



CO<sub>2</sub>

# CARBON 2012

## A market waiting for Godot

### TO THE POINT

**Emitters in the EU emission trading scheme (EU ETS) view the cost of carbon as a less decisive factor in investment decisions than last year, and fewer report emission reductions caused by the scheme.** This is largely a consequence of the current low prices and bearish outlook. Respondents' assessments of the EU ETS' cost-effectiveness and maturity have stabilised.

**Assessments of the clean development mechanism (CDM) are more positive than previously.** Thirty-six percent of respondents think the CDM is the most cost-effective way of reducing emissions in non-Annex I countries, up from 31 percent last year. Twenty-eight percent think the CDM market is mature, up from 19 percent last year.

**Involvement in the CDM market is decreasing.** Thirty percent of respondents plan to decrease direct investments in CDM projects, up from 14 percent in the 2011 survey. Purchasing and trading of both primary and secondary CERs are also set to decrease this year compared to last year.

**Respondents are bullish on the emergence of new market mechanisms.** More than 70 percent of respondents think credits from reducing emissions from deforestation and degradation (REDD) and from bilateral projects will be generated by 2020.

**Emitters in California expect allowances prices of \$10-15/t in 2013.** California's cap-and-trade scheme will start operating next year. A large majority of respondents have no plans to move production due to the cost of carbon, but one-fifth indicated they are considering to do so.

**Most respondents think Australia's carbon trading scheme will start as planned in 2015 – yet a quarter of the respondents think it won't.** This may reflect concern over the threats from the opposition to the Gillard government. Elections will take place in 2013. We think that the most likely outcome is that the scheme goes forward as planned, but that there could be changes to the price floor and ceiling.

**Respondents do not expect all of the planned regional carbon schemes in China to start in 2013.** Many respondents doubt that the pilot schemes will be well functioning markets. Staying in Asia, 44 percent of respondents expect Japan will have a mandatory cap-and-trade at the national level in place by 2017. Thirty-seven and thirty-four percent expect this to be the case for China and South Korea, respectively.

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#### About the report:

This report was written and edited by Carina Heimdal, Emil Dimantchev, Hongliang Chai, Emilie Mazzacurati, Anders Nordeng, Ingvild Sørhus, Natalia Yakymenko and Elizabeth Zelljadt. For citations, please refer to: Point Carbon (2012): "Carbon 2012." Heimdal, C. et al. 27 pages.

## EXECUTIVE SUMMARY

This year's survey shows that in the EU ETS, the low carbon prices lead to emission reductions in fewer of the companies covered by the scheme and that the carbon price is a less decisive factor in investment decisions than previously. This underpins the need for political action, either through a deepening of the EU wide emission reduction target or through a reduction in the amount of allowances distributed to EU ETS companies. These issues are at the centre of discussions in the European Parliament, among member states and in the European Commission. This will be the main policy issue to drive carbon prices in Europe this year.

The assessments of the EU ETS cost-effectiveness and maturity show a stabilisation – this is also likely related to the current low price levels, as well as to thefts from registries in early 2011 and to the changes to the scheme which will kick in next year, when the programme enters phase 3. Forty-seven percent of respondents think the EU ETS is the most cost-efficient way to reduce emissions, and thirty-seven percent agree with the statement that the EU ETS is a mature market.

The EU ETS continues to be seen as more cost-effective and mature than the CDM. For instance, 36 percent of respondents think the largest Kyoto flexible mechanism is the most cost-effective way to reduce emissions in developing countries. Assessments of the CDM are more positive than last year, and this is 5 percentage points up from the 2011 survey. As much as 28 percent agrees that the CDM market is mature – up from 19 percent last year. We think that the more positive assessments of the CDM come from more efficient project registration and issuance by the UNFCCC, greater use of standardised baselines and default values, and more frequent use of stakeholder consultations by the CDM Executive Board.

On a more negative note, the outlook for CDM investments and trading of CERs is gloomy. Much higher shares than last year plan to decrease or completely stop investing in CDM projects, trading primary and secondary CERs. These results are not surprising in a context of a bearish price outlook and poor outlook for demand for credits towards 2020. The results also show that the EU ETS restrictions on international offsets in phase 3 are starting to bite on investment plans.

In North America, of the respondents voicing an opinion, more thought that regulators will tighten the Regional Greenhouse Gas Initiative's cap in the coming years than did not. However, even more respondents didn't

know or had no opinion on whether the cap will tighten, reflecting the state of uncertainty around the future of RGGI's current over-allocation.

In California, emitters prepare for the cap-and-trade scheme starting in 2013 mainly through preparations for allowance and credit purchases. A large majority of emitters in California participating in the survey have no plans to move production out of the state due to carbon costs. However, one fifth of respondents covered by the upcoming cap-and-trade scheme in the Golden State are considering to do so.

Nearly 70 percent of respondents in Australia think the national carbon scheme will go ahead as planned, while a quarter think it won't. This may reflect concern over threats from the opposition to dismantle the scheme if they win the elections in 2013. We think that the "flexible price" period of the carbon scheme will start as planned on 1 July 2015, but there may be changes to the price floor and ceiling.

Moving to the international scene, respondents were somewhat more dissatisfied with the outcome in Durban than in Cancun. Nearly forty percent of respondents think the global policy framework after 2020 will be a pledge-and-review system. Under such an international set up, countries pledge emission reduction targets reflecting decisions at national level, and the UN Convention on Climate Change merely gathers these pledges and coordinates reporting of emissions – without a Kyoto like compliance regime. Meanwhile, thirty-four percent of respondents think there will be internationally binding targets for major emitters post-2020. Finally, 18 percent think that countries will fail to agree.

## FOREWORD

As the California Air Resources Board (CARB) completes the final preparations for distribution of CO2 allowances to the State's largest industries, including an auction of about 10% of the allowances in the first compliance period under a broad cap and trade regulation, opponents of climate action are converging on Sacramento. Some object to having to buy allowances; others want to eliminate or expand the ability to use offsets; a few even question the need for action, citing continued challenges to the science of climate change or the perceived unfairness to California residents of placing a price on carbon when other states and countries are doing nothing.

In the face of a new round of well-funded efforts to overturn the program, renewed efforts are underway to educate policymakers, businesses and consumers about what to expect and why cap and trade makes sense. This is no easy task. While most voters understand that climate change is a real threat, and many are willing to support action, few people can explain cap and trade and even fewer believe it's the best way to reduce greenhouse gas emissions. So how do we go about building and maintaining the support necessary to carry us through the start-up of this new venture?

First and foremost, we are working on our own and with our partners in the Western Climate Initiative to make sure that when the (imaginary) bell rings for opening day there are no administrative glitches. We have carefully studied the experience of RGGI and the EU ETS, both good and bad, as well as the cautionary tale of California's disastrous experiment with deregulating electricity markets. Every aspect of allowance creation, tracking and use has been designed to deter fraud. We are retaining an independent market monitor whose job is to be on constant lookout for any symptoms of irregularity or problems in the trading of allowances that might be symptoms of abuse or market manipulation. A blue-ribbon market oversight committee will review and advise if action needs to be taken to correct problems.

Our goal, of course, is to launch a system that runs smoothly, that achieves the stipulated reductions in greenhouse gas emissions at a cost that is acceptable to the general public and that fits well within a set of policies designed to encourage investment in energy efficiency, renewable electricity generation, and rapid adoption of advanced technology vehicles and fuels.

Looking ahead, I see three major areas where we will

need the help of creative business and financial thinkers.

1. Compliance-grade offsets. The demand for fully verified offsets developed under approved CARB protocols will grow quickly. The Board is eager to find offset types that fit our rigorous criteria. While there are no current plans to relax the geographic boundaries or numerical limits on offsets, these aspects will be under close scrutiny and may be revised if need be.

2. Voluntary offsets. As forward-looking businesses and state and local permitting agencies with responsibility for environmental impact review and mitigation begin to incorporate assessment of GHG emissions in all kinds of plans, project developers will need to find and lock in emissions reductions. Such offsets will be required both by law and public scrutiny to demonstrate that they are real, enforceable and exceed any current or likely future regulatory requirements.

3. Investment. Making sure that the benefits of free allowances and the proceeds of auctions are used wisely is emerging as a major political issue. Without losing the benefit of a price signal to those who can choose to reduce GHG emissions cost-effectively while at the same time protecting the general public against rate shocks requires careful calibration. For the public sector, the temptation to seize any new revenue to fill general budget holes may be irresistible. Any diversion of proceeds from the cap and trade program to non-AB32 purposes risks a judicial stop to the rule. But there are ample opportunities to think creatively about using the robust new revenue stream that will start flowing when transportation fuels and natural gas come under the cap in 2015.

By then, we are hopeful that an improving economy and increased public awareness of the visible impacts of climate change will combine to give politicians in other states and regions the encouragement to move forward with their own climate plans. Following the lead of Gov. Edmund G. Brown Jr., who is constantly spreading the good news about the benefits of investing in California's clean energy economy, there are indications that other leaders may be willing to re-engage in the climate debate. When they do, we will be ready with the case studies to show that using market instruments can play an important role in solving the global climate crisis.

Mary D. Nichols,

Chairman, California Air Resources Board

*The foreword reflects the personal opinion of the writer and does not constitute an official view of the California Air Resources Board.*

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## 1. INTRODUCTION

We are already well into the last year of the EU ETS' phase 2 and of the first Kyoto commitment period as this report is published. In the EU ETS, the largest carbon market segment, we expect increased market activity this year. Compliance entities optimise their portfolio as the end of phase 2 approaches, while utilities gear up hedging activity in anticipation of the need to purchase all allowances in the market from 2013. The discussion around a possible intervention in the EU ETS through a withdrawal of allowances from the market is heating up. In North America, Quebec and California work on the launch of their markets, planned for 2013.

In this report, we present the results of our seventh annual

Carbon Market Survey, which aims to gather the views of carbon market participants and observers across the globe. We have asked questions related to market participants' behavior and expectations, tailoring questions based on each respondent's market involvement. We cover the EU ETS, CDM, JI, New Zealand ETS, California and Quebec markets, emerging carbon markets in Asia and Australia, as well as international negotiations.

**“** 3 149 respondents, half of them involved in carbon trading

Some 3 149 respondents answered this year's survey, roughly 600 more than last year. The survey ran from 6 to 26 February 2012, and

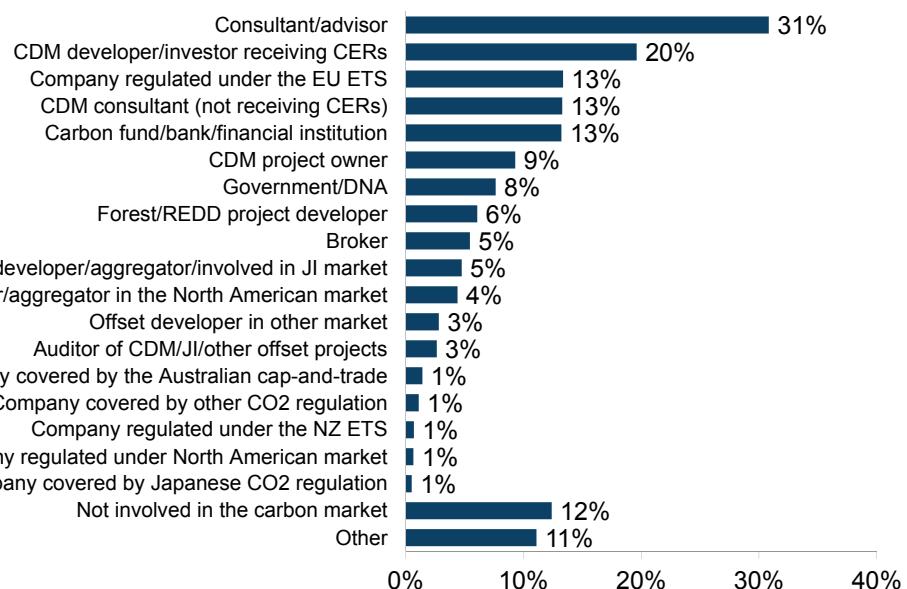
responses were garnered through a web based tool.

Among the respondents, around half were involved in trading of various compliance carbon allowances and credits, or owned such instruments. Looking at carbon market roles, the largest subset comprises consultants/advisors (see Figure 1), while the second largest group was CDM project developers or investors (receiving CERs). Companies regulated by the EU ETS represented the third largest group. Twelve percent of the respondents were not directly involved in the carbon market.

Looking at geographical origin, the US is again the home of the largest share of respondents, with 14 percent of the total. The next countries are the UK (10 percent), India (6 percent), Germany (5

**Figure 1: Carbon market roles**

Categories of respondents, N=2,879



Source: Point Carbon

percent), Australia (5 percent), China (4 percent), Canada (4 percent) and Norway (2 percent).

It should be noted that this survey is conducted among individuals that are significantly more than average interested in carbon markets and policy.

Participation is voluntary, and we expect that those most interested in the topic will to a larger extent respond than others. The sampling is thus not representative of the larger population. All interpretations of the survey's results – which are sometimes surprising – should therefore be read bearing in mind that the sample may be subject to a bias in favor of carbon. Furthermore, inference to general public opinion should be avoided.

## 2. EU ETS

### 2.1. Does the EU ETS work?

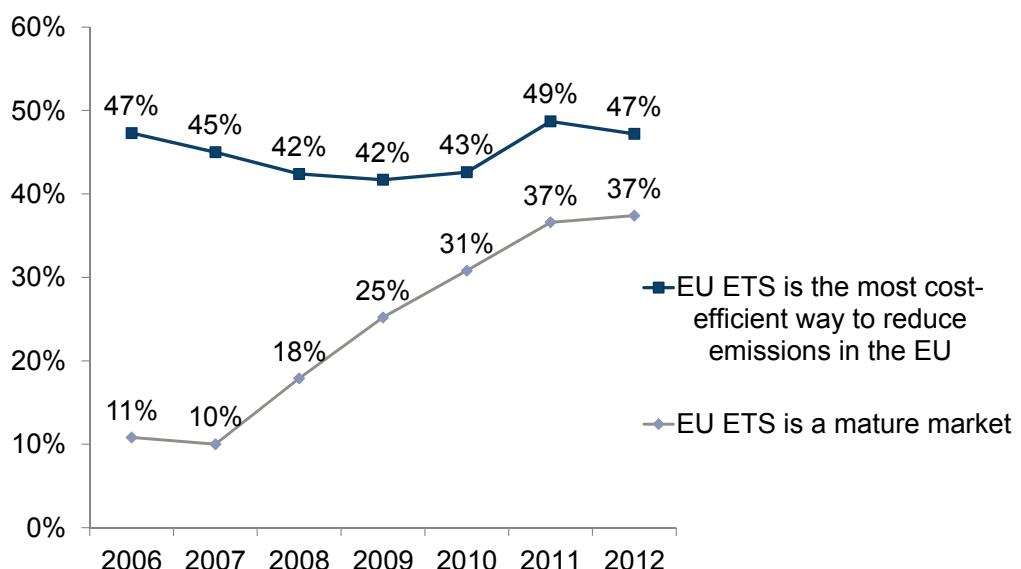
This year, the low European allowance price makes the question on the EU ETS's effectiveness all the more relevant compared to previous years. So far this year, the average EUA price for front year delivery has been €8/t, and Point Carbon forecasts an average €9/t over the 20012-2014 period. The general public may think that the current low prices mean that the EU ETS is not working. In fact, it is not really the market as such that has failed, but rather the policy setting the framework for the market. The need for intervention to prop up prices has gained momentum in the European Parliament. For instance, its Environment and Industry Committees have approved an amendment to the

energy efficiency directive which calls for withholding EUAs from the market. This form of market intervention is called a set-aside. The draft directive will be subject to negotiations between the European Parliament, Council and Commission. The proposal also needs to be supported by member states, which will prove challenging. For instance, some large countries, mainly Poland, remain strongly opposed to any such intervention.

For the first time since 2008, the share of participants who think the EU ETS is the most cost-efficient way to reduce emissions in the EU fell in this year's survey (2 percentage points, see Figure 2). This could reflect the belief that the efficiency of the system is threatened by the current low carbon prices. Low prices provide a weak price signal, likely too

**Figure 2: Stabilisation of EU ETS assessments**

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). Asked to EU ETS companies, financial institutions, banks, carbon funds, brokers, governments and consultants, N=1,632.



Source: Point Carbon

weak to encourage low carbon investments. The Commission seems to agree with this view. Its recently published "Impact assessment" of going beyond a 20 percent target stated that low prices could lead to investments in high emitting technology.

Meanwhile, the share of participants who think the EU ETS is mature was flat, putting an end to an upward trend seen since 2007. This can be explained by increased regulatory uncertainty, as political discussions around possible market intervention, in the form of a set aside of allowances, have gained momentum. The thefts of EUAs from registry accounts in the first half of 2011 are also likely to have deteriorated the EU ETS' reputation, as these events showed that the European Commission had not yet managed to deal with the fundamental issue of registry security. Respondents are also likely taking into account

the fact that phase 3 (starting next year) will introduce significant changes to the ETS (higher share of auctioning, EU-wide registry), which will require market participants to behave somewhat differently.

The share of respondents saying the EU ETS is a decisive factor in investments dropped by 6 percentage points (Figure 3). The reason for this is probably that most participants are now aware that either most or all of phase 3 is long as well, implying that prices will remain depressed and therefore the cost of emitting low. Thereby, the importance of the EU ETS in investment considerations is diminished. The results from this question underpin the need for political action to prop up prices.

Point Carbon currently estimates that phase 2 and 3 of the EU ETS are long, when taking into account the access to CERs and ERUs.

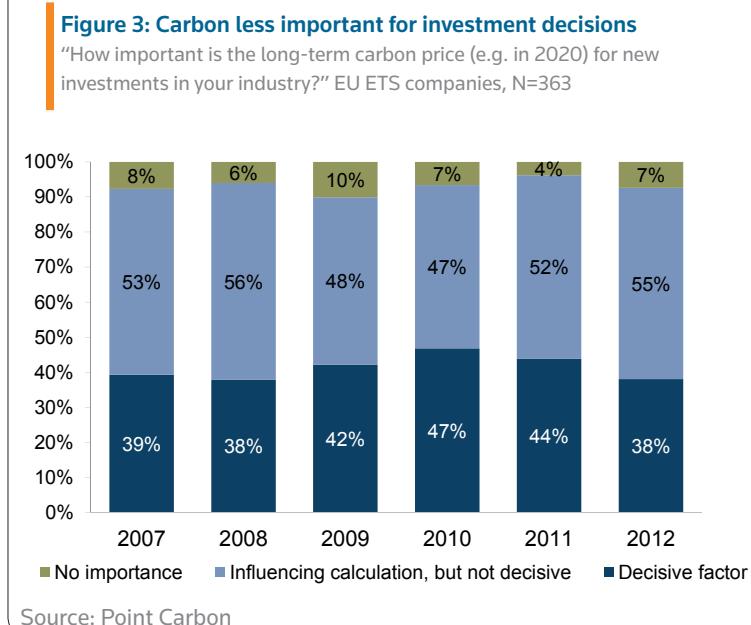
There are three main reasons for

the lower emissions outlook: the economic situation, the energy efficiency and the renewable energy directives. The sovereign debt crisis in Europe continued to escalate throughout 2011 as peripheral euro zone countries' economies were struggling with public finances. We forecast 1,917 Mt to be emitted in the EU ETS in 2011, compared to 1,939 Mt in 2010. By comparison, the average cap in phase 2 is 2,100 Mt. Lower levels of economic activity contributed to lower emissions in 2011 (as Point Carbon's estimate for 2011 also suggests) and put the EU emissions on a much lower path out to 2020 than previously expected.

**“ Carbon less important for investment decisions in EU ETS**

In addition, the proposed energy efficiency directive currently being negotiated also increases the likelihood that energy efficiency measures will reduce future emissions and further increase the length of phase 3. Furthermore, the renewable energy directive requires that 20 percent of energy should come from renewable sources in 2020 – some of the new renewable energy capacity will replace emitting power generation. This already had an impact on emissions in 2010 and 2011.

As it now appears that phase 2 and 3 are long in combination, the survey results show that the EU ETS caused emission reductions in fewer covered companies (Figure 4). The share of respondents saying it has already caused emission reductions is down to 50 percent, from 59 percent last year. The share of respondents saying that the EU ETS has not caused any emission reductions is up from 24 percent last year to 31 percent this year.



The picture in terms of carbon leakage for EU ETS companies – moving production to a region with a lower cost on carbon – looks very similar to previous years. Slightly more than 80 percent saying they have not considered moving production. It is worth mentioning here that for phase 3, the Commission is giving more free allocation to installations which are under risk of carbon leakage compared to those it thinks are not under risk.

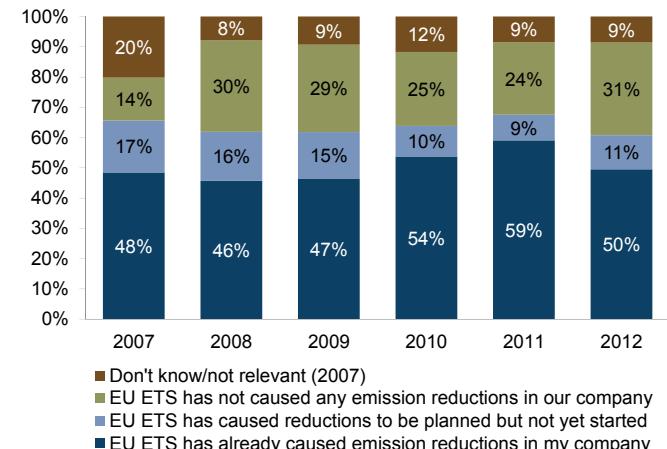
**“ One in ten has witnessed fraud/embezzlement/ corruption in relation to the EU ETS**

The share of participants reporting to have “witnessed fraud, embezzlement, corruption or theft in connection with the EU ETS”, in relation to specific instances of illegality that they have experienced, is largely unchanged from last year’s survey. This probably reflects that each year (2010 and 2011) had its fair share of fraud with the value-added tax (VAT) fraud in 2010, phishing attacks on EU ETS registry holders and the theft of EUAs from registries in the first quarter of 2011. With more secure registries, the EU ETS seems better equipped to avoid fraud. The review of the MiFid directive (Markets in Financial Instruments) should also help limit fraud in the EU ETS. The latest proposal reclassifies emission allowances as financial instruments, which in addition to MiFID, are also covered by other EU financial market measures (such as the Anti-Money Laundering Directive or the Settlement Finality Directive).

Nevertheless, with a share of one

**Figure 4: EU ETS and internal abatement**

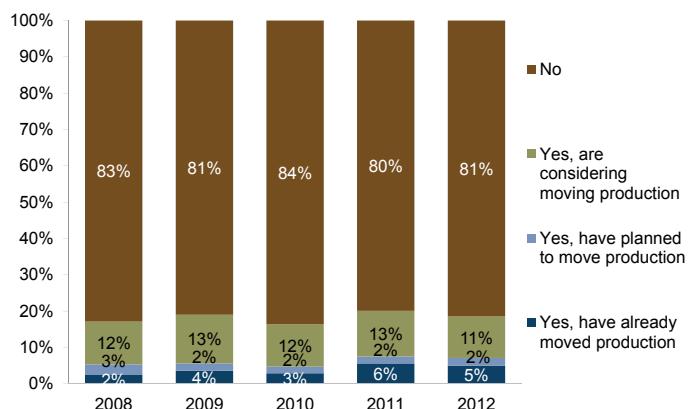
“To what extent has the EU ETS caused your company to reduce its own emissions?” Questions asked to EU ETS companies, N=301



Source: Point Carbon

**Figure 5: EU ETS and carbon leakage**

“Has your company considered moving production outside the EU ETS area because of carbon costs?” Question asked to EU ETS companies, N=280



Source: Point Carbon

in ten reporting fraud in the EU ETS, which is worryingly high, one should not be surprised if new fraud cases arise. However, we should bear in mind that although the question specifies that one should only answer yes in relation to specific instance of illegality, it

would not be surprising if people answered yes also if they have just read about it in the news.

## 2.2. Phase 2

Looking at compliance entities' carbon exposure, the sharp rise in

respondents having surplus EUAs to sell in phase 2 is consistent with our expectations for a phase 2 with excess allowances (Figure 7). The economic downturn has further increased the length of phase 2 compared to last year.

In terms of actual sales of surplus EUAs, 62 percent of respondents say they have sold part of their surplus (Figure 8). The share of respondents who haven't sold any surplus fell (from 27 percent last year to 23 percent this year). The question is whether this group of participants expects prices to rise in the future or if they have just not bothered to deal with their surplus yet.

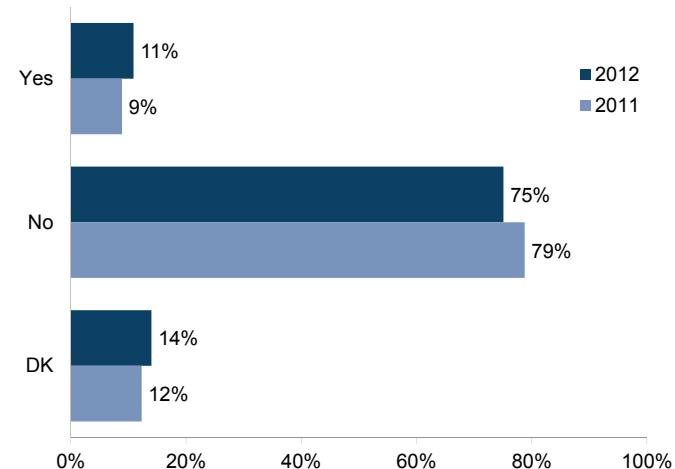
**“ Sharp rise in respondents who report having surplus EUAs in phase 2**

Moving over to the option to use CERs and ERUs for compliance, the survey results show a similar picture as last year (Figure 9). Most of the credits issued to date and available to EU ETS companies are from HFC-23 and N<sub>2</sub>O adipic acid projects (63 percent). These credits cannot be used for compliance in phase 3, so that only CERs/ERUs from other project types are worth banking into phase 3.

A large share of respondents does not answer or doesn't know the answer to this question, and their open comments suggest that they are reluctant to answer because the decision is sensitive information. Some 26 percent plan to use the entire CER/ERU limit in phase 2, and 22 percent plan to bank up to 50 percent of the limit to phase 3. A much smaller share of respondents plan to bank

**Figure 6: Have you ever witnessed fraud, embezzlement, corruption or theft in connection with the EU ETS?**

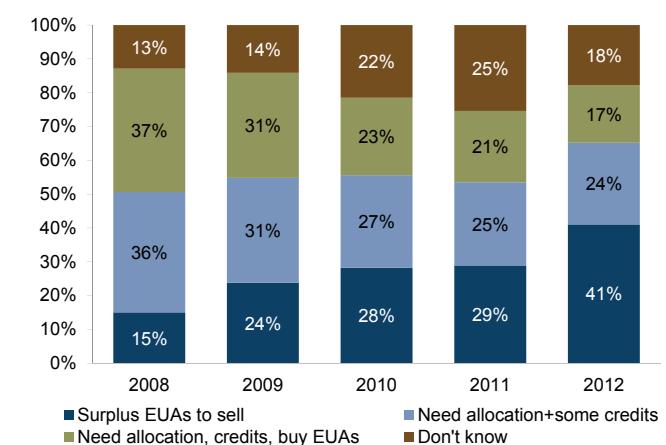
Question asked to companies covered by the EU ETS, N=394.



Source: Point Carbon

**Figure 7: Carbon position in phase 2**

What best describes your company's situation in the EU ETS phase 2 (2008-2012)? Question asked to EU ETS companies, N=394



Source: Point Carbon

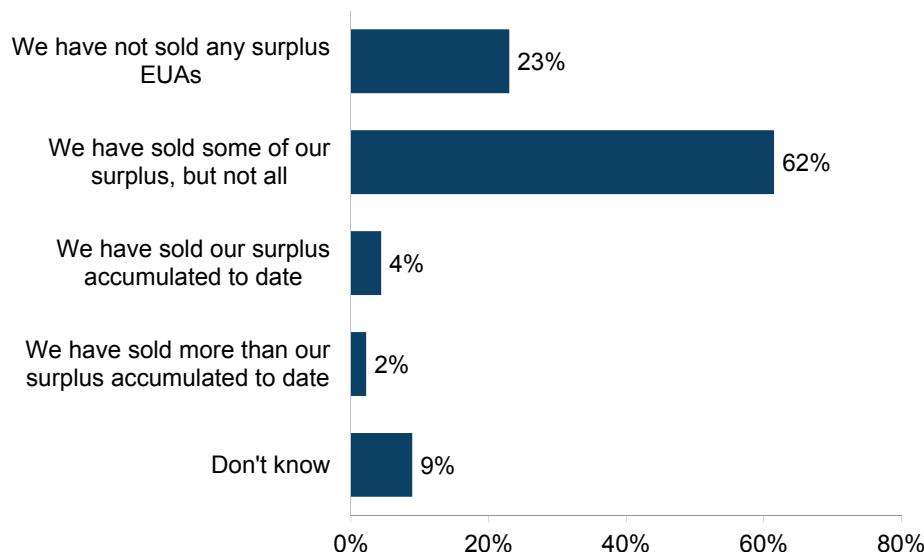
a significant share of or the entire credit limit in phase 3, respectively 7 and 4 percent.

The incentive to get rid of credits from HFC-23 and N<sub>2</sub>O projects, and the healthy supply of credits both suggest that the volume

of credits surrendered should increase compared to last year. Last year, EU ETS companies surrendered 137 million CERs and ERUs for 2010 compliance (Figure 10). The expected increase is largely reflected in the results, although some 43 percent could

**Figure 8: Getting rid of the surplus?**

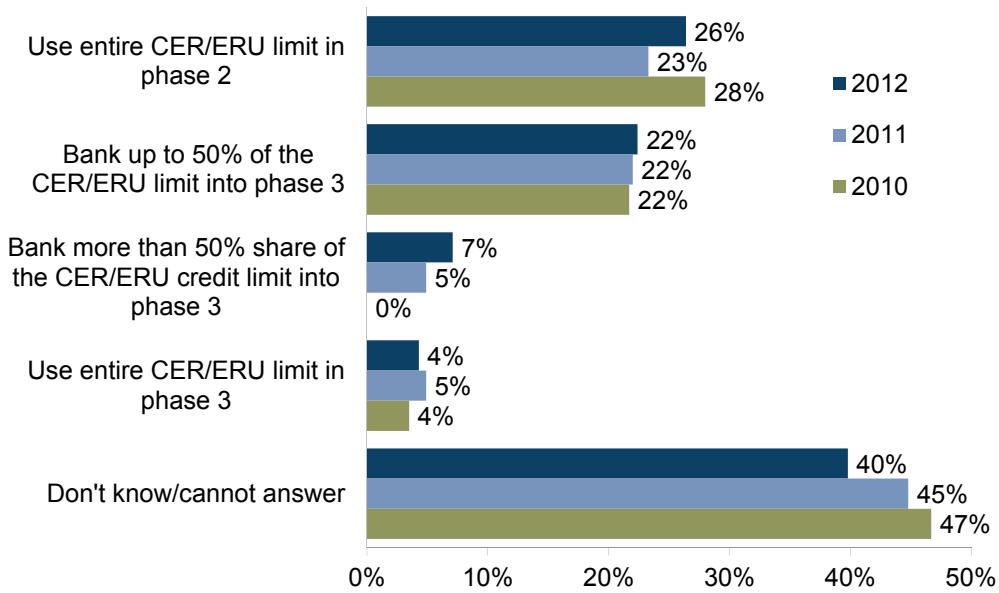
Question asked to EU ETS companies that reported a surplus. N=135



Source: Point Carbon

**Figure 9: Use credits or bank them?**

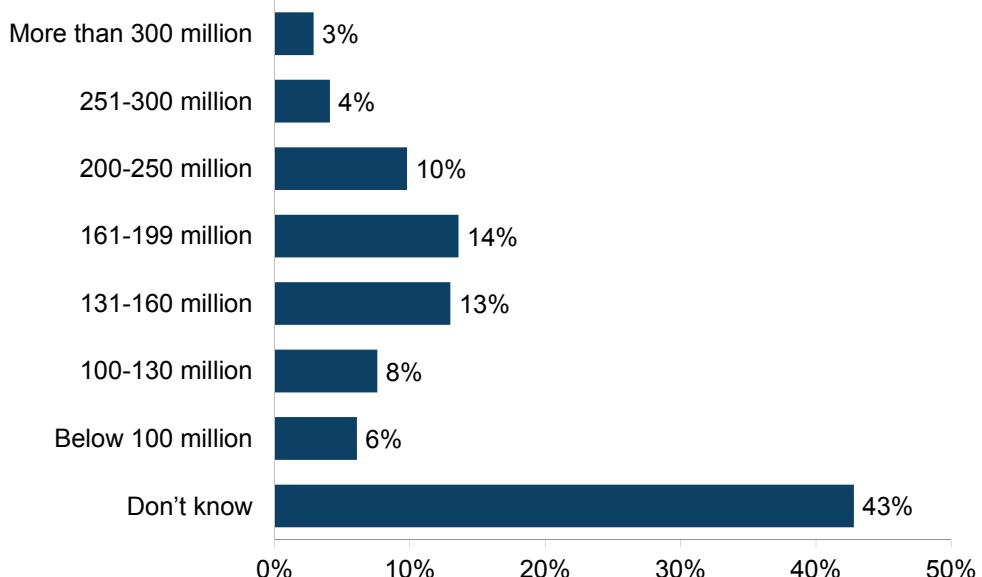
Question asked to EU ETS companies, N=322



Source: Point Carbon

**Figure 10: Expectations for CER/ERU surrender for 2011 compliance**

N=1,749



Source: Point Carbon

not respond to this question. Most respondents who answered this question expect between 131 and 191 million credits to be surrendered.

Just like last year, respondent's expectations were well below our own forecast. For instance, Point Carbon's forecast that some 252m CERs/ERUs will be surrendered for 2011 compliance. It is hard to tell where this discrepancy comes from – our forecast of 122m for 2010 compliance was quite close to the actual surrendered volume. The use of credits for 2011 compliance will be made publicly available in May.

### 2.3. Price expectations

2011 was a turbulent year for carbon prices in Europe, with the price of the EUA contract for December 2012 delivery tumbling from a high of €18.27/t

in early May, to a low of €6.86/t on 14 December. This has clearly influenced price expectations and buy/sell willingness of market players (Figure 11a, b, c and d).

**“** 27 percent of respondents expecting 131-199 million credits used for 2011 compliance

The willingness to buy has shifted, as most participants would now not be willing to pay more than €10/t per EUA (Figure 11a). The same bearish sentiment is reflected in the willingness to sell (Figure 11b), as the minimum price to sell EUAs today is on average €12/t – compared to €18/t in last year's survey.

Furthermore, against the backdrop of low current prices, market

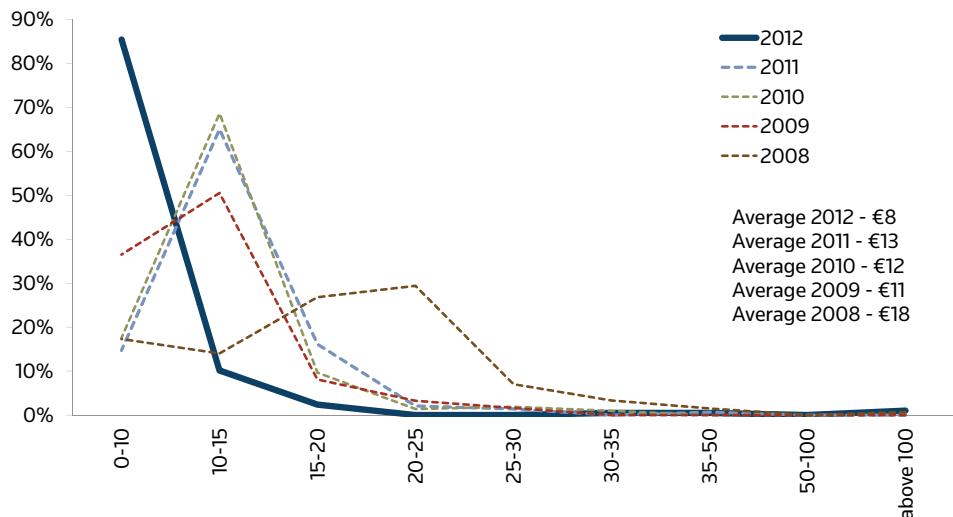
players are now more willing to bank instead of sell, as they probably expect future prices to be higher than current ones (Figure 11c). We expect that prices will be significantly higher than today in the second half of phase 3 as the supply of allowances decreases – we forecast an average EUA price of €16/t in 2020.

The EUA price above which emitters would seek to reduce emissions and start to sell EUAs has also shifted downwards, with the average for this year's survey at €29/t, compared to €35/t (Figure 11d). Since current prices are lower than a year ago and expected to remain depressed, the perception of what price is sufficiently high to create abatement has likely shifted downwards. This is not necessarily related to actual abatement costs. One could almost argue that this result shows that prices will

**Figure 11a: Price expectations for EUAs**

Question asked to EU ETS companies, N= 271

I/we would buy EUAs today at a maximum price of €

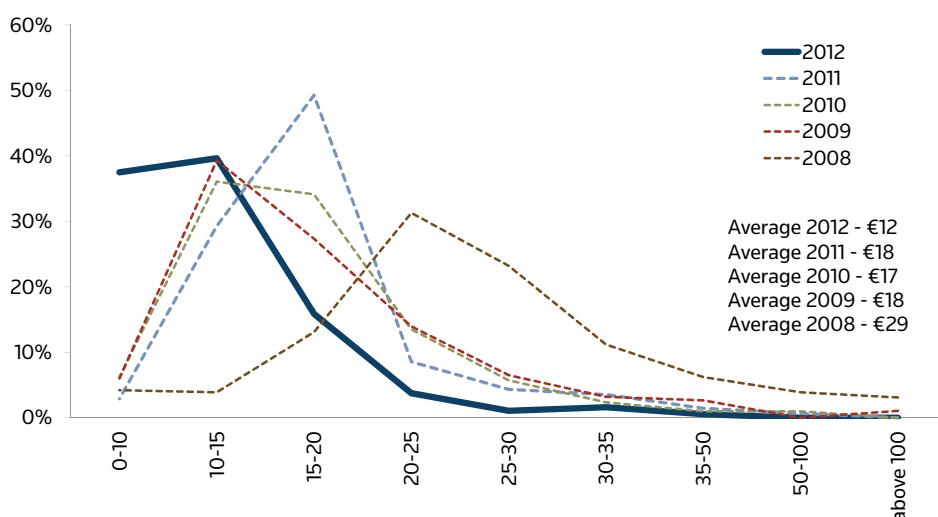


Source: Point Carbon

**Figure 11b: Price expectations for EUAs**

Question asked to EU ETS companies, N= 271

I/we would sell EUAs today at a minimum price of €

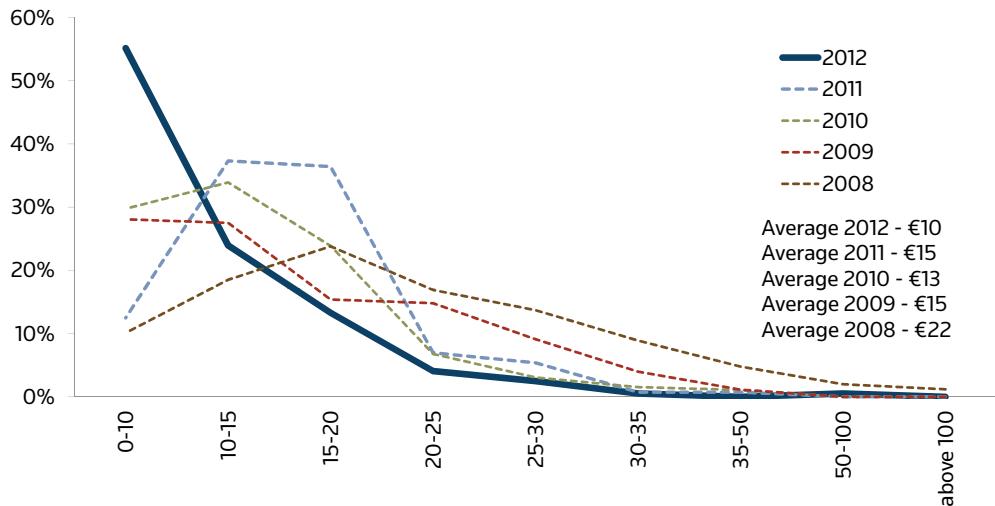


Source: Point Carbon

**Figure 11c: Price expectations for EUAs**

Question asked to EU ETS companies, N= 271

I/we would bank any surplus EUAs into Phase 3 rather than sell them, at prices below €

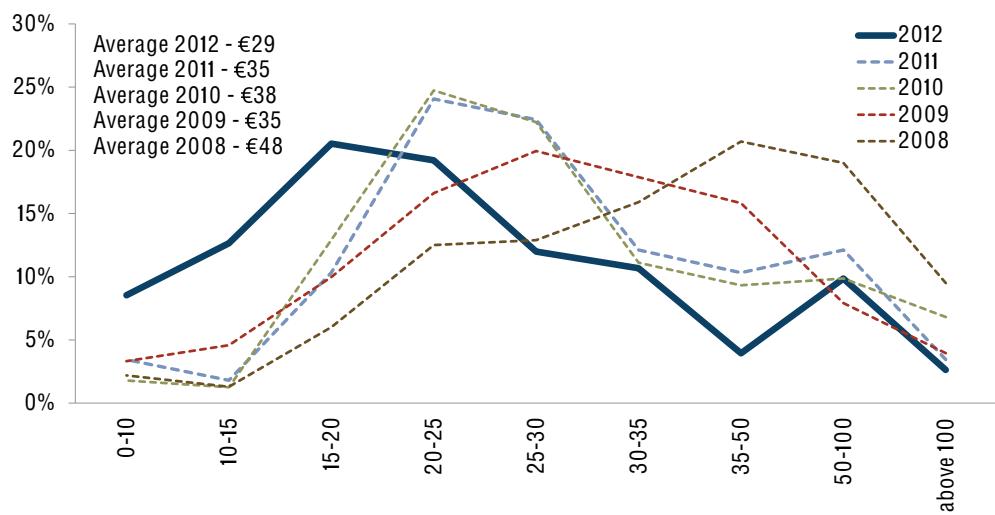


Source: Point Carbon

**Figure 11d: Price expectations for EUAs**

Question asked to EU ETS companies, N= 271

We would seek to reduce our own emissions and start to sell EUAs if the EUA price were to stay above €



Source: Point Carbon

'never' be high enough – the price point was much higher in 2008 when prices were at a level that would today be considered as incentivizing emission reductions.

## 2.4. Phase 3 and beyond

Phase 3 of the EU ETS starts in 2013 and ends in 2020, and will introduce a number of changes to the way the scheme works. Auctioning will become the rule rather than the exception. In the power sector all allowances will be auctioned, with the exception of eight Eastern European member states which will give away a certain amount to their utilities for free. We estimate that 59 percent of the cap for stationary installations will be auctioned over the 2013-2020 period.

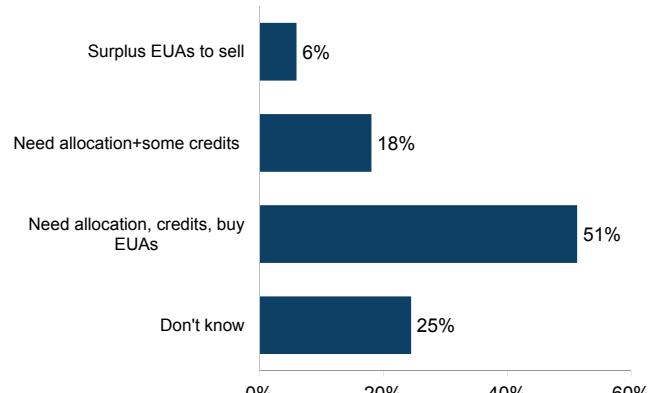
Given this, it is no surprise that 51 percent of respondents say they will need to buy EUAs in phase 3 (Figure 12). This does not imply the market is short, it only reflects the lower level of free allocation. Interestingly, for around 10 percent of respondents the free allocation will be sufficient to meet compliance needs. These could be very efficient industrial installations for which free allocation will be given out based on their efficiency, or facilities that expect to have low production in phase 3 due to the recession.

About one fourth of respondents were unsure about this, which is likely due to the fact that the final free allocation and auctioning amounts for phase 3 have not been decided as the political process has been delayed.

Regarding the EU's economy wide reduction target for 2020 (Figure 13), the share of respondents who think the target will be 20

**Figure 12: What best describes your company's situation in the EU ETS phase 3?**

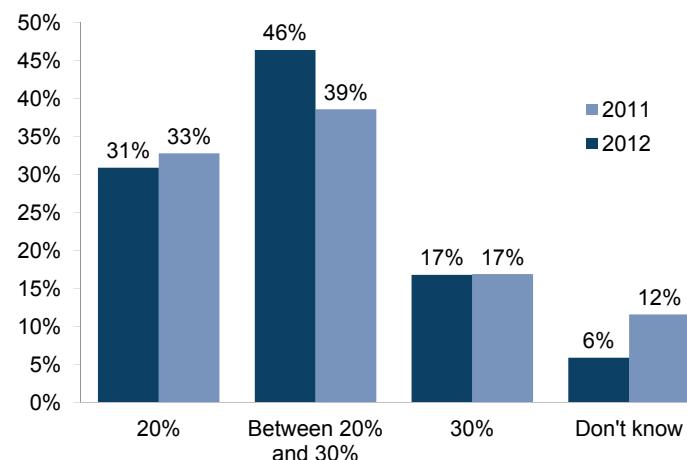
Question asked to EU ETS companies, N=331



Source: Point Carbon

**Figure 13: The EU's 2020 target**

Question asked to EU ETS companies, N=304



Source: Point Carbon

percent fell, while the share of those that think it will be between 20 and 30 percent increased by 7 percentage points. Both of these results suggest that market players increasingly believe the ETS target will be deepened. We think this is both due to wishful thinking from respondents, and from the ongoing debate over the need to intervene

in an oversupplied market – this can be done either by deepening the target or by for example removing allowances from the market. A Commission document released in January 2012 assessed the cost of going beyond a 20 percent target on a member state level. The report showed that the costs of deepening the target were

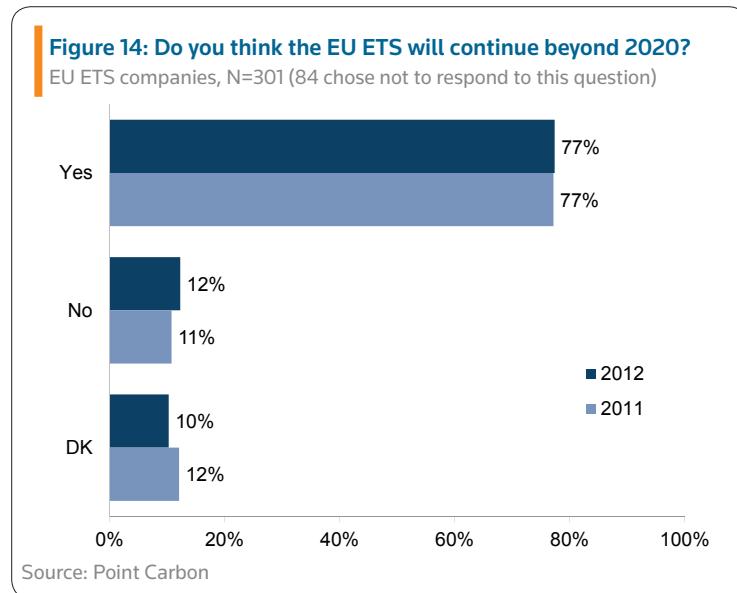
lower than previously thought. The document also confirmed that the Commission remains in favour of increasing the target. Meanwhile, given the current political and economic situation, our main assumption remains that EU will stay at a 20 percent reduction target.

Looking further ahead, the EU ETS directive stipulates that the ETS will continue post 2020. Policymakers would have to amend this directive to prevent the scheme from continuing after 2020, which would require strong political action, which seems rather unlikely. This situation seems to be largely understood by market participants (Figure 14).

### 3. CDM

Moving over to the second largest carbon commodity, respondents' assessment of the CDM as a cost-effective way to reduce emissions and of the market's maturity is increasingly positive (Figure 15). For instance, 36 percent of respondents (up from 31-32 percent in 2009, 2010 and 2011), think the CDM market is the most cost-effective way to reduce emissions in non-Annex I (developing) countries. Some 28 percent think the CDM market is mature, up from 19 percent last year, which prolongs a continuously increasing trend from our first survey in 2006.

There are several likely reasons for the more positive assessments of the CDM: a more efficient registration and issuance process by the UNFCCC, more standardisation of methodologies, use of default values, the new rule on effective date of registration (implemented



from February 2011), and greater use of stakeholder consultations by the CDM Executive Board have all contributed to an improved business environment.

Interestingly, the more positive assessments of the CDM stand in contrast to the stabilising views on the EU ETS. Yet the share of respondents viewing the CDM as a cost-effective way of reducing emissions (36 percent) is still well below the 49 percent having the same view on the EU ETS.

**“** 36 percent think CDM is most cost-effective way to reduce emissions in developing countries

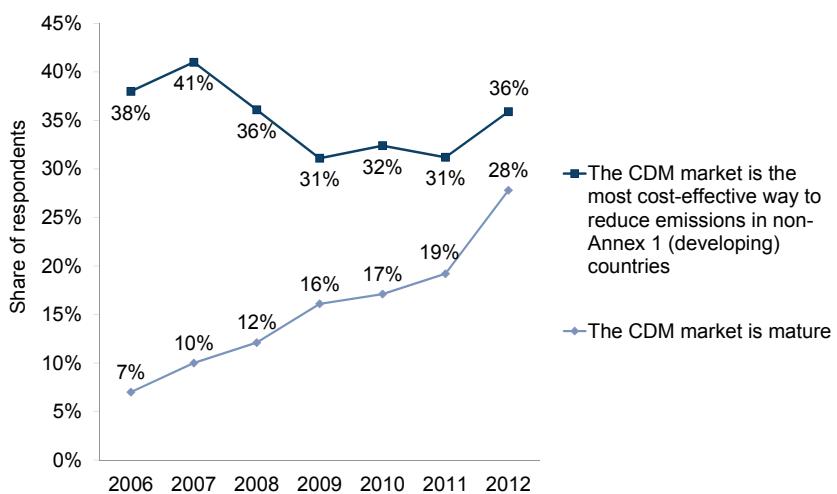
Just like for the EU ETS, the share of respondents reporting fraud in the CDM/JI market is stable year on year, indicating that there hasn't been more fraud over the last year than in previous years (Figure 16). However, the share for CDM/JI is 50 percent higher

than for EU ETS; 15 percent respond having witnessed fraud/embezzlement or corruption in the CDM/JI market, compared to 10 percent in the EU ETS. CDM takes place in developing countries, and JI mostly in Ukraine and Russia - these host countries are known as having corruption issues in general. According to Transparency International's Corruption Perception Index, both China and India, which are the main CDM host countries, have a score in the 3 – 4 range, on a scale where 0 is "highly corrupt", and 10 is "very clean". Russia and Ukraine score even lower.

In this context, the percentage of 15 percent having witnessed fraud/embezzlement or corruption is not surprising, while it would be interesting to compare it with the reported fraud for other investments in these countries. When taking into account that most CDM/JI countries have corruption issues, it is actually a bit puzzling that the difference with the EU ETS is not larger.

**Figure 15: CDM improvement**

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). Question asked to all respondents except carbon funds, company with emissions regulated under RGII, California's cap-and-trade programme, NZ ETS, Alberta Emitters Regulation, Australian or other CO<sub>2</sub> regulation. N=1,903



Source: Point Carbon

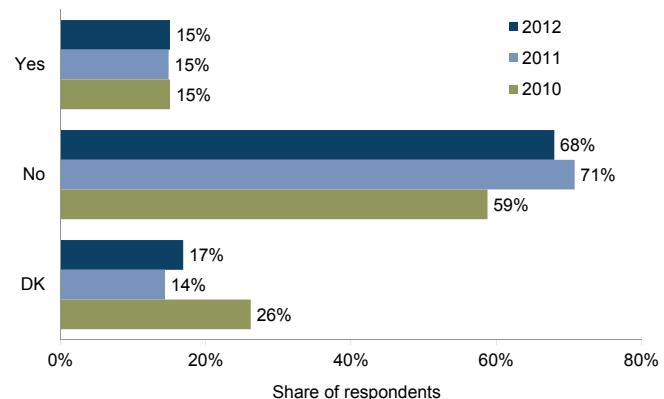
### 3.1. Market activity in 2012

Looking at respondents plans for this year, the results confirm that involvement in the CDM market is decreasing. Nevertheless, the picture emerging from this survey is less gloomy than the situation often portrayed in the news - a quarter of respondents plan to increase CDM investment this year compared to 2011.

Looking at direct investments in CDM projects (Figure 17b), the increase in respondents saying they will either stop or decrease direct investments in CDM projects is striking. 30 percent of respondents say they will decrease their investments somewhat/significantly, compared to only 14 percent last year. The share saying that they will stop completely has nearly tripled, reaching 14 percent

**Figure 16: Have you ever witnessed embezzlement/fraud or corruption in connection with a CDM or JI project?**

This would apply to specific projects where your company has considered to invest or buy credits - not observations. N=515



Source: Point Carbon

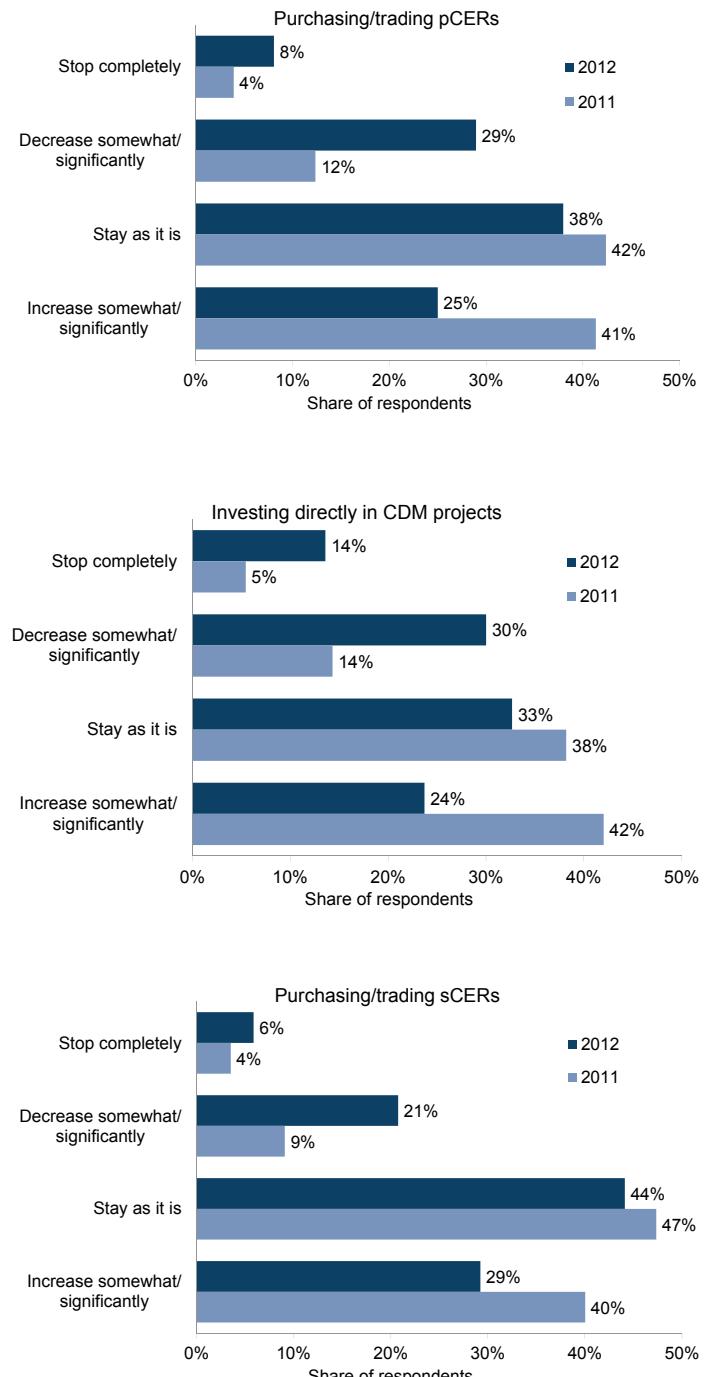
this year. As much as 33 percent of respondents plan to keep investments in CDM projects at current levels in 2012, while 24 percent plan to increase their investments, compared to 38 and 42 percent last year, respectively. We think that the main reasons for the lower willingness to invest are the low carbon prices in Europe, the gloomy outlook for credit demand and the fact that deadline for pre-2013 registration is approaching. Point Carbon currently forecasts 4 313m CERs and ERUs to be issued over the 2008-2020 period, while we think demand for these credits amounts to 3 250m, leaving a surplus of roughly a billion of credits.

For the question on investments, we observe clear differences in the results from country to country. Overall, respondents located in non-Annex I countries (China, India, Mexico, Brazil, South Korea) are more bearish, while those in Annex I are less so. More than fifty percent of Chinese respondents plan to decrease investments in CDM projects, compared to only 11 percent of US respondents and 30 percent of UK respondents. Half of the US respondents plan to keep investment at 2011 levels. Most respondents to this question are based in the US, the UK and Germany, only 34 respondents are in China. The results could be an early indication of supply slowdown, as most project investors are in developing countries, like China or India, rather than in industrialized countries.

For purchasing/trading of primary CERs (pCERs), the picture is similar as for investments (Figure 17a). The share of those saying their trading or purchasing of pCERs will stop completely has

**Figure 17a-c: Plans for 2012**

"How will your organisation's involvement in the CDM be in 2012 compared to 2011?" N=545; 515; 492.



Source: Point Carbon

doubled, and the share of those expecting a decrease has risen from 12 to 29 percent. A quarter of respondents plan to increase their primary trading activity, compared to 41 percent last year. The differences between countries are similar to those for CDM investments. An obvious reason for the declining activity seems to be that the previously attractive price differential between primary and secondary CERs has contracted.

“ 30 percent of respondents have already invested in PoAs or least developed countries

Looking at trading of secondary CERs (sCERs), this activity has the highest share of respondents planning to keep it as it is or increase it (Figure 17c). We think this reflects that market participants, largely EU ETS participants, are optimising portfolios and gearing up for the last phase 2 compliance year before the phase 3 credit eligibility restrictions kick in, and therefore the large players will remain active in the sCER market.

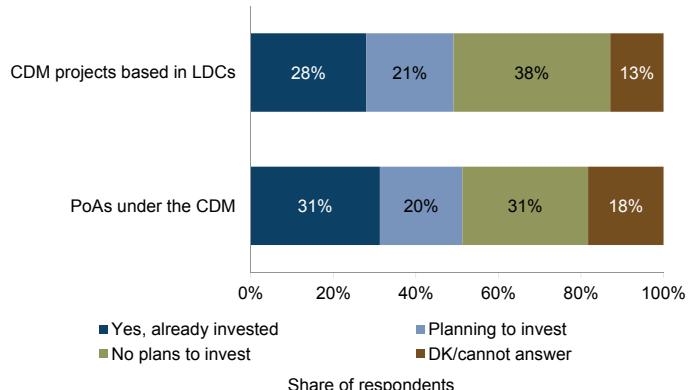
Finally, for all these questions, we must keep in mind that the results are biased by the fact that the survey does not have a representative sample. Those who are active in the market are probably more prone to respond to the survey, while those who have already significantly downscaled their CDM involvement might be less motivated to do so.

### 3.2. Investment plans

In phase 3, different rules than in phase 2 will apply to the use

**Figure 18: Who's interested in the CDM niches?**

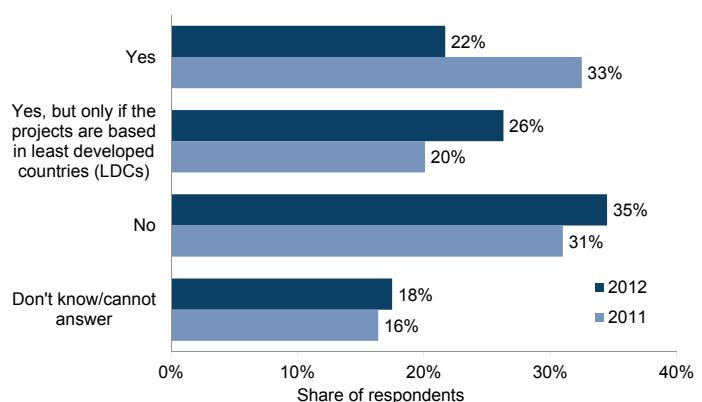
"Is your company investing in CDM projects based in LDCs?", "Is your company investing in PoAs under the CDM?" Question asked to banks, carbon funds and CDM project developers and investors. N=497.



Source: Point Carbon

**Figure 19: Is your company willing to invest in CDM projects that are unlikely to be registered before 2013?**

Question asked to banks, carbon funds and CDM project developers and investors. N=498



Source: Point Carbon

of CERs and ERUs in the EU ETS, which remains the main demand centre for international credits. For instance, projects need to be registered before 2013 to generate credits eligible in the EU ETS, unless they are

located in a least developed country (LDC). In addition, CERs and ERUs from HFC-23 and N<sub>2</sub>O adipic acid projects are banned in phase 3. This creates an incentive to focus on LDCs for post-2012 registrations. However, the current

oversupply of credits and low CER prices reduces the attractiveness of investments in projects in the world's poorest countries. The attractiveness of CDM projects in these countries is already challenged by high transaction costs and risks.

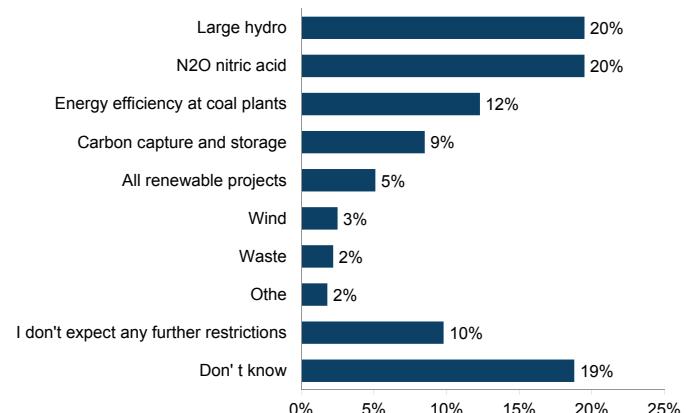
The share of respondents that report having invested in LDCs and Programme of Activities (PoAs) is stable year on year – 28 and 31 percent respectively (Figure 18). Meanwhile the share of those planning such investments has decreased from 26 percent to 21 percent for LDCs, and from 24 to 20 percent for PoAs. This decline probably reflects that since last year's survey, some of those considering these investments in CDM niches have ruled out this opportunity.

**“** EU ETS restrictions starting to bite on CDM investments plans

To the question "is your company willing to invest in CDM projects that are unlikely to be registered before 2013?" (Figure 19), a somewhat higher share of respondents than last year answered a clear no (35 percent, up from 31 percent last year). The share of "yes" has declined from 33 percent to 22 percent, while the share of "yes, but only if the projects are based in least developed countries" has increased 6 percentage points to 26 percent. All this shows that EU import restrictions against projects registered post-2012 in non-LDCs are starting to bite now that the deadline is unreachable for projects that have not started yet. That said, the share of respondents saying yes without reservation is still quite high.

**Figure 20: Future EU ETS credit restrictions?**

"Which projects do you find the most likely to be subject to restrictions in phase 3 of the EU ETS?" Question asked to companies with emissions regulated under the EU ETS, banks, financial institutions, carbon funds, CDM project developers and investors, participants in primary JI market, governments, brokers and consultants/advisors. N=1,616



Source: Point Carbon

### 3.3. Credit eligibility in the EU ETS

The high level of uncertainty on any new qualitative restrictions on CERs/ERUs in phase 3 of the EU ETS is well reflected in the fact that nearly a fifth of respondents say they don't know which project types they find most likely to be excluded in the 2013-2020 period (Figure 20). A fifth expect large hydro to be restricted, and another fifth bets on N<sub>2</sub>O nitric acid. Some 12 percent expect energy efficiency at coal plants to be restricted. Indeed, the UN has put on hold the methodology ACM013, for energy efficiency improvements at coal plants, due to concerns that it overestimates emission reductions because the baseline is too lenient.

### 3.4. JI

The survey results reflect the market division on the future of JI (Figure 21) – 38 percent expect JI

to continue post-2012, 28 percent think it will not, while 34 percent don't know. In our view, it is more likely that the JI mechanism will not continue after 2012. Although a second Kyoto commitment period should ensure the AAU-like structure needed to issue ERUs, we don't think JI will be prioritised.

**“** No consensus on the outlook for JI post-2012

We expect issuance of ERUs for emission reductions from the 2008-2012 period to be technically feasible – this should be possible until the deadline for Kyoto compliance in 2015, until which AAUs from the first commitment period will be around.

## 4. NORTH AMERICAN CARBON MARKETS

In North America, California will this year overtake the Regional Greenhouse Gas Initiative (RGGI) as the region's largest carbon market.

### 4.1. RGGI

Out of the survey participants that answered questions about the Regional Greenhouse Gas Initiative (128), more thought that regulators would tighten the programme's cap in the coming years than did not (Figure 22). However, even more respondents didn't know or had no opinion on whether the cap will tighten, reflecting the state of uncertainty around the future of RGGI's current over-allocation.

**“** High level of uncertainty on RGGI's future cap

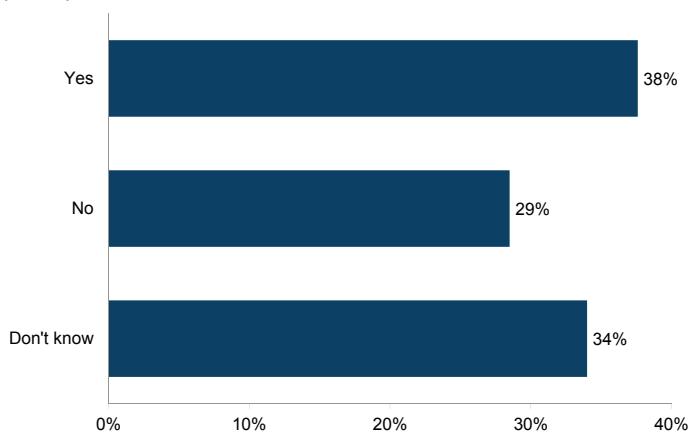
Respondents did reflect expectations of a cap-tightening in their answer on RGGI prices: more of them assumed that an allowance in the program will cost \$5-\$10/short ton by 2015, though prices have been at or near RGGI's reserve price (currently \$1.93/short ton) for over a year (Figure 23). This is more bullish than last year, when respondents expected prices to remain in their current \$2-5 range in 2015. Again, however, the "no opinion/don't know" answer garnered by far the most responses, showing market participants are unsure of RGGI's future direction.

### 4.2. California

Asked about California's cap-

**Figure 21: Looking into the JI crystal ball.**

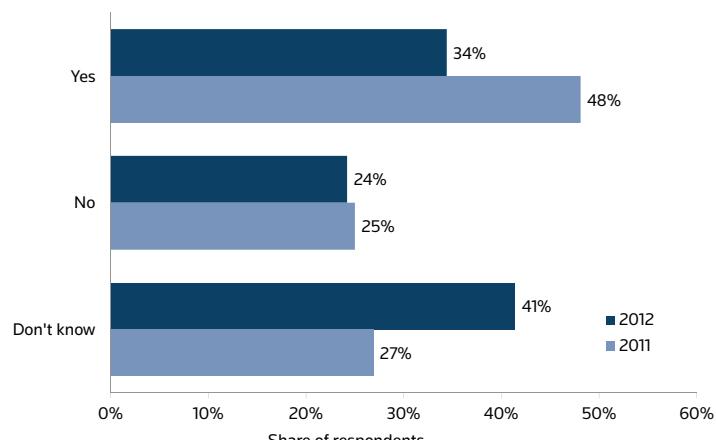
Do you think the Joint Implementation mechanism (JI) will continue beyond 2012? "Question asked to companies with emissions regulated under the EU ETS, NZ ETS and Japanese CO<sub>2</sub> regulation, banks, financial institutions, carbon funds, CDM project developers and investors, and participants in primary JI market." N=836



Source: Point Carbon

**Figure 22: Tightening the cap**

"Do you think the RGGI 2012 review will lead to a tightening of the cap in the next compliance period (2012-2014?)" N=128



Source: Point Carbon

and-trade programme, slated to enter into force in 2013, the selected respondents who answered (30) almost all have a compliance obligation starting in that year (Figure 24). Though a quarter of them think they will

receive enough free allowances to cover their emissions, 40 percent foresee having to buy allowances or offsets. Last year, which had 27 respondents in this category, far fewer thought their free allocation would suffice to cover their needs.

The clarification in allocation to utilities probably account for this noticeable difference. However, in both years, a significant portion of respondents is not sure about its plans – more than 30 percent do not yet have a specific compliance strategy.

“ California carbon prices seen at \$10-15/t in 2013

California emitters plan to meet their compliance obligation in a variety of ways - most plan to buy allowances and offsets, and half plan to reduce their own emissions through internal abatement (Figure 25). This compares to around 60 percent of Australian emitters planning internal abatement.

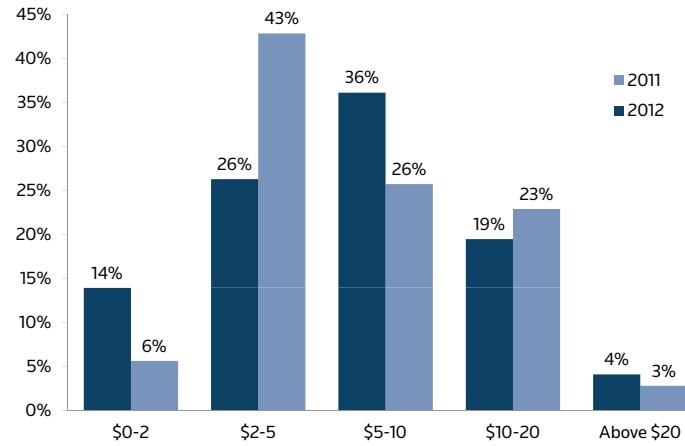
“ Forty percent of California emitters need to buy offsets or allowances

As for the price of carbon next year, 40 percent of respondents think California Carbon Allowances (CCAs) will cost in the range of \$10-15 (Figure 26). A range of \$15-20 per CCA got the next highest response rate, followed by a few (13 percent) who think the programme will be long in its first year and see prices below the initial auction reserve of \$10 (the auction reserve price is the minimum price per auctioned allowance).

In the long term, Californian respondents show a surprisingly bearish attitude toward the CCA price – more than 16 percent think it will be below the auction reserve even in 2020 (Figure 27). The auction reserve price is \$17 in 2020. In contrast, Point

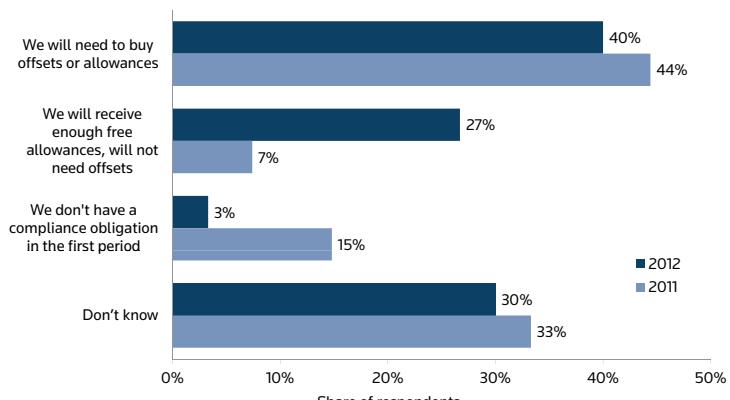
**Figure 23: More bullish**

“What prices do you expect in the RGGI market in 2015?”, N=129



**Figure 24: What best describes your company's situation in the California cap-and-trade programme in the first compliance period (2013-2015)?**

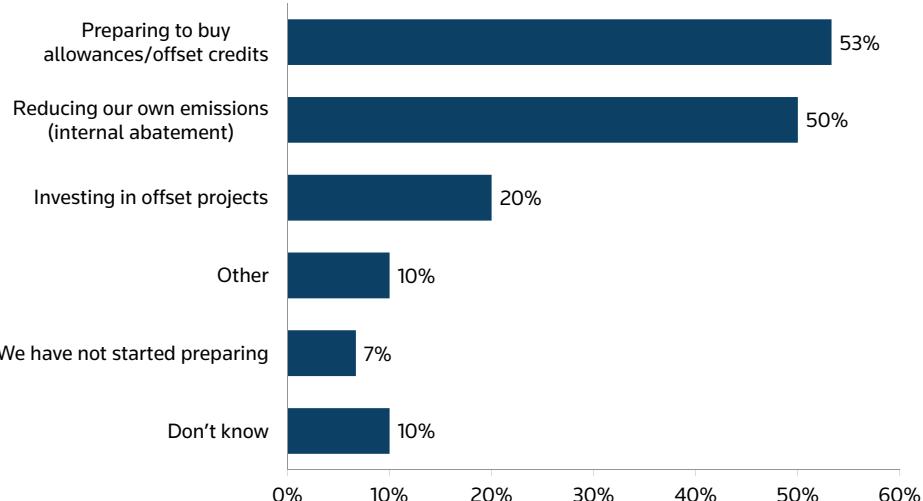
Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

**Figure 25: How to be in compliance?**

Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

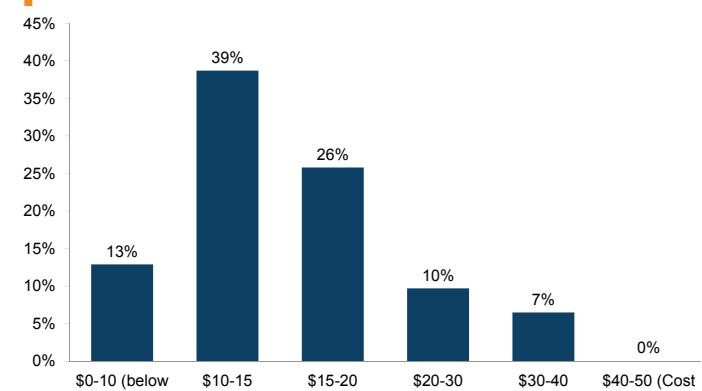
Carbon has fair price assessment of \$66/t in 2020. The rest of respondents see prices either in the \$17-30 range or in the \$30-50 range, with less than 10 percent assuming prices could hit \$50-69 and only three percent reckoning CCA prices will get high enough to trigger the cost containment reserve in 2020.

**“** Half of California respondents planning emission reductions

The expectation of a carbon price has put emission reductions on respondents' radar screens, with 31 percent saying they are planning to cut their greenhouse gas output in light of the programme's upcoming entry into force – up from only 24 percent last year (Figure 28). However, emission reduction actions reported by survey participants were higher last year, with 28

**Figure 26: 2013 price expectations for California allowances**

Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

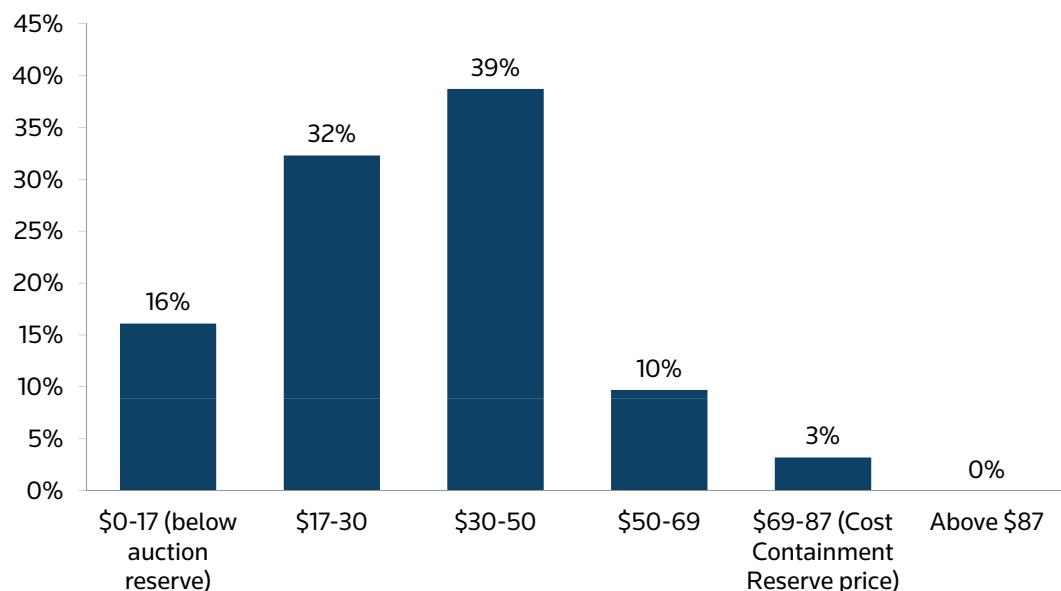
percent of respondents saying the impending programme had already caused them to cut GHGs in 2011 compared to only 21 percent in 2012.

Cap-and-trade does not seem

to be causing a mass exodus of firms out of California, with a large majority of respondents indicating they plan to stay in

**Figure 27: 2020 price expectations for California allowances**

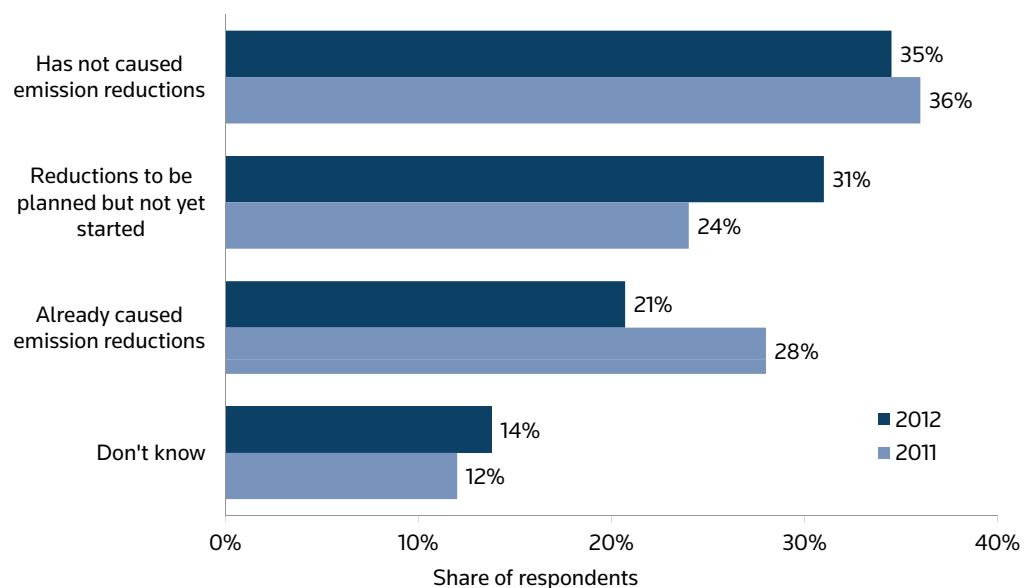
Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

**Figure 28: Impact of California's cap-and-trade programme**

Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

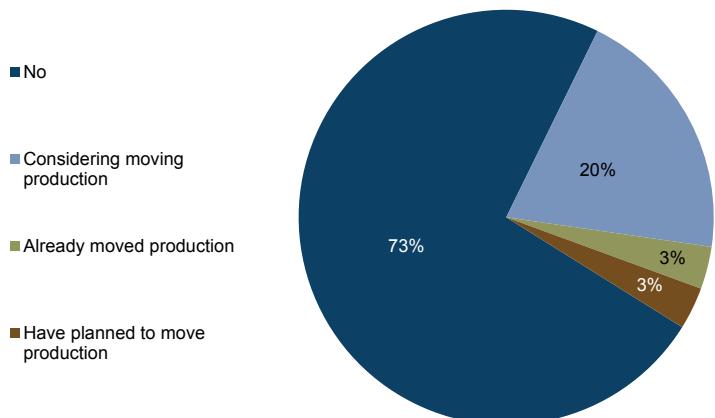
the state despite having to pay for their GHG emissions (Figure 29). However, one-fifth of the respondents indicated they are considering moving production out of state, with three percent having moved already or planning to, respectively. Compared to the results in the other markets (EU ETS, NZ ETS, Australia), California is the market with the highest share of respondents (one fifth) considering moving production – which is quite normal, since it's much easier to move production to a neighboring state than in a different country or continent altogether.

#### 4.3. North American offsets

Of the responses to questions about the North American offset market (301), nearly half found that it produced real emission reductions and nearly one-third consider it transparent. About 40

**Figure 29: Carbon leaking from California to neighboring states?**

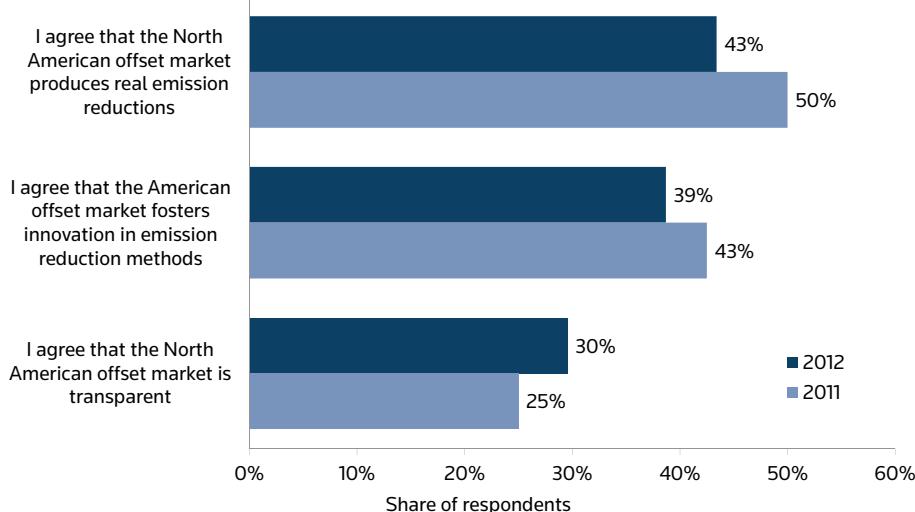
Question asked to companies that will be regulated under the California cap-and-trade programme, N=30



Source: Point Carbon

**Figure 30: Assessment of the North American offset market**

N=183



Source: Point Carbon

percent find it fosters innovation in emission reduction methods (Figure 30).

These responses are very similar to those from last year's survey, with slightly more positive assessments of the market's transparency and more negative views on its ability to deliver real reductions.

## 5. CARBON MARKETS IN ASIA AND OCEANIA

The New Zealand emission trading scheme (NZ ETS) is already in operation and Australia passed legislation last year which introduces a trading scheme from 1 July 2015. Other countries in Asia and Oceania are currently planning to introduce nation-wide or regional emission trading schemes, namely China and South Korea.

### 5.1. New Zealand

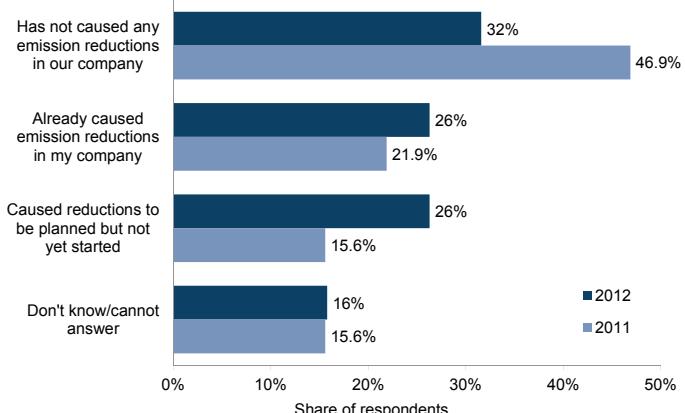
The New Zealand ETS (NZ ETS) started operating in 2008. The scheme is neither a cap-and-trade system, since there is no cap, nor a baseline-and-credit system, since credits are not issued based on divergences from a baseline. The NZ ETS is a system of mandatory surrender of carbon credits to cover emissions, where the carbon units used are for the most part issued by the government.

**“** Higher share of NZ respondents say ETS has caused emission reductions

In this year's survey, 19 respondents are companies covered by the New Zealand ETS, down from 32 last year. This obviously reduces the statistical significance of the results.

**Figure 31: To what extent has the New Zealand ETS caused your company to reduce emissions?**

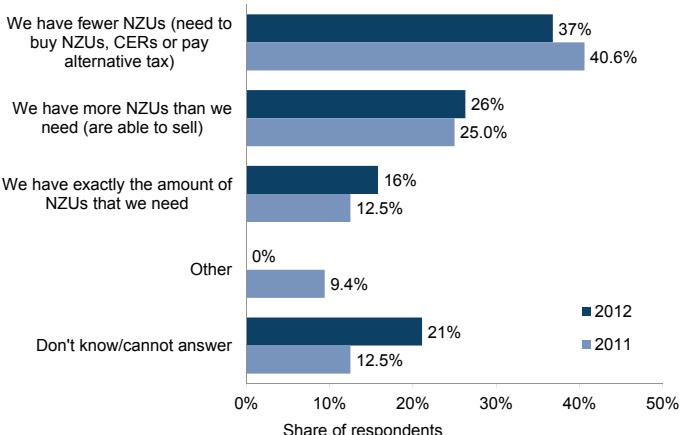
Companies covered by the NZ ETS, N=19



Source: Point Carbon

**Figure 32: What best describes your company's current situation in the NZ ETS?**

Companies covered by the NZ ETS, N=19



Source: Point Carbon

What impacts of the ETS are they reporting? The share of respondents saying either that the ETS has already caused emission reductions in their company

or that it has caused reductions to be planned has increased from 38 last year to 52 percent this year (Figure 31). This year's number is close to the 50 percent

of EU ETS companies reporting the same this year. The share of respondents saying that the NZ ETS has not caused any emission reductions has fallen accordingly. The change could reflect a change in the emitters' profile, and it is difficult to conclude that there is a significant change in the way the scheme impacts emitters.

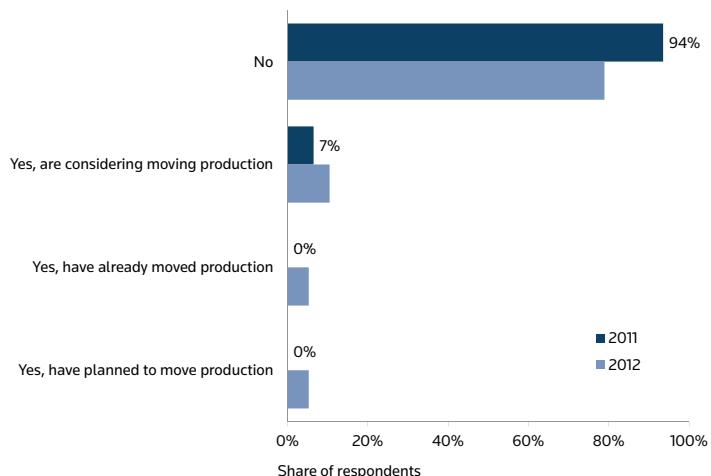
The survey results on companies' positions in terms of allowances versus emissions show a similar picture as last year (Figure 32). Thirty-seven percent of the companies have fewer New Zealand Units than they need for compliance, a quarter has more than they need, and 16 percent have exactly the amount they need.

**“** NZ ETS to enter new compliance period in 2013

Under current rules, emitters only have to surrender 1 allowance or credit to cover for 2 tonnes of CO<sub>2</sub>e emitted. We reckon that the scheme is long over the 2008-2012 period. This could change from 2013, when a new compliance period starts. The current ETS legislation has the energy, transport and industrial sectors stepping up to a full obligation in 2013 – they would need to cover 100 percent of their emissions with NZUs and/or CERs/ERUs from that year. However, the legislation is likely to be changed. A review panel, which delivered a report late in 2011, recommended to slow this by phasing it in three steps in 2013, 2014 and 2015, with the share of emissions to be covered increasing each year to reach 100 percent only in 2015.

**Figure 33: Moving production outside New Zealand due to ETS?**

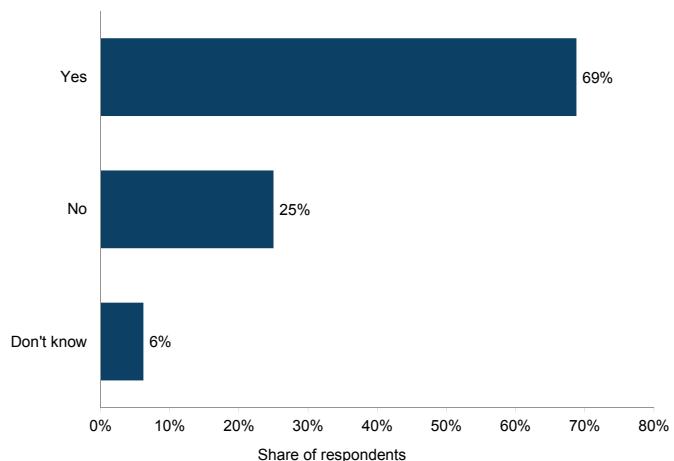
"Has your company considered moving production outside New Zealand because of carbon costs?" Questions asked to companies covered by NZ ETS. N=19



Source: Point Carbon

**Figure 34: Most likely going ahead as planned**

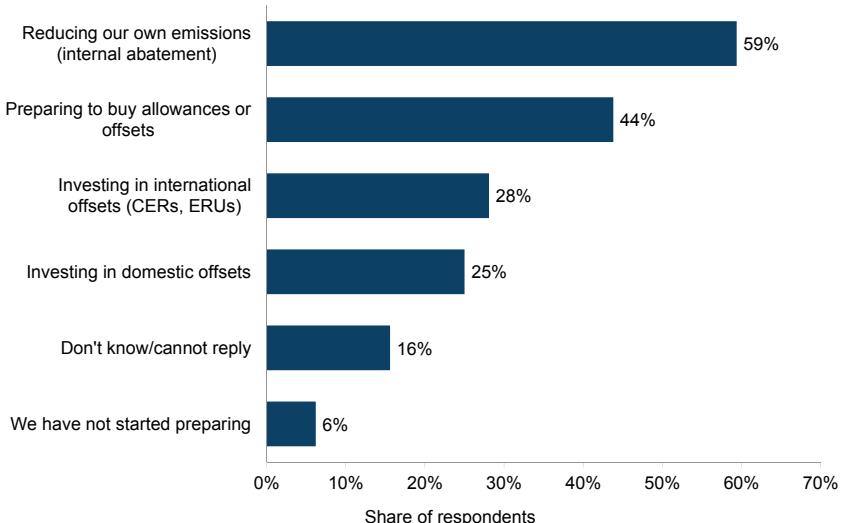
"Do you think the Australian cap-and-trade programme's "flexible" period (with a floating carbon price) will go ahead as planned, and start on 1 July 2015?" Question asked to companies which will be covered by Australia's cap-and-trade programme. N=32



Source: Point Carbon

**Figure 35: How is your company preparing for Australia's cap-and-trade programme?**

Question asked to companies with emissions which will be covered by the Australian carbon pricing scheme.  
Multiple responses possible. N=32



Source: Point Carbon

Looking at the potential for carbon leakage, the share of respondents saying that they consider moving production is somewhat higher than last year, while the share that say "no" has fallen from above 90 to slightly below 80 percent (Figure 33).

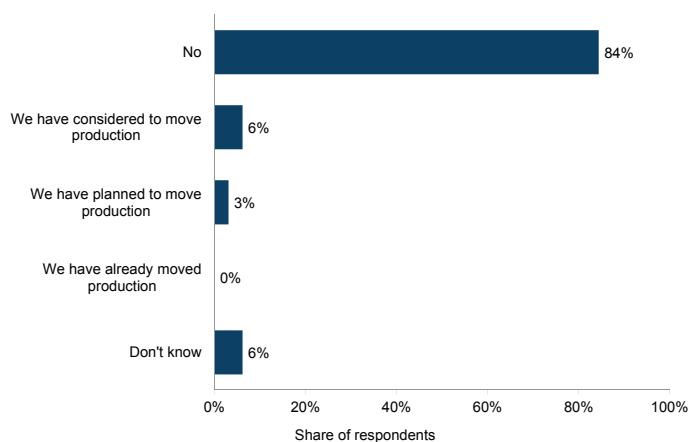
## 5.2. Australia

Starting from 1 July this year, Australian emitters with emissions above 25,000 tonnes CO<sub>2</sub>e a year (and 10,000 tons for certain waste facilities) will have to pay a carbon tax on their emissions. From 1 July 2015, the tax or "fixed price" emission trading scheme will transition into an emission trading scheme with a floating price. In our survey, thirty-two respondents are companies that will be covered by the Australian scheme.

Opposition politicians have threatened to dismantle the Australian carbon scheme if

**Figure 36: Carbon leakage in Australia**

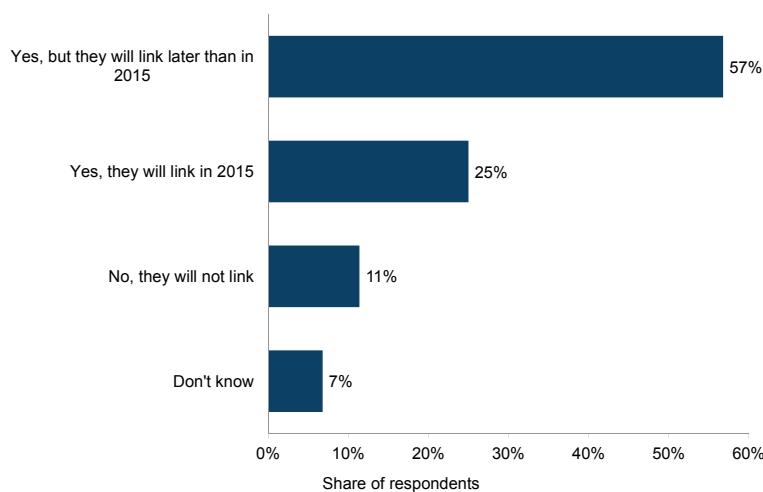
"Has your company considered moving production out of Australia because of carbon costs?" N=32



Source: Point Carbon

**Figure 37: Do you think the New Zealand ETS and Australia's ETS will link?**

Questions asked to companies covered by the New Zealand and Australian ETSs. N=44.



Source: Point Carbon

they win the elections in 2013. Nevertheless, 69 percent expect the Australian emission trading scheme to go ahead as planned, while a quarter of respondents don't. We think that the most likely outcome is that the scheme goes forward as planned, but that there could be changes to the price floor and ceiling, either that these are removed or that they are changed.

**“** Sixty percent of respondents planning internal abatement

According to our survey, the main way of preparing for the carbon scheme is to reduce the company's own emissions (60 percent of respondents) (Figure 35). This is an indication that the expect cost of carbon is higher than the abatement cost of the measures planned by emitters. Second come preparations to buy allowances or offsets (44 percent of respondents). Both international

and domestic offsets offer an alternative for lower compliance costs. Emitters are allowed to use international offsets to cover up to half of their compliance obligation starting from 2015. They can use credits from the domestic Carbon Farming Initiative (CFI) for up to five percent of their emissions during the fee phase of the programme until 2015, and an unlimited amount from then onwards.

Nearly a third of respondents say that they are investing in international offsets as part of their compliance strategy. This is a relatively high share when taking into account that there is a price floor of A\$15/t on international offsets and uncertainty on how the price floor will be implemented. All this reduces international offsets' attractiveness as compliance instruments. A quarter of respondents say that they are investing in domestic offsets, which will be generated by the CFI. In terms of carbon leakage, the picture is very similar to that in

the EU ETS and the NZ ETS – an overwhelming share of respondents have not considered moving production abroad due to carbon costs (Figure 37).

Looking at linking, a majority of respondents expect linking but later than in 2015. This is also in line with our expectations. The Australian and New Zealand schemes have a number of differences, which will make linking challenging and time consuming.

### 5.3. China

Limiting the growth of carbon emissions and reducing pollution is now among Chinese policy makers' top priorities, as was reflected in the 12th Five Year Plan, covering the period 2011-2015. In 2011, China's main economic planning agency, the national development and reform commission (NDRC) announced that seven cities/provinces will start pilot emission trading schemes in 2013, and that a nationwide scheme would

start in 2015. The “pilots” are the West coast cities Beijing, Tianjin, Shenzhen and Shanghai and the Western province of Guangdong, in addition to the inland provinces of Hubei and Chongqing. None of the selected cities/provinces have published any specific plans for the schemes yet.

**“ Doubts about China’s capacity to design well functioning markets**

Overall, most respondents think some but not all of the seven pilots emission trading schemes will enter into force before the 2013 timeline (Figure 38). Interestingly, compared to counterparts elsewhere, US respondents are in general more pessimistic about the prospects for China’s pilot schemes.

The open comments to this question reflect that the main issue at stake is not really whether there will be emission trading in China, but rather how functional it will be. Several respondents express their concerns about this and doubt that the ETSS will be effective and transparent. In our view, there are a number of challenges ahead for the well functioning emission trading schemes in China. These include a heavily regulated power sector, the rapid growth of coal-fired power plants, the steel and cement sectors’ role in employment, as well as the difficulty of gathering emissions data from the numerous facilities in the steel and cement sectors.

## 6. INTERNATIONAL NEGOTIATIONS

The outcomes of the UN climate change negotiations in Durban

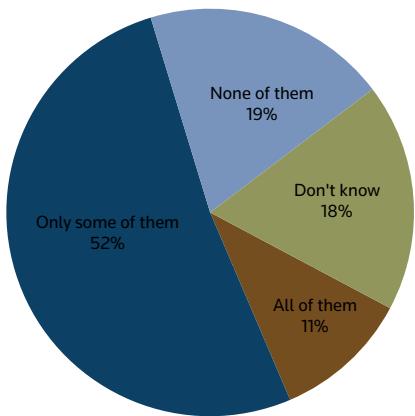
- a second Kyoto commitment period for selected countries and agreement to agree later on a global 2020 deal - were beyond our expectations. However, these outcomes were in line with the views of the majority of respondents to this survey in 2011;

54 percent expected a second Kyoto commitment period.

Looking at respondents’ assessments of last year’s meeting in Durban (see Figure 39), the level of dissatisfaction is slightly higher for Durban than for Cancun.

**Figure 38: Towards emission trading in China**

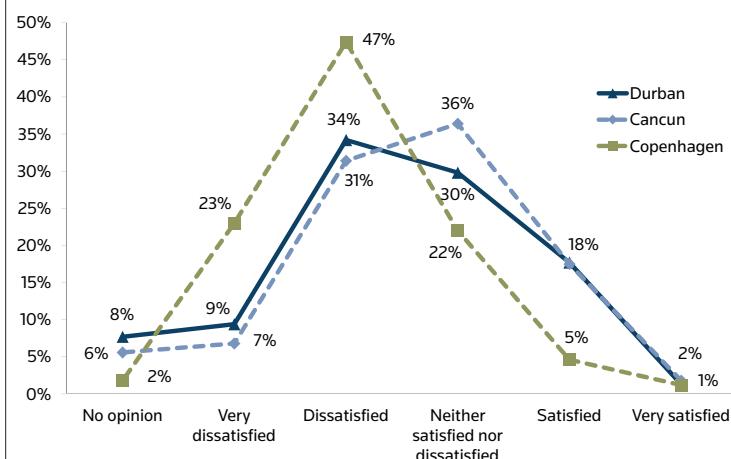
“Do you think the seven planned regional pilot emission trading schemes in China will be operational in 2013?” N=2445



Source: Point Carbon

**Figure 39: I can't get no satisfaction**

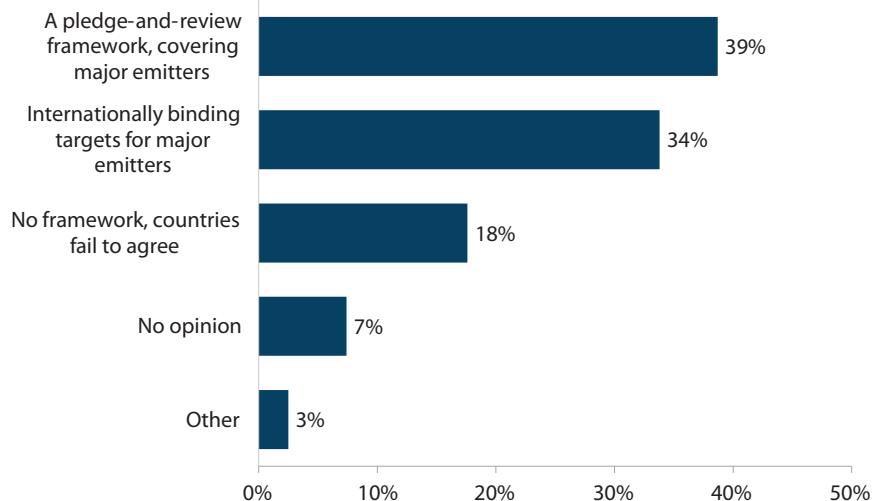
N= 2,529



Source: Point Carbon

**Figure 40: What do you expect the overall global policy framework after 2020 to look like?**

N=2,517.



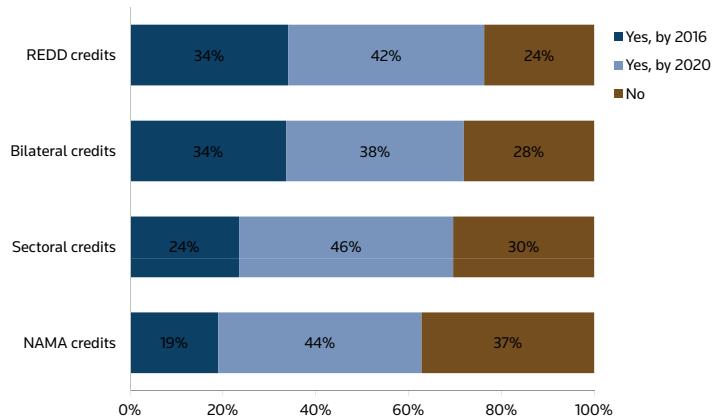
Source: Point Carbon

Some 34 percent say they are dissatisfied with the outcome of the Durban negotiations, compared to 31 percent for Cancun. The share of people who are neither dissatisfied nor satisfied fell from 36 percent for Cancun to 30 in Cancun, and the share of respondents saying they are satisfied or very satisfied is remarkably stable.

In Durban parties agreed to "launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties". This new agreement should be in place at the latest in 2015 so that it can enter into force from 2020. Will countries manage to agree, and if so, what will be the shape of the international climate change framework starting from 2020? Nearly forty percent of respondents expect a pledge-and-review system,

**Figure 41: New market mechanisms – the next big thing?**

N=499



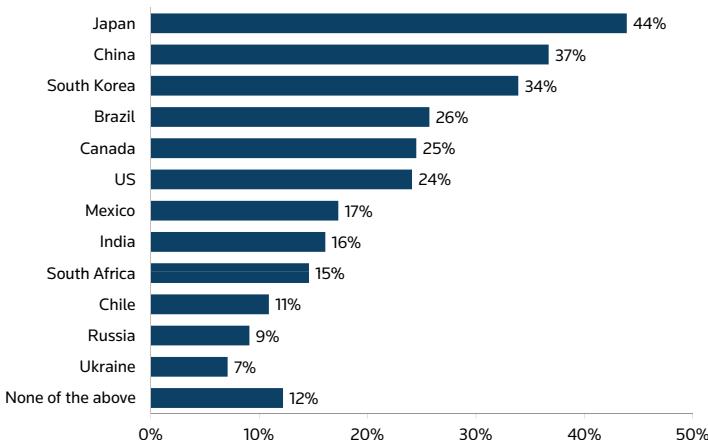
Source: Point Carbon

which would be very similar to the framework agreed in Copenhagen for the 2013-2020 period (Figure 40). Meanwhile, 34 percent of respondents expect internationally binding targets for major emitters.

Even if there currently is an oversupply of CERs/ERUs in the market, there are efforts and initiatives to create new mechanisms to generate internationally tradable carbon offsets. These include credits

**Figure 42: ETSs around the world – Asia at the top**

"Which of the countries below will have mandatory cap-and-trade at the national level in 2017?" N=2,423 .



Source: Point Carbon

from reducing emissions from deforestation and degradation (REDD), from so-called "nationally appropriate mitigation measures" (NAMAs) in developing countries, from bilateral projects financed by an investor country without need for UN approval and credits from reductions below a sector-level emission baseline (sectoral credits). None of these exist today, but they are being tested out on the ground, and discussed among policy makers. Will these materialise?

**“** More people dissatisfied with Durban than with Cancun

The survey respondents are quite bullish on the potential for credit generation from new mechanisms (Figure 41). However, they mostly think it will take time before credits

are generated - and around a third of respondents do not expect any credits from the new mechanisms. Just like in last year's survey, REDD is seen as the most promising mechanism for credit generation, and NAMAs and sectoral crediting as less promising.

Under a pledge-and-review system, domestic decisions to a large extent determine the level of global emissions. Several countries are considering to use emission trading, in order to reduce emissions in a cost-effective manner. To the question "Which of the countries below will have mandatory cap-and-trade at the national level in 2017?", Japan garners the highest share of votes, with 44 percent of respondents expecting it to have cap-and-trade by 2017 (Figure 42).

This is surprising because the bill which would introduce mandatory cap-and-trade in Japan has been abandoned and is not likely to

be discussed until after the 2013 elections. Since March last year, the government has been busy dealing with reconstruction and power supply in the aftermath of the tsunami. Policy makers are working on a review of the basic energy plan, of which the initial version (from 2010) called for adding 14 new nuclear plants by 2030 in order to meet Japan's expected rising electric needs. A new draft is due this spring. The introduction of an emission trading scheme has not been on the political agenda since 2010. In this context, the perception that Japan is the country with the highest likelihood of having a mandatory national cap-and-trade scheme in place may come from the fact that its neighbors South Korea and China are planning to introduce nationwide emission trading schemes.

**“** 44 percent expect nationwide cap-and-trade in Japan in 2017

In our survey, China is second and South Korea third. Brazil comes in as fourth, ahead of Canada, and the US. In Brazil, the state of Rio is designing an ETS, scheduled to start in 2015. The lessons from this regional scheme might be used for a federal programme in the future.

In a context where a larger number of countries take part in the global mitigation effort - although emission reduction pledges are not binding internationally - new emission trading schemes and market based mechanisms for reducing emissions will emerge. These will come in different shapes and sizes.

## Colophon

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### EDITORIAL ENQUIRIES

Carina Heimdal  
carina.heimdal@thomsonreuters.com  
Tel +47 952 01 355  
Fax +47 22 40 53 41

### SALES ENQUIRIES

Point Carbon Sales Team  
sales@pointcarbon.com  
Tel +47 22 40 53 40  
Fax +47 22 40 53 41

### OTHER ENQUIRIES

Point Carbon, Norway  
(Head Office)  
P.O. Box 7120 St.Olav, Akersgata 55  
N-0130 Oslo  
Norway  
Tel +47 22 40 53 40  
Fax +47 22 40 53 41  
contact@pointcarbon.com

### WEBSITE

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

### OFFICES/REPRESENTATIVES

#### Washington D.C.

Point Carbon North America  
1200 First Street, NE; Suite 310  
Washington, DC 20002  
washington@pointcarbon.com  
Phone: +1 202 289 3930  
Fax: +1 202 289 3967

#### Oslo (Headquarters)

Point Carbon  
Akersgata 55, 3rd floor  
P.O. Box 7120 St.Olav  
N-0130 Oslo, NORWAY  
contact@pointcarbon.com  
Phone: +47 22 40 53 40  
Fax: +47 22 40 53 41

#### London

Point Carbon London  
Second Floor  
102-108 Clerkenwell Road  
London, EC1M 5SA  
United Kingdom  
london@pointcarbon.com  
Phone: +44 (0)20 7253 7878  
Fax: +44 (0)20 7253 7856

#### Kiev

Point Carbon Kiev  
3 Sportyvna Ploscha  
Entrance IV, 4th floor  
Olymp Business Center  
01601 Kiev  
Ukraine  
kiev@pointcarbon.com  
Tel: +38 044 499 0308  
Tel/Fax: +38 044 499 0309

#### Malmö

Point Carbon Malmö  
Östra Förstadsgatan 34  
212 12 Malmö  
Sweden  
contact@pointcarbon.com  
Phone: +47 22 40 53 40  
Fax: +47 22 40 53 41

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# CONTACT US!

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