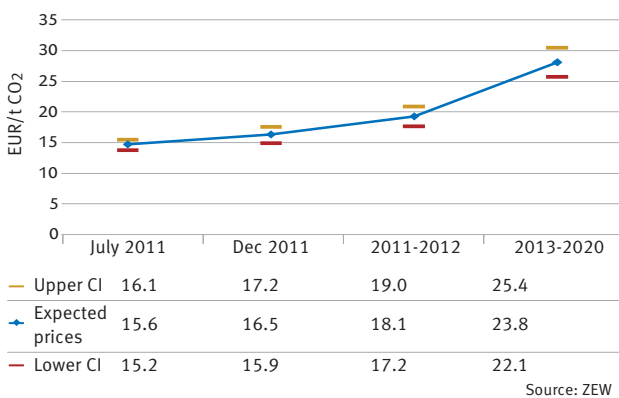


Outlook: The future of the Carbon-Markets

EUA price expectations unchanged

Price expectations for European Emission Allowances (EUAs) remained unchanged in December 2010 compared to the last survey in July. Until July 2011 the price is seen in a range of 15.20 to 16.10 EUR in average. Until the end of 2011, a slight increase in prices from 15.90 to 17.20 EUR is expected and until the end of the second trading period in 2012 the EUA-price is seen at a maximum of 19.00 EUR. Within the third trading period from 2013 to 2020, average EUA-prices are currently expected to lie in a range of 22.10 to 25.40 EUR. The relatively moderate price-expectations for EUAs can be explained by the strong decrease of emissions in 2009 – due to the economic and financial crisis – and the resulting surplus of allowances within the European Emissions Trading Scheme (EU-ETS).

Expected EUA Prices

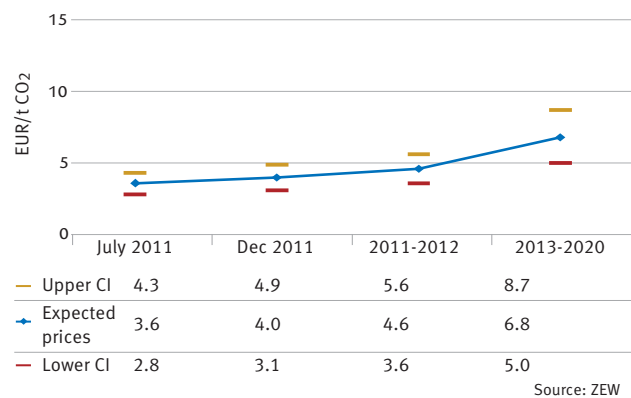


Rising sCER prices, again!

While price expectations for EUAs remained basically unchanged, expectations for the spread (difference in prices) between EUAs and secondary Certified Emissions Reductions (sCER) increased in December 2010 compared to July. The average spread until July 2011 is currently seen at 2.80 to 4.30 EUR. Until the end of 2011, a slight increase to 3.10 to 4.90 EUR is expected.

Until the end of the second trading period, experts expect the spread to be situated in a range of 3.60 to 5.60 EUR. Within the third trading period from 2013 to 2020 an average spread of 5.00 to 8.70 EUR is expected. Uncertainty about the future regulation of the CDM is the main reason for the expected increase of the spread.

Expected sCER Prices



Regions and Types of CDM and JI Projects

According to the experts' opinion, the most promising regions for CER-projects are the Asia and Pacific region (without China and India) as well as Latin America (without Brazil). The highest increase in newly scheduled CDM projects is expected for Africa. This is in line with the expectations expressed by German EU-ETS participants at the occasion of the last KfW/ZEW CO₂ Barometer survey. For India and Brazil the number of newly scheduled projects is seen to stagnate. Project activities in China are expected to decrease. With regard to JI, no expansion of project activities is forecasted. While Russia and the

Ukraine remain in the most attractive regions, experts predict a decline of project activities in Western Europe. Concerning CDM and JI project-types, an expansion of project activities in renewable energy and demand side energy efficiency is expected. Solar heat, photovoltaic and wind-power are currently considered being the most attractive project-types. Regarding HFC- and N₂O-projects, experts forecast a strong decrease of newly scheduled projects. This view reflects the plans of the European Commission to exempt permits generated from HFC and N₂O projects from use in the EU-ETS from 2013 onwards.

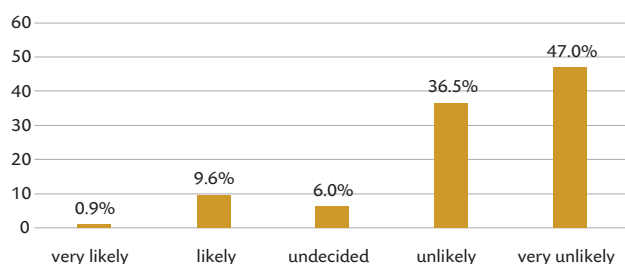
Special topic: the future of the carbon market

The introduction of new cap-and-trade schemes for greenhouse gas abatement is subject of ongoing discussions in a number of countries. The survey participants were asked to assess the chances for the introduction of such trading schemes until 2013 in different regions and branches. Japan is seen as the country with the highest probability of introducing an ETS until 2013: 50 % of respondents think that this is "likely" or "very likely". The decision to introduce an ETS in Japan until 2012 was delayed indefinitely in December 2010. According to the experts, an ETS covering the international shipping industry is also likely to be realized. The same holds true for a further expansion of market-based approaches concerning REDD. Regarding the likelihood of an ETS-implementation in Australia until 2013, the expectations are mixed. The introduction of an ETS in the US until 2013 is considered as unlikely, after the midterm-elections in the USA where the Republican Party has gained political influence. Compared to al-

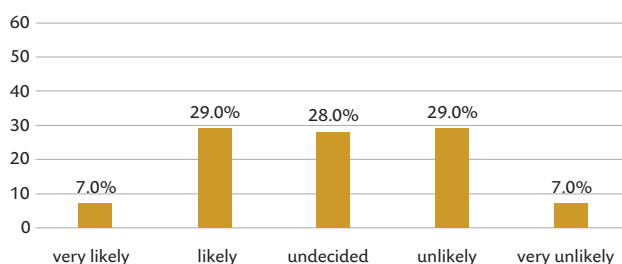
ternative offset-schemes, i.e. a Japanese or US-scheme, the CDM is still seen as the most important offset-scheme until 2020 by a majority of 55 % of respondents. 14 % believe that a possible future US-offset scheme could be the most important one until 2020. Only 2 % see the commencing Japanese offset-scheme in this role. 29 % of the experts forecast that other alternative schemes will dominate the market until 2020. If a mandatory national US-ETS was introduced, the annual demand for offset-permits from the US within 2012 to 2020 would be 200 million permits per year in the median, according to the experts' forecasts. Likewise, if Japan introduced an ETS, the demand from the scheme would be 77.5 million permits per year. For the case of an introduction of carbon trading in Australia, the demand from Australia and New Zealand is expected to be 50 million permits per year in median for the 2012 to 2020 period. Demand on the voluntary carbon markets is expected to be about 20 million permits.

Expectations on the introduction of Emissions Trading Schemes

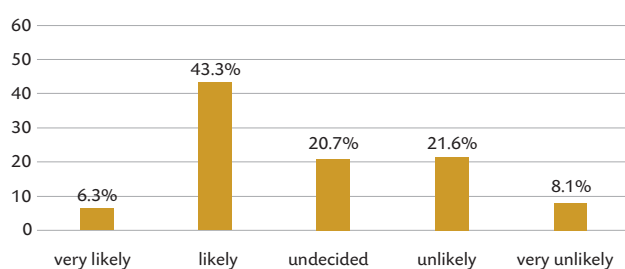
Will the USA introduce a mandatory national emissions trading scheme until 2013?



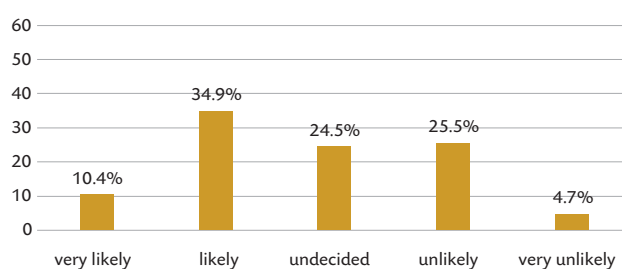
Will Australia introduce a mandatory national emissions trading scheme until 2013?



Will Japan introduce a mandatory national emissions trading scheme until 2013?



Will REDD be more integrated in the carbon markets until 2013?



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I M P R E S S U M

About the KfW/ZEW CO₂ Barometer:

The KfW/ZEW CO₂ Barometer is a cooperative project of the KfW Bankengruppe and the Centre for European Economic Research (ZEW). With the KfW/ZEW CO₂ Barometer, carbon market experts are surveyed biannually on the development of price expectations and on issues which will determine the shape of the future carbon market.

The publications of the KfW/ZEW CO₂ Panel are available on: www.zew.eu/co2panel

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