imposed in 2024 or 2025. Another 20% think the intake rate will switch to the default rate of 12% after 2023 and remain at a low level.

Relatively few expect land transport emissions to be added to the EU ETS, at least not before 2030. Nearly one-third of respondents to this question think land transport will not be included. A larger share of respondents expects maritime transport emissions to be covered, either by 2025 or by 2030.

For the companies regulated under the EU ETS, a key question is whether the 2030 emission target will be ramped up, since that will lead to a reduced supply of EUAs.

Among the twelve regulated companies that answered this part of the survey, seven expect the 2030 target to be raised to 50%, two expect an increase to 55%, and three respondents think the target will not change from its current level of 40% reduction (compared to 1990 levels).

## PRICE EXPECTATIONS BEFORE AND AFTER CORONA LOCKDOWN

The 2020 Refinitiv Carbon Market Survey was open from 28 February to 25 March, a period in which confidence in all markets was shattered by the economic lockdown in response to the COVID-19 pandemic. Of the 253 individuals that answered the questionnaire, most gave their input during the first two weeks, in other words before market sentiment was severely affected.

One area where we see a marked change in perception is the question on EUA price expectations for 2020-2022. Out of the 53 survey responses received from EU ETS stakeholders between 25 February and 14 March, 60% expected EUA prices to remain around or above €25/t in 2020. Out of the seven survey responses received between 15 March and 25 March, however, all expected 2020 a price below €25/t.

Another finding is that the sudden shift in sentiment towards European carbon prices is not limited to near-term expectations. Among the early respondents (before 15 March), a narrow majority anticipate higher prices in 2021 than this year. Among those polled in the second half of the month, none expect to see carbon above €25/t next year.

## CHINA

One notable feature in the 2020 survey is the high number of respondents (44) involved in China's emerging national carbon market and/or in the existing regional pilot markets. Among them, two thirds expect trading in the national market to begin in earnest this year. That would be in line with political signals from Beijing. Interestingly, one quarter believes trading will not start until after 2020, that is a higher share than when we asked the same question in 2019.

## ESG

This 2020 survey includes a new market segment: environmental, social and governance (ESG), which is closely tied to voluntary carbon markets. Previous editions of this survey asked about the carbon credits issued under the Kyoto Protocol, a currency that constituted a considerable part of global carbon trading in the first half of the last decade. That market segment all but collapsed once European companies stopped buying them for compliance in the EU ETS (for all practical purposes most of these units have been ineligible for ETS compliance since 2013).

As of this year, we try to map voluntary carbon markets in a broader sense. This means e.g. businesses purchasing carbon credits to offset employees' air travel. We asked respondents what they think of using carbon credits compared to other ESG measures (reducing travel, sourcing renewable energy, planting trees, etc.), and which factors/aspects they see as important when choosing what types of credit units they want to buy. The ESG findings are presented in Chapter 6.

## INTERNATIONAL CLIMATE NEGOTIATIONS

Respondents do not expect rules on global carbon trading to be agreed anytime soon - neither for a possible continuation of existing mechanisms post 2020, nor for possible new systems under Article 6 of the Paris Agreement. The aviation sector, with the CORSIA offsetting scheme, is seen as one of the key demand sources for carbon units in the nearest future.

## INTRODUCTION: THE CARBON MARKET SURVEY 2020

The Carbon Market Survey 2020 ran from 25 February to 25 March, collecting input from 253 respondents. The 2020 questionnaire continues to cover the major regional emission trading systems (Europe, China, North America, etc.) but also introduces a new section on environmental, social and corporate governance – ESG – which is presented in Chapter 6. ESG refers to a range of different measures businesses use to reduce their climate change impact. These include purchasing carbon offsets to balance out emissions from employees' work-related flights. While these voluntary markets are small compared to mandatory cap-and-trade systems such as the EU ETS, they have a potential for quick growth, which is why we will henceforth track developments and perceptions in our annual survey.

## COVID-19

The 2020 survey was running throughout the period when the Coronavirus (COVID-19) spread from China to the rest of the world. Most European countries went into full or partial lockdown on or around 15 March. Carbon, like most other markets, was hit hard by this. EUA prices tumbled in late March, to slightly above €15/t, before stabilising around €20/t in early April. This obviously had a strong impact on the survey respondents' perception on future EUA prices, where we see a huge difference depending on whether the survey was received before or after 15 March. We highlight this effect in a special section in Chapter 1. For more details on the survey methodology and the profile and location of respondents, please see the annex at the end of the report.

## 1. EUROPE

Of the 221 survey respondents who indicated they are involved in or closely follow a particular carbon market, 80 did so for the European Union Emission Trading System (EU ETS). While that is by far the biggest segment of respondents, it is still a markedly smaller share compared to previous years. In 2019, 98 of 165 followed Europe (59%), whereas this year's percentage is 36. The 2020 questionnaire allowed respondents to select only their main market - previously, they could choose all the markets they follow/analyse/are involved in. This limitation likely reduced the number of respondents per market to some extent.

Note that respondents' locations do not necessarily correlate with their market. Some 100 respondents said they are based in a European country, meaning that 20 of them are primarily involved in markets other than the EU ETS (e.g. ESG).

### EU ETS SEEN AS MOST IMPORTANT ABATEMENT DRIVER

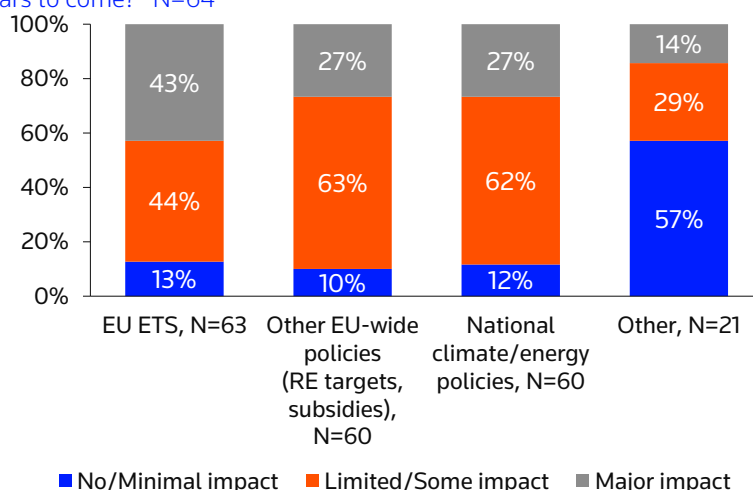
The EU ETS part of the questionnaire was divided in two main sections: one open to all who noted interest in the EU ETS, and one in-depth section reserved for compliance entities (companies whose emissions are subject to the EU ETS).

EU ETS respondents were first asked about the importance of selected European and national emission reduction policies, on a scale from 'no impact' to 'major impact'. The EU ETS is by far the most impactful climate policy according to our respondents, receiving by far the highest share of 'major impact.' If we merge the two higher response options, survey participants still find the ETS to be the most important emission reduction policy among the three alternatives (Fig. 1.1). This deviates somewhat from the 2019 survey, when national climate policies were considered the most important drivers for emission reductions.

Asked which price drivers are most important in 2020, respondents rated eight factors including compliance purchasing, reduced auction supply, fuel switching and Brexit. Some 58% considered compliance to be crucial, followed by reduced auction supply (because of the MSR) at 55%. About half

**Figure 1.1. Abatement drivers**

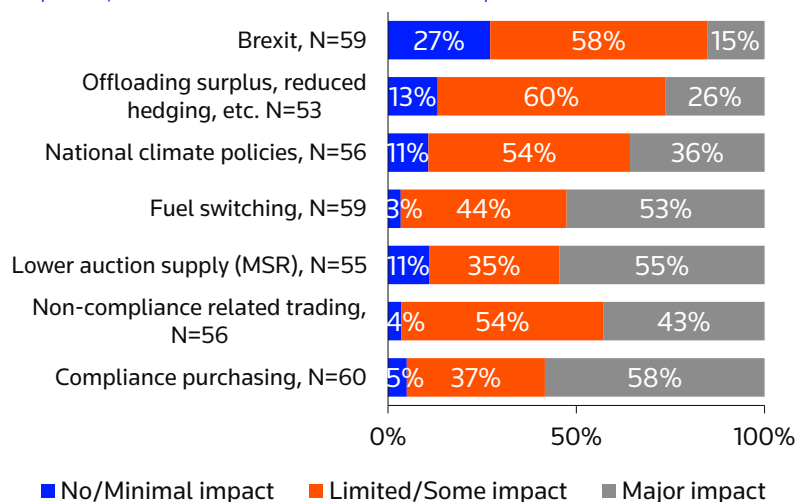
"What do you think will be the most important driver for European emission reductions in the years to come?" N=64



Source: Refinitiv

**Figure 1.2. Price drivers**

"In your opinion, what will be the main drivers this year?" N=62



Source: Refinitiv

consider fuel switching a key price driver in 2020. Brexit, on the other hand, is not perceived as an important price driver: only 46% think it will have minimal or limited impact on carbon prices in 2020. (Fig. 1.2).

A separate question asked how the UK departure from the EU ETS on 31 December 2020 will impact prices. A majority (43%) expect no effect, 23% expect a price decrease, and 22% think prices will go up (Fig. 1.3).

Price expectations dropped markedly in the responses collected after 15 March, as a result of Europe's corona lockdown. See the section "COVID-19 and carbon price expectations" further down, for more details.

### EU ETS AND THE GREEN DEAL

The European Commission's Green Deal is a comprehensive roadmap to lead the EU to carbon neutrality by 2050. The road to 2050 goes through 2030, and the Commission's communication from 11 December confirms that it wants to increase EU's 2030 climate target from the current 40% reduction (compared to 1990 levels) to at least 50% or even 55%. An "impact assessed plan" for how to achieve that will be presented September 2020, and proposals for how to revise the relevant policy instruments will be presented by June 2021.

We asked EU compliance entities (see more on this subset of respondents further down) whether and when they think

the EU will decide on a more ambitious 2030 climate target. Almost 60% of the respondents believe the target will be raised to 50%, while 17% think the EU will set the most ambitious target of 55% (Fig.1.4). None of the 12 respondents believe the EU will raise the target to the least ambitious 45%, while a quarter think the current target of 40% will remain unchanged.

The components of the Green Deal most relevant to the EU ETS include changes to its linear reduction factor and its Market Stability Reserve, but also the possible addition of more sectors such as shipping. Proposal are due in June 2021.

We asked all EU ETS survey participants if/when they expect the implementation of a list of six regulatory changes to the EU ET that could be part of the Green Deal. An upward revision of the linear reduction factor (LRF) is considered most likely. Indeed, if the overall 2030 target (across all sectors of the economy) is ramped up, the LRF needs to be adjusted accordingly, to ensure the EU ETS continues to its part of the abatement efforts.

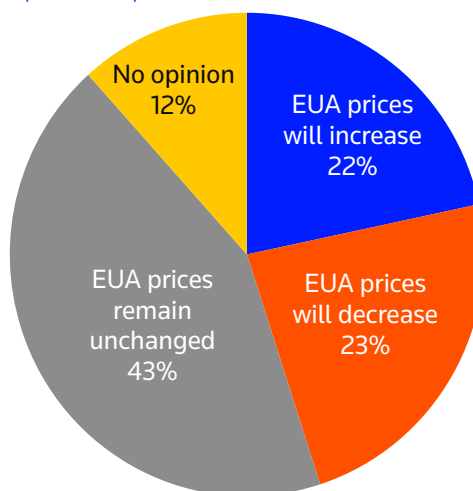
Some 37% of respondents expect a decision to tighten the LRF by 2023, while another 28% envisage this change by 2025 (Fig. 1.5). In other words, two thirds believe the 2030 policy framework will be tightened.

More than half the respondents think the Market Stability Reserve (MSR) will continue at a high intake rate (24% of the surplus in circulation) instead of switching to 12% (the default level after 2023 with the current rules). One in five believe the current MSR intake rate will be reduced to 12% in 2024, as per the existing policy.

Regarding expansion of the EU ETS scope, almost 65% of respondents foresee the maritime sector as a part of the scheme by 2030 - most of them in turn see that sector joining in the latter half of this decade. Respondents are divided on whether the land transport sector (vehicles) will be included in the EU ETS. Less than 25% foresee such an expansion by 2025; just shy of 30% see it happening between 2026-30, and roughly one-third hold the view that land transportation will not become a part of the EU ETS by 2030. Almost 20% held no view on the matter.

**Figure 1.3. Brexit impact on EUA price**

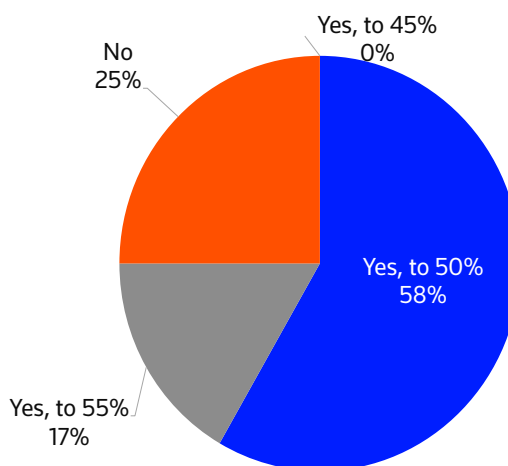
“The UK’s transition period in the EU will end on 31 December 2020. How will the UK leaving the EU ETS impact EUA prices?” N=60



Source: Refinitiv

**Figure 1.4. Green Deal**

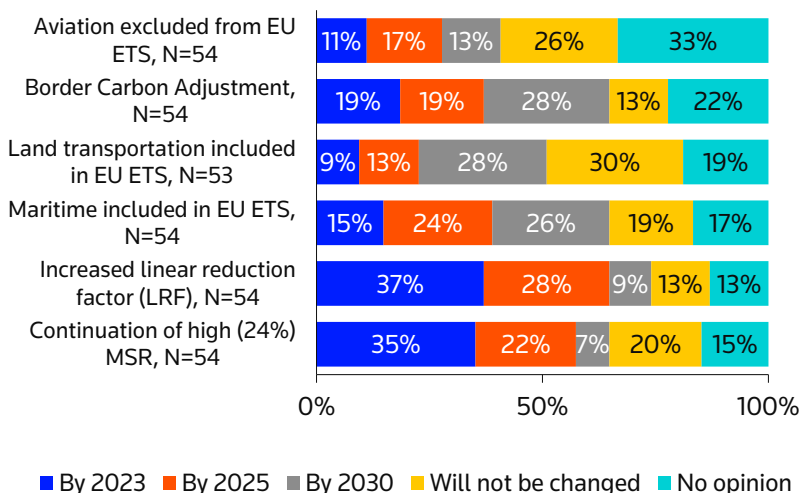
“As part of the European Green Deal, the European Commission wants to increase the EU’s 2030 greenhouse gas emission reductions target for 2030 to at least 50% and towards 55% compared with 1990 levels (up from current 40% reductions). Do you think the EU will increase its 2030 target?” N=12



Source: Refinitiv

**Figure 1.5. EU ETS regulatory changes**

“When, if ever, do you expect the following changes to the EU ETS regulatory framework to be implemented?” N=55



Source: Refinitiv

**REGULATED COMPANIES SEE MODERATE EFFECT ON COMPETITIVENESS**

The key stakeholders in a cap-and-trade scheme are the those obliged to report emissions and surrender allowances to meet their emissions target. Given their role as 'covered entities' with a compliance obligation (as opposed to observers or external traders with no 'skin in the game'), their feedback is of particular value. Since 2014, our survey has asked this subgroup of respondents four questions on how it assesses the impact of the EU ETS: whether the ETS has led to emissions reductions, whether it impairs competitiveness, whether it incentivises moving production to countries not subject to an ETS, and whether it affects investment decisions. A dozen respondents characterised themselves as compliance entities and answered these questions in the 2020 survey.

**DOES THE EU ETS CAUSE CO<sub>2</sub> CUTS?**

The most important element for assessing the merits of a cap-and-trade system is whether it actually leads compliance entities to reduce their emissions. There is no doubt that in aggregate, emissions from the companies subject to the EU ETS have been falling steadily since the programme began - particularly within the power sector, where emissions dropped nearly 9% from 2018 to 2019, mainly due to coal to gas switching.

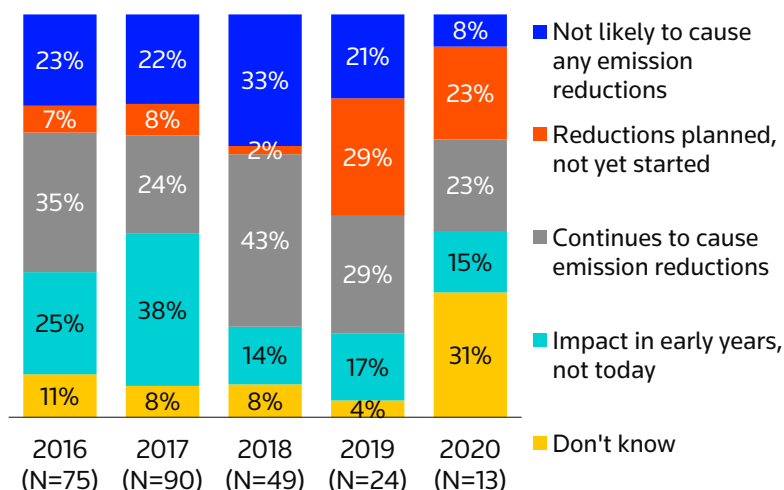
That said, analysts debate the extent to which this abatement can be attributed to the EU ETS vs. other factors. Our survey asks emitters directly whether the EU ETS has triggered/continues to trigger reductions.

Three of 13 compliance entity respondents who answered this question chose the option saying that the EU ETS "continues to cause emission reductions", an equal number said it has led them to "plan, but not yet start reductions" (Fig. 1.6). These two responses were on top also in 2019. Back in 2017, when carbon prices were low, the option "impact in the early years, not anymore" received the most responses.

The most striking difference this year compared to previous years' carbon market surveys is the much higher share of "Don't

**Figure 1.6. Reduction effect. Year-on-year**

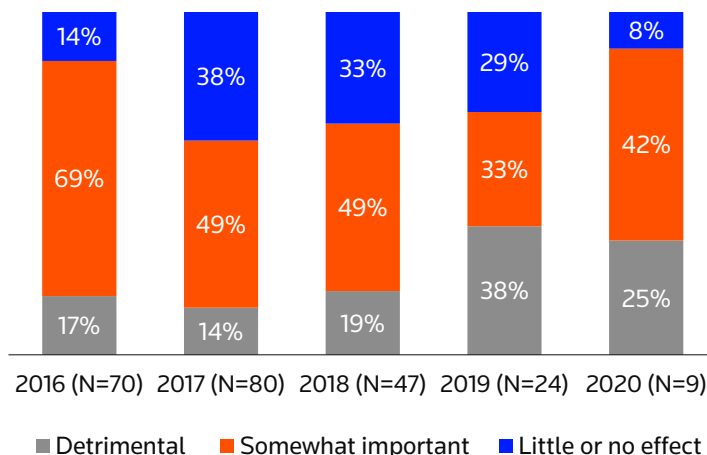
"To what extent has the EU ETS caused your company to reduce emissions?"



Source: Refinitiv

**Figure 1.7. Competitiveness effect. Year-on-year**

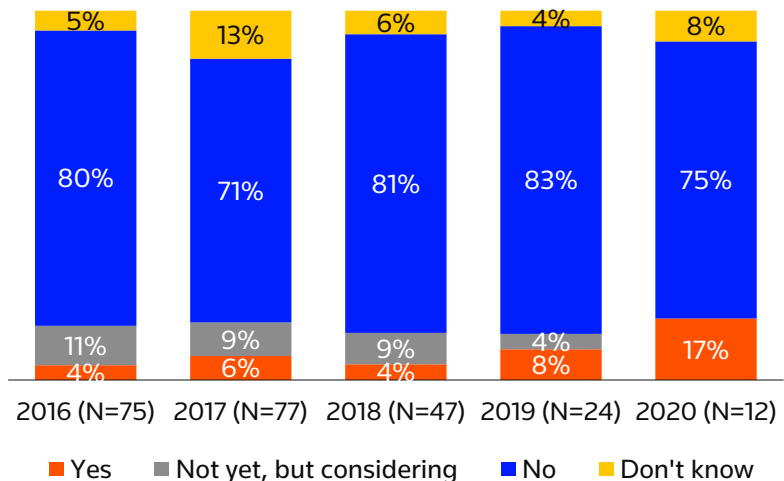
"How do you perceive the impact of the EU ETS on your competitiveness, compared to other factors such as energy prices, general tax level, availability and cost of qualified labour, etc.?"



Source: Refinitiv

**Figure 1.8. Location effect. Year-on-year**

"Has your company moved production/activity outside the EU ETS because of carbon costs?"



Source: Refinitiv

know/no opinion". Four respondents selected this alternative, which could suggest that they are not directly involved in their companies' abatement strategies.

### DOES THE EU ETS IMPACT FIRMS' COMPETITIVENESS?

Five of twelve compliance respondents see the EU ETS as "somewhat important" to their competitiveness (Fig. 1.7). Three see it as one of the most detrimental factors, an equal number expresses no opinion. The share of respondents who see the ETS as detrimental is smaller than in 2019, when 38% took this view.

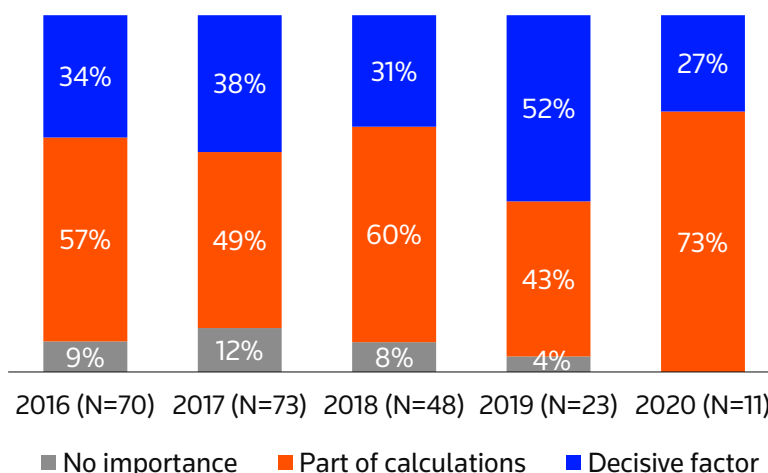
Two of twelve respondents answered in the affirmative when asked whether their company has moved production outside the EU to avoid carbon costs. That equates to a share of 17%, which is higher than in the previous years (8% said so in 2019). An overwhelming majority of respondents say they have not and are not considering moving production. That has been the case every year since 2016, in other words through a period of widely varying carbon prices (Fig. 1.8).

This is a particularly interesting pattern given the ongoing discussion around the introduction of a Border Carbon Adjustment (BCA), which is being highlighted as an instrument to avoid companies shifting production outside the EU ETS. The findings in our surveys over the past years indicate that the EU ETS affects the competitiveness of compliance companies, but the impact does not lead to such carbon leakage.

Another topic in our questionnaire is whether exposure to cap and trade affects investment decisions. This year, two-thirds see it as a factor that influences decisions - albeit not decisively. (Fig. 1.9). This marks a break compared to 2019 (when more than half said it was a decisive factor) and a return to the distribution that was dominant in the years 2016-2018.

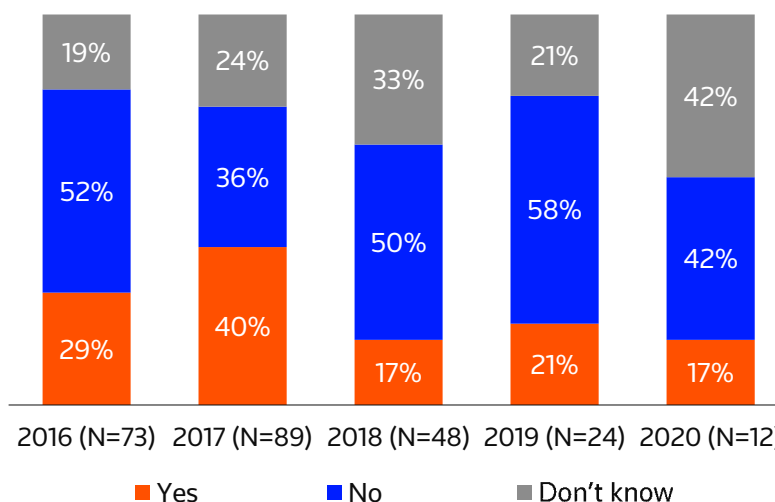
Compliance entities were also asked another set of in-depth questions aiming to assess surplus holding and hedging behaviour (we define EUA surplus as allocations 2008-2019 minus emissions in the same period). Figure 1.10 shows that 17% (2 of 12 respondents) hold a surplus of permits, slightly less than the 21% who said so in 2019. Just over 40% do

**Figure 1.9. Investment effect. Year-on-year**  
 "How important is long-term carbon price for your company's investments?"



Source: Refinitiv

**Figure 1.10. Surplus holding**  
 Does your company currently hold a surplus of EUAs? (surplus = EUAs received 2008-2019 minus emissions in the same period)



Source: Refinitiv

not hold a surplus, and the same share of respondents is not sufficiently informed about the company's situation to answer the question.

### CORONA IMPACT ON PRICE EXPECTATIONS

The 2020 Carbon Market Survey was conducted during the time when the COVID-19 pandemic shook global financial, economic and social structures. The World Health Organization declared the COVID-19 virus outbreak a pandemic on 11 March, and on 13 March Europe was announced as its epicentre.

European carbon traded around €25/t at the launch of this year's survey on 25 March but had plummeted more than 30% to below €17/t by the closure of the response period on 24 March. Prices have since recovered somewhat, with allowances trading around €20/t as of 27 April 2020. We expect that responses submitted during the last two weeks of the survey response period were heavily influenced by the spiralling carbon prices and the rapid shift in market fundamentals.

As in previous years, the 2020 Carbon Market Survey posed questions related to respondent's overall expectations of carbon prices over the next three years,



with the price level at survey launch as a basis. European carbon prices dropped dramatically from 12 March onwards, and results from this year’s survey strongly suggest a corresponding change in market participants’ expectations to short term carbon prices development. Out of the 53 survey responses received from EU ETS stakeholders between 25 February and 14 March, 60% expected EUA prices to remain around or above €25/t in 2020 (Fig. 1.11). Out of the seven survey responses received between 15 and 25 March, however, all respondents expected 2020 EUA prices to trade below €25/t in 2020.

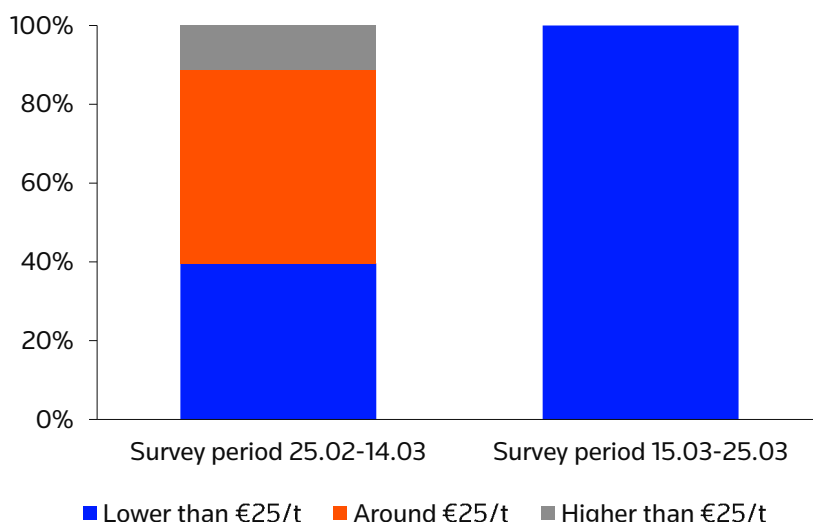
Another finding is that the sudden shift in sentiment does not apply only to near-term prices. Out of the 52 responses received between 25 February and 14 March, slightly more than half expected prices to be higher than €25/t in 2021 while only 13% anticipated EUAs to trade below €25/t (Fig. 1.12). Feedback received between 15-25 March, however, show that none of the respondents expected EUA prices above €25/t in 2021 and more than 40% predicted prices below this level.

A similar pattern can be found for price expectations in 2022, where 62% of the responses between 25 February and 14 March suggested EUA prices above €25/t but only 14% of the responses between 15-25 March shared the same view.

It is still too early to conclude the depth and length of the COVID-19 containment measures and how they will impact the carbon markets around the world in 2020 and beyond. However, our survey results indicate that the COVID-19 pandemic and the following containment measures have pushed carbon stakeholders into a far more bearish position, both in the short- and medium term. This shift in sentiment is also reflected in our latest EUA price forecast from April 2020, where we expect prices to average €20/t in 2020, down €6 from our previous forecast in January. Overall for 2021-2030, we expect EUA price to average €20/t, €6.8/t lower than our previous price forecast.

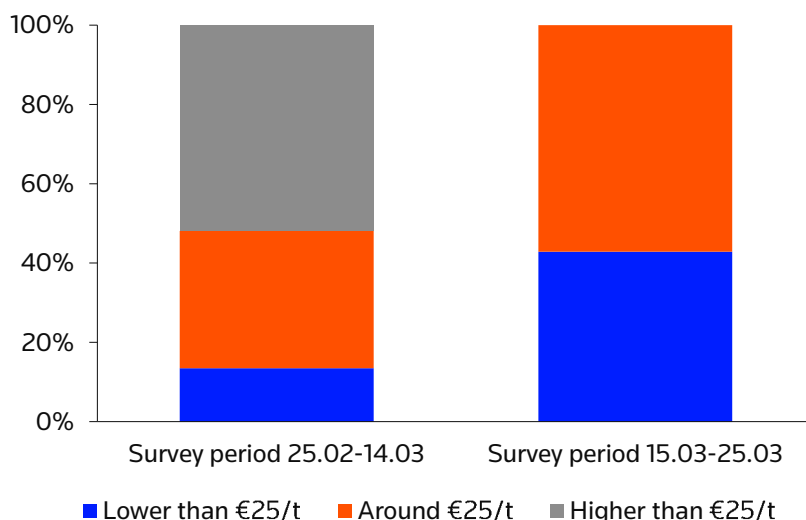
As shown in the first section of this chapter, the survey findings suggest a majority of respondents are relatively confident about Europe’s commitment to fight climate change, and to put in place more ambitious targets and measures in the years to come. We cannot know if the respondents would have answered

Figure 1.11: What do you think will be the annual average price of EUAs in 2020?



Source: Refinitiv

Figure 1.12: What do you think will be the annual average price of EUAs in 2021?



Source: Refinitiv

differently two weeks later, but what we have seen in the recent policy debates is a relatively strong support for an economic recovery that does not compromise the continued focus on emission abatement. While Poland, Hungary and the Czech Republic have suggested to scrap/dilute/delay climate measures, the opposite calls have garnered much more support, including from Spain and other countries hard hit by the crisis.

## 2. CHINA

Of the 253 respondents to the survey overall, 44 are involved in or follow the Chinese national ETS and/or the existing pilot ETS at the regional level, of which 36 are located in China and the other 8 are located in other countries and regions outside Mainland China. The number of China followers in the 2019 survey was only 15 - the higher number reflects a growing interest in Chinese carbon markets now that the country's government is undertaking intense preparation for its national ETS, including putting the market's rules in place.

The Ministry of Ecology and Environment (MEE), which is in charge of building the market, has made public that trading is intended to start in 2020. Around half of the respondents who follow the Chinese market are currently covered by other market-based environmental programmes in China, including trading of energy efficiency credits, water rights, and the energy-consuming right trading.

### NATIONAL ETS TRADING IN 2020?

Asked when they expect to see actual trading in the Chinese national ETS, nearly 70% of the 37 respondents expect trading to begin in 2020 - two thirds of those think it will begin in Q4. This is slightly less optimistic than last year, when - 75% of the respondents believed trading would begin in 2020 (**Fig. 2.1**).

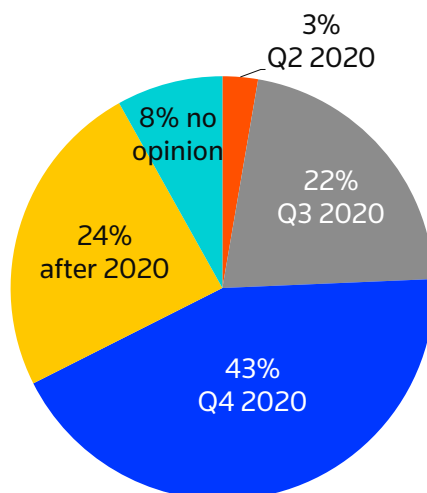
Indeed, the COVID-19 pandemic as slowed progress toward China's national ETS: according to the government's original plan, 2019 emission data from the key emitters, listed by the MEE in December 2019, should have been reported to local authorities by 31 March. Rules for monitoring, reporting, and verification as well as allocation were expected to be completed by Q2/early Q3. However, industrial production and transport restrictions due to the pandemic brought difficulties completing the data reporting according to original deadlines.

Respondents were asked to rank potential challenges related to the national ETS (**Fig. 2.2**). Nearly 80% list uncertainties about design elements as challenges.

The national ETS will initially cover 1700 enterprises in the power sector, but the government plans to add seven further

**Figure 2.1. National ETS launch**

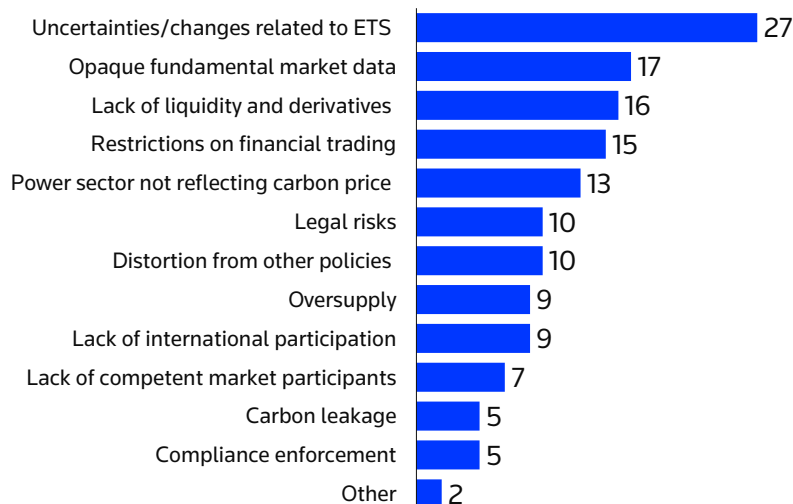
"When do you expect to see actual trading in the Chinese national ETS?" N=37



Source: Refinitiv

**Figure 2.2. Challenges**

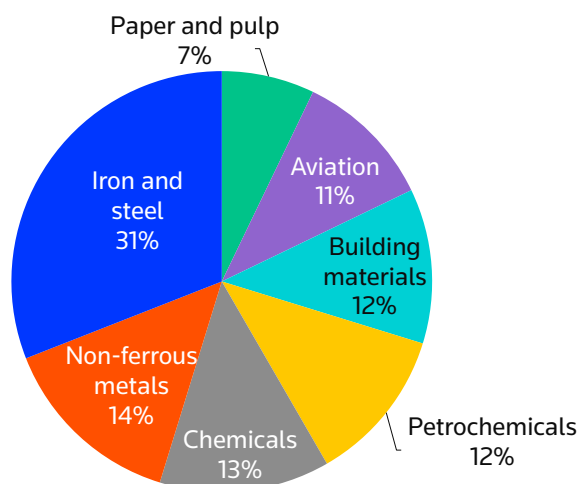
"What do you see as the most important challenges for your operations in the Chinese emission trading system?" N=35 for a total of 145 entries



Source: Refinitiv

**Figure 2.3. Sectors to be covered next**

"Which sector(s) do you think will first be covered by the national ETS following the power sector?" N=37 for a total of 84 entries



Source: Refinitiv

sectors over the coming years. Of the 37 responses to our question of which sectors will be covered next, 26 expect the iron and steel to be covered by the ETS in addition to the power sector - ahead of e.g. chemicals and petrochemicals (Fig. 2.3). This is in line with carbon market think-tanks' efforts to create methodologies for emission thresholds and other ETS design elements for the latter sectors: that process faces obstacles due to the fact that they produce a wider range of products. As such they are unlikely to be covered sooner than relatively "simpler" metal sectors.

### GUANGDONG AND SHENZHEN CONSIDERED MOST SUCCESSFUL

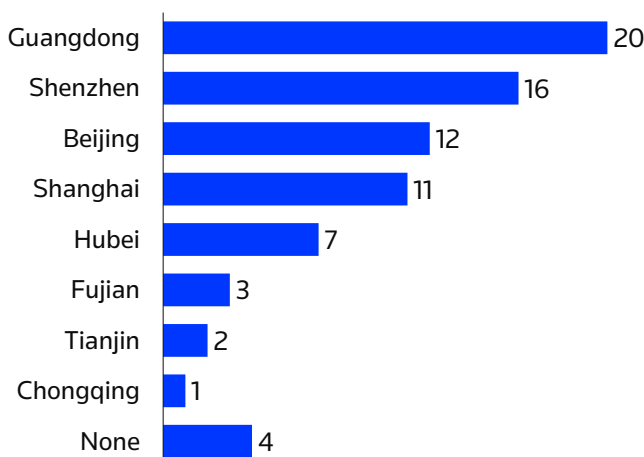
The question about China's existing carbon markets (which ones are most successful in terms of market setup and operation) was answered by 37 respondents, but allowed for multiple answers and thus counted 76 responses overall. The Guangdong ETS ranked first, followed closely by the Shenzhen ETS (Fig. 2.4). The Guangdong pilot has become one of the most active in terms of traded volume, and unlike other regional Chinese ETS, it auctions a small share of allowances. Furthermore, Guangdong province is taking steps to establish a short-term trading market in power generation and looking for ways to align it with its pilot ETS. Guangdong and Shenzhen are the only two Chinese pilots open to foreign investors.

### LOW CARBON PRICE, HIGH INVESTMENT IMPACTS?

Like last year, we asked respondents about their expectations of the average price for emission allowances during the first year of the ETS' operation (Fig. 2.5). Around half of the 36 respondents to this question expect prices to range from 20 to 40 CNY per tonne, averaging 32.2 CNY (€4.2). This is significantly higher than last year's average estimate (€1.9), and higher than the average price of the pilots in 2020 Q1 (€3.5). However, it is lower than the initial prices of allowances in the national ETS we expected in the beginning of 2020 (€5-10), not to say the average EUA price in 2019 (€25), nor the price range Chinese environment ministry officials have said would be necessary for companies to feel real pressure to cut emissions: that range is 200-300 CNY (€26-€39).

**Figure 2.4. Chinese pilot schemes**

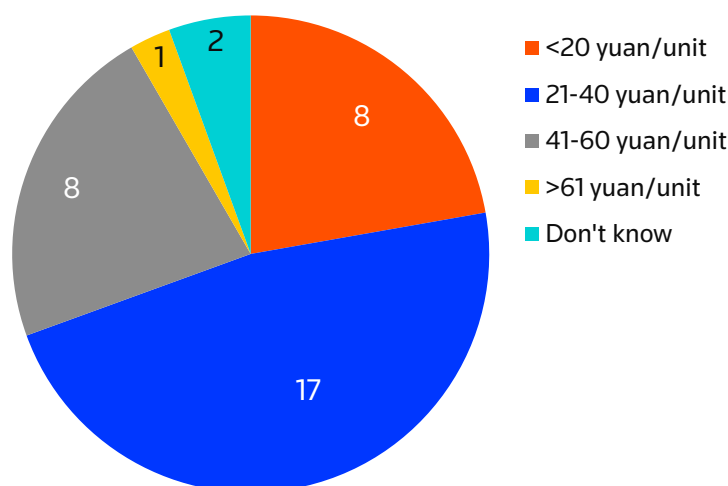
"Which pilot scheme(s) do you see as (most) successful in terms of market setup and operation?" N=37 for a total of 76 entries



Source: Refinitiv

**Figure 2.5. Price**

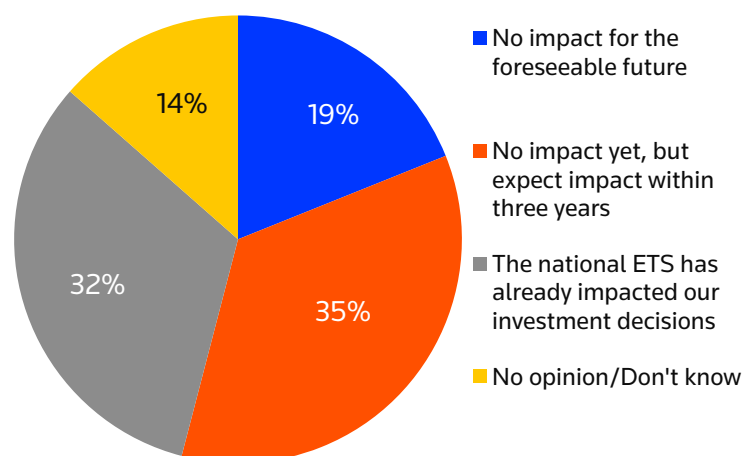
"At which level do you expect the average price of the national emission unit during the first year of operation?" N=36



Source: Refinitiv

**Figure 2.6. Impacts**

"How important is long-term carbon price expectations for your company's future investments?" N=37



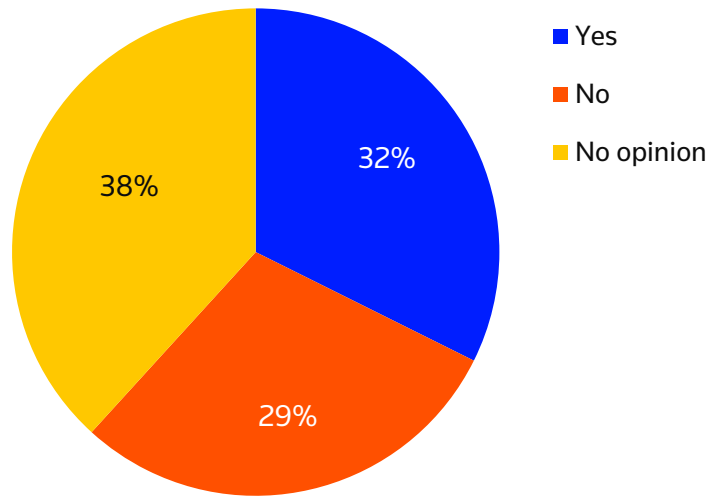
Source: Refinitiv

The low carbon price expectations to some extent affect investment decisions. Asked whether and how the national ETS already effects or will affect their investment decisions, nearly 32% say their investment decisions have already been affected and 35% expect an impact within three years (Fig.2.6).

Asked "If your organisation's emissions have decreased in the past few years, do you think that is due to its participation in one or more of the emission trading schemes?", less than a third of the respondents believe there is a correlation (Fig. 2.7). This result reflects that although an impending carbon price in China has started to influence investment decisions, the low price is not enough to raise awareness about emissions reduction at the higher levels of company leadership.

**Figure 2.7. Impacts**

"If your organisation's emissions have decreased in the past few years, do you think that is due to its participation in one or more of the emission trading schemes?" N=34



Source: Refinitiv

### 3. NORTH AMERICA

Out of the 221 respondents to this year’s survey, only 18 said they are primarily involved in North American markets: nine each in the Western Climate Initiative (WCI) and the Regional Greenhouse Gas Initiative (RGGI). Roughly half the questions related to the WCI received such a low response rate that they cannot be considered representative, and for the same reason RGGI responses feature one chart only.

#### WESTERN CLIMATE INITIATIVE (WCI)

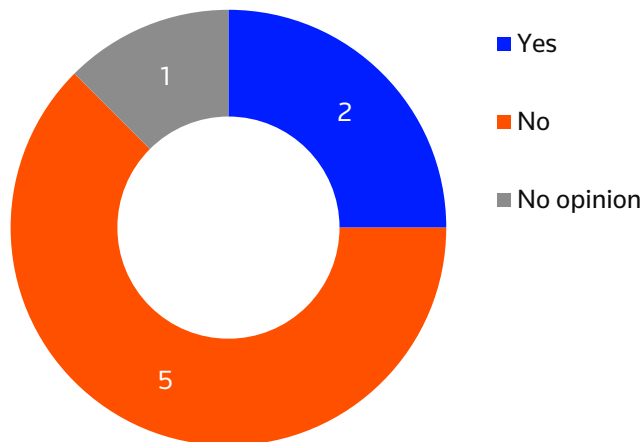
The survey question that garnered the most responses from North American respondents was the one about expected California allowance (CCA) prices. Five out of eight doubted that prices will continue to rise this year (**Fig.3.1**). One might have thought expectations to be different since permit supply is tightening in the next phase of the programme, but recent developments suggest they are reasonable: the price of the benchmark CCA contract (v.2020, Dec-20) rose during the first two months of the year, hanging at well above \$18/t for quite a time, but then plummeted to \$12.5/t in late March amid fears of global recession caused by the COVID-19 outbreak. The California governor’s shelter-in-place order from late March is expected to decrease the state’s emissions significantly (particularly those from the transport sector, which is covered under the WCI) because of reduced vehicle travel. Speculators have correspondingly unwound their holdings through massive CCA sales, which has further destabilised prices.

Another WCI question that received enough responses to evaluate was related to auction subscription rates. Half the respondents believe the WCI auctions for the rest of the year will be undersubscribed (**Fig.3.2**). This means respondents predict a reversal of the current trend: recent auctions have been oversubscribed - the first one of 2020 even to a record extent, with clearing prices almost equal those in the secondary market.

These bearish predictions in the face of a market about which most players were bullish at the start of 2020 indicate that the respondents took COVID-19 concerns into consideration in their answers.

**Figure 3.1. WCI market**

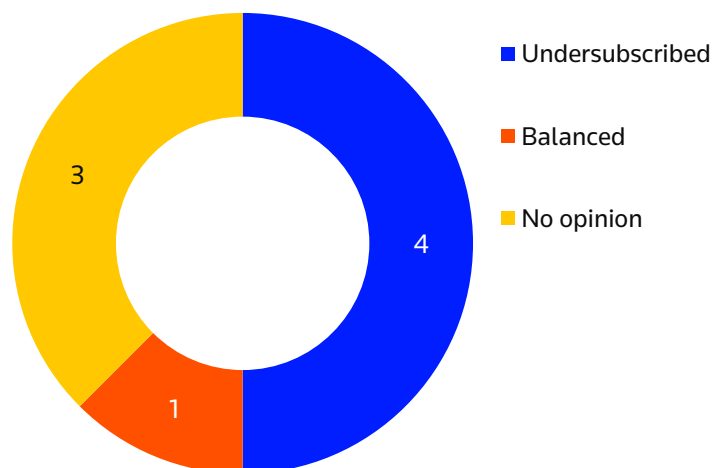
“Do you expect CCA prices to be higher on average over 2020 than they were in 2019?” N=8



Source: Refinitiv

**Figure 3.2. WCI primary sales**

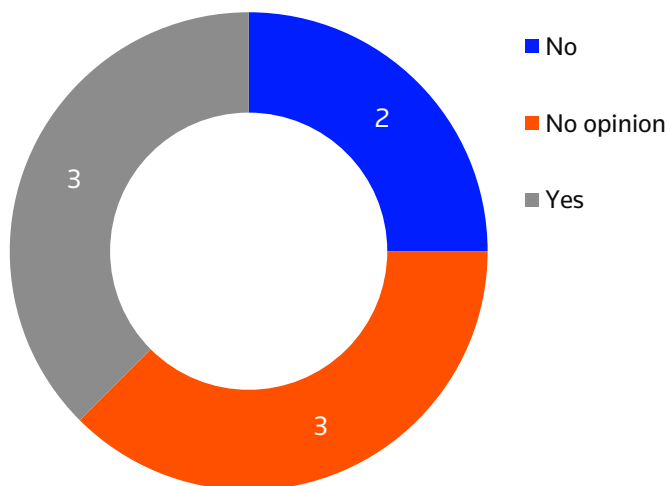
“The WCI allowances auctions for the rest of 2020 will be...” N=8



Source: Refinitiv

**Figure 3.3. WCI new-commers**

“Do you expect any additional jurisdictions to join the WCI by 2030?” N=8



Source: Refinitiv

Indeed, most WCI respondents' completed surveys came in at the end of the survey period (late March) when the effects of the pandemic were already being felt in markets worldwide.

Currently, the WCI includes the state of California and the Canadian province of Quebec - Ontario was part of the market for half of 2018 before its current premier shut down the province's emission trading system. Asked whether they thought any new jurisdictions might join the WCI by 2030, three of eight respondents believe other U.S. states may join (**Fig.3.3**).

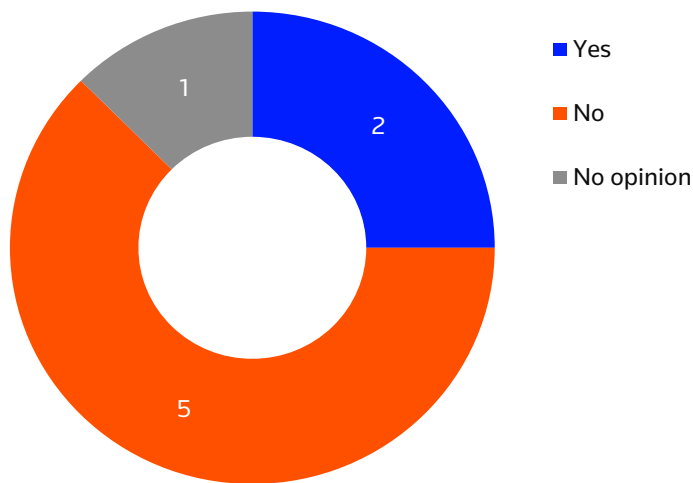
**REGIONAL GHG INITIATIVE (RGGI)**

The price of RGAs (allowances in the RGGI market) fluctuated over 2019, hitting their high point in May at \$5.75/short ton (st) and the year's low in August at \$5.23/st. The programme's Emission Containment Reserve (ECR) trigger price (\$6.00 in 2021) was a major price driver, as regulators will reduce RGA supply if the market price goes below it. All four respondents who answered the survey's question about RGA price behaviour in 2020 said the allowances will remain below \$6/st. Indeed, as of early April, RGAs were trading below \$6/st.

In January, New Jersey re-joined RGGI: the state was an initial member when the power sector programme was launched in 2009, but withdrew participation under its 2012 governor. Asked what effect the state's return would have on RGA prices in 2020, only two out of five respondents expected a bullish effect. The replies were provided in early March, i.e. before the "COVID-19 effect" on markets gained momentum.

**Figure 3.4. Mexico ETS**

"Mexico's pilot ETS phase started from January 2020, with mandatory compliance expected to begin as of 2023. Do you expect active exchange trading of Mexican allowances before 2023?" N=8



Source: Refinitiv

**MEXICO ETS**

With Mexico having launched a three-year pilot phase of its cap-and-trade scheme in January, we asked North American respondents when they expect active exchange trading of Mexican allowances. Most do not expect trading anytime soon (**Fig.3.4**), likely because allowances issued during the trial period will not carry over to the scheme's mandatory phase. Furthermore, non-compliance during the pilot phase does not involve any monetary sanctions for emitters.

#### 4. SOUTH KOREA

Eight respondents specified involvement in the Korean ETS (KETS). This is higher than the 2019 survey's response rate, so we have included South Korea in this year's report.

#### EXPECTATION FOR HIGHER 2020 TRADED VOLUMES

Given that the amount of Korean carbon allowances (KAUs) and offsets (KOCs) traded on exchanges in 2019 was nearly 25% lower than in 2018, we asked about respondents' expectations for traded volumes this year (**Fig.4.1**). Of those who provided feedback on this question, half believe 2020 traded volumes will be higher. This opinion is probably founded on the banking restrictions imposed by the Korean government last year. The restrictions are expected to be toughened this year, thus more allowances may theoretically be available for sale.

#### BULLISH MARKET PERCEPTION

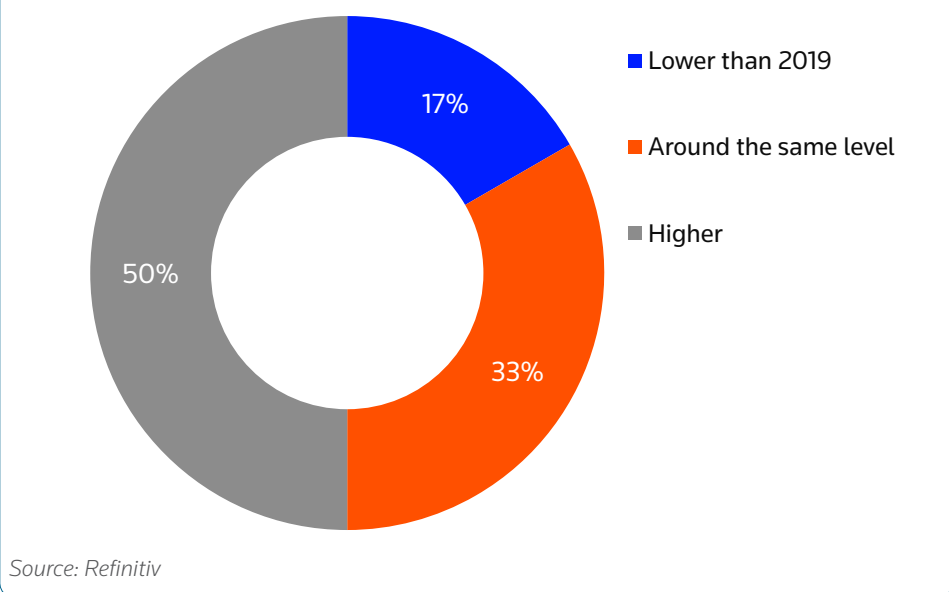
While the Korean market was in fact over-allocated last year, supply was still scarce as compliance entities were banking KAUs for 2019 compliance in 2020.

This "hoarding" limited the amount of allowances available to buyers. As a result, prices for KAUs/ KOCs in 2019 were at record highs. Unlike allowance prices in other carbon markets, prices in the KETS have not plunged due to the COVID-19 crisis and the correlating negative economic outlook.

KETS entities continue to be focused on 2019 compliance which is due end July 2020. As of mid-April 2020, both KAU19 and KAU20 traded higher vs. the beginning of the year: close to ₩40,000/t (about €30/t). When asked about price expectations for 2020, five out of seven respondents believe KETS allowances prices will increase beyond that level.

**Figure 4.1. KETS trading activity**

"What are your expectations for traded volumes in the Korea Emission Trading Scheme (KETS) in 2020?" N=6



#### APPETITE FOR FOREIGN OFFSETS

In 2019, offsets were traded mostly OTC. Korean firms can cover up to 10% of their compliance obligation with offsets – of which half can be sourced from non-Korean projects. KETS regulators plan to remove the distinction between international and domestic offsets in the scheme's third phase starting in 2021, opening the door to greater offset supply (from non-Korean projects). Asked whether they plan to increase their foreign offset use after 2020, all respondents said they do.

At this stage, Korean offsets (KOCs) trade very close to allowances prices. If increased demand for offsets would draw prices for KOCs up would to a large extent depend on the emissions levels in 2020, as those are projected to fall due to the COVID-19 outbreak and economic downturn.

### 5. GLOBAL CARBON MARKETS

This part of the questionnaire was open to all respondents, irrespective of what market they follow. The number of respondents to in this section is rather high: out of 221 survey respondents, nearly 150 provided feedback about international carbon markets.

At the 25th COP last year in Madrid, negotiators could not come to consensus on Article 6 of the Paris Agreement (PA) - the part of the "Paris Rulebook" most relevant to international carbon trading. Article 6 determines how parties can "claim" credit for greenhouse gas emission reductions by paying for those reductions to take place elsewhere, and how to make sure the country in which the reduction actually took place does not also claim it.

These emission/carbon accounting rules and many other important issues related to the post-2022 carbon trading (such as share of proceeds at sales, fate of the CDM under a new regime, etc.) were left for COP26 in Glasgow, which was supposed to take place late 2020. Due to COVID-19, the UN in early April decided to postpone this critical summit until sometime in Q2 2021 - this means the conference to decide how carbon trading should proceed under the Paris Agreement will take place after the Paris Agreement period starts in January 2021. For some time, therefore, international carbon trading will have to operate without globally recognised rules.

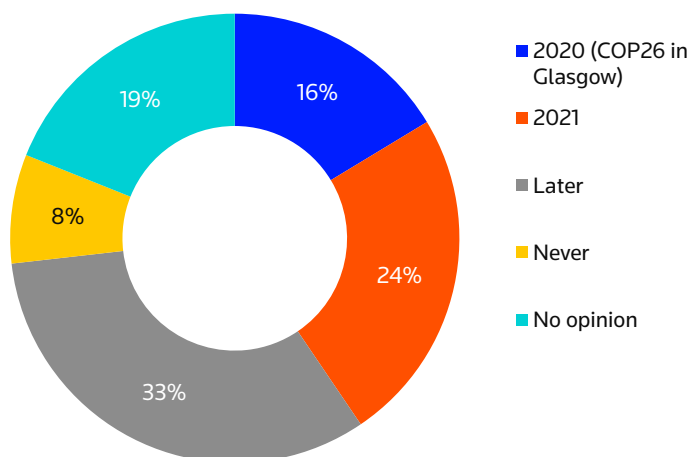
Carbon trading is not the only crucial issue set for discussion at COP26, as the summit is also about "persuading" the Parties to ratchet up their emission reduction ambition over the one specified in the National Determined Contribution (NDC) of each country. Despite COP26 delay, the countries still have to submit their tougher climate plans by the end of 2020.

#### LOW EXPECTATIONS FOR COP26

We first asked respondents when they expect the new rules for international carbon trading to be ready (Article 6 of the PA). The responses to this question were collected before the announcement that COP26 will be postponed, some three quarters before full-scale quarantine measures were implemented globally in mid-March. This explains why some answered "COP26 in Glasgow." (Fig.5.1). A higher share thinks the rulebook will be finalised in 2021 or later. A minor share did not believe they would ever be resolved.

**Figure 5.1. The timeline to finalize Art.6**

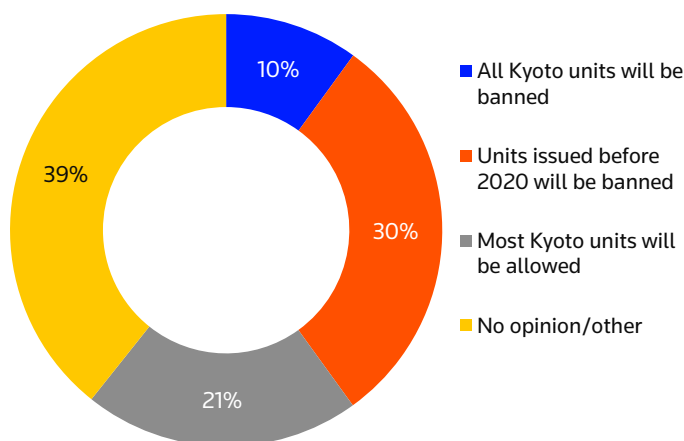
"The 25th UN Climate Change Conference (COP 25) in Madrid ended without agreement on rules for international carbon trading (Article 6). When do you expect these rules to be finalised?" N=153



Source: Refinitiv

**Figure 5.2. The fate of the CDM**

"If COP26 manages to agree on rules for a new market mechanism, what role – if any – do you think will be reserved for offset units issued under the Kyoto Protocol offset mechanisms (e.g. CDM and JI)?" N=151



Source: Refinitiv

#### FUTURE FOR CDM UNDER THE PARIS AGREEMENT?

The fate of the Clean Development Mechanism (CDM) is one of the core issues in the negotiations on future carbon markets.

We asked respondents to provide their views on the future of the CDM. Most had no opinion or provided an interpretation not included in the options we offered, while. Some 30% believe CDM credits (CERs) issued before 2020 will be banned (Fig.5.2). More than one in five respondents are still optimistic about the CDM transition into the Paris era, saying they expect most Kyoto units to be let in.

The current discussion on new market mechanism is to some extent based on experiences drawn from the Kyoto

mechanisms (CDM and JI). We therefore asked respondents to assess the CDM's performance on key parameters such as helping to transfer technology to developing countries and to mobilise private capital. On most counts, respondents have a positive or neutral opinion (seeing 'some' or 'significant' achievements (Fig. 5.3). Half of the respondents believe the CDM facilitates developing countries' participation in the Paris deal.

#### INTERNATIONAL AVIATION – CRUCIAL FOR DEMAND

Demand for CERs and other "offset" units is currently low in both mandatory and voluntary markets. With some potential



new sources of demand on the horizon, we asked our respondents which ones would be key during the next five years (Fig.5.4). The questions allowed for multiple responses. About 60% of those who answered this question think CORSIA will be one of the key sources of offset demand in the near term.

The International Aviation Organization (ICAO) recently approved a first batch of six standards (including the largest ones – CDM and VCS) as suppliers of units that are eligible for offsetting air carriers’ international aviation emissions growth in 2021-2023. At this stage, the potential supply of CORSIA-eligible offsets is several times higher than expected demand from airlines over that period.

Aviation is one of the sectors most heavily impacted by the COVID-19 outbreak. The operators are facing very challenging condition as their flights have been cancelled for an undefined period. With 2020 being part of the baseline from which airlines’ reductions are measured under CORSIA, dramatically decreased emissions this year would mean higher demand in future. But aviation representatives have requested that ICAO does not include 2020 in the baseline calculations.

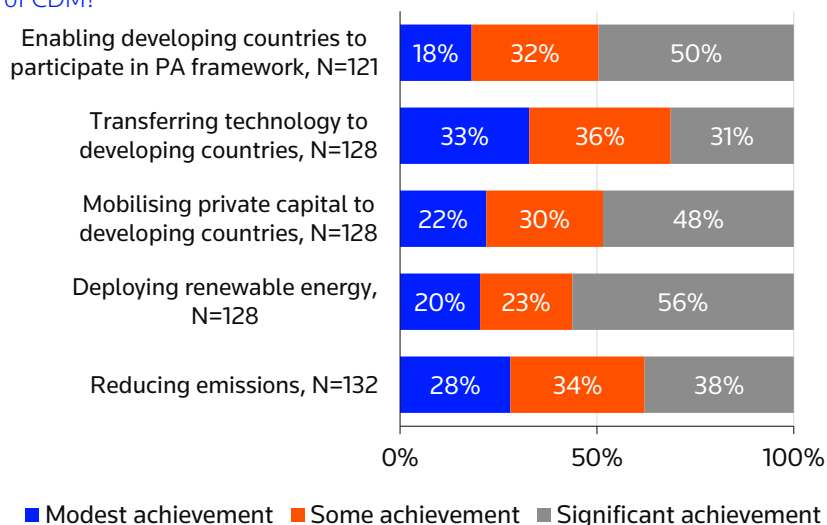
Since many companies use offsetting to neutralise their carbon footprint, many of our respondents consider voluntary markets a key source of offset demand in the future. Furthermore, some respondents believe governments will use carbon units to comply with their emission reduction goals under the Paris Agreement, as some Parties have stated they will use reductions generated in other countries to meet their targets under the Paris Agreement. Fewer respondents believe demand for offsets will continue to come from companies subject to South Korea’s ETS and Colombia’s carbon tax, which currently allow international units for compliance with domestic emissions obligations.

### NEW CLIMATE POLICIES TO EXPECT IN FUTURE

We asked respondents which climate policies will apply to them in the nearest future (Fig.5.5). The question allowed for multiple responses. Most respondents anticipate being directly regulated, a slightly lower number expect taxes, emissions trading, or any form of subsidies for renewable energy being applied to them.

**Figure 5.3. CDM achievements**

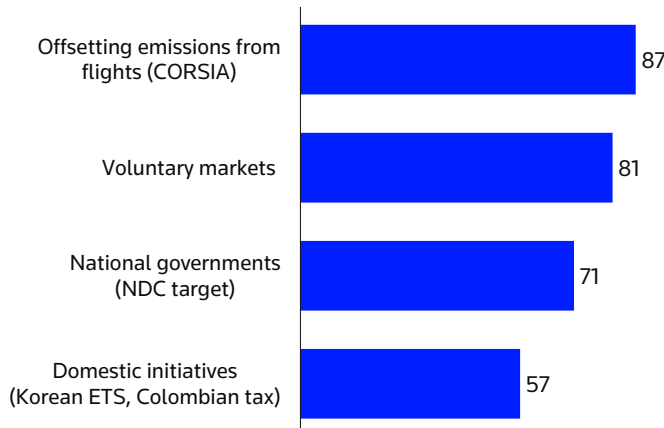
“The discussions around a new market mechanism are to some extent informed by the experiences from the Kyoto mechanisms. In hindsight, how do you rate the achievements of CDM?”



Source: Refinitiv

**Figure 5.4. Key offsets demand sources**

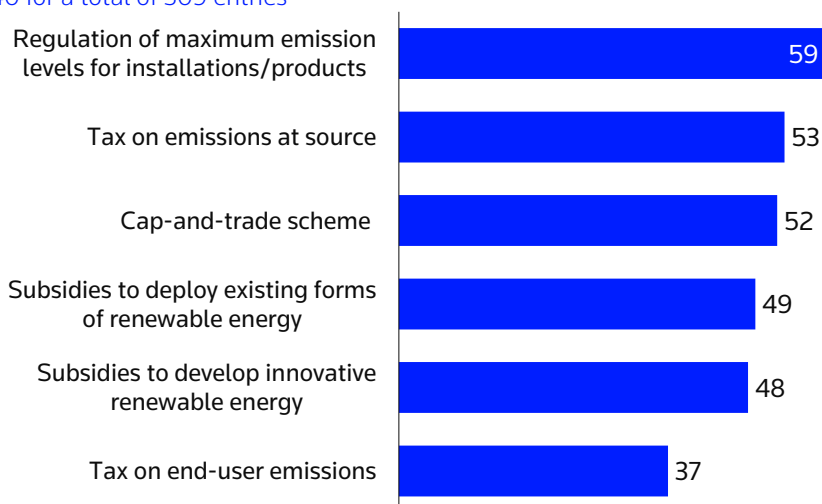
“What do you think will be the main source(s) of demand for offsets (old and new units) in the next five years?” N=146 for a total of 296 entries



Source: Refinitiv

**Figure 5.5. Additional abatement measures**

“In addition to policies already in operation, which climate policy instrument(s) do you think will be in use by 2021 in jurisdictions applying to your organisation’s activities?” N=140 for a total of 309 entries



Source: Refinitiv

## 6. ENVIRONMENTAL AND SOCIAL GOVERNANCE (ESG)

ESG refers to environmental, social and governance factors of companies. For the first time, we included questions on ESG in our survey, with particular focus on environmental factors - those include preventing pollution and reducing companies' carbon footprints, as well as environmental reporting, etc. Although offsetting is a component of compliance to mandatory regional emission trading schemes, it is also increasingly used for non-compliance purposes in the so-called voluntary market. To understand how much voluntary offsetting impacts the demand for carbon units, we asked about it in the context of ESG. Out of 221 respondents who specified which markets they follow, 48 indicated they are primarily involved in ESG. The total number of respondents to ESG questions is much higher, however, as it also includes those who indicated other markets (such as EU ETS, WCI, etc.) as their primary scope of activity.

### CARBON OFFSETTING GETS SUPPORT

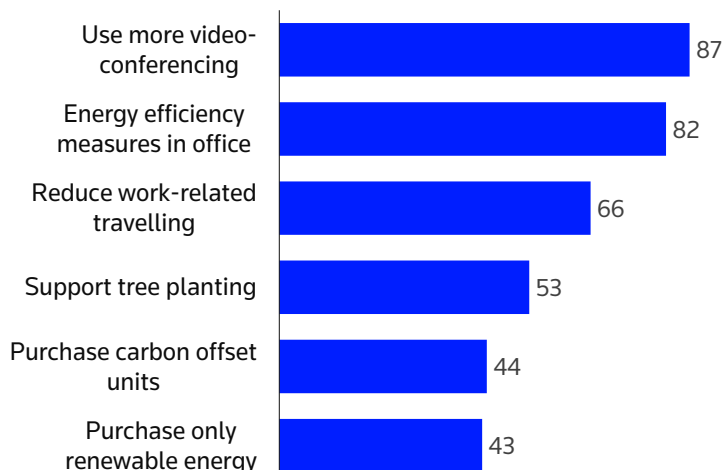
Asked about environmental activities (Fig.6.1), a question that allowed for multiple answers, most said they use video-conferencing as an alternative to travel as well as energy efficiency measures in the office. Out of 148 participants answering this question, only 44 purchase carbon offsets to reduce their carbon footprint.

Of those who do engage in carbon offsetting, most have been at it for quite some time: 63% (out of 43 respondents to this question) started offsetting in 2018 or earlier, and only 14% started purchasing offsets last year.

Responses indicate that carbon offsetting is generally perceived as an environmentally responsible activity - even among those who do not offset their emissions themselves, the practice finds support (Fig. 6.2). A few respondents consider carbon offsetting to be a "pure greenwashing", most see it as a credible way to account for emissions. Most respondents strongly agree that offsetting allows companies that do not emit GHGs contribute to emission reductions. Out of those who answered the question about

**Figure 6.1. ESG activities**

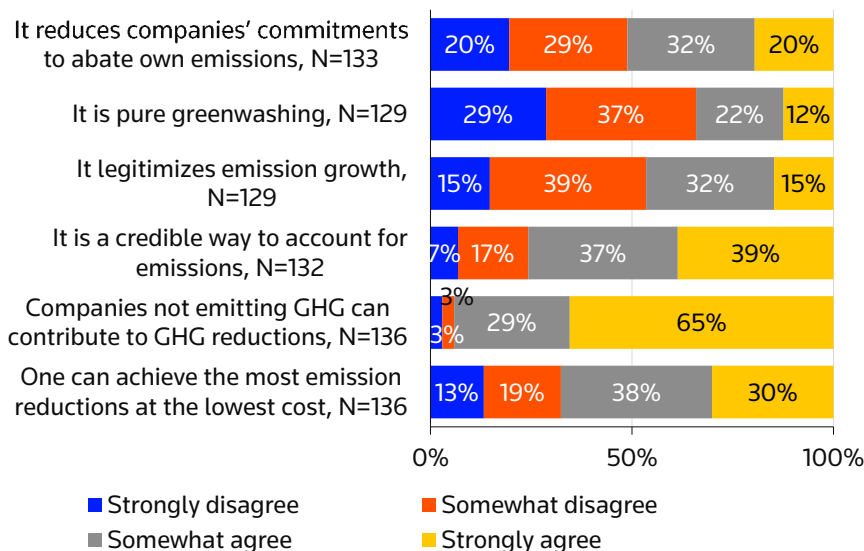
"Is your company doing any of the following to voluntarily reduce emissions and/or support external climate projects/buy offsets?" N=148 for a total of 375 entries



Source: Refinitiv

**Figure 6.2. Pros and cons of carbon offsetting**

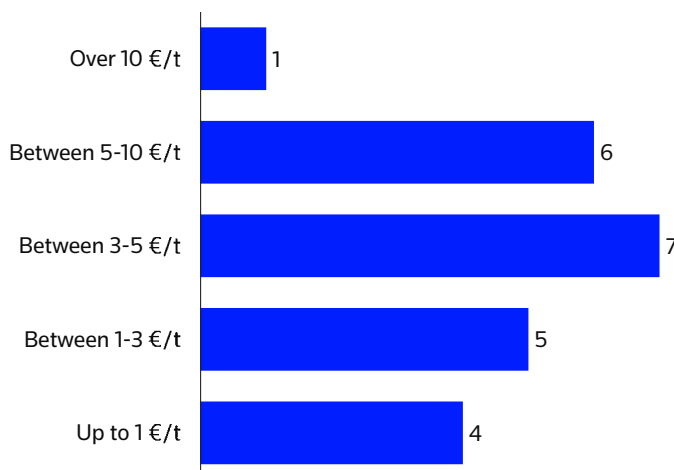
"To what extent do you agree with the following statements on carbon offsetting?"



Source: Refinitiv

**Figure 6.3. Offsetting cost**

"What is the average price per tonne of CO2 your company paid for offsets in 2018-2019?" N=31



Source: Refinitiv

cost, almost 70% somewhat or strongly agree that offsets allow firms to achieve maximum emission reductions at the lowest cost.

**PRICE OF €3-5/T PREVAILS**

Out of the 31 respondents who answered our question on the price they paid for carbon offsets (**Fig. 6.3**), most reported paying between €3 and €5 per tonne. Recent voluntary market data shows this is an average price range for current transactions.

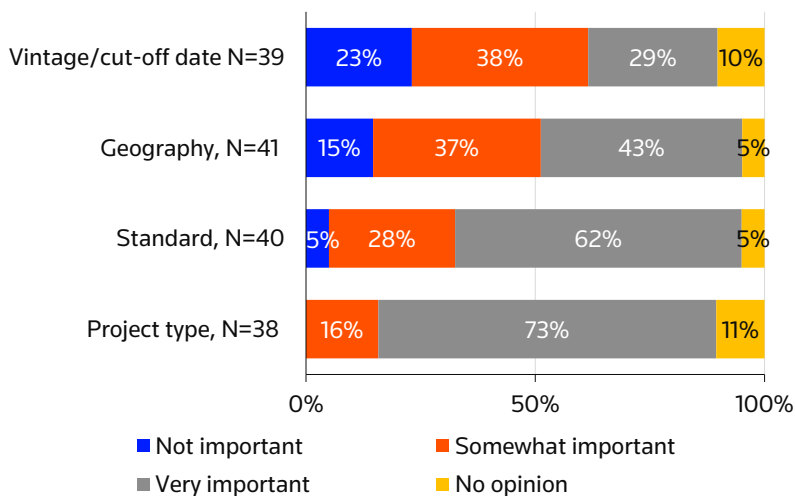
**PROJECT TYPE MATTERS**

Unlike in the compliance market, carbon credits traded for ESG purposes are not defined by regulators - their "quality", i.e. the environmental or social benefits produced by the offset project, is defined by the buyer. Asked how they can be sure to purchase "good" credits (with multiple answers allowed), project type was the most defining factor (**Fig.6.4**). Which standard a project is registered under was also considered a key factor, while project location and vintage cut-off were considered less crucial elements.

Some 37 respondents revealed how they purchase offsets - the question allowed for multiple answers. Nearly 80% trust intermediaries or other third parties to select credits, and just over half deal with project developers directly.

**Figure 6.4. Choosing the right offsets.**

"Different selection criteria can be applied for deciding project(s) from which to buy offsets. How important do you consider the following factors to be?"



Source: Refinitiv

## 7. ANNEX: SURVEY METHODOLOGY AND PROFILE OF RESPONDENTS

This report is our fifteenth annual survey of the world’s carbon markets. It reflects market sentiment in all major emission trading regimes and includes views on trends, policy developments, prices and the future role of international market-based climate policy.

The survey ran from 25 February to 25 March 2020. Using ClickTools, a web-based survey tool, respondents had the opportunity to answer 91 different questions – some general, some limited to specific markets, and some pertaining to specific respondent profiles and/or geographical locations.

Some questions were set up to force respondents to choose one of several listed options, e.g. to select the role that best fits their involvement in a given market. In these cases, the universe of respondents (N) equals the number of entries, and the distribution is shown as shares adding up to 100% (in some charts the total percentage sometimes deviates from 100% to 99% or 101% due to rounding up/down the percentage numbers).

Other questions allowed for multiple entries, e.g. expectations for future climate policy instrument(s). For these, the number of entries typically surpasses the number of respondents (many tick more than one option), and the distribution cannot be shown as part of a total.

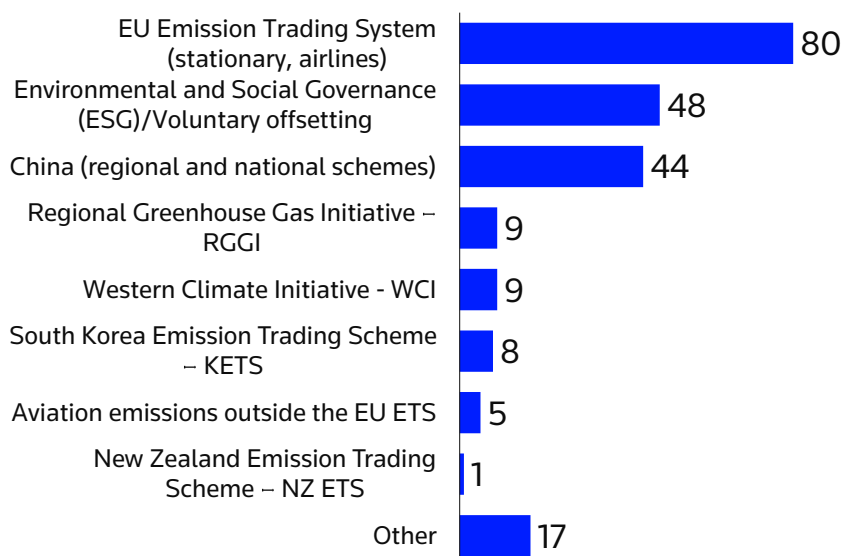
After several years of steadily declining number of respondents, the numbers increased this year, mainly as a result of a surge in Chinese participants. Overall, the survey garnered views from 253 respondents compared to 165 in 2019 and 370 in 2018.

As a consequence of the 2018 EU General Data Protection Regulation (GDPR) we have changed fundamentally the way we reach out to potential respondents. Up to and including 2017, we sent e-mails to contacts that had previously replied to the survey (and had not opted out).

The vast majority of these contacts were not clients of Thomson Reuters/Refinitiv. As of 2018, the company decided that implicit consent (not choosing to opt out) was not sufficient to comply with the GDPR. As a result, we have limited

**Figure 7.1. Survey population by market interest**

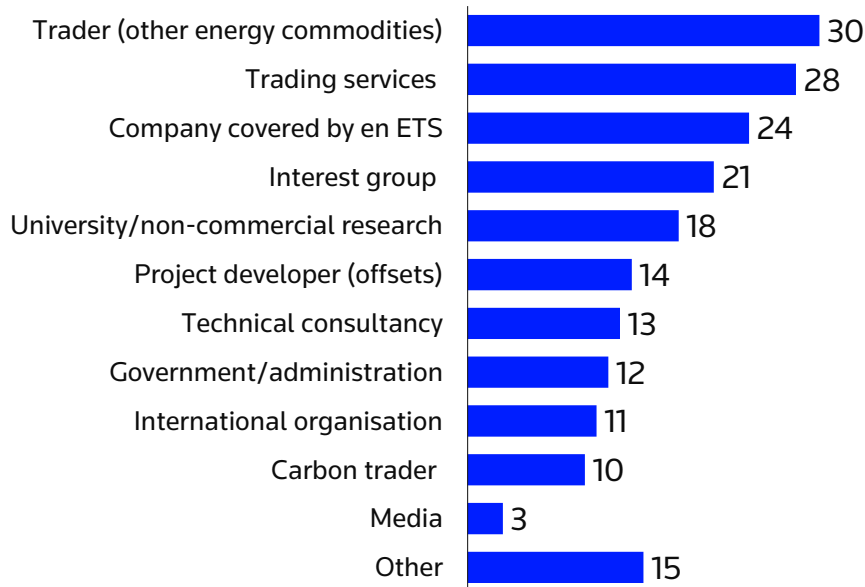
“Which emission market(s) are you involved in or following?” N=221



Source: Refinitiv

**Figure 7.2. Survey population by role**

“What is your organisation/department’s role in the emission markets?” N=199



Source: Refinitiv

the invitation list to individuals who have actively and explicitly accepted to receive e-mails from the Refinitiv group (clients and prospects). The survey was also accessible online from a link posted on Eikon and on Twitter. In China, we promoted the survey on social-professional websites such as WeChat.

Participants were first invited to indicate the market(s) in which they are involved (unlike previous editions, they could tick only one). Unsurprisingly, Europe received by far the most clicks, at 80. Next came

China and ESG with some 40-50. The other sections had much more modest response rate, all with less than ten participants. Because of very low response numbers we have decided not to include aviation and the New Zealand ETS in this report.

### MANY ROLES AND COUNTRIES REPRESENTED

Respondents were asked to define their role in the carbon market. Thirty ticked

the category “energy trader” (carbon not primary focus). Another 28 respondents registered as “trading services”, and 24 as “company with emissions regulated by a cap-and-trade scheme”, see **Fig. 7.2**.

Ten said they are carbon traders. Other big categories include “interest groups (business federations and environmentalist NGOs) and “university/research.”

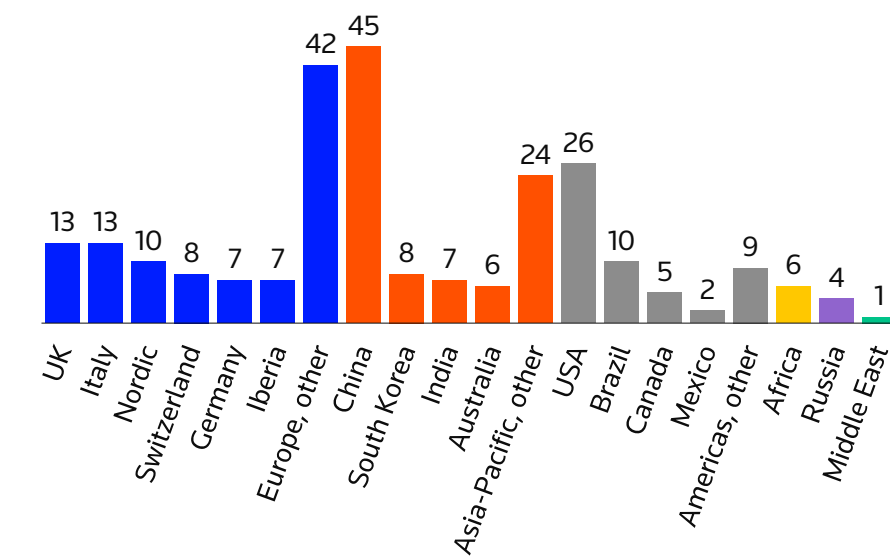
The universe of respondents shows a preponderance of stakeholders with a very tangible and real financial interest in carbon markets.

Looking at geographic location of respondents this year, we see a relative shift from Europe to China. While Europe still has by far the highest number (at 97, not counting Russia), the continent is less dominant that it used to be. Within Europe, the UK and Italy ranked first, each with 13 participants, followed by the Nordic countries and Switzerland.

The number of Chinese respondents, on the other hand, increased strongly thanks to successful outreach in Chinese social-professional media platforms such as WeChat and higher interest in the China ETS. From the Americas we garnered input from 26 respondents based in the U.S. and 10 in Brazil (**Fig. 7.3**).

This report does not present all 91 questions posed in the survey. To offer an accessible format, we have selected the findings we deem most relevant. Among the cap- and-trade schemes, only Europe, China and the two North American ones garnered enough responses to be statistically valid. The ones with insufficient response rates are not included in this report.

**Figure 7.3. Survey population by location**  
 “In which country/continent are you located?” N=253



Source: Refinitiv

## Contacts

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### EDITORIAL ENQUIRIES

Anders Nordeng

[Anders.Nordeng@refinitiv.com](mailto:Anders.Nordeng@refinitiv.com)

Tel. +47 90 51 20 71

### OTHER ENQUIRIES

Refinitiv Carbon Team

Dronning Eufemias gate 16

0191 Oslo, Norway

[www.refinitiv.com](http://www.refinitiv.com)

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