Carbon 2010

Return of the sovereign

TO THE POINT

Point Carbon's fifth annual survey shows general dissatisfaction with the Copenhagen outcome. Seventy percent of the 4,767 respondents were either "very dissatisfied" or "dissatisfied" with the outcome. This sentiment was evenly shared across major countries.

For the first time, an outright majority of respondents say the EU ETS has caused emission reductions in the companies they represent. Forty-three percent of all respondents think the EU ETS is the most cost-effective instrument for reducing emissions in the EU, against 20 percent who disagree with this notion.

More EU ETS companies appear long in phase 2, based on the survey results. This year, 28 percent of respondents said their company had an EUA surplus in 2008-12, up from 24 percent in 2009 and 15 percent in 2008. The cement/lime/glass and pulp/paper sectors had the highest reporting of surpluses.

EU ETS companies know little about their phase 3 allocation. Twenty-four percent of EU ETS respondents said they were "very uncertain" and 13 percent said they had "no idea" how many free EUAs they would get in phase 3. However, 68 percent thought they would be short EUAs in phase 3. Furthermore, one-quarter will bank at least part of their credit limit into phase 3.

Fifteen percent of respondents have seen fraud, embezzlement or corruption in connection with a CDM or JI project. We further see that 28 percent of respondents in China have reported improprieties in connection with CDM projects, whereas respondents based in Brazil reported seeing the least fraud.

Forty-two percent of respondents expect RGGI allowances to convert at a discount into US federal allowances. This presupposes the introduction of federal cap-and-trade in the US. One in five expects conversion at a 1-1 ratio.

Expectations for a global deal are down. Among our respondents, 37 percent expect a global deal in Cancun, against 59 percent for Copenhagen in last year's survey. Only 27 percent of respondents based in the US expect a Mexico deal, while Japan (47 percent) and Brazil (58 percent) have the highest shares of respondents expecting a deal in Cancun.

By contrast, optimism on REDD is increasing. The share of respondents who believe REDD will be an integral part of a post-2012 climate framework is up from 61 percent last year to 74 percent this year. US respondents are particularly bullish on REDD, followed by respondents based in Brazil and Indonesia.

Expectations for US cap-and-trade by 2015 are down to 61 percent of respondents. This is the lowest in three years, and down from 81 percent in last year's survey. But among respondents in Japan, the share expecting a Japanese ETS is up from 61 to 80 percent.

Respondents expect a global carbon price of $35 or €31 in 2020. This is down from $39 and €35 in 2009.

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About Point Carbon

Providing critical insights into energy and environmental markets

Point Carbon is a world-leading provider of independent news, analysis and consulting services for global power, gas and carbon markets. Point Carbon's comprehensive services provide professionals with market-moving information through monitoring fundamental information, key market players and business and policy developments.

Point Carbon's in-depth knowledge of power, gas and CO_2 emissions market dynamics positions us as the number one supplier of unrivalled market intelligence on these markets. Our staff includes experts in international and regional climate policy, mathematical and economic modelling, forecasting methodologies, risk management and market reporting.

Point Carbon now has more than 30,000 clients, including the world's major energy companies, financial institutions, organisations and governments, in over 150 countries. Reports are translated from English into Japanese, Chinese, Portuguese, French, Spanish and Russian.

Every year, Point Carbon's Carbon Market Insights conferences gather thousands of key players for the carbon community's most important annual conferences. Point Carbon also runs a number of high-level networking events, workshops and training courses.

Point Carbon has offices in Oslo (Head Office), Kiev, London, Malmö, Tokyo and Washington D.C.

About the report:
This report was written and edited by Endre Tvinnereim and Kjetil Røine at Point Carbon Trading Analytics and Research. For citations, please refer to: Point Carbon (2010): "Carbon 2010 - Return of the sovereign," Tvinnereim, E. and Røine, K. (eds.). 48 pages.

Executive Summary

Two non-events have hit the carbon market in 2009: The failure of the Obama administration to land a federal US cap-and-trade programme and the absence of a final deal at the Copenhagen COP in December. That said, the carbon market keeps developing, with the launch of RGGI on 1 January 2009, the first phase 2 verified emissions under the EU ETS and brisk volume growth in the market overall.

Point Carbon's fifth annual survey ran from 20 January to 4 February 2010 and received 4,767 responses from 118 countries. Questions were asked about current behaviour and future expectations in the areas of the EU ETS, CDM, JI, AAU, RGGI, North American offsets, future emissions trading schemes around the world and, of course, international climate negotiations.

Starting with the EU ETS, we get a picture of a market with confident players, although knowledge about phase 3 of the scheme is not particularly detailed. For the first time, an outright majority of respondents say the EU ETS has caused emission reductions in the companies they represent. Furthermore, 43 percent of all respondents think the EU ETS is the most cost-effective instrument for reducing emissions in the EU, against 20 percent who disagree with this notion.

During 2009, it turned out that phase 2 of the EU ETS – like phase 1 – would be oversupplied with EUAs. This shows in the survey, as 28 percent of respondents said their company had an EUA surplus in 2008-12, up from 24 percent in 2009 and 15 percent in 2008. As expected, the survey results indicate that the power/heat sector is the shortest while the cement/lime/glass and pulp/paper sectors have the most length.

Although the main parameters on the phase 3 cap and credit limit have been determined by the EU, companies know relatively little about their installation-specific free allocation levels for the 2013-20 period. Among our respondents, 24 percent of EU ETS respondents said they were "very uncertain" and 13 percent said they had "no idea" how many free EUAs they would get in phase 3. However, 68 percent thought they would be short EUAs in phase 3. Furthermore, one-quarter will bank at least part of their credit limit into phase 3.

In the CDM and JI markets, 15 percent of respondents reported that they had seen fraud, embezzlement or corruption in connection with a specific project. Among major countries, 28 percent of respondents in China have reported improprieties in connection with CDM projects, whereas respondents based in Brazil reported seeing the least fraud.

Moving on to the US, we find that 61 percent of respondents this year expect a federal cap-and-trade to be in place before 2015. This is down from 81 percent last year and 71 percent in 2008. Generally speaking, expectations for the introduction of cap-and-trade around the world have been shrinking since 2009, with notable exceptions such as Japan and South Korea. Specifically, Japanese respondents expecting a Japanese ETS are up from 61 to 80 percent.

Looking at sub-national markets in the US, 42 percent of respondents expect RGGI allowances to convert at a discount into US federal allowances in the event that a US ETS comes into being. Nineteen percent – even more in the US – expect conversion at a 1-1 ratio.

Returning to global negotiations, we see that expectations for a global deal are down. Among our respondents, 37 percent expect a global deal in Cancun, against 59 percent for Copenhagen in last year's survey. The lowered outlook is linked to the general dissatisfaction with COP-15, as 70 percent reported being were either "very dissatisfied" or "dissatisfied" with the Copenhagen outcome.

Progress was nevertheless made in Copenhagen on the issue of avoided deforestation. This year 74 percent of respondents think REDD will be an integral part of a post-2012 climate framework, up from 61 percent last year. US respondents are particularly bullish on REDD, followed by Brazil and Indonesia.

However, in an environment with unresolved questions over both international and US carbon trading framework, global price expectations have taken a moderate hit. Specifically, respondents this year expect a 2020 global carbon price of $35 (down from $39 last year) or €31 (against €35 last year).

Foreword

Although last year certainly saw a multitude of interesting and important developments in the world's various carbon market segments, attention has generally been directed toward what seems to be missing. Specifically, clear majorities of people taking our survey a year ago expected both a US ETS to be passed and a Copenhagen deal to be done. Neither has happened. Instead, the carbon market remains waiting for policy direction on these two crucial dimensions.

What is the status of global climate negotiations in 2010? After Copenhagen, which resulted in a non-binding political declaration that failed to achieve consensus, it is clear that national governments are in the driver's seat. This is exemplified not just in the fact that several countries dissented to the political agreement contained in the Copenhagen Accord, but also in the increasing influence of host countries in the CDM market.

A further complicating factor in the context of the current talks is the fact that climate negotiations now concern much more than just global warming. Rather, they constitute part of an international strategic game between major countries and involve issues of trade, energy and outright power politics.

This increased complexity is certainly making a global climate deal more difficult, and the consensus-based decision-making process chosen under the UNFCCC is not making this easier. Consequently, after Copenhagen, we may be entering an era in which talks move to other, less inclusive arenas.

One potential way forward could be a pledge-and-review system, where countries present their mitigation policies, but where no international compliance mechanism exists. In such a regime, the UN would no longer be the driving force for global ambition, but would still have important supporting and coordinating functions.

A pledge-and-review system, while less robust in legal terms, could still have some promise for global mitigation action. Specifically, to achieve the ambitious emission reductions required by climate science, national implementation is crucial, and at least as important as international agreement. The EU emissions trading scheme (ETS) is the prime example from the carbon market – a policy inspired by the EU's Kyoto target but enacted by European and member state legislation and functioning on its own.

The results of our fifth annual survey support some of these considerations. First, despite uncertainty in several corners, the most established markets – notably the EU ETS – go on as before. Confidence in the market is firming, with more respondents considering the market mature and more than half of respondents now saying the EU ETS has generated abatement within their company.

Second, a clear majority of respondents still expect an US ETS to be in place by 2015, while the survey shows a growing belief that Japan will introduce cap-and-trade. This sustained confidence in domestic implementation fits with the fact that all Annex 1 countries except Turkey submitted national mitigation targets under the process leading up to the Copenhagen Accord.

Third, while the survey shows a widespread dissatisfaction with the Copenhagen outcome and only just over a third expect a deal from Cancun in December 2010, two-thirds think there will be a global reference price for carbon emissions in 2020.

Finally, although no agreement on targets was made at COP-15, faith in the UN is still strong in issue areas such as deforestation. Notably, three-quarters of our respondents – and an even higher share of those based in the US – expect a post-2012 framework for reducing deforestation and forest degradation (REDD) in developing countries.

The increased complexity of current climate negotiations makes the results presented in this report even more interesting. I hope that Point Carbon with this report, and through our regular market and policy analyses for our clients, will make a contribution by reducing some of the uncertainty currently seen in the carbon market.

Per-Otto Wold
CEO
Point Carbon

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1. Introduction

The world's carbon markets have recovered from a severe economic slowdown and seen a full year with Obama in the White House. Still, many expectations have not been fulfilled. Disappointment with the Copenhagen climate summit is widespread, while plans for US greenhouse gas (GHG) cap-and-trade are stalled in Congress. Consequently, offset markets in particular are pining for clear policy signals for the long term.

Meanwhile, segments such as the EU ETS are going about with their usual business while Japan is planning a dramatic expansion of domestic carbon trading. Forecast supply from the Clean Development Mechanism (CDM) is being revised downwards.

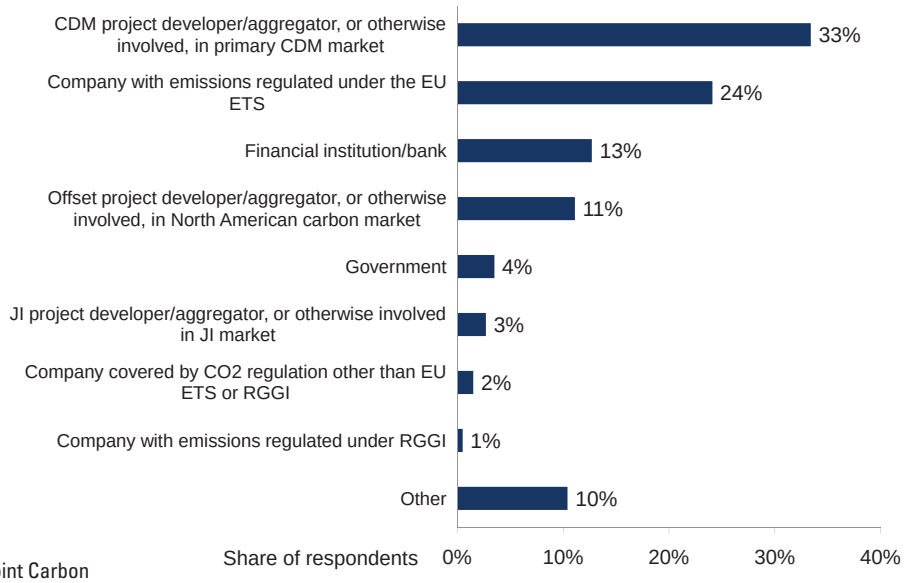
The carbon market is also seeing states reasserting their authority over climate policy. International negotiations have been conducted on the basis of country pledges derived from planned domestic policies rather than a distributed top-down target. At the same time, China is claiming more authority over CDM projects on its territory, while the EU is seeking to write its own offset rules for phase 3 of its ETS.

> "A record 4,767 respondents to our survey

In this context, we present our fifth annual report on the global carbon market. We seek to provide a comprehensive overview of all mandatory GHG emission trading schemes, whether current or upcoming. Our main data source is our annual Carbon Market Survey, but we also draw on Point Carbon's in-depth analyses of global carbon markets and international climate policy in our publication series: Carbon Market Analyst (CMA), Carbon Market Monitor (CMM), Carbon Market Brief (CMB) and Carbon Project Brief (CPB). Furthermore, we consult data from Point Carbon's proprietary databases, models and applications, specifically Carbon Market Trader (CMT), Carbon Project Manager (CPM) and Carbon Project Manager North America (CPM NA).

The Carbon Market Survey 2010 ran from 20 January to 4 February 2010, and garnered a total of 4,767 responses using a web-based tool. Responses were gathered by direct invitation and through a link on www.pointcarbon.com. In the years from 2006 to 2009, by comparison, our survey had between 800 and 3,703 replies.

Figure 1.1: Trading carbon
Respondents saying they are involved in the EUA/CER/ERU/RGA/North American offset market.
N=1,723 (2010) .



Source: Point Carbon

Among the respondents, 1,771 or 39 percent stated that they were involved in trading various compliance carbon allowances and credits, or owned such carbon instruments. In this group, the largest subset comprises CDM project developers, aggregators and others involved in the primary CDM market. These make up 576 of the respondents involved in carbon trading, or 33 percent. Second are companies with emissions regulated under the EU emission trading scheme (EU ETS), counting 415 respondents or 24 percent.

Financial institutions, including banks, come in third at 219 (13 percent of respondents involved in carbon markets), closely followed by project developers and others involved in the North American offsets market, with 192 respondents (11 percent). Other categories are governments (61 respondents), Joint Implementation (JI respondents) project developers (46 respondents), companies covered by CO_2 regulation other than the EU ETS or the Regional Greenhouse Gas Initiative (RGGI) at 26 respondents and companies regulated by RGGI (9 respondents).

Figure 1.1 shows the distribution of respondents among entities trading carbon.

Sixty-three of our respondents have a degree in either engineering or finance/economics, while 14 percent hold a PhD. Almost seventy percent are between the ages of 25 and 44. The largest number of respondents is found in the US — a total of 753 (up from 482 last year). The other countries with three-digit numbers of survey participants are the UK (445), India (231), Australia (224), Germany (199), Canada (187), Norway (138), China (135) and Brazil (104). In total, 118 countries are represented, according to respondents' reporting of their location.

> "CDM developers, aggregators constitute largest group

It should be noted that this survey is conducted among individuals that are significantly more than average interested in carbon trading. Furthermore, since taking the survey is based in part on individual motivation, the sampling of various subsets of the carbon community is less than scientific and thus susceptible to bias. All interpretations of the survey should therefore be read bearing in mind that the sample has not been drawn in a representative way. Furthermore, inferences to general public opinion should be avoided.

2. Carbon markets and policies in 2009

2.1 Overview

The year 2009 was the second in the first commitment period under the Kyoto Protocol (2008-12, and also of the second phase of the EU Emissions Trading Scheme (ETS). At the beginning of the year, the first mandatory greenhouse gas cap-and-trade programme in North America – the Regional Greenhouse Gas Initiative – was launched.

During the first half of the year, the EU ETS saw record-low phase 2 prices amid heavy selling and a realisation that the market was oversupplied with allowances. In June, the US House of Representatives passed the Waxman-Markey bill, which would establish a federal cap-and-trade scheme much larger than the EU ETS.

In December 2009, the fifteenth conference of the parties (COP-15) to the UN Framework Convention on Climate Change (UNFCCC) was held in Copenhagen. At the meeting, heads of government clashed over the future direction of global climate policy while many questions important to the carbon market were deferred.

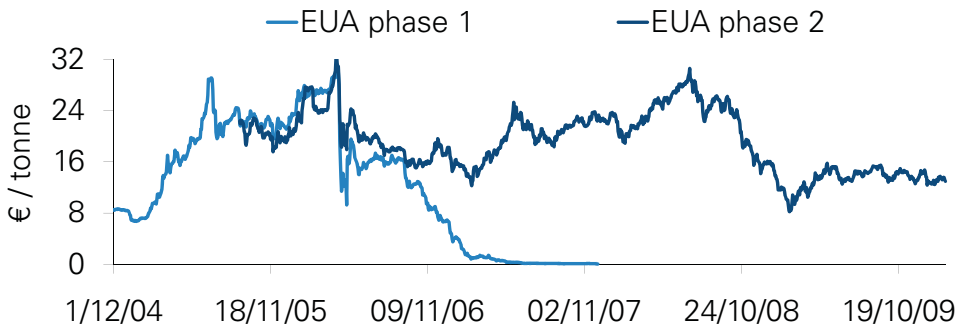
2.2 EU ETS

In the sixth year of the EU ETS, we continue asking some retrospective questions and have also added some. For example, does the EU ETS work by spurring emission reductions and influencing long-term investments? Or does it simply cause carbon leakage? What do companies do with superfluous EUAs in phase 2? And as phase 3 (2013-20) is nearing, do companies actively bank EUAs in expectation of tighter targets?

2.2.1 Trading and policy in 2009

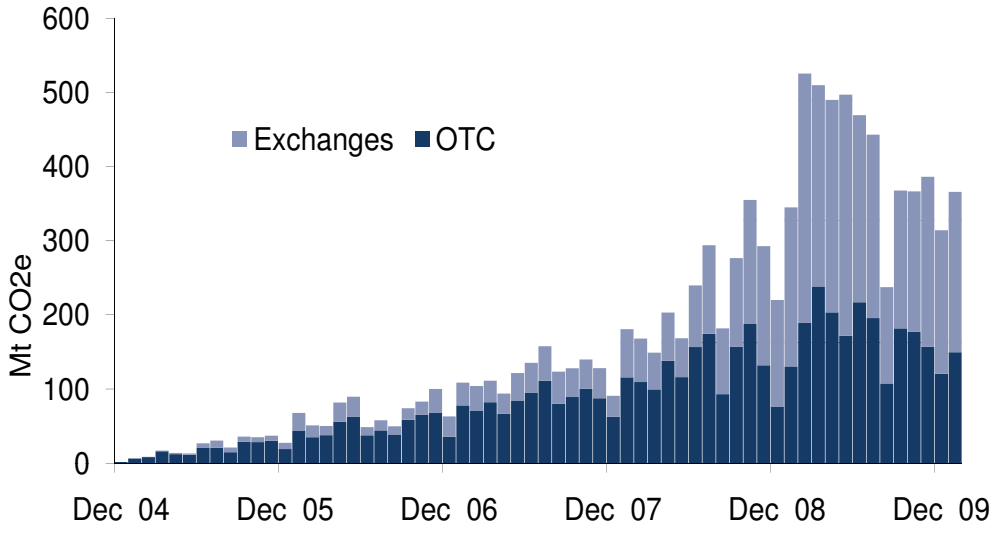
The EU ETS has been through turbulent times in past years, with the phase 1 price crash and the controversies over national allocation plans. By contrast, 2009 has been a rather placid year, with a fairly narrow price range (see Figure 2.1) and stable, healthy transaction volumes (see Figure 2.2). Granted, spot selling brought EUAs below €10 in the first quarter, but there was no price collapse. The market was

Figure 2.1: Prices in the EU ETS, 2004-present
Front year contracts for phase 1 and phase 2



Source: Point Carbon

Figure 2.2: Monthly EUA volumes
OTC and exchanges, 2004-present



Source: Point Carbon

also haunted by VAT fraud, but countermeasures implemented by national authorities appear to have worked.

2.2.2 Does the EU ETS work?

With many being disappointed by the Copenhagen outcome, more focus could now turn toward the domestic actions of major emitters, such as the US, China and EU. The ETS is the European flagship climate policy, and will play a key role in the Union reaching its self-imposed targets, whether that is 20 or 30 percent below the 1990 level in 2020, or something in-between.

> "31% of respondents see EU ETS as a mature market

Does the EU ETS work? For the fifth year in a row we have asked questions related to this topic in our Carbon Market Survey. Respondents are asked to record their evaluation of two statements on a scale from 1 ("completely disagree") to 5 ("completely agree"). We count options 4 and 5 as agreement.

The result is given in Figure 2.3. Note that this year we have simplified this question set, reducing the number of individual questions from four to two. All survey respondents received this question, as evidenced by the high number of respondents (N). Later questions in this section have only been asked among companies involved in the EUA market.

The trend over the last few years continues in 2010. The share of respondents thinking that the EU ETS is a mature market keeps increasing, reaching 31 percent this year after continuous growth from 10 percent in 2007. Simultaneously, the view that the EU ETS is the most cost-effective way to reduce emissions remains flat in the 42-47 percent range.

> "Majority say EU ETS has caused reductions

Note that the percentages correspond to the sum of respondents selecting either "agree" or "completely agree" on a five-point scale. At the opposite end of the scale, 20 percent said they "disagree" or "completely disagree" with the statement that the EU ETS is the most cost-effective way to reduce EU emissions. Twenty-nine percent disputed EU ETS maturity in this way.

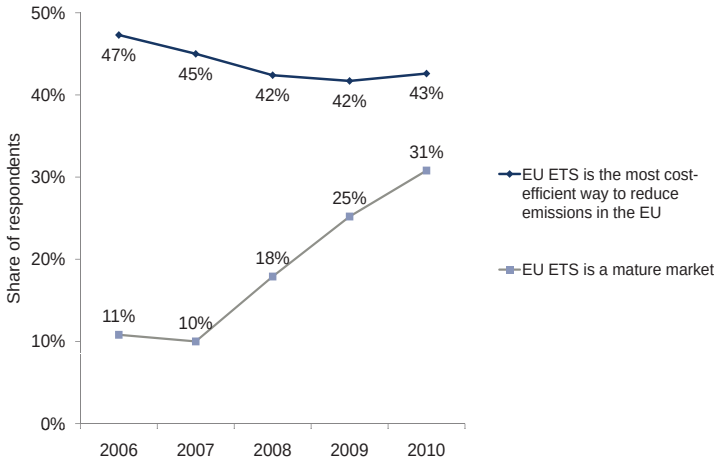
Consequently, twice as many respondents consider the EU ETS the most cost-effective way to reduce emissions in the EU, compared to respondents that actively do not.

At a more fundamental level than trading, the EU ETS needs to be evaluated according to how well it delivers emission reductions, also within the EU. Regardless of trade volumes and sophisticated financial instruments, a regulatory market such as the EU ETS cannot remain politically viable unless companies are shown to reduce their GHG emissions.

To assess the extent (if not volume) of emission reductions in the EU ETS, we have since 2007 asked companies directly about their own actions. The results, shown in Figure 2.4, indicate a small but noticeable jump in the share of respondents reporting actual emission reductions in their company caused by the EU ETS. While this may in part be related to a fall in the share of companies that have planned

Figure 2.3: Assessing the EU ETS

Share of respondents agreeing with the given statements, given as options 4 and 5 on a scale from "strongly disagree" (1) to "strongly agree" (5). N=4,534 (2010).



Source: Point Carbon

but not implemented reductions, we also see that fewer say the EU ETS has not caused any reductions.

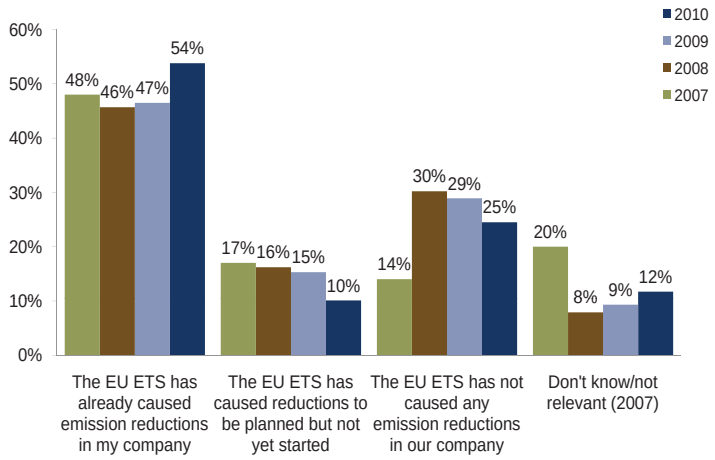
Most importantly, we see for the first time that more than half of respondents say the EU ETS has induced emission reductions in their company.

The returning question, not addressed by our survey, is the volume of these abatement efforts. To what extent are they incremental improvements and to what extent do they represent radical conversion to low-carbon equipment? Given that a majority of respondents report emission reductions, while overall internal abatement in the EU ETS is relatively low year-on-year, most installations have probably implemented incremental reductions rather than radical ones.

> "47% see carbon price as decisive for investment

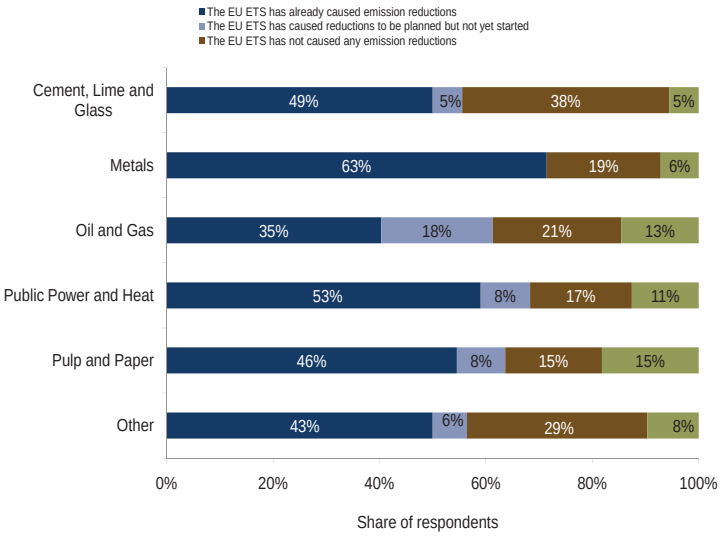
The distribution of abatement action remains relatively uniform across most EU ETS sectors, as displayed in Figure 2.4b. The outlier is the metals sector, with 71 percent of respondents reporting implemented emission reductions. However, this category only holds 14 respondents and is thus liable to high uncertainty. More weight should probably be given to the relatively low degree of abatement – 40 percent – reported by 63 respondents in the oil and gas sector. This is down from over half last year. All other sectors display abatement rates between 50 percent (cement/lime/glass) and 59 percent (power/heat).

Figure 2.4a: EU ETS and internal abatement
Companies covered by the EU ETS. N=368 (2010)



Source: Point Carbon

Figure 2.4b: EU ETS and internal abatement, by sector
Companies covered by the EU ETS. N=368 (2010)



Source: Point Carbon

Is there a relationship between annual emission levels and abatement? We found last year that large emitters were more likely to have introduced mitigation measures. This also shows in our 2010 survey. Among companies producing more than 5 Mt CO_2e/year, over 65 percent

of respondents say that the EU ETS has caused emission reductions, against the average of 55 percent for the full sample.

While the EU ETS fundamentally sets a cap on carbon pollution, it functions through setting a price of carbon. The price depends on the stringency of the cap as well as on fuel and power prices and economic fundamentals. In phase 2, the cap is derived from the EU's Kyoto commitment, whereas the final phase 3 cap will depend on the target taken on by the EU as a result of international negotiations. The carbon price works both as a short-term factor influencing fuel switching in the power sector, and through longer-term impact on investment decisions.

"Most leakage reported in metals and cement/lime/glass

Besides short-term fuel switching, the EU ETS functions according to plan to the extent that the carbon price influences long-term investment decisions in a low-carbon or zero-carbon direction. At the same time, the carbon price will be counter-productive if it causes production in the ETS area to move to areas without a carbon price, as this will usually not bring down global emissions.

We have already seen the extent to which the EU ETS has incentivised companies to make emission reductions. What are the long-term effects of the EU ETS and the EUA price? Are investment decisions affected, or does the carbon price lead to carbon leakage?

For the fourth year in a row, we asked these questions in our survey:

1. How important is the long-term carbon price (e.g. in 2020) for new investments in your industry?

2. Has your company considered moving production outside the EU ETS area because of carbon costs?

Our results show that the effect of the carbon price on new investments has risen by eight percentage points from 2007-08 to 2010, in terms of the share of respondents considering it a "decisive factor." Specifically, the percentage is up from 38 percent in 2008 to 42 percent last year and 47 percent this year (Figure 2.5).

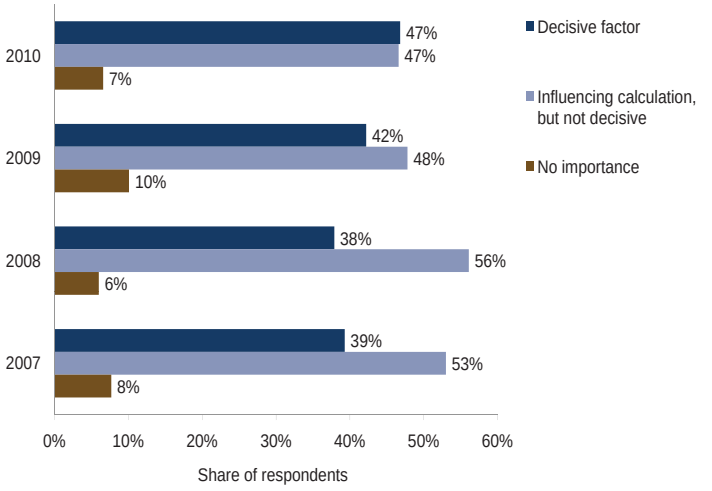
The sectors where the long-term carbon price reportedly matters the most for new investment are metals, where 69 percent of the (albeit few) respondents identify it as a decisive factor, followed by power/heat (57 percent). It matters the least in oil/gas, where 33 percent see the long-term carbon price as "decisive," and in unclassified "other" sectors (20 percent).

"In Germany, 72% see long-term carbon price as decisive

We also note that in Germany, where 50 of the respondents to this question are based, 72 percent see the long-term carbon price as a decisive factor for new investments. In the UK and France, by contrast, only 31 percent of respondents selected this option. In terms of emission levels, 61 percent of respondents from companies with emissions above 10 Mt/year saw the carbon price as a decisive factor for new investments. This is up from

Figure 2.5: The EU ETS and investments

How important is the long-term carbon price (e.g. in 2020) for new investments in your industry? EU ETS companies. N=380 (2010)



Source: Point Carbon

50 percent last year. Smaller emitters, producing less than 500 kt/year, were less likely (22 percent) to consider the carbon price decisive.

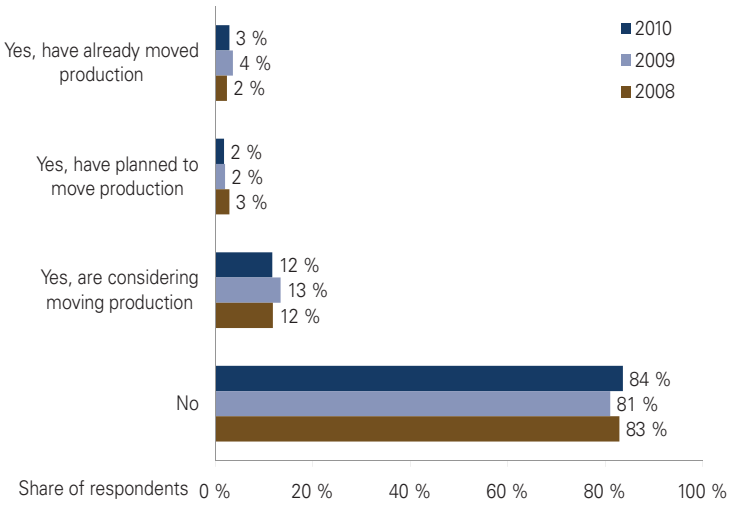
Our second question concerns whether the EU ETS causes carbon leakage. Here we ask whether the respondent's company has moved, planned to move or considered moving production outside the EU ETS area because of carbon costs.

Figure 2.6a shows that 84 percent of respondents' companies have not even considered relocating outside the EU ETS area. This may not be surprising, as many companies – notably in the power sector – cannot relocate.

A more detailed look at the numbers by sector reveals striking sectoral variation. Significant minorities in cement/lime/glass (41 percent) and metals (38 percent) say their companies have at least thought about moving production due to the carbon price (see Figure 2.6b). Furthermore, in the metals sector, 13 percent say they have already moved production. By contrast, as expected, 79 percent of respondents from power companies report no considerations of moving production.

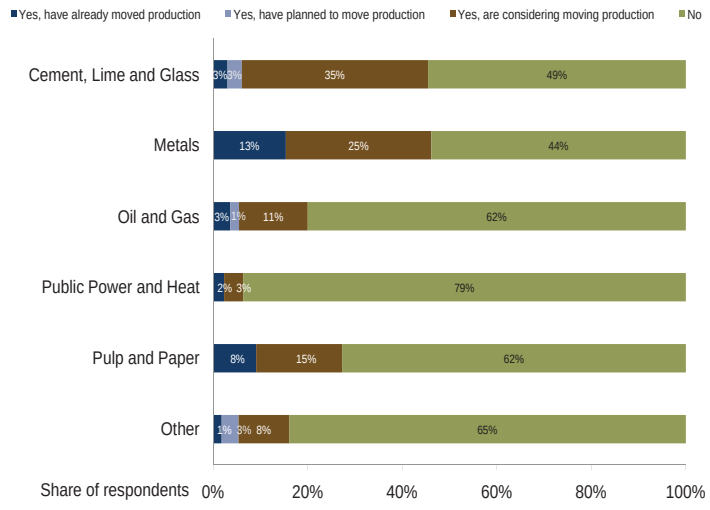
It should be noted that carbon leakage does not simply constitute moving existing production outside an area with a carbon price or regulation. Other, less tangible types of leakage include diversion of new investments to areas with no carbon price and reduction or curtailment of production in the face of competition from such

Figure 2.6a: EU ETS and carbon leakage
EU ETS companies. N=342 (2010)



Source: Point Carbon

Figure 2.6b: EU ETS and carbon leakage, by sector
EU ETS companies. N=342 (2010)



Source: Point Carbon

areas. These types of leakage are not directly addressed in our survey, although several respondents have mentioned them in the open answer section.

2.2.3 Market behaviour

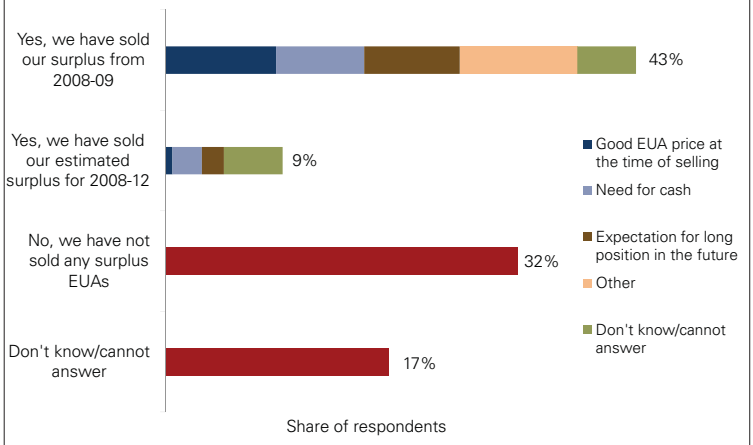
Given that many companies find themselves long as a result of the economic downturn, there has been significant selling of EUA surpluses. Companies have sold surplus EUAs for a multitude of reasons, such as to benefit from lowered emissions level, to make money on what they think is a good allowance price, in anticipation of staying long in the future or simply to generate cash to shore up balance sheets.

In our survey, we asked respondents in the EU ETS whether their companies had sold surplus EUAs to date. We only posed this question to companies that had earlier indicated that they had more EUAs than expected emissions in phase 2. As displayed in Figure 2.7, 51 percent of these respondents indicated that their companies had sold some surplus EUAs, while 8 percent stated they had sold their entire estimated phase 2 surpluses.

Some of the reasons cited for selling surpluses are also listed in Figure 2.7. Asked to identify the principal reason for selling, respondents chose good EUA prices, need for cash and expected long position in equal measure, at roughly 30 percent each. In the open answers, trading policy was also mentioned.

On the other side of the table, EUA buyers are picking up EUAs at fairly low prices compared to the peak near €30 reached in mid-2008. Naturally, despite the aggregate oversupply of EUAs in phase 2, many companies remain short.

Figure 2.7: Selling the surplus?
Has your company sold surplus EUAs? If so, what was the principal reason?
EU ETS companies with reported EUA surplus. N=106 (2010)



Source: Point Carbon

> "51% report having sold some surplus EUAs

Furthermore, with phase 3 fast approaching, companies that know they will be short also in the future have an incentive to buy EUAs today and bank them into phase 3. This is particularly rational if one expects prices to rise with the increased shortage in the EU ETS after 2013. Power companies that have already started hedging their production for 2013 may also find it useful to buy phase 2 EUAs today, given that phase 3 EUAs have yet to be made available. To what extent do companies buy EUAs for the purpose of banking rather than simply to hedge? Such behaviour would be speculative – motivated by an expected price increase toward 2013.

The result is given in Figure 2.8. Overall, 16 percent of respondents report that their company has bought EUAs simply for banking. Based on our sample, only companies in power/heat (19 percent of respondents from the sector) and oil/gas (8 percent) have bought EUAs for banking purposes. No respondents in any other sector reported having done so.

It is also interesting to note that EUA purchases for outright banking purposes are reportedly much more common in Germany than in the EU as a whole. Among the 33 German respondents, 24 percent said they had bought EUAs for banking into phase 3. By contrast, only four percent of the 23 UK respondents reported

having done so. (Other countries had fewer than 20 respondents on this question and thus too variable percentages.) The difference between the countries suggests that the short term plays a bigger role in UK carbon management than on the Continent.

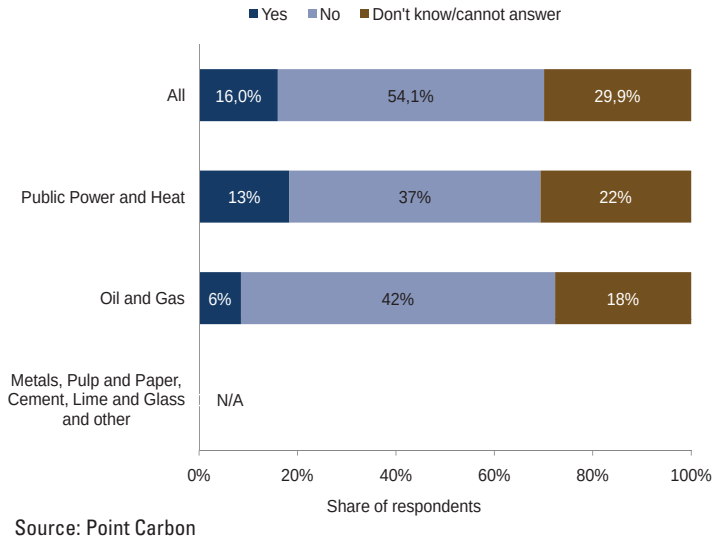
> "Reported use of options almost unchanged since 2009

To what extent are companies using EUA and CER options to hedge their carbon exposure? As Figure 2.9 shows, the number of companies that have already sold or bought options is marginally up over previous years. However, combining the two "yes" answers, we see that the total of respondents having reported interest in options trading is in fact down four percentage points, to 63 percent, against 67 percent in 2009. There are only small differences among EU ETS sectors, with respondents in the power sector reporting options trading at the highest rate of 37 percent. Note also that the same percentage of respondents in our category of CDM project developers and aggregators report options trading.

2.3 CDM and JI

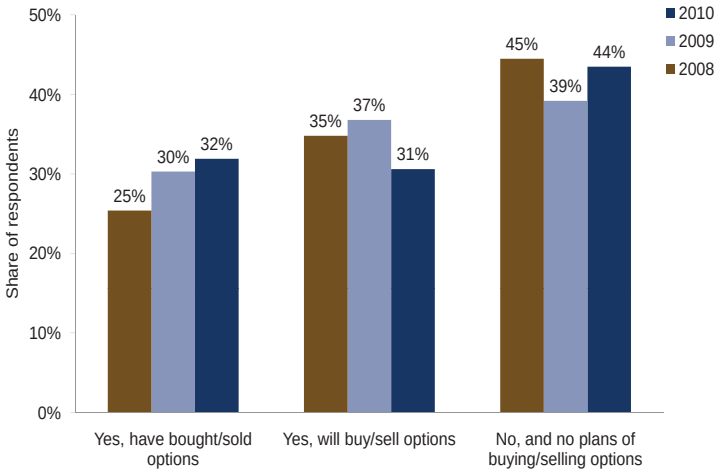
How do market participants and observers evaluate the CDM? We have asked a set of questions on the CDM and JI every year since 2006, with the CDM-related results given in Figure 2.10. For simplicity, we have reduced the number of statements from four to two in 2010. Note that the 2006 and 2007 surveys asked about the CDM and JI combined – we here treat these data as pertaining to the CDM only.

Figure 2.8: Banking on phase 3 prices?
Has your company bought EUAs not only for hedging purposes, but for the purpose of banking into Phase 3? Companies covered by the EU ETS. N=194 (2010)



Source: Point Carbon

Figure 2.9: Flat outlook for options
Have you bought/sold or will you buy/sell EUA, CER or RGA options? N=1,619 (2010)



Source: Point Carbon

The upward trend continues in the number of respondents that think of the CDM market as mature, albeit from a low base.

Seventeen percent "agree" or "completely agree" with this statement now, compared with 16 percent last year. By contrast, the share of respondents considering the CDM market the most cost-efficient way to reduce emissions remains near the lower end of the historical range of 31-41 percent.

What are the opinions on the workings of the CDM among various market players? Figure 2.10b displays average evaluations of the CDM based on the two questions noted above, ranging to the most negative (1) to the most positive (5).

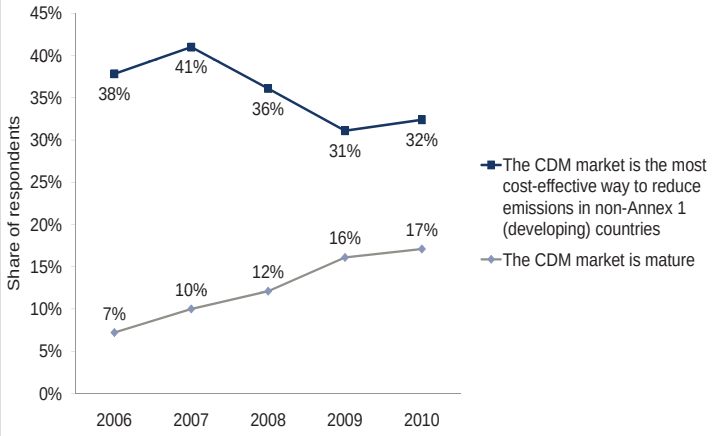
We see that – not unexpectedly – CDM and JI developers and aggregators have the highest evaluations of the CDM's effectiveness and maturity. Respondents belonging to these categories have registered a higher degree of agreement than disagreement with the ideas that the CDM is both cost-effective and a mature market. (A neutral assessment would have the value of three.)

Other types of market players are somewhat less excited by the CDM market. In particular, ETS participants – whether in the EU or under RGGI – have the lowest evaluations.

How do market participants view the JI market? This is another question we have been asking for several years. Figure 2.11 shows the trend over time.

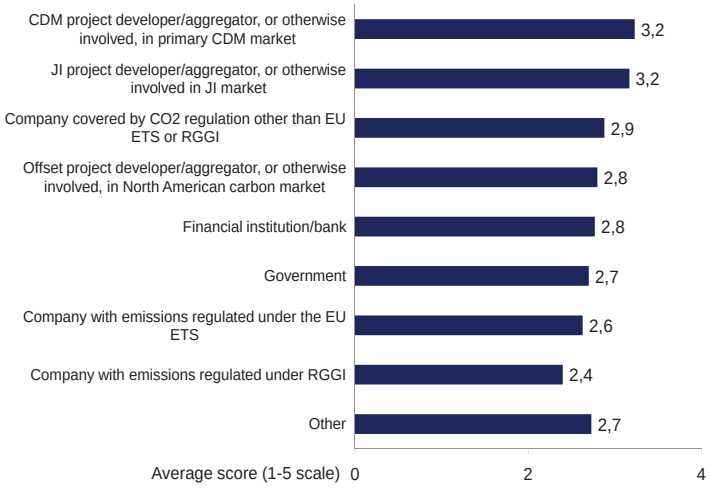
To go deeper into the evaluation of the project markets, we have this year included a question about the incidence of illegal practices in the context of CDM and JI project investments. Specifically, we ask whether respondents have witnessed fraud, embezzlement or corruption in connection with a specific project.

Figure 2.10a: Evaluations of the CDM market, 2006-10
Share of respondents agreeing with the given statements, given as options 4 and 5 on a scale from "strongly disagree" (1) to "strongly agree" (5). N=4,315 (2010)



Source: Point Carbon

Figure 2.10b: Evaluations of the CDM market by market player
Average of evaluations on the 1-5 scale for the two questions presented in Figure 2.10a. N=868 (2010)

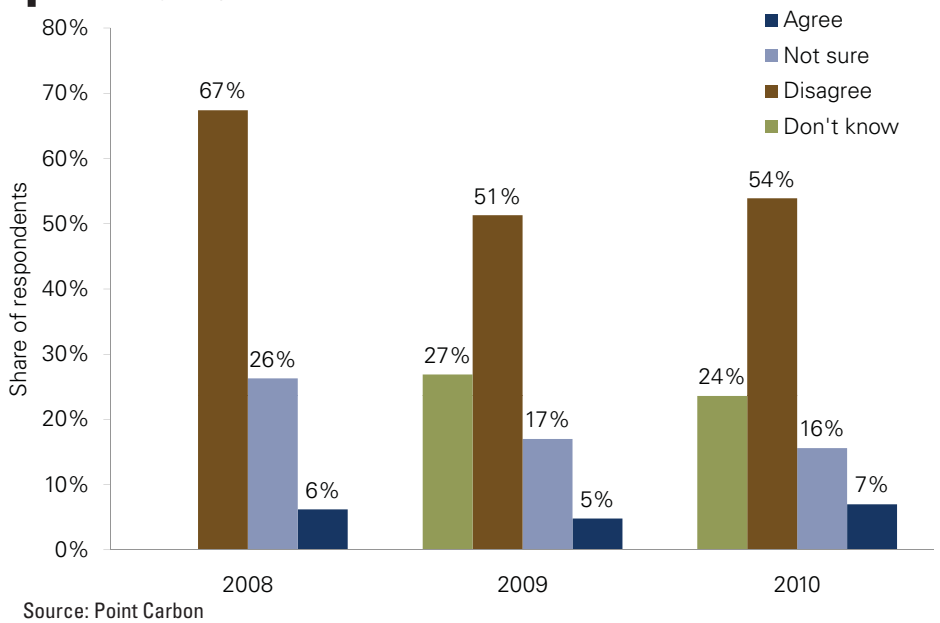


Source: Point Carbon

The selection of the CDM/JI for questions about fraud and corruption does not imply any particular view of these mechanisms. Indeed, VAT fraud in the EUA market was a greater story in 2009 than any illicit

Figure 2.11: Assessment of the JI market, 2008-10

Is the JI market mature? Agreement and disagreement. Respondents involved in carbon trading, except RGGI and North American offsets. N=1,213 (2010)



Source: Point Carbon

practices in the project markets. However, we consider VAT fraud unsuitable for survey research because of the limited number of entities affected as well as the fairly specific and well-known scope of the fraud. By contrast, CDM and JI projects are based in scores of countries with a high diversity of players, making survey research here more suitable and potentially interesting.

Figure 2.12 shows that 15 percent of respondents had seen incidences of fraud, embezzlement or corruption in connection with a CDM or JI project. This does not apply to the mechanisms in general, but only to specific projects where the respondent's company is involved or is considering involvement.

The distribution of witnesses to fraud is fairly uniform across the main types of market players, with 16-17 percent of respondents representing CDM and JI project developers, as well as governments, reporting improprieties. Financial institutions come in somewhat lower at 11 percent.

What is the breakdown by country? Only five countries had more than 20 respondents to this question, with the results showing in Figure 2.12b. Here, we see that 28 percent of respondents in China have reported having seen fraud, embezzlement or corruption in connection with a CDM project. EU respondents are close to the global average, whereas respondents based in Brazil reported seeing the least fraud. It should be reiterated that these numbers do not represent the actual incidence of improprieties in these various countries, only the degree of reporting by respondents based in each of these countries.

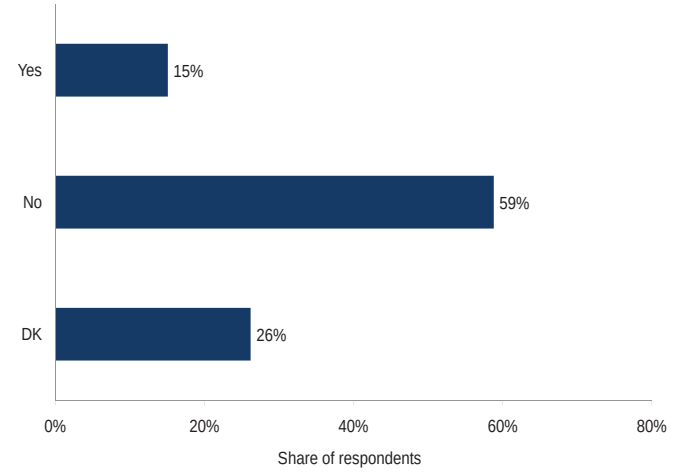
The "open answers" category provides further insights into the question about fraud, embezzlement and corruption in the CDM/JI markets. Among the more interesting claims are these:

- Claims that kickbacks from agents to project owners are common - particularly related to state-owned companies. According to respondents, these are not CDM-specific but rather embedded practices.

- Claims that designated operational entities (DOEs) conduct fraud during verification, especially in waste heat recovery and biomass based power generation projects (related to

Figure 2.12a: CDM/JI fraud

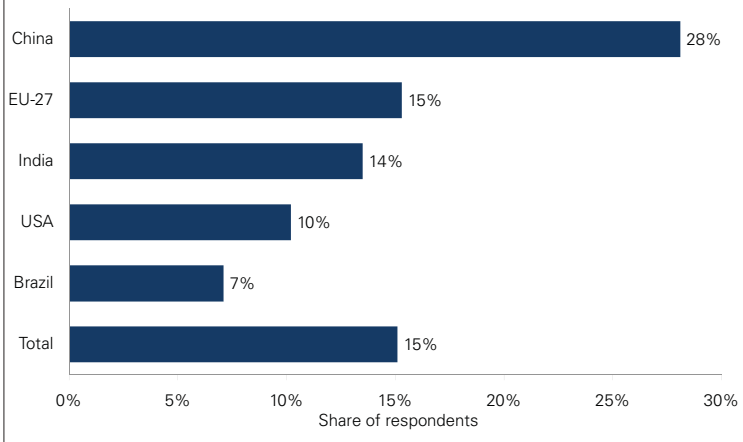
Have you ever witnessed fraud, embezzlement or corruption in connection with a CDM or JI project?" Question posed to financials, project developers, aggregators, governments and companies covered by carbon regulation aside from the EU ETS and RGGI. "DK"="don't know." N=890 (2010)



Source: Point Carbon

Figure 2.12b: CDM/JI fraud, by country

CDM/JI fraud, embezzlement and corruption reported by respondents based in selected countries. N=890 (2010)



Source: Point Carbon

start-up fuels, auxiliary fuels, data log books etc.).

- Instances of verifiers requesting accommodation and transport well outside the scope of the task at hand
- Provincial officials in China helping to smooth projects' approval process
- Government officials for forestry projects blatantly asking for fees up front
- Claims that some Mexican CDM projects are hampered by corruption from the local governments, and that corruption is also a problem in the government/industry nexus in Indonesia in the case of CDM projects
- Claims that project hosts have been included in certain types of waste management projects but that the intended activities have not actually taken place there, hence hosts have not received any CDM results while being unable to engage in other CDM projects.

The impression is that CDM-specific corruption is actually not that widespread. A number of recipients specifically comment that the CDM's transparency makes corruption very difficult. Others comment that there are clear traces of common types of corruption sneaking into the CDM as well, while yet others specify that although they have answered that they have seen corruption this has not been common.

2.4 Global climate policy

The Copenhagen COP in December 2009 was dramatic

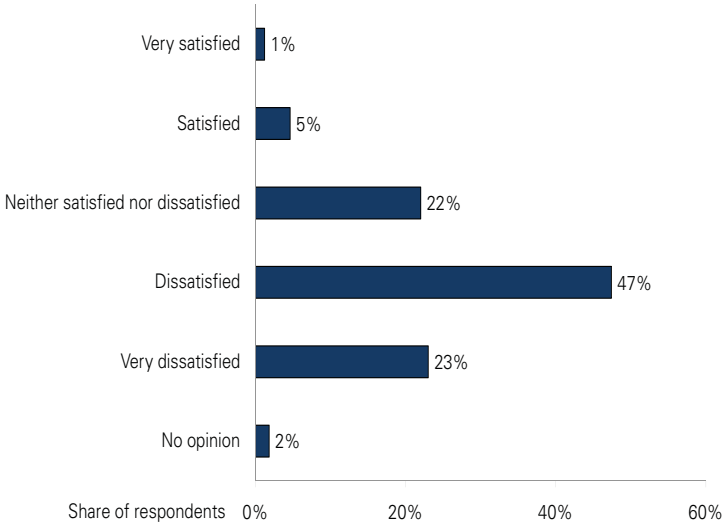
but inconclusive, ending in a non-binding document called the Copenhagen Accord (CA). While the lack of binding agreement disappointed many, the process leading up to the CA was unprecedented in that it had the support of all major emitters – notably the US and China – plus important developing countries such as India, Brazil and South Africa. The EU and Japan also consented to the CA.

The CA thus provides a basis for future process. Developing-country commitments were above our expectations, although they are not listed in the final document. Targets for financing were also more ambitious than expected. On the other hand, the status of the agreement and the lack of a timeline for negotiations are areas where the deal fell short of our expectations. Even more importantly, no conclusion was reached on Annex I emission reduction objectives, although all except Turkey have announced targets or ranges of targets ahead of the summit.

How do respondents evaluate the outcome of COP-15? As displayed in Figure 2.13a, the overall view is negative. Among 4,734 individuals replying to this question, which was the first of the questionnaire and thus seen by all, 70.4 percent said they were either dissatisfied or very dissatisfied with the outcome. On the 1-5 scale from dissatisfaction to satisfaction, the average response was 2.08, or very close to "dissatisfied." It is thus safe to say that our average respondent was dissatisfied with COP-15.

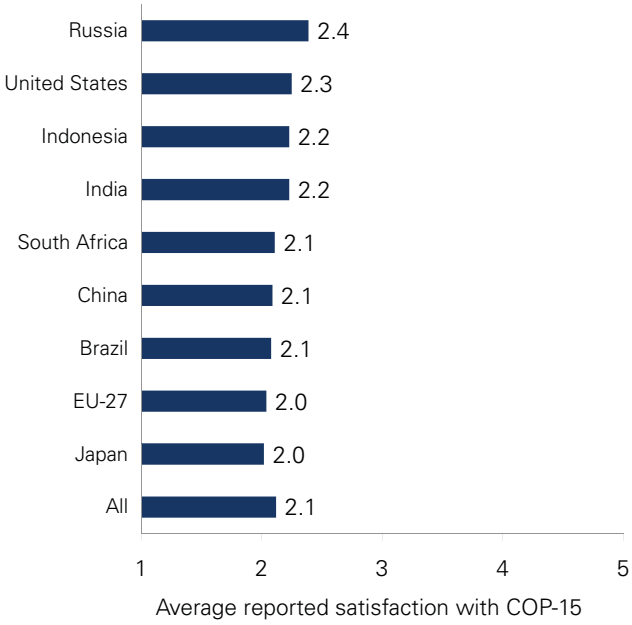
The distribution of responses by country reveals a fairly strong

Figure 2.13a: Good COP, bad COP?
Respondents' evaluation of the 15th Conference of the Parties to the UNFCCC in Copenhagen, December 2009. N=4,734.



Source: Point Carbon

Figure 2.13b: Good COP, bad COP – by country



Source: Point Carbon

consensus. In all the major countries listed in Figure 2.13b, the average respondent is found closest to "dissatisfied." Among EU countries, the average contentment level is below 2 for Denmark, Sweden, Germany and Italy. In Poland, by contrast, the average satisfaction with the Copenhagen outcome is 2.57, or about halfway between "dissatisfied" and "neither satisfied nor dissatisfied."

Figure 3.1: Plans for 2010
Question to all companies involved in EU ETS, CDM, JI and RGGI markets. N=1642.

Source: Point Carbon

Chapter 3: Towards 2012 and beyond

Although we are still not halfway through Kyoto's first commitment period (2008-12), the distance to the end of 2012 now feels rather short. Companies in the EU ETS are already starting to hedge their 2013 power production, leading to a need for EUAs. World governments are already negotiating on overtime to reach a post-Kyoto accord, having breached their self-imposed limit of December 2009 for an agreement stipulated in the Bali Action Plan. Post-2012 uncertainty is being felt in the CDM/JI and even AAU markets. In the US, the nascent carbon market is less reassured about the direction of federal policy than one year ago, even though one chamber of Congress has already passed a cap-and-trade bill.

How do carbon market participants and observers relate to this heightened feeling of urgency? What plans are being made to retrench or expand? What do our respondents see in store for the various segments – the EU ETS, CDM/JI, US and other markets up to 2020? And what prices do they see in their individual crystal balls? This chapter will look at each of these questions in turn.

3.1 Carbon trading in 2010

In the wake of the world financial crisis, and amid continued policy uncertainty, are companies tightening their belts on carbon trading, or are they staying the course or even expanding? Last year, after the credit crunch, we started asking companies about their personnel plans in the area of carbon trading. We then found that most companies foresaw business as usual, whereas almost a third actually planned to increase the number of personnel involved in carbon trading.

The overall set of answers is almost unchanged in 2010, as Figure 3.1 displays. Indeed, only four percent divulge plans to reduce the number of carbon-trading personnel. Thus, while there may be some under-reporting of bad news, the overall impression is that companies involved in the carbon market foresee continued activity at similar or somewhat higher levels than earlier. This agrees with Point Carbon's expectations that trading will intensify over the next several years, as outlined in our transaction volume forecast for 2010-12.

How do personnel plans distribute across major countries? Survey participants in China (44 percent), India (37 percent) and the US (34 percent) report the broadest increases in carbon trading personnel. At the other end of the scale, we see the EU (22 percent) and Japan (20 percent) as the locations where the survey suggests the least expansion in the number of personnel involved in carbon trading.

Looking across market players, project developers and aggregators in the CDM, JI and North American markets are the ones with the most expansive outlook. In these categories, 36-37 percent of respondents report

plans to increase the number of personnel directly involved in carbon trading. Governments and financials are found near the sample mean. The least expansion is expected among EU ETS compliance entities, where only 14 percent of respondents foresee personnel increased on the carbon trading side.

> “17% of power/heat respondents report being long in phase 2

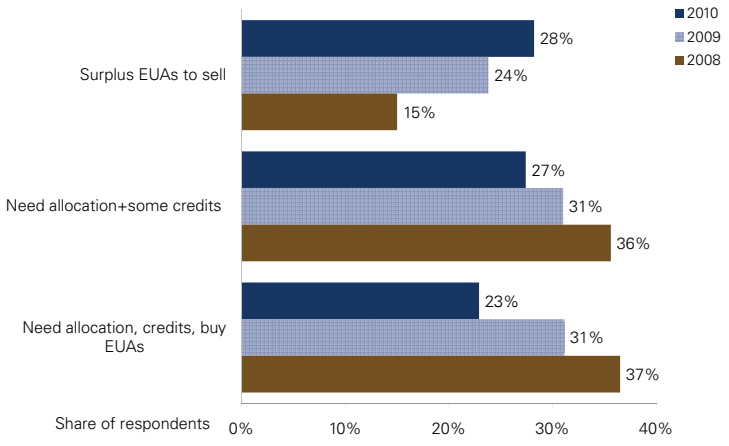
The most intuitive conclusion to be drawn from these variations is that the large Kyoto Annex B countries – the EU and Japan – are already established in the market. Thus, companies here are less in need of carbon trading personnel, notably given the economic downturn and post-2012 uncertainty. The same may be said for the EU ETS. By contrast, the carbon market is still expanding in China, India and the US, generating more trading-related work.

3.2 EU ETS

Emission forecasts for the EU ETS phase 2 have continued to be adjusted downwards, with analysts predicting that installations will show a collective surplus of EUAs over the period. As a consequence, CER/ERU credit imports are not strictly necessary at the aggregate level – although a certain volume has already been surrendered to cover 2008 emissions. Another implication of the long phase 2 is that more EUAs will be banked into phase 3 (2013-20). Furthermore, as hedging of phase 3 power deliveries increases in volume, EUA prices are likely to rise, which will make swapping of CERs and ERUs for EUAs use more profitable.

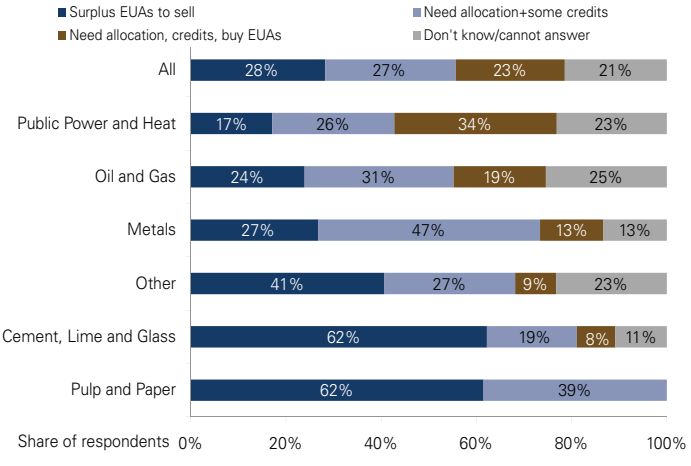
The falling expectations for 2008-12 emission levels in the EU ETS are reflected in Figure 3.2a, which shows the distribution of reported short and long positions in the ETS. It also shows how many companies consider that their

Figure 3.2a: No longer as short
EU ETS allowances and credit limits compared to expected emissions in Phase 2. EU ETS companies. N=397 (2010).



Source: Point Carbon

Figure 3.2b: No longer as short, by sector
EU ETS allowances and credit limits compared to expected emissions in Phase 2. EU ETS companies. N=397 (2010)



Source: Point Carbon

credit limit will be needed for compliance.

Building on the trend from last year, the share of companies reporting that they need to buy EUAs in addition to their free allocation and full credit limit has fallen to only 23 percent, down from 31 percent in 2009 and 37 percent in 2008. Correspondingly, the share of companies with surplus EUAs to sell has increased to 28 percent this year from 24 percent last year and only 15 percent in 2008. The share of respondents that need their full allocation but do not need to buy EUAs is more or less unchanged over the three years. It can also be shown that the share of companies that have more credits than they are permitted to use in phase 2 is virtually unchanged in the range from five to six percent. These companies are typically investors in the primary CER and ERU markets.

Figure 3.2b shows the distribution of the same long and short companies by sector. As expected, and similarly to last year, the industry sectors other than oil and gas show the highest relative frequencies of EUA surpluses. The top sectors with EUAs to sell are pulp and paper (62 percent); cement, lime and glass (also 62 percent) and others (39 percent).

Note also that 17 percent of respondents within the power/heat sector report that their companies are long EUAs in phase 2. We also find that all bar one of the respondents that we identified as representing CDM/JI primary-market investors belong to the power (19) and oil/gas (5) sectors. These companies thus remain the most important drivers of CER/EUA swapping, as they are ready to pay a premium for EUAs over CERs.

Given a 2008-12 surplus that has widened for two years in a row, combined with a likely short phase 3, how will companies respond? Three general options are available, and may be used separately or in combination.

First, companies may sell their EUA surplus outright, as we discussed in the previous chapter. This obviously has an immediate and positive impact on cash flow.

> “Buying and selling converge around €10-15

Second, they may choose to bank surplus EUAs from phase 2 into phase 3, using more CERs and/or ERUs for compliance in phase 2. This makes sense also in the short term since EUAs are (at least currently) more expensive than credits from the CDM/JI. Furthermore, if prices rise, as is likely, this appears as a good passive investment if the company's cash flow permits it.

Third, operators may decide to carry over or bank their credit limit into phase 3, using more EUAs for compliance. If the EUA-sCER spread is to widen in the future, as Point Carbon expects it will, the value of this option to use credits will increase over time. Companies active in the primary CER market could benefit from an even wider EUA-pCER spread.

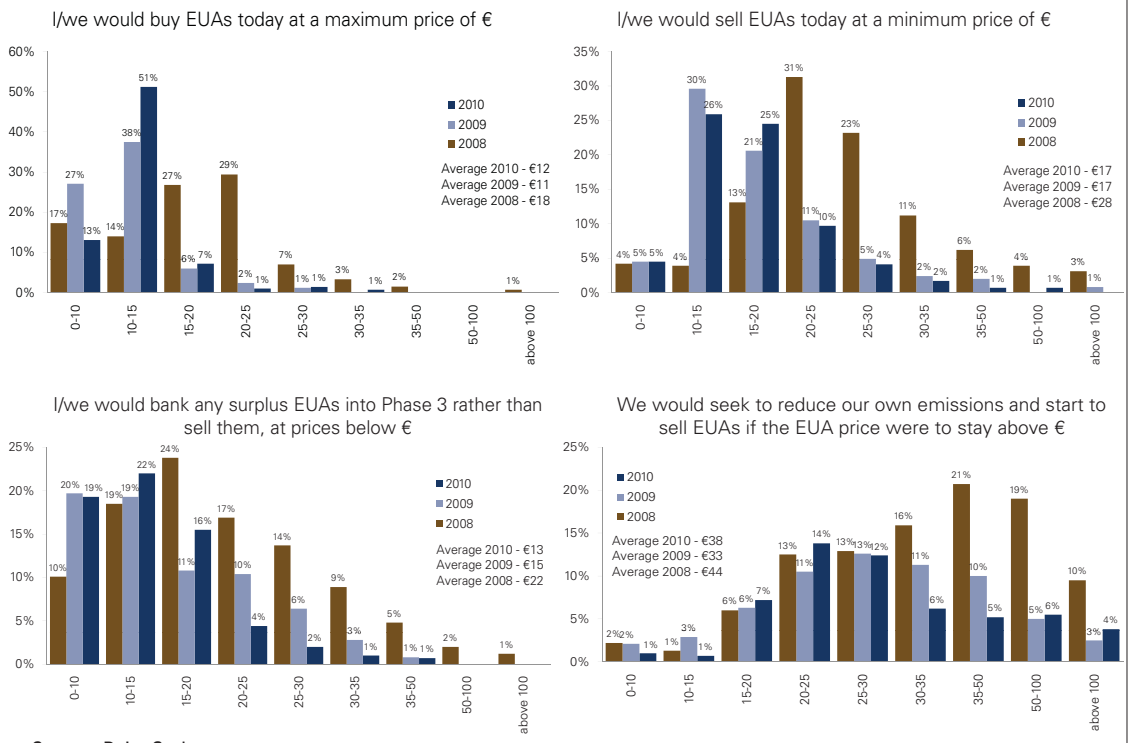
A key determinant of whether to sell, buy or bank is price. At low prices, banking of EUAs could make sense, especially if one expects to be short in phase 3. At low EUA-sCER spreads, banking the credit limit may be prudent. Figure 3.3a shows the various reported price levels at which respondents reckon their companies would buy, sell or bank EUAs; and where they would reduce their emissions for the purpose of selling EUAs.

This price survey, now in its third year, clearly shows the lowered expectations in 2010 and 2009 compared to 2008. This is as expected, given that average EUA prices are much lower now than in 2008.

Besides this clear difference, two findings present themselves from the price data. First, the readiness to buy EUAs is somewhat higher this year than last. Specifically, 51 percent would pay up to €10-15 for an EUA in 2010, against 38 percent in 2009. This change is almost exactly mirrored by the fact that 27 percent said they would pay no more than €5-10 per EUA last year, against only 13 percent this year. At higher price levels, the responses are essentially the same.

Although the differences are small, this finding suggests that the downside for EUA prices is more limited than one year ago. More companies are willing to step in to buy allowances if prices fall. One likely explanation is that phase 3 is getting closer, with a greater likelihood that abatement will be needed – which implies higher prices. Another reason could be that companies are in a better financial position to pick up surplus EUAs now than they were only few months after the Lehman collapse of September 2008.

Figure 3.3a: Should I buy, sell, bank or reduce emissions?
EU ETS companies. N=312 (2010)



Source: Point Carbon

This slightly increased willingness to buy EUAs can also be demonstrated in a different way, by the same data presented as cumulative buy and sell curves.

Similarly to last year, the curves for buying and selling EUAs converge somewhere around the €10-15 range (in 2008 they crossed near €20-25 – see "Carbon 2008," available on www.pointcarbon.com). The curves indicating willingness to buy is even steeper than last year, reflecting the fact that more than half of the respondents would buy EUAs between €10 and €15.

We noted above that EUA banking into phase 3 was one of three options available to long installations. At what prices will companies bank EUAs rather than selling them? Going back to Figure 3.3a, we see no great changes compared to last year, as roughly four in ten respondents in both years would bank EUAs below €15. However, the concentration of replies within the €0-20 range is somewhat greater than in 2009, possibly indicating a greater willingness to bank at these price levels. (Incidentally, the willingness to cut emissions and sell EUAs is also relatively stable since last year – suggesting that price expectations have not changed much.)

The third option for treating an installation's surplus in the EU ETS phase 2 is to bank the credit limit. How many companies plan to do so, and to what extent? To find out, we asked companies covered by the EU ETS how they planned to distribute their credit limits. The responses are presented in Figure 3.4.

Two main conclusions emerge from the figure. First, the number of respondents that could not or would not answer is high – almost half the sample. Thus, either companies have no strategy for when to use the credit limit; they have one but respondents do not know it; or respondents know it but treat it as secret (as at least one respondent indicated in the "comments" field).

The second conclusion from Figure 3.4 is that very few companies plan to bank their entire credit limit into phase 3. Thus, the lure of a potentially lucrative EUA-sCER spread in the future is for most operators not enough to bank the right to use CERs and ERUs.

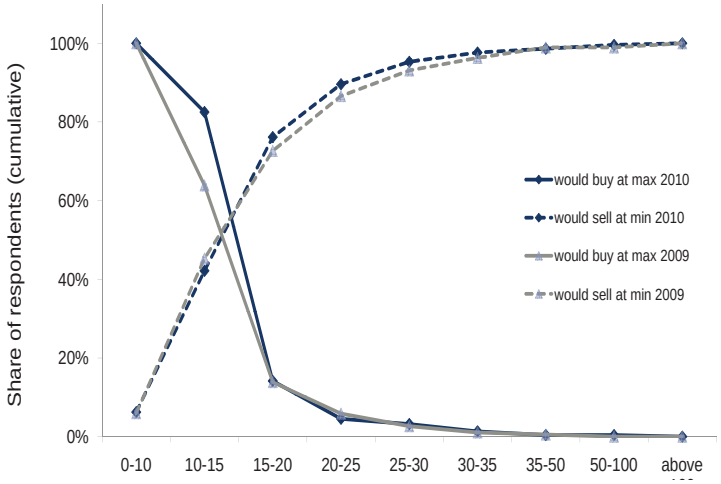
It should also be noted that several respondents wrote in the "comments" field to this question that the degree of credit limit banking would depend on banking regulations for carbon credits, notably limitations on project types, in phase 3. Uncertainty about future eligibility in the EU ETS is thus a key factor influencing decisions about using credits in phase 2 or banking them into the future.

The plans for credit limit use in phase 2 and phase 3 differ considerably by sector. The metals sector is the one with the highest number of respondents reporting a plan to use the entire credit limit in phase 3 – ten out of 23 said this was what they were planning to do. This reflects a relatively comfortable allocation in phase 2, as reflected above in Figure 3.2b.

However, it could also indicate more conscious credit limit management among respondents from the metals sector. This impression is strengthened by the fact that only one-fifth of those surveyed say they don't know or can't say what their company will do, much fewer than in any other sector.

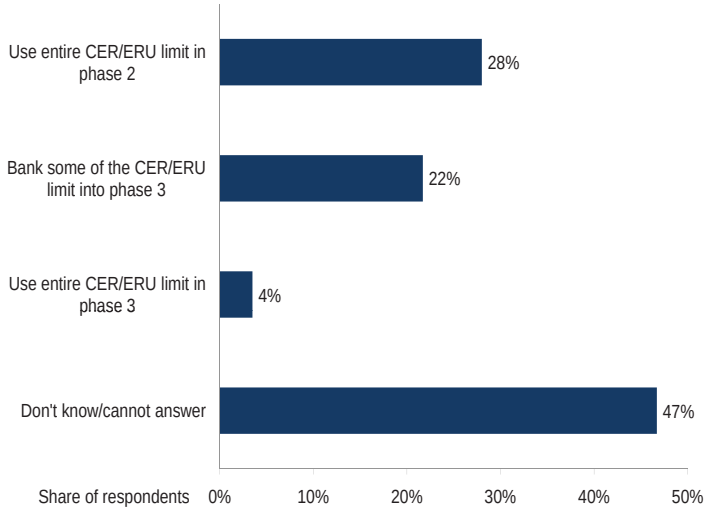
By contrast, the pulp/paper and cement/lime/glass sectors, which reported the greatest surplus above, stand out at the other end of the scale. In both sectors,

Figure 3.3b: Willingness to buy/sell EUAs at various prices, 2009-2010
EU ETS companies. N=312



Source: Point Carbon

Figure 3.4: To bank the phase 2 credit limit?
By "credit limit" we mean the amount of credits that your company is permitted to use for compliance under the EU ETS. EU ETS companies. N=368



Source: Point Carbon

36 percent of respondents say their companies plan to use their entire phase 2 CER/ERU credit limits to cover phase 2 emissions. This suggests higher CER-EUA swapping in these than in other industrial sectors, although our survey does not address this particular question.

Finally, the response profile of the power/heat sector – which comprises almost half the survey participants – is almost a mirror image of the overall distribution.

Uncertainty around phase 3

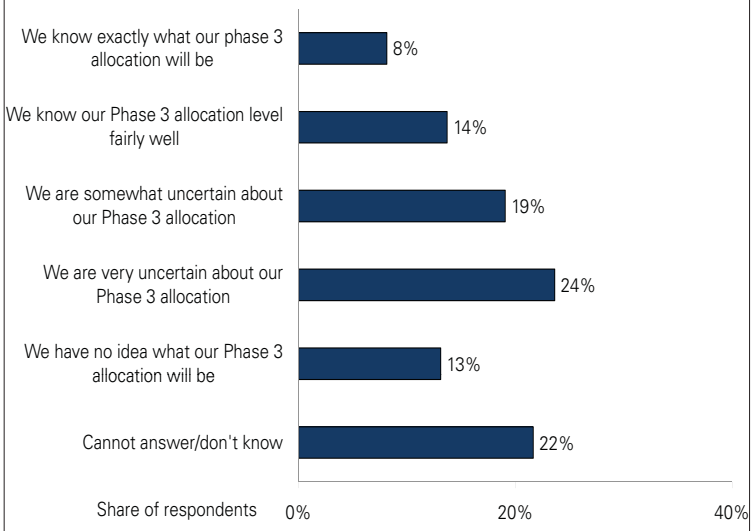
Company behaviour in phase 2 is increasingly being influenced by expectations for phase 3. This goes for decisions on banking and how to use the credit limit, as well as buying and selling. How much do operators know about their situation in phase 3? What will be their allocation? When will they be able to buy EUAs in auctions? What credits can they use? We asked a number of questions to gauge participants' view on these issues.

> "Only 22% know their phase 3 allocation

First, we sought to assess how well companies are informed about their free allocation in phase 3. Overall, the power sector will have no free allocation in Western Europe, so the allocation to this sector should indeed be very predictable.

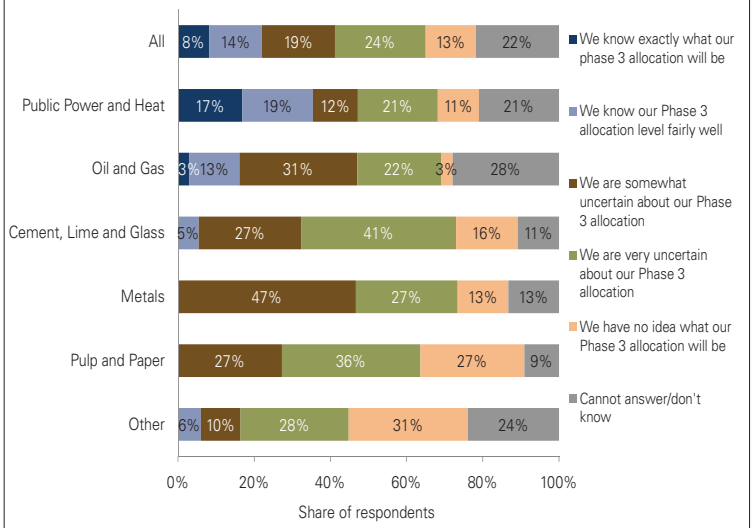
As Figure 3.5a shows, only 22 percent of respondents think their companies know their free

Figure 3.5a: How well do you know your Phase 3 (2013-20) allocation?
EU ETS companies. N=390



Source: Point Carbon

Figure 3.5b: How well do you know your Phase 3 allocation? By sector.
EU ETS companies. N=390



Source: Point Carbon

allocation for 2013-20 "exactly" or "fairly well". Thirteen percent even say they have "no idea" what their phase 3 allocation will be.

How does this uncertainty about phase 3 allocation distribute across sectors? As Figure 3.5b shows, uncertainty is the lowest in the power sector, where 35 percent of respondents report knowing their allocation perfectly or fairly well, while 44 percent reported being at least somewhat uncertain about their allocation. This is a very high level of uncertainty among individual respondents, given that the main rule is auctioning.

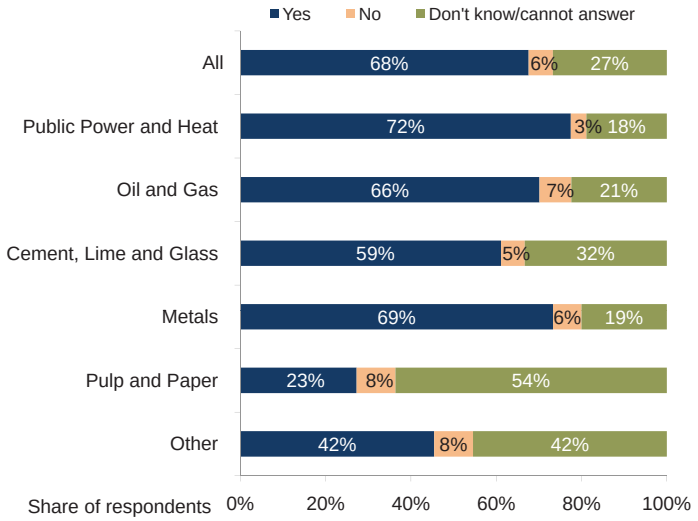
Amid this uncertainty about allocation, how do companies see their situation relative to their expected emissions? Will they need to buy EUAs, or will there be surplus EUAs to sell, as many of them are able to at the moment? Figure 3.6 shows that the vast majority of respondents providing substantive answers expect their companies to be short. Specifically, 68 percent expect to be short, whereas only 6 percent indicate they will have enough EUAs in phase 3 to cover their emissions.

Not unexpectedly, the power and heat sector is the one with the highest expectations of a future shortfall. However, also other sectors report high levels of expected "shortness."

In sum, the level of free allocation at the installation level remains uncertain for a high number of respondents, while most companies expect to find themselves short in phase 3.

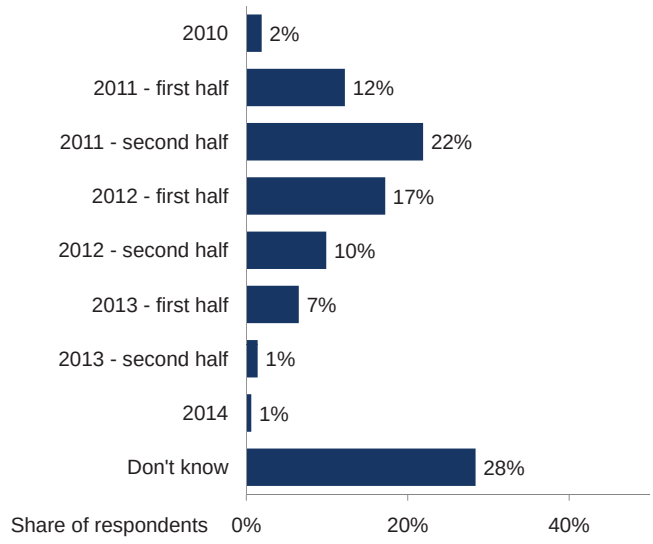
What, then, about the other major venue for obtaining EUAs

Figure 3.6: Short in phase 3?
By "short" we mean that expected emissions will be higher than the volume of EUAs given to your company for free in 2013-20. EU ETS companies. N=386



Source: Point Carbon

Figure 3.7: When will phase 3 auctioning start?
EU ETS companies, financial institutions and governments. N=647



Source: Point Carbon

in phase 3 – namely auctions? While the level of auctioning is fairly straightforward seen from an installation-level standpoint – you get what you buy – the timing of auctions remains undecided at the EU level.

Auction timing is important because power companies in many major countries sell power 2-3 years into the future. In doing so, they hedge their production with fuel and carbon for delivery at the same time of the power delivery. Consequently, the power sector ideally wants EUA auctions to be timed to fit demand from such forward hedging – starting as early as 2010 if possible.

On the other hand, the timing of auctions is still subject to debate as well as to technical constraints. For example, the EU needs to decide whether to centralise auctions or permit member states to sell their own EUAs, as a handful do today. It is also necessary to determine whether spot or forward allowances should be auctioned.

Against this background, we asked survey participants when they thought the first auctions of phase 3 allocations would take place. The results are given in Figure 3.7.

As the figure shows, the modal response is the second half of 2011, with 22 percent selecting this answer. Overall, the respondents that gave substantive answers expect phase 3 auctions to take place during phase 2, with 34 percent selecting 2011 and 27 percent guessing 2012. Fewer than 10 percent think phase 3 auctions will begin after phase 3 has started. If this were to represent actual probabilities, as well as sufficient volumes, the power sector should be pleased.

3.3 CDM

In 2009, the credit crunch presented a difficult challenge for the CDM and other offset markets, leading to both lower demand, due to falling emissions, and lower supply, due to project investment drying up and lower industrial production in developing countries. Now, after the inconclusive Copenhagen summit, the size and modality of future demand has taken hold as the primary concern in the CDM and related markets.

> “70% expect CER demand to continue after 2012

Copenhagen did provide some indications about the future of the CDM. At the meeting, there was a strong consensus that the CDM should continue. In terms of specific CDM reform, the meeting opened for an appeal process against the EB. It also sent a strong signal in favour of small-scale renewable energy and energy efficiency projects in areas with few CDM projects so far.

Furthermore, the EB was instructed to interfere less with host country emission reduction policies, a development clearly linked to its rejection of 10 Chinese wind projects earlier in 2009. However, COP-15 failed to provide clear answers to major questions surrounding the CDM in the post-2012 period, notably about host country and project type eligibility. The CDM market also failed to receive any firm signals on future demand as Annex 1 targets were not agreed.

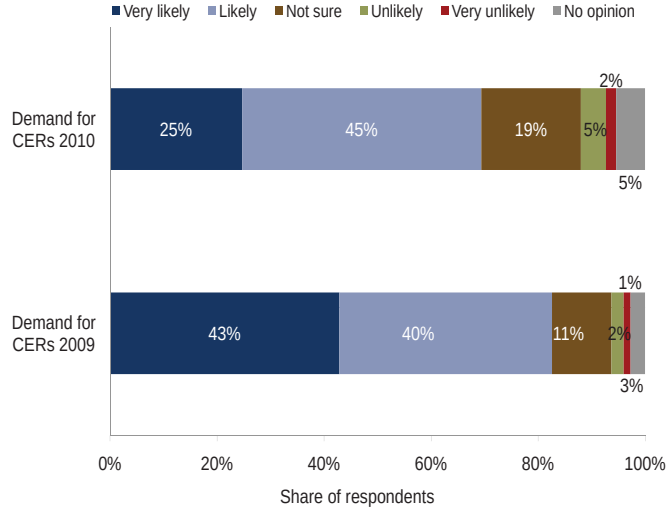
Nevertheless, all Annex 1 countries except Turkey presented their target proposals, demonstrating willingness to pay for emission reductions in the future (whether domestic or international). Furthermore, CDM demand from the EU ETS is certain to continue at least to 2020, regardless of what happens at the international level.

How do our respondents see the future of CER demand? Figure 3.8 displays respondents' expectations for the post-2012 period. The share of respondents that see CER demand as “very likely” after the first Kyoto commitment period is markedly down, from 43 percent last year to 25 percent this year. Including the category considering CER demand “likely,” we see a reduction from 83 percent to 70 percent.

This reduction is very likely linked to sentiment around Copenhagen. The result is still surprising given that the CDM is virtually secure to exist after 2013. The CDM is part of the Kyoto Protocol, which will not expire after 2012, but which has to be abolished actively if parties do not want it to continue. Furthermore, the EU ETS will generate credit demand after 2012 regardless of the international framework, and most types of CERs are likely to be eligible for use in the EU ETS after 2012.

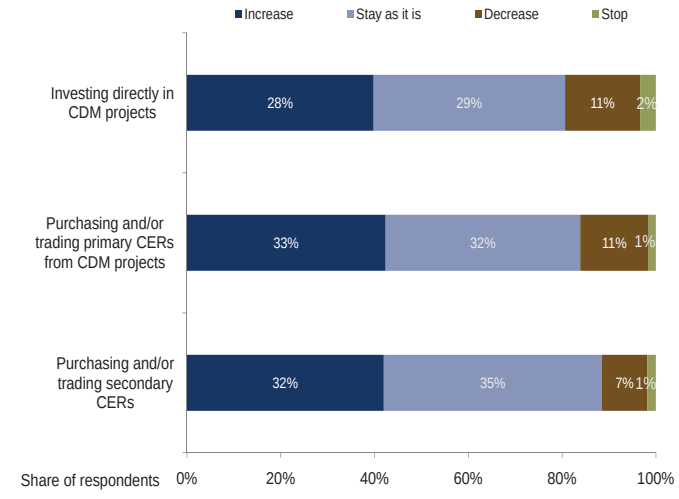
It is important to note that despite the reduction in the

Figure 3.8: CER demand after 2012?
How likely do you think it is that there will be demand for CERs and ERUs after 2012? N=4,066 (2010)



Source: Point Carbon

Figure 3.9: Plans for CDM involvement in 2010
"Will your company's involvement in the CDM market change in 2010?" Companies covered by the EU ETS or other CO2 regulation (except RGGI), financials, CDM developers/aggregators and governments. N=1155 (2010)



Source: Point Carbon

share of respondents expecting future CER demand, two-thirds still see it as likely or very likely. Furthermore, this expectation is fairly evenly shared among major emitters, from 64 percent for US respondents to 77 and 78 percent in Japan and Brazil, respectively.

Given continued post-2012 uncertainty and lower demand from governments and Japanese and European industry, will buyers scale down their involvement in the CDM market? Or will some players increase it to position themselves for the post-2012 period?

Figure 3.9 provides responses to our question on whether participants saw greater or less CDM involvement in the future. Unlike in the previous graph, the answers are very similar to last year. Overall, 28 percent of respondents stated they would increase their direct investments in CDM projects, against 29 percent last year – a statistically insignificant change.

How do plans for future involvement vary across the various types of market players? To simplify this question, we look at average scores across the three categories of CDM market involvement as presented in Figure 3.9. Not unexpectedly, CDM project developers, aggregators and others involved in the primary CER market are the ones with the most ambitious plans. Respondents working in financial institutions report CDM activity plans near the average. Finally, companies covered by CO_2 regulation other than the EU ETS or RGGI display the least planned activity, and actually foresee a slight contraction in CDM market involvement.

3.3.1 Future of the CDM

Copenhagen gave more answers about the future shape of the CDM than about future CER demand. The only detailed decision made by the COP addressed short-term CDM reform. This showed a generic support of the mechanism by all parties, especially given that there were several contentious matters that could be resolved. The decisions centred on support for projects in hitherto underrepresented countries and a better processing of CDM projects by the UNFCCC system.

> "Standardised baselines, sectoral CDM expected

Longer-term decisions on changes to the CDM are therefore still to be determined after COP-15. How do our survey respondents expect the mechanism to change from 2013 onwards? Summary answers are reported in Figure 3.10. The general impression is that fewer respondents expect changes to the CDM this year compared to last year. The only major exception is that the share of respondents that expect the introduction of reducing emissions from deforestation and forest degradation (REDD) in the CDM has gone up from 36 percent last year to 46 percent this year.

Note that we have also introduced two new categories this year. One represents the introduction of CER calculation based on standardised baselines. This category is this year the most frequently chosen, with 53 percent of respondents expecting this change to be made in the post-2012 period.

The second new category this year concerns the creation of a "positive list" for specific project types and/or countries. Such a list would make projects falling under listed categories able to earn credits under a simplified procedure. Thirty-seven percent of our respondents expect this change to the CDM from 2013 onwards. Aside from this, it appears as though the number of changes expected is simply lower after Copenhagen.

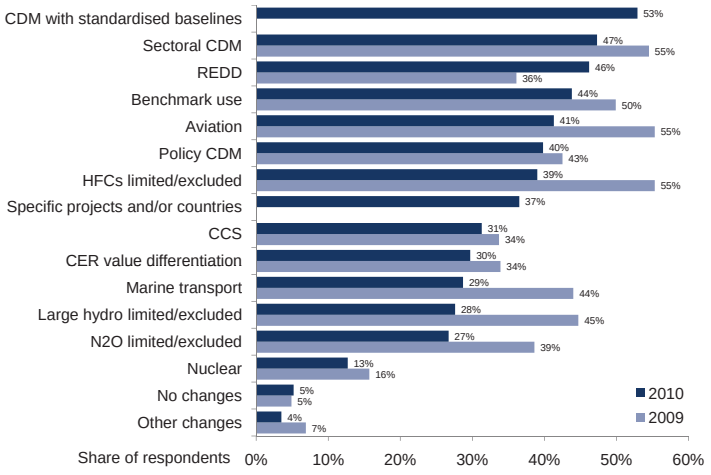
Among the potential changes to be made to the CDM from 2013 onwards, one option offered was sectoral CDM. This represents the earning of credits on a sector-wide basis, typically from a baseline set for the sector as a whole. Sectoral CDM was the second-most chosen among this year's categories, and the most frequently selected in 2009.

Which sectors did respondents think were the most likely to be included in sectoral CDM? Fig 3.11 displays the expectations. The responses are remarkably similar to those from last year, with electricity, cement and steel found at the top in both years. Incidentally, these are the sectors in the given list that in Europe are covered by the ETS. Other sectors suggested in the "open answer" field were pulp and paper (also under the EU ETS), waste and forestry.

3.4 JI and AAU

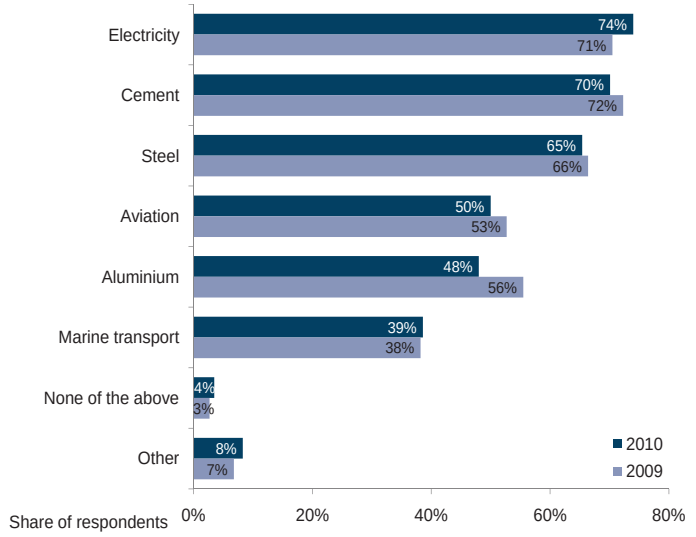
Copenhagen did not do much to reassure entities involved in JI, with most of negotiators' time focused on big-picture discussions. The status of JI

Figure 3.10: Any changes for CDM from 2013 onwards?
"Which changes, if any, do you think will be made to the CDM from 2013 onwards on a global level?" CDM project developers/aggregators. Several options possible. N=543 (2010)



Source: Point Carbon

Figure 3.11: Which sectors for sectoral CDM?
Respondents who think that sectoral CDM will be allowed. N=254



Source: Point Carbon

remains unclear after 2012, not least because JI depends on the existence of AAUs derived from firm country caps.

In the remaining years up to 2012, the Russian JI framework remains the major unknown factor. Russia is the largest potential source of emission reductions under the mechanism, and remains the largest project host, but no Russian ERUs have so far been issued from the country.

> "2011 most likely year of first Russian ERU delivery

Will Russia deliver ERUs, and if so, when? We have asked this question three years in a row, and Figure 3.12 compares the answers over time.

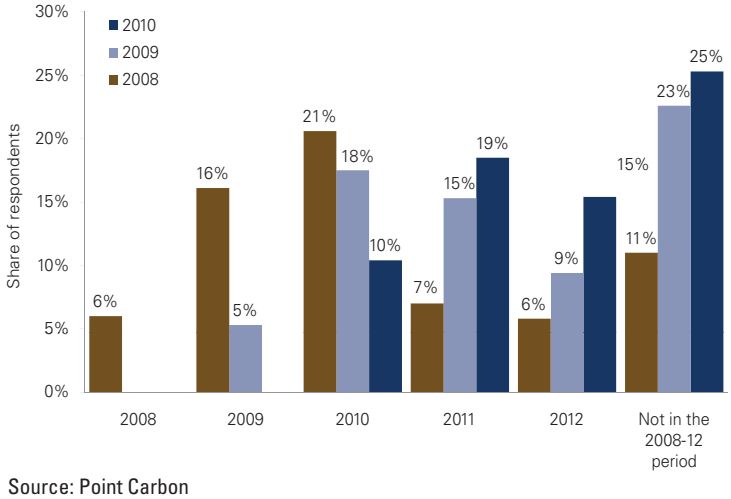
As the figure shows, one-quarter of respondents do not expect Russia to deliver any ERUs at all (unless they expect them to be issued in 2013). This is obviously a significant proportion, but hardly distinguishable from last year's 23 percent. Consequently, our respondents do not appear to consider the situation to have worsened even though we are one year closer to the end of the first Kyoto period.

Among those that do expect Russian ERUs to be delivered, 2011 is the most frequently chosen year, selected by 19 percent of respondents. By comparison, respondents in 2008 and 2009 thought that 2010 was the most likely year of the first ERU delivery from Russia.

What are the expectations for ERU demand after 2012? As noted above, projected CER demand, based on responses, has gone down somewhat from 2009 to 2010 (see Figure 3.18). A similar story is seen for ERUs, as Figure 3.13 tells us.

Just as in the case for CERs, the group seeing future demand as "very likely" is the one that

Figure 3.12: From Russia with ERUs?
When will the first emission reduction unit (ERU) be delivered from Russia?
Respondents asked during 2008-10. N=922 (2010)



Source: Point Carbon

has shrunk, while the "likely" subset has increased marginally. One interpretation of this is that while a majority still expects ERU demand to exist after 2012, respondents are getting more insecure about the exact form this demand will take. While not strictly related to demand, general concerns about ERU supply and the future of JI may also play a role in this assessment.

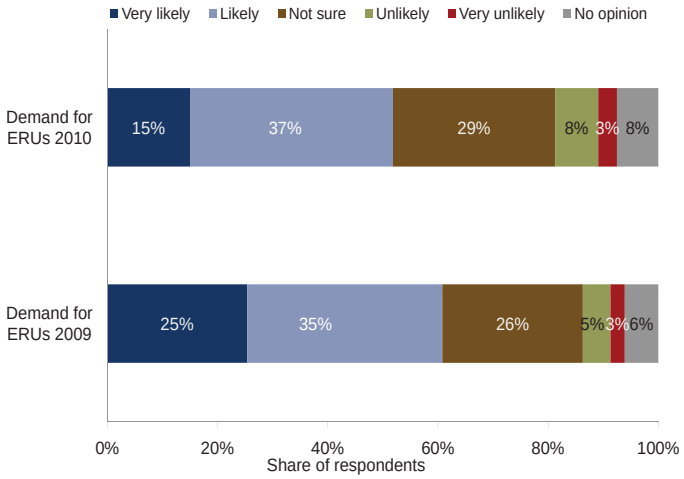
As noted, JI in its current form relies on the transfer of AAUs from one country to another once corresponding reductions have been made. However, given that country caps were not agreed in Copenhagen, the future of international emission trading (IET), under which AAUs change hands, is unclear. In particular, the US, which has taken centre stage in international negotiations, is against AAU trading.

> "Minorities in US, EU see future role for AAUs

If IET is discontinued as a mechanism after 2012, JI could still change into an Annex 1 offset programme, with ERUs no longer shadowed by AAUs. If so, ERUs could play a role similar to that envisaged for domestic offsets under various plans for a US ETS or Australian CPRS.

How do our respondents see the future of AAU trading? Figure 3.14 displays the answer. We see that only 61 percent of those queried had an opinion on this issue. Among these, two-thirds thought there would be place for AAUs in the post-2012 framework, essentially expecting hard country caps with tradable

Figure 3.13: ERU demand post-2012
How likely do you think it is that there will be demand for CERs and ERUs after 2012? N=4066 (2010)



Source: Point Carbon

governmental allowances – as under Kyoto – also in a future deal.

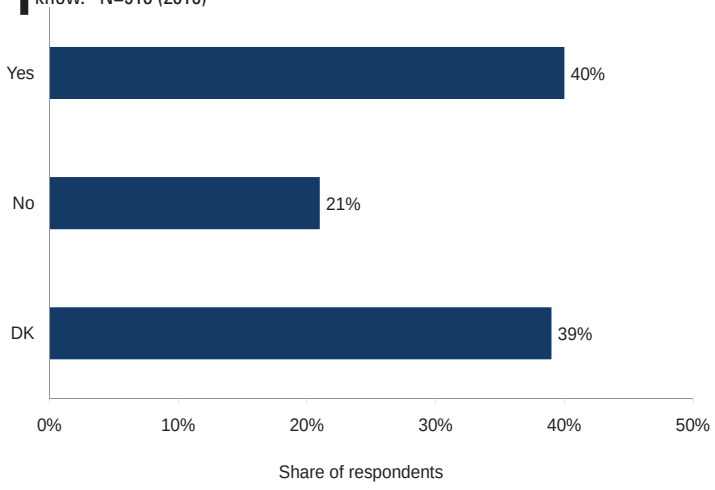
Interestingly, the two countries/regions with the lowest share of respondents expecting a continued place for AAUs post-2012 were the US (34 percent) and the EU (38 percent). At the other end of the scale were respondents based in Russia (73 percent). Aggregate responses from Brazil, India and China were all found in the 45-55 percent range. This is not particularly surprising, given that major developing countries have been more insistent on hard country caps – which is what AAUs represent – for Annex 1 countries, while Russia has a huge AAU surplus that could be monetised or used as a bargaining chip in future negotiations.

It should be noted that this question about AAUs was only asked among respondents who expressed an opinion about JI earlier, and thus may skew the results somewhat in favour of expecting continued AAU trading. On the other hand, a wider selection of respondents would undoubtedly have boosted the "no opinion/don't know" category more than any of the others.

3.5 United States

One of the biggest questions in the carbon market at the moment is whether the United States will introduce mandatory greenhouse gas cap-and-trade at the federal level. A US ETS would have profound international implications, both in policy and market terms. Focusing on the market, a federal cap-and-trade programme could eventually link to the EU ETS, at least indirectly through joint demand for CERs or other credits. Furthermore, a US ETS would boost trade volume in the global carbon market,

Figure 3.14: AAU post-2012
Will the international post-2012 climate framework include country targets that take the form of tradable assigned amount units (AAUs)? "DK"="don't know." N=918 (2010)



Source: Point Carbon

and likely eclipse the EU ETS to become the largest market segment within a few years.

However, a number of different carbon markets are active in the absence of federal legislation. First, RGGI has been operational for one year, capping power plants in ten states. Second, there is a vibrant pre-compliance market in offsets that might be used for compliance purposes under future carbon regulation, whether at the federal, regional level or in Canada. Third, the voluntary market, which in several ways overlaps with the pre-compliance market, presents its own dynamics and challenges. In the following, we will look at each of these in turn.

3.5.1 Will there be a US ETS?

Early in 2009, President Obama asked Congress to send him legislation putting a "market-based cap on carbon pollution." The House of Representative did its share to fulfil the president's wish, with the passage of the Waxman-Markey bill in June 2009. However, the Senate has not passed companion legislation, and the legislative mood has now turned sour, prompting Point Carbon to lower our probability assessment for passage of US cap-and-trade in 2010 to 20 percent.

What do respondents to the Carbon Market Survey 2010 say about their expectations for US cap-and-trade? More specifically, do they think there will be one in place before 2015, five years from now? Figure 3.15a displays the trends on this question over the 2008-10 period.

The results reflect the difficult situation in Congress at the moment. The outlook is markedly more negative this year than in previous years. Even in 2008, during the Bush administration, more respondents believed in federal cap-and-trade before 2015. Since then, the share of naysayers has almost doubled from 15 percent to 28 percent.

How do respondents from various countries and regions see the question of a US ETS? As Figure 3.15b shows, 67 percent of US respondents expect such a programme, which is more than the global average. However, last year 90 percent of US respondents said they expected federal cap-and-trade to be in place before 2015. Thus, the negative trend remains clear.

> "61% expect US ETS before 2015, down from 81%

Among other major emitting countries, respondents in Brazil have the greatest faith than Americans that US cap-and-trade will come into being. At the other end of the scale, Russian respondents are the most cynical, with "only" 52 percent providing a positive answer. Note that slim majorities within all these major emitters expect a US ETS. Furthermore, the highest "no" score, found in Russia, is only 32 percent.

Despite the negative trend, 61 percent of our respondents believe there will be a US ETS, more than twice the share of respondents that do not think it will. If it comes about, when will it happen? How will it relate to existing programmes such as RGGI? How strict will it be, and what kinds of offsets will it permit?

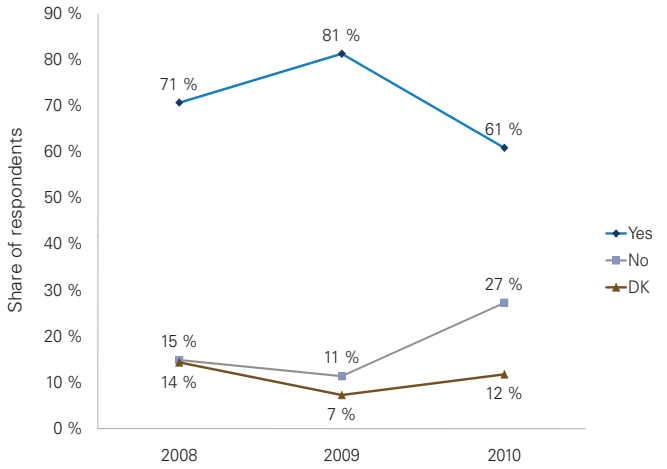
Figure 3.16 displays what respondents, among those who

do expect US federal cap-and-trade by 2015, see as the most likely start date for such a programme. The key finding here is that the bulk of the answers have shifted one year out. Granted, the most frequently selected year in both 2009 and 2010 is 2013. However, we see that 70 percent of respondents think a US ETS – if it comes about – would start regulating emissions in either 2013 or 2014. Last year, 57 percent thought the year would be either 2012 or 2013. Note that the stronger clustering over two years – 70 percent this year against 57 percent last year – is probably not due to increased conviction among respondents about a particular year, but rather a consequence of there being one less response option offered in 2010.

> "2013 or 2014 seen as most likely start date for US ETS

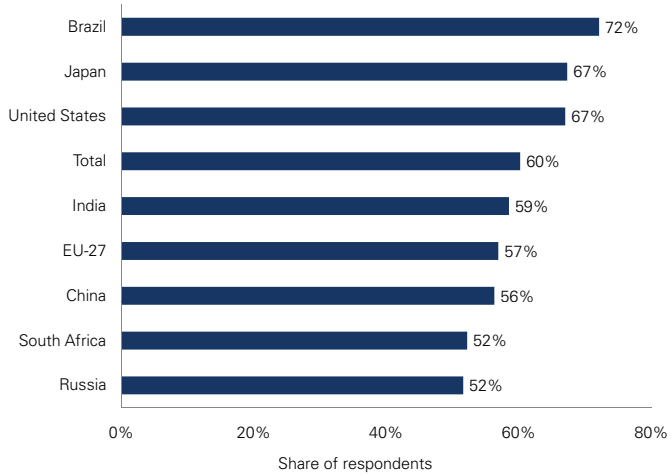
If there is a US ETS, how strict will it be? In a recent analysis ("Submissions to the Copenhagen Accord," 3 Feb 2010) Point Carbon compared the targets offered by key countries to the UN under the deal agreed at COP-15. This analysis shows that the EU's low or default target is marginally weaker than that of the US, if comparing 2020 emission goals to 2007 emissions. Specifically, the US submitted target would mean reducing emissions by 17 percent below the 2007 level by 2020, whereas the EU's unilateral target implies reducing emission by 16 percent over the same period. The comparison with 2007 is done because this is the most recent year with UN emission data.

Figure 3.15a: Yes, we cap?
In the US, do you think there will be a federal, mandatory cap-and-trade system for greenhouse gases that enters into force before 2015? N=4217 (2010)



Source: Point Carbon

Figure 3.15b: Yes, we cap? By major emitting country.
N=2,841



Source: Point Carbon

Nevertheless, our survey respondents have in previous years consistently predicted weaker targets in the US compared to the EU. This despite numerous US legislative proposals aiming to cut emissions by 80 percent or more by 2050. This year's respondents are no different. In fact, they are even

more bearish on potential US ETS targets than last year. As shown in Figure 3.17, 44 percent expect a scheme less than strict than Phase 2 of the EU ETS. This is up from 29 percent last year, even as phase 2 has shown itself to be long over the course of 2009. Clearly the less optimistic view on the enactment of US cap-and-trade has led respondents to infer that passage requires an easy cap.

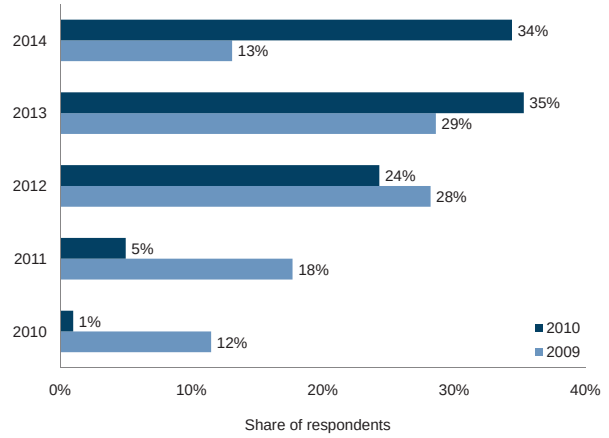
> "Targets expected to be weaker than EU ETS phase 2

At the top end, 15 percent thought that the US ETS could be convinced to enact targets as strict as or stricter than the EU ETS phase 3, down from 24 percent last year. Note, however, that comparison is made difficult due to the EU and US referring to different baseline years (1990 and 2005 respectively). Also note that this question was also asked in 2008. However, responses are not comparable since we did not allow for a comparison with phase 3, only phase 2.

Finally, expectations of weak US ETS targets are shared across all major emitters. Across Brazil, China, the EU-27, India, Japan, Russia, South Africa and in the US itself, the plurality of respondents expect a US target weaker than that of the EU ETS phase 2.

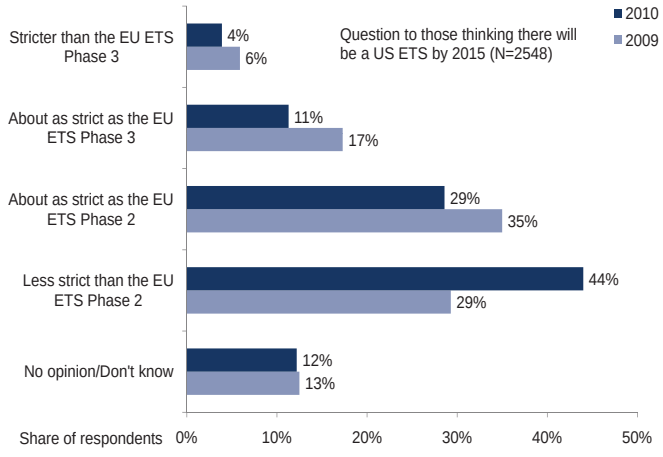
What will the price of US federal allowances be, in case they come into existence? Figure 3.18 displays price expectation for the end of the first year of a mandatory federal US ETS, in US$ per metric tonne CO_2e.

Figure 3.16: When to start?
What will be the first year of operation for a US federal cap-and-trade system? Respondents expecting a US by 2015. N=2540 (2010)



Source: Point Carbon

Figure 3.17: Strictness of US federal cap-and-trade
How strict will the reduction targets be in a US federal cap-and-trade system, relative to the EU emission trading scheme (ETS)? Respondents expecting US ETS by 2015. N=2548.



Source: Point Carbon

From the figure we see that the $10-20 range remains the modal or most frequent response, with 43 percent of answers. Among US-based respondents, the percentage was even higher at 52 percent. In fact, only 15 percent of US respondents thought the US carbon price would be above $20/tonne, and only 2 percent saw a carbon price above $40/tonne.

These expectations are generally in line with Point Carbon's expectations of a US

carbon price – in case of a US ETS – of $22/tonne on average for the 2012-20 period. They seem a bit high bearing in mind the weak target expected by respondents, but reflect the likely $10 price floor planned for US allowances.

3.5.2 Federal vs. state/regional programmes

Looking at the divergence between expected US ETS allowance prices and actual RGA prices, how may a prospective federal programme be reconciled with regional, state and local initiatives? Federal officials are likely to try to pre-empt sub-national initiatives. However, companies will have been trading carbon for years before any federal ETS commences – most importantly under mandatory systems such as RGGI. What value will these mandatory carbon units have under a federal programme?

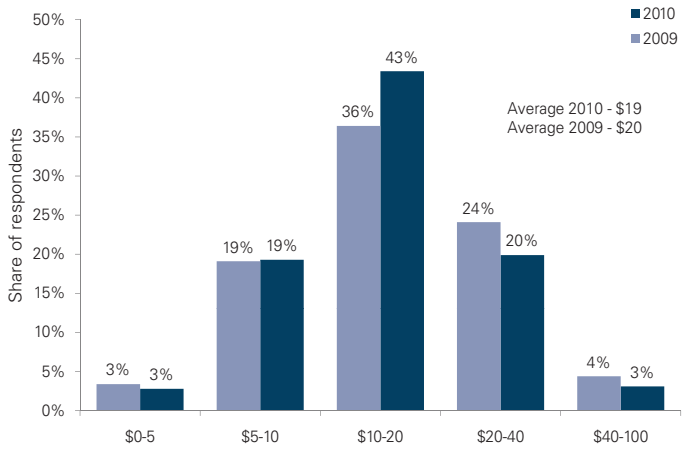
> "$19 average carbon price expected in future US ETS

Specifically for RGGI, what would happen to the value of RGAs? Figure 3.19 displays the views of our respondents.

Close to all the respondents who replied to this question were based either in the US or Europe. In both locations, about 40 percent of respondents thought RGAs would become convertible at a discount, while roughly 10 percent thought they would not convert at all.

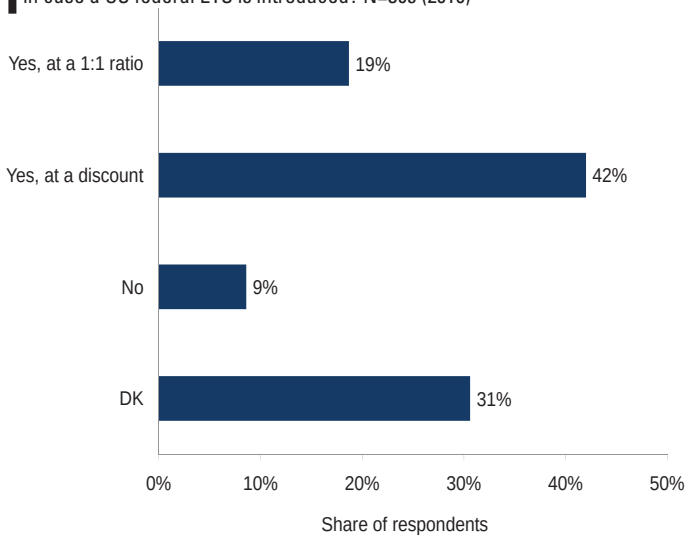
The discrepancy is found in the fact that 30 percent of US respondents believed in conversion at a 1:1 ratio, whereas only 10 percent of Europeans thought the same. This difference could be due to different sources of information about plans for US carbon legislation. It could also be based on Europeans considering RGGI a less rigorous ETS than what they expect from federal US cap-and-trade. Finally, Americans might to a greater extent expect

Figure 3.18: Price expectations under a US ETS
Expected carbon price at the end of the first compliance year of a US federal cap-and-trade programme. N=2,524



Source: Point Carbon

Figure 3.19: Outlook for RGGI allowances
Do you expect RGGI allowances to be converted into US federal allowances in case a US federal ETS is introduced? N=395 (2010)



Source: Point Carbon

legislators to do whatever it takes to help the bill pass – if that means accepting RGAs at a 1:1 ratio, so be it.

3.5.3 Offsets under a US ETS

With the stringency of the cap being a major determinant of carbon prices under any ETS, an almost equally important factor consists of limitations on the import of offsets. A generous limit on the use of offsets for compliance purposes will typically reduce the cost of complying if the supply of adequate credits is sufficient to meet demand. By contrast, strict quantitative or qualitative limits will reduce offset use and push allowance prices up.

> "CRT seen as top US ETS offset standard

What standards for credits do respondents expect to be permitted if there is a US ETS in the future? Figure 3.20 shows that the Climate Action Reserve (CAR) offset unit, the Climate Reserve Tonne (CRT), has now entered the top position. Overall, 61 percent of global respondents, and a full 75 percent in the US, expected CRTs from CCAR to be eligible for compliance purposes in a US ETS. This is up from just over 40 percent of US respondents and only 16 percent globally in 2009.

On a second place this year came CERs from the Clean Development Mechanism. In the US, 55 percent of respondents expect CERs to be eligible, against 59 percent globally and 62 percent of respondents in the EU. This is up from a global share of 42 percent last year. This outlook is consistent with the signals sent by the bills in Congress, which allowed international offsets in general and CERs in particular.

Among other standards, the Voluntary Carbon Standard of 2007 was selected as a likely eligible standard by respondents both globally and in the US. The Gold Standard CER and VER standards also scored 40 percent or above among US-based as well as global respondents. We also note that 29 percent of respondents thought credits from the Chicago Climate Exchange would be eligible for use in a US federal cap-and-trade programme, almost unchanged from last year.

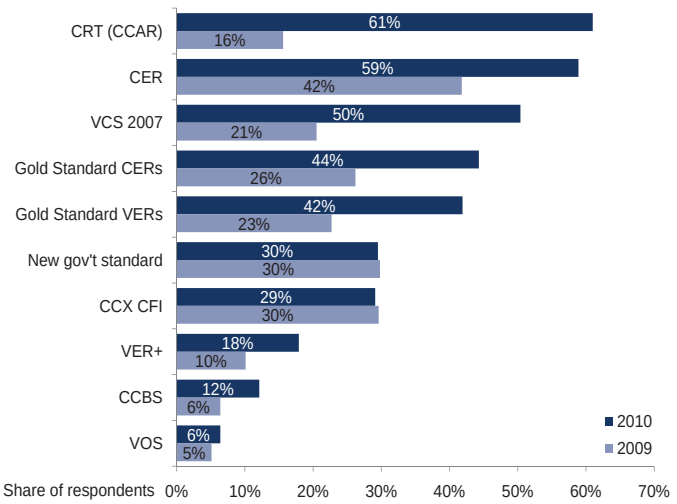
Finally, thinking in terms of pre-compliance credits, which types of projects should investors focus on? As Figure 3.21 shows, respondents see as the most likely project types those involving agricultural and landfill methane as well as reforestation, all of which are selected by more than 70 percent of respondents. Indeed, in the US, landfill and agricultural methane are selected by almost 80 percent of the respondents.

> "Agricultural and landfill methane most likely project types

At the opposite end of the scale we find enhanced oil recovery, industrial gases and soil sequestration. All of these types have been the object of controversy in recent years for different reasons.

Note that this question pertains to the likelihood of project types being eligible for mandatory US cap-and-trade, and not to the attractiveness of various project types in carbon credit markets

Figure 3.20: Offset standards in a US federal cap-and-trade system
"Which of the following offset standards, if any, do you think are likely to be eligible for a US federal cap-and-trade programme?" Selected standards. N=621

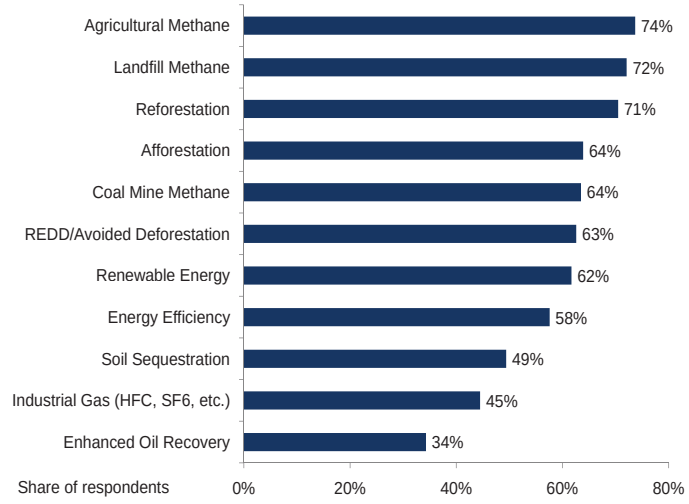


Source: Point Carbon

in general. We will return to this difference below, when discussing the voluntary market.

Finally, how do market participants evaluate the US offset market? Figure 3.22 shows that our respondents are relatively evenly divided on whether the market is the most cost-effective way to reduce emissions in the US. However, they more or less agree that the market is not nearly mature – "it has a long way to go," in the words of one respondent. In the absence of federal cap-and-trade, or even clear policy direction on federal cap-and-trade, this is not at all surprising. We will return to this question in next year's survey.

Figure 3.21: Projects in a US federal cap-and-trade system
N=613



Source: Point Carbon

3.5.4 Voluntary market

The line between the voluntary and pre-compliance market is difficult to draw. Generally, we consider a transaction in the carbon credit market to belong to the pre-compliance market if the credits traded are intended to be used for compliance under mandatory government regulation. However, intentions are difficult to ascertain. Furthermore, buyers may well have several objectives with a credit purchase. Finally, the same project developers generally operate in both the voluntary and pre-compliance markets.

How do our respondents evaluate the voluntary carbon market? We have been asking the same questions about the voluntary market for three years in a row, with the results presented in Figure 3.23. For 2010, we see that only 18 percent of respondents consider the voluntary market transparent, and that 38 percent think it produces real emission reductions. However, 51 percent think the voluntary carbon market fosters innovation in emission reduction methods.

> "18% find voluntary market transparent; 51% see innovation

All these numbers constitute incremental improvements in the view of the voluntary market compared to 2008 and 2009. At the same time, 36 percent of respondents agree or strongly agree with the statement that the voluntary carbon market poses a risk for the reputation of the compliance markets.

Perhaps surprisingly, there is little variation in the evaluation of the voluntary market across the US, EU and Japan. More predictably, offset developers in the North American as well as CDM/JI markets provide the most positive evaluations, whereas financial institutions and governments are the most sceptical.

What is the relative value of credits in the voluntary market? In Figure 3.24, we see many similarities to Figure 3.21, which orders project types according to eligibility under mandatory cap-and-trade. However, a major difference is seen in the fact that renewable energy is clearly at the top in this voluntary-market evaluation, but only found at the middle of the previous ranking. How can this be?

The most likely explanation is that renewable energy projects are popular among voluntary offset buyers because of their intuitive appeal and tangible benefits. However, renewable energy would not qualify as an offset in a compliance regime, since it would be part of the regulated utility sector. Consequently, emission reductions from

renewable energy projects would be monetised in the allowance markets, not offset markets.

3.6 Other countries

Having discussed the probabilities of the US introducing an ETS in the near future, and the shape of such a programme if it comes about, we now turn to other key countries.

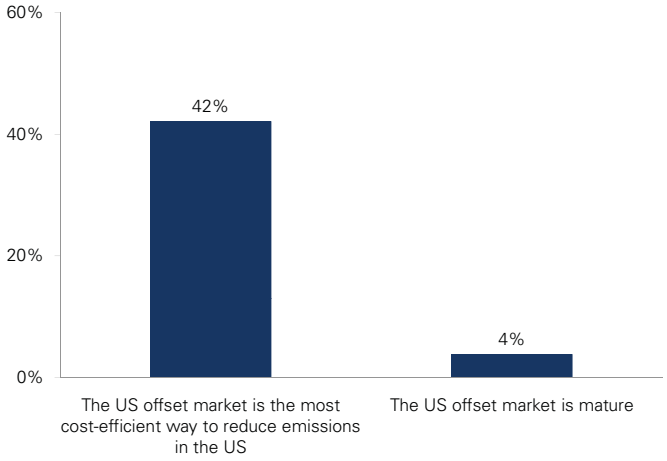
Besides the EU, Japan is the largest source of demand for CERs and ERUs globally. It is also the largest emitter among the countries listed in Annex B of the Kyoto Protocol, if we do not count the EU as a separate entity.

> "Expectations are up for Japanese ETS

While the Japanese Keidanren plan for emission reduction in power and heavy industry arguably constitutes a version of domestic emission trading, Japan does not have a comprehensive cap-and-trade system along the lines of the EU ETS. However, the likelihood of a Japanese ETS has gone up after the election victory of the Democratic Party of Japan last year. The new Hatoyama government has said it plans to introduce a domestic ETS as well to meet its emission target of 25 percent below the 1990 level by 2020. However, the timing has not been decided.

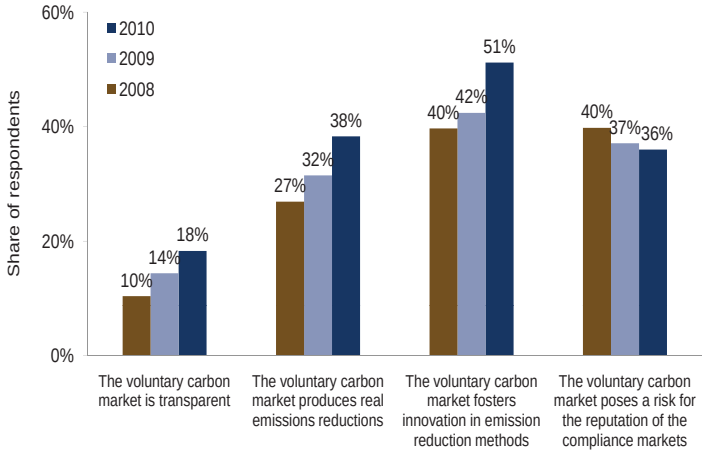
How many of our respondents expect a Japanese ETS to be introduced? The result is given in Figure 3.25. As the figure shows, the share of Japanese respondents expecting domestic cap-and-trade has jumped from 68 percent in 2009 to 80 percent in 2010. This is quite clearly a result of the change in government and the Hatoyama government's announced plans.

Figure 3.22: Evaluation of the US offset market
Share of respondents agreeing with the given statements (options 4 and 5). Respondents involved in US carbon markets. N=776.



Source: Point Carbon

Figure 3.23: Assessing the voluntary carbon market
Share of respondents indicating agreement with given statements. N=3,777 (2010)



Source: Point Carbon

By contrast, non-Japanese respondents appear to have lost some faith in Japanese mitigation policies, as only 56 percent say they expect a Japanese ETS. This is down five percentage points

on last year. Far from reflecting actual policy changes in Japan, this reduction is likely to reflect a change in sentiment after COP-15.

How do our respondents see the likelihood of other countries introducing domestic cap-and-trade? The general sentiment mirrors that seen for the US and for Japan among non-Japanese survey participants. As Figure 3.26 displays, the shares of respondents expecting domestic cap-and-trade in each of the listed countries are down on 2009, with the exceptions of South Korea, Brazil and Mexico.

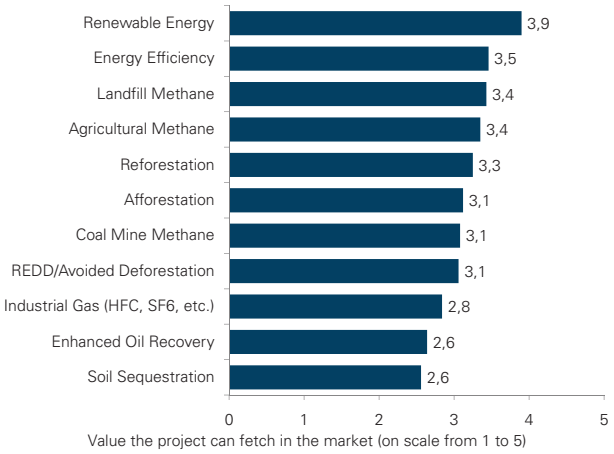
In Australia, 61 percent of respondents now expect the introduction of an ETS by 2015, against 68 percent last year. This change at least partially reflects the stalling of the Rudd government's Carbon Pollution Reduction Scheme (CPRS) in the upper house of the Australian Parliament.

What explains the increased expectations of domestic emission trading in Mexico, Brazil, and South Korea? In the latter, plans for a domestic ETS are being elaborated by the government. Both Mexico and South Korea are OECD members, and thus in line for joining Annex 1 in a post-2012 climate deal.

As for Brazil, the country has signalled willingness to undertake significant emission cuts under a global climate deal, notably in the forestry sector, but we are not aware of advanced ETS plans. We note, however, that 47 percent of the 104 Brazilians replying to this question expected a Brazilian ETS by 2015.

Figure 3.24: Grading projects

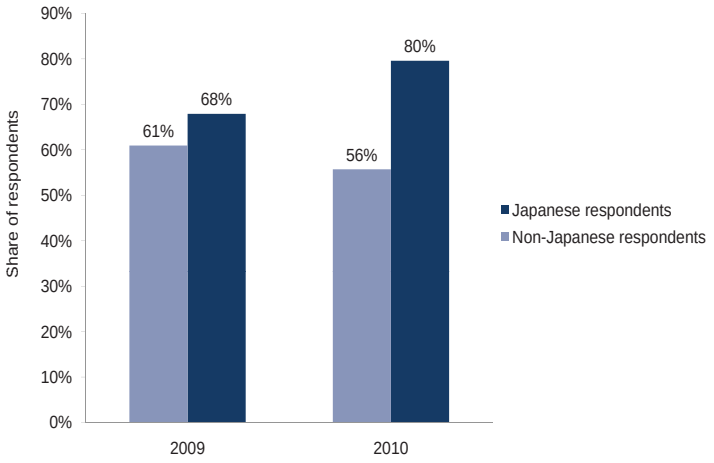
"In the voluntary market, grade each of the following project types on a 1 to 5 scale in terms of value they are able to fetch in the market, all else being equal". N=741



Source: Point Carbon

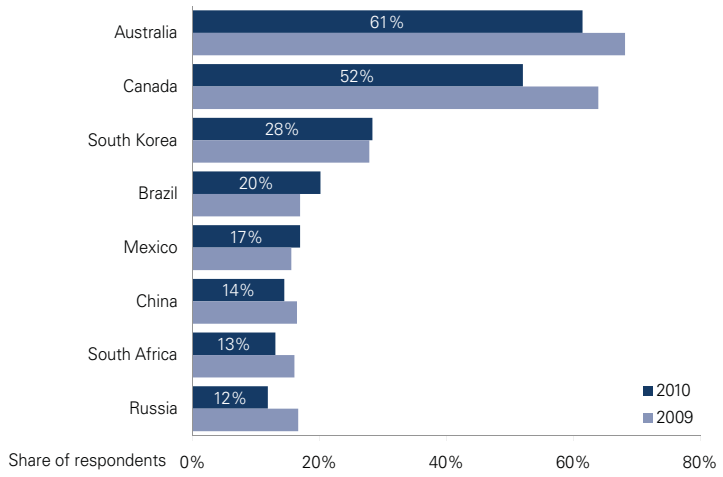
Figure 3.25: Domestic ETS in Japan?

Will Japan introduce a mandatory cap-and-trade system post-2012? Share of Japanese (N=49) and non-Japanese respondents (N=4,052) responding "Yes" in 2009 and 2010.



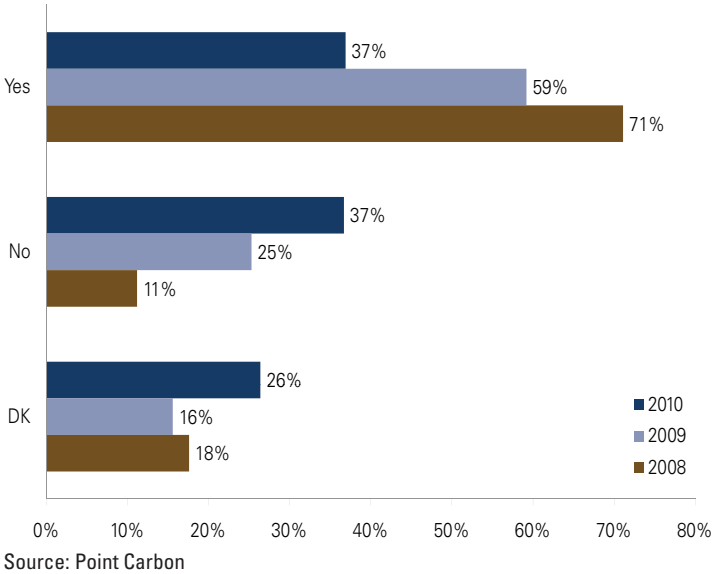
Source: Point Carbon

Figure 3.26: ETS around the world
Expectations for mandatory cap-and-trade in 2015. N=4131 (2010).



Source: Point Carbon

Figure 3.27: Deal in 2010?
"Will a global agreement for the post-2012 [emerge] in 2010, committing countries to continued GHG emissions reductions?" N=2,841.



Source: Point Carbon

3.7 Global negotiations

We have so far seen that expectations for CER/ERU demand, as well as various ETS plans around the world, are down compared to our 2009 survey. After Copenhagen, which way will global negotiations go? Are we likely to see a continued effort to tie up a deal in Mexico? Or will the questions unresolved in Copenhagen – Annex 1 targets, legal framework and many others – remain unresolved also after COP-16?

> "37% expect deal at COP-16, down from 59% for COP-15

Furthermore, what will happen to new policies and mechanisms envisioned under the negotiations between Bali and Copenhagen, such as NAMAs and REDD? And finally, what are the implications for long-term carbon prices?

3.7.1 Another chance?

How do our survey respondents think about the outlook for a deal in Cancun, Mexico at the end of 2010? Figure 3.27 shows an even split among our respondents, with 37 percent expecting a deal and the same share thinking none will be reached. This is a dramatic reversal compared to our survey done ten months before Copenhagen, when 59 percent expected a deal to be reached at the end of 2009. Note also that one-quarter of respondents are undecided this year, up from 16 percent in 2009.

Among the major countries, only 27 percent of respondents based in the US expect a Mexico deal. China, the EU and Russia

are found near the mean, while Japan (47 percent) and Brazil (58 percent) have the highest shares of respondents expecting a deal in Cancun. The US number is down from 54 percent believing in a Copenhagen deal in our 2009 survey, and 75 percent in 2008.

The next set of questions - on which countries will take on quantified emission reduction commitments, the new shape of CDM, deforestation/REDD - were posed only to the respondents who believe the negotiators will reach an agreement in Mexico that commits countries to continued GHG emissions reductions.

> “Only 27% of US-based respondents expect Cancun deal

First, if a deal is reached, what will it look like? Notably, which countries will take on quantified commitments? Figure 3.28 shows the usual ranking of Europe, Japan and then the countries that are discussing domestic cap-and-trade: Australia and the US. Also as expected, the predicted likelihoods of each of these joining a global regime are down compared to last year. The declines are particularly visible for the US and Australia.

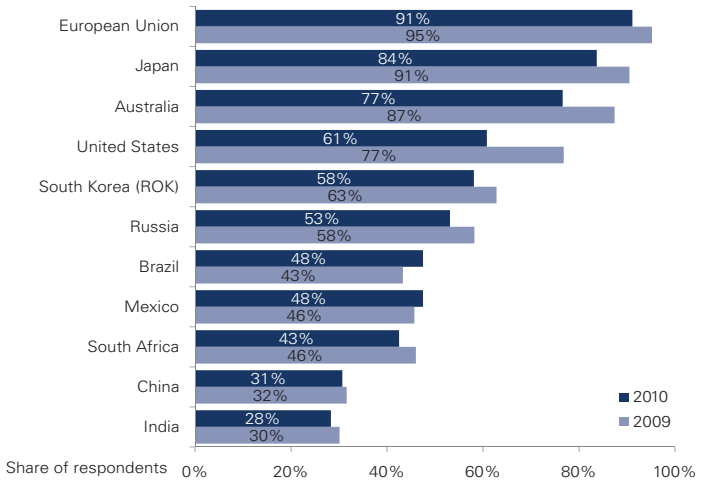
Again, we see that respondents are more than average bullish on climate policy in Mexico and Brazil, although the positive changes from last year are minor on this particular survey question.

3.7.2 REDD

One of the greatest topics looming over the post-2012

Figure 3.28: Post-2012 commitments

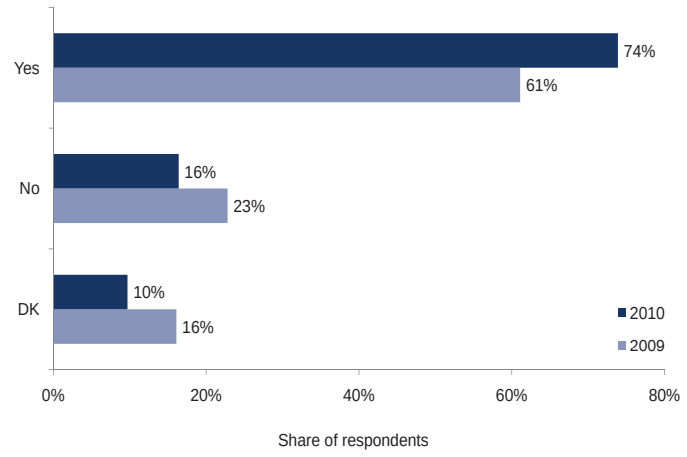
“Which countries/regions do you think will participate in a post-2012 scheme with quantified commitments?” Respondents who expect global agreement in 2010 (previous question). N=1523



Source: Point Carbon

Figure 3.29: REDD and post-2012 carbon

“Do you think deforestation/REDD will be a key element in the post-2012 climate framework?” Respondents who expect global agreement in 2010. N=1,549.



Source: Point Carbon

carbon world is the role of tropical forests. Various reports have estimated the emissions from deforestation and forest degradation in developing countries at about one-fifth of global emissions. Consequently, negotiators have been working hard to include REDD in the global climate framework.

> "Expectations for REDD post-2012 are up, notably in US

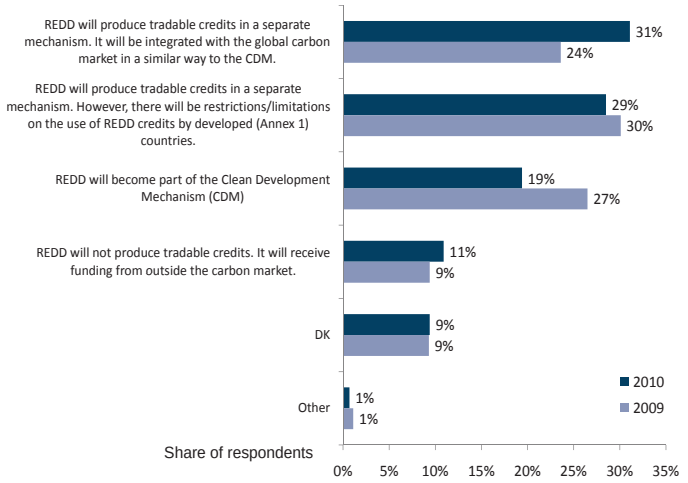
The international efforts put into comprehensive REDD policies appear to have brought results, at least in our survey. This year, 74 percent of respondents say they think REDD will be a key element in the post-2012 climate framework (see Figure 3.29).

One driver of this optimism on REDD is the strong emphasis on REDD in US climate bills. REDD is perceived very positively in the US, although this was also the case last year.

Geographic breakdown of supports this point. Among US respondents, 84 percent think deforestation/REDD will be a key element in the post-2012 climate framework. This is the highest average among all the major countries – marginally higher even than that found in tropical forest giants Brazil and Indonesia, where the number is 83 percent. By comparison, 71 percent of EU respondents and only 48 percent of Chinese respondents expect REDD to have a prominent place in a new climate deal.

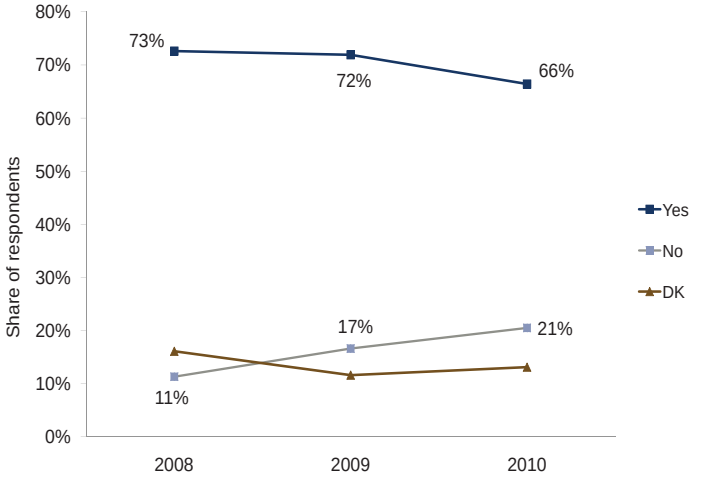
An apparently surprising result emerges if we compare REDD optimism with the reduced expectations for CDM demand in section 3.3. After all, the untested REDD mechanism should be much more uncertain than the existing and well-established CDM. However, the two results are not directly comparable because the CDM demand question was posed to all respondents, whereas the present REDD question was only asked among the subset of respondents expecting a global deal in Mexico in December 2010.

Figure 3.30: How will REDD fit?
Respondents who expect REDD as a key element in post-2012 framework. N=1,136.



Source: Point Carbon

Figure 3.31: Going global
Do you think there will be a global reference price for CO2 emissions in the year 2020? N=4,130



Source: Point Carbon

Saying that REDD will be an important part of a post-2012 framework is only a beginning, however. More or less all countries want to stop tropical deforestation and forest degradation. The real controversy revolves around how exactly such forest mitigation should be incentivised. Specifically, should REDD be part of the carbon market, or financed through a separate fund? If it is to enter the carbon market, will this happen as part of the CDM, or as a separate mechanism? Finally, given a potentially huge supply of carbon units from avoided deforestation, will REDD credits be fully fungible or subject to limitations in the global carbon market?

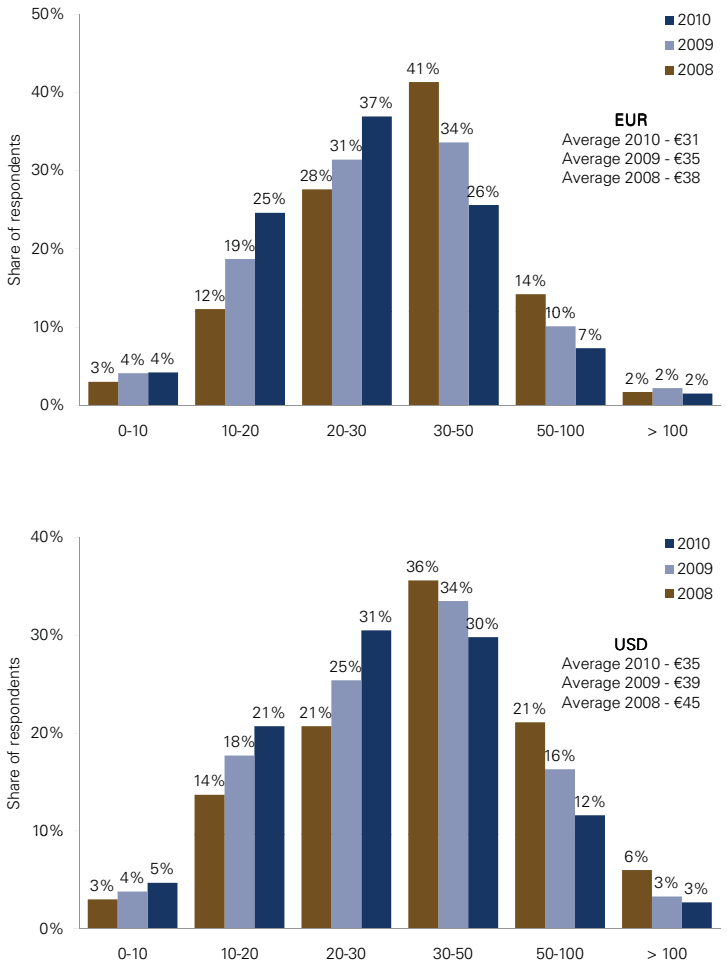
> "Only 19% think the CDM will encompass REDD

The expectations reported in the survey are shown in Figure 3.30. We note that this year, a plurality of respondents expect REDD to produce tradable credits in a separate mechanism, without specified limits. In all, 60 percent expect a separate REDD mechanism. Only 19 percent of respondents think that the CDM will encompass REDD in the future, down from 27 percent last year. The option involving a non-market deforestation fund is more or less unchanged at about 10 percent.

Across the major emitters, we see that respondents in China, India and Brazil are more likely to expect REDD to become part of the CDM, with 28-36 percent of respondents in these countries selecting the CDM option.

Figure 3.32a: Price expectations, 2020

Expectations for global CO2 price level in 2020, in EUR (upper) and USD (lower). N=2,612 (2010)



Source: Point Carbon

Besides this variation, all major countries show a majority of respondents expecting a separate REDD mechanism, except China, where only 40 percent see this as the most likely framework.

Thus, in our survey of (mainly) carbon market participants and observers, there is a strong overall expectation that tradable REDD credits will be generated in the future.

3.7.3 A global carbon price?

A large inflow of REDD carbon credits would mean a lowering of carbon prices across the globe, unless demand were to increase through tighter cap. This is because GHG

mitigation in the form of REDD is generally thought to be relatively inexpensive. (In a research report published in September 2009, Point Carbon found REDD had a reduction potential of 2.65 Gt at a cost below $4/t)

> “66 percent expect a global reference price for carbon in 2020

However, what is the outlook for a global carbon price? With carbon legislation stalling in the US Congress and Copenhagen ending without agreement on targets, are we likely to see a global reference price in ten years? Such a price could be the price of a US federal allowance or of a joint US-EU and perhaps Japanese carbon price in a linked ETS. It could also be the price of secondary CERs, if the CDM remains eligible for compliance in most trading systems around the world.

Figure 3.31 shows that 66 percent of our respondents expect a global reference price for CO_2e emissions in 2020. This is down somewhat from 73 percent in 2008 and 72 percent in 2009. The share of respondents who think no such price will exist in 2020 is also on the rise. Nevertheless, given that two-thirds of respondents expect a global carbon price, we conclude that expectations remain high.

If there is a global reference price in 2020, what will this price be? To find out, we asked respondents expecting a global carbon price in the previous question to indicate their expectation in either terms of either €/t (1,929 responses) or US$/t (1,513 responses).

As noted in Figure 3.32a, the most frequent response range this year in terms of €/t is €20-30, down from €30-50 over the two last years. Likewise, in dollar terms, the $20-30 range is also the most frequently selected, also down from $30-50 in previous years. The average global price expectation is €31 and $35, down from €35 and $40 in 2009 and €38 and $46 in 2008.

Figure 3.32b summarises the results of this report rather well. The negative trend in global price expectations from 2008 to 2010 reflects the economic downturn and slow progress in international negotiations over the past two years. More recently, obstacles to President Obama's domestic agenda have compounded this negative outlook.

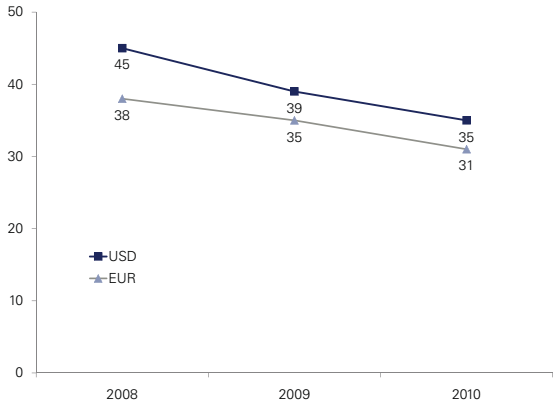
As a consequence, the carbon market has taken on a more sober outlook, seeing limitations as well as opportunities. For example, as we have seen, 70 percent of respondents reported dissatisfaction with the Copenhagen outcome, while only 37 percent foresee a final agreement at COP-16 in Mexico.

Yet the falling trend is not the only meaningful statistic to be drawn from the figure. We also see price expectations for 2020 that are more than twice the current EUA price in nominal terms, and wildly above today's RGGI prices. Thus, those who took our Carbon Market Survey this year also foresee a continued and expanded role for carbon markets also in the future.

> “Price expectations slightly down compared to last year

This is reflected in the fact that most still foresee cap-and-trade in the US, while a majority of EU ETS respondents report internal abatement. Market optimism is also seen in the fact that more Japanese respondents than last year expect an ETS in their country, while expectations for

Figure 3.32b: Global price expectations over time
Expectations for global CO2 price level in 2020 in EUR and USD, 2008-10.



Source: Point Carbon

a REDD mechanism are also up since 2009.

Clearly this survey is not representative of the public at large or of those who make the rules for the carbon market. However, our time-series data have shown some important trends in the opinions of carbon market participants and observers. Notably, we have seen that expectations in a number of areas have been scaled down as regards prices, activity and policy outcomes. At the same time, reported plans for 2010 and beyond show that most expect the market to expand, at least in the medium to long run.

4. The return of the sovereign

The general impression from our Carbon Market Survey 2010 is that while uncertainty persists in some corners of the carbon market, some established markets – notably the EU ETS – go on as before. Copenhagen did not provide many answers, and there is a strong sense that was unresolved in 2009 may remain unresolved at the end of 2010 as well.

Uncertainty is seen in many parts of climate policy and carbon markets around the world. The way forward for the UN process is unclear. The failure to reach a binding agreement in Copenhagen means a lowering of the probability that one will be reached in Cancun. Passage of a federal cap-and-trade programme in the US now looks less likely than last year.

The place of the CDM in a future climate framework also is unclear, although there is international consensus that the mechanism should continue. The future of the AAU market is even more up in the air due to the lack of international agreement. Finally, the Australian CPRS has been put on hold.

At the same time, Japan is moving ahead with its domestic ETS. There is still support in many corners for cap-and-trade both in the US and Australia. The EU ETS is preparing for its phase 3, unencumbered by policy hiccups elsewhere in the world. Both Annex 1 and key non-Annex 1 countries are presenting pledges under the Copenhagen Accord.

> “A pledge-and-review system could be the result

In light of the domestic initiatives already in place or slowly emerging in key emitting countries, the failure to reach consensus in Copenhagen may not represent a momentary lapse. Rather, we could be seeing a transformation of how the world deals with climate change. Discussions are now to a greater extent taking place in other, less encompassing arenas. This could open for a climate regime where the UN plays only an auxiliary part and no longer constitutes a driving force for global ambition.

Such a regime would not necessarily be universal, but rather focus on the countries with the most emissions. A consequence could be the introduction of a pledge-and-review system, where countries present mitigation policy but where no international compliance mechanism exists.

To achieve the ambitious emission reductions required by climate science, national implementation is at least as important as international agreement. Consequently, it is not given that a pledge-and-review system is less ambitious than a binding agreement along the lines of the Kyoto Protocol.

This means that the importance of reaching a binding climate agreement under the UNFCCC process should not be overstated. International agreement is of course desirable, all else equal. Nevertheless, Copenhagen should also teach us the importance of actual mitigation policy that works – of which the EU ETS constitutes the prime example. More bottom-up, less top-down – that could be the future of global climate policy. And that’s not necessarily a bad thing.

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