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# Emissions Trading: Current issues and future directions

This briefing provides an overview of the current state of international carbon markets, highlights some of the key recent developments internationally and in specific jurisdictions, and considers the future of emissions trading.

**International carbon markets are in a state of flux. The impending end of the first commitment period of the Kyoto Protocol, the imminent start of Phase 3 of the European Union emissions trading scheme (EU ETS) and the development of new schemes elsewhere mean ongoing uncertainty for investors, but also potential opportunities.**

## The international situation

The key international agreements are the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The UNFCCC sets the international framework for addressing climate change. It encourages efforts to stabilise greenhouse gas (GHG) emissions, but does not commit parties to binding GHG emissions reduction targets. By contrast, the key feature of the Kyoto Protocol is that it commits developed countries to binding GHG emissions reduction targets.

### Market-based mechanisms to achieve GHG emissions reduction targets

National measures are the primary means for achieving GHG emissions reduction targets but the Kyoto Protocol also introduces market-based mechanisms as additional routes, including the clean development mechanism (CDM) and joint implementation (JI).

The CDM involves GHG emissions reduction projects in developing countries, while JI involves projects jointly carried out in developed countries. Projects under the CDM and JI enable the creation of credits (certified emissions reductions (CERs) and emissions reduction units (ERUs) respectively) which are then traded in international carbon markets. For example, companies with compliance obligations under the EU ETS can purchase and subsequently surrender CERs and ERUs (in addition to EU allowances) to meet their obligations.

While the CDM is a complicated system, it demonstrates the ability of market-based mechanisms to channel funds for low-carbon projects, as well as promoting the transfer of technology to developing countries. Most CDM projects have been carried out in China, but there has also been significant investment in Indian, South American and African projects.

### Status of international negotiations

Since the international negotiations in Bali, Indonesia in December 2007, talks have generally been carried out in two separate but overlapping tracks:

- Negotiations regarding commitments to further binding GHG emissions targets under the Kyoto Protocol.
- Negotiations regarding long-term co-operative action under the UNFCCC.

The twin-track process was developed to enable progress under the Kyoto Protocol while accommodating developed countries such as the US (which is a party to the UNFCCC but is not a party to the Kyoto Protocol).

The future of the Kyoto Protocol is particularly important for international carbon markets. Despite a common misconception that the Kyoto Protocol will end at the end of 2012, in fact only the first commitment period will end. The other obligations and rules established under the Kyoto Protocol, including the rules for the operation of the CDM and JI, will continue after the end of 2012. GHG emissions reduction targets are established on a commitment period basis and therefore the legal framework for international carbon markets will remain in place after the end of 2012, irrespective of any future commitment periods.

However, in the absence of a second commitment period with binding GHG emissions reduction targets, there has been uncertainty about the future demand for credits and a reluctance to invest in projects. The uncertainty has been exacerbated by the perceived failures of international negotiations in Copenhagen, Denmark in 2009 and Cancun, Mexico in 2010. The World Bank has reported that in 2011 the market value of the pre-2013 primary CER market fell by 32%. However, investor concerns have been somewhat allayed by the outcome of the international negotiations in Durban, South Africa in 2011.

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**Kyoto Protocol track**

The parties to the Kyoto Protocol have agreed to a second commitment period, beginning on 1 January 2013 and ending on either 31 December 2017 or 31 December 2020, although further discussions are taking place this year to reach agreement as to the term. An eight-year second commitment period would match Phase 3 of the EU ETS (*see below*). This is important because the main demand for CERs and ERUs comes from Europe (companies purchasing and surrendering CERs and ERUs to comply with their obligations under the EU ETS) and any mismatch between the terms is likely to create investor uncertainty in the future.

In contrast to the first commitment period, the GHG emissions reduction targets for the second commitment period are determined in a "bottom-up" manner, with developed countries having until 1 May 2012 to make submissions to the UNFCCC secretariat (although this has not been done by a number of countries). It appears that "pledge and review" style GHG emissions reductions targets will be the preferred approach going forward, rather than the negotiation of binding GHG emissions reduction targets (as was the case for the first commitment period of the Kyoto Protocol).

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While the guarantee of a second commitment period provides some comfort for investors, there remains uncertainty as to key details. In addition, while the EU has committed to the second commitment period, Japan and Russia have indicated that they will not participate, and Canada has announced its intention to withdraw altogether from the Kyoto Protocol.

**UNFCCC track**

In relation to the UNFCCC, agreement was reached to "launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the UNFCCC applicable to all parties". The protocol, instrument or outcome is to be developed by a subsidiary body under the UNFCCC by 2015 in order for it to be adopted in 2020. The nature of the protocol, instrument or outcome, and whether it will be legally binding, is not clear.

## Key outcomes for international carbon markets

The other key aspects of the Durban talks for international carbon markets are:

- The future of the CDM and JI is confirmed, at least for the time being. This provides a degree of certainty to investors. In addition, a set of procedures for carbon capture and storage (CCS) projects has been agreed under the CDM. This means that projects for the capture, transport and the underground of GHG emissions in developing countries are able to generate CERs for trading in international markets.
- Agreement has been reached for the establishment of a new market-based mechanism for developed countries under the UNFCCC. This is significant, because it will be the first time that a market-based mechanism will be implemented

under the UNFCCC (rather than the Kyoto Protocol) and means that countries that are not party to the Kyoto Protocol will have access to international carbon markets. It is thought that the new market-based mechanism may operate on a sectoral, rather than economy-wide, basis.

- The establishment of the Green Climate Fund under the UNFCCC which is intended to enable the transfer of funds to developing countries in order to assist with mitigation and adaptation measures.

There has been some criticism from environmental groups that the outcomes of the Durban talks are not ambitious enough to avoid dangerous anthropogenic climate change. In addition, concerns have been expressed that the prospect of a deferred agreement does little to assist developing countries, and there is a risk that the distinction between the obligations of developed countries and developing countries will become blurred. However, while the detail will be the subject of further negotiations, it is generally regarded as a significant step forward to achieving global agreement on GHG emissions reductions, and sends a signal to business and investors about the future of international carbon markets.

# EU ETS

Trading in carbon markets is an important tool to fulfil national obligations under the Kyoto Protocol. As set out above, the Kyoto Protocol commits developed countries to binding emission reduction targets. To meet its Kyoto Protocol obligations, the EU has established an emissions trading scheme for companies in the EU ETS. The EU ETS was introduced in 2005 and modified in 2009 under Phase 3 (*see below*).

The EU ETS establishes a cap-and-trade system for companies. There is an economy-wide cap on emissions set by reference to the Kyoto Protocol obligations, and each company emitting GHGs (in tonnes) must deliver an equivalent amount of allowances to a national authority on a yearly basis. These allowances are either allocated or auctioned to companies (and the amount of allowances allocated or auctioned corresponds to the cap) or bought on the secondary market. Directive 2004/101/EC amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community (Amended Emissions Trading Directive) introduces the market-based mechanisms of the Kyoto Protocol (the CDM and JI) into the EU ETS. Consequently, companies in a member state can obtain further credits from international projects and use these credits to fulfil their yearly compliance obligation under the EU ETS.

The EU ETS has so far consisted of three phases. Phase I started in 2005 and lasted until 2007. Currently, Phase 2 (2008 to 2012) is still running and Phase 3 will commence on 1 January 2013, bringing some important changes.

## Phase 2: 2008 to 2012

In Phase 2, large numbers of allowances were allocated free of charge to companies subject to obligations under the EU ETS. The allocation of allowances to companies was laid down in a National Allocation Plan (NAP) prepared by each member state, which establishes rules for allocation as well as the total number of allowances that should be allocated in that member state.

## Phase 3: 2012 to 2020

The start of Phase 3 brings some substantive changes to the EU ETS. The most obvious change is the shift from free allocation in Phase 2 towards an auctioning system in Phase 3.

Under the new system, electricity-generating companies will generally have to obtain 100% of their allowances at auction (as they will not be granted a free allocation of any allowances). For other industries, a certain amount of allowances will still be allocated free of charge, whereas 20% of allowances will have to be auctioned in 2013, increasing to 70% in 2020, with a view to ensuring that there is no free allocation in 2027. Installations in sectors or sub-sectors which are exposed to a significant risk of carbon leakage will be allocated allowances free of charge.

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The overall amount of allowances available will be limited by a EU-wide cap, rather than under NAPs. The available allowances for auctioning will be limited to the extent that a free allocation has taken place. The EU-wide cap will be lowered by 1.74% each year in order to reach a reduction of GHG emissions by 20% in 2020.

In order to safeguard a swift and controlled shift from Phase 2 to Phase 3, the member states can auction allowances for Phase 3 in 2012. This applies to 120 million allowances ("early auctions"). It will also be possible for companies to use allowances from Phase 2 in Phase 3 under certain conditions and, for this purpose, Phase 2 allowances will need to be deleted and replaced by Phase 3 allowances. A different method applies for the banking of CERs and ERUs, which will have to be replaced by allowances in Phase 3 following a calculation, which is not expected before 2015.

The revenues generated by the auctioning process stay within each member state. 50% of these revenues will have to be used for measures to further reduce GHG emissions (such as the development of renewable energy technology, measures to enhance energy efficiency and measures to avoid deforestation). Member states will need to make allocations in accordance with EU-wide benchmarks to ensure those allocations provide incentives for reductions in GHG emissions and the promotion of energy-efficient technology. For each sector and sub-sector, a benchmark is calculated for products in order to maximise GHG emission reductions.

In addition to the aviation industry, which is part of the EU ETS from 2012, further industries such as international shipping may incur obligations in Phase 3.

# Current issues and issues for phase 3

## Aviation

Although there are no specific Kyoto Protocol obligations for international aviation, the EU has introduced an obligation for aviation companies to take part in the EU ETS. From 1 January 2012, aviation companies will have to surrender aviation allowances for their GHG emissions. They have had to report their GHG emissions since 2010.

All flights that depart from or arrive in an aerodrome situated in the territory of a member state are typically subject to EU ETS obligations. This does not apply to specific flights such as military flights, flights for scientific research and flights performed by aircrafts with a certified maximum take-off mass of less than 5,700kg. For flights subject to the EU ETS, 85% of the aviation allowances in 2012 will be allocated free of charge, reducing to 82% in 2013.

Following the extension of the EU ETS to aviation, several countries outside the EU brought complaints regarding the applicability of the EU ETS to their aviation companies. Following a case brought by a group of aviation companies from the US, the European Court of Justice confirmed in December 2011 that the obligations imposed on aviation companies under the EU ETS are compatible with international law. However, following further international complaints, airlines in China and India are refusing to report their GHG emissions and the US Congress has now passed legislation prohibiting US aviation companies from participating in the EU ETS.

## VAT fraud

Since 2009, cases of VAT fraud have occurred in trading under the EU ETS. In cases of VAT fraud, allowances are traded along a chain of companies, one of which intentionally does not pay VAT (and sometimes even disappears from the market and so is known as a "missing trader"). Due to the nature of emissions trading, this kind of carousel fraud is readily established, as no physical goods need to be transported and the swift and easy trading of allowances (through online registries) increases the likelihood of its being successfully carried out.

As many countries in the EU have been affected by VAT fraud, certain member states introduced measures to exempt domestic trading with allowances from VAT. These measures were taken in The Netherlands, the UK, Germany, Denmark, Spain, Luxembourg and France. In recent trials, fraudsters in the UK were sentenced to between nine and 15 years in prison. In Germany, fraudsters have recently been sentenced to up to seven years in prison and further proceedings are expected in other member states.

## Operation of registries

For Phase 3 of the EU ETS (2013 to 2020), there are important changes in the way in which the online registries recording the ownership and transfer of allowances will operate.

The key change is the introduction of a single EU registry. With effect from 20 June 2012, so for Phase 3 (2013-2020) and the end of Phase 2, the single EU registry has replaced the 27 separate Member State registries. This has the following consequences:

- From 20 June 2012, all tasks that were under the responsibility of member state registries have been taken over by a single EU registry that has been developed by and is run by the European Commission, and the member state registries will no longer be used by EU ETS participants.
- Accounts previously sitting in the member state registries have been migrated into sub-accounts of the relevant member state maintained in the single EU registry.
- Transactions taking place in the single EU registry will be subject to the approval of the EU Transaction Log (EUTL), which automatically checks, records and authorises all transactions that take place to ensure that any transfer of allowances from one account to another is consistent with the EU ETS rules.

The establishment of the single EU registry has important consequences for the trading of allowances and other units. For example, under standard trading documentation, parties must notify each other of their account details for deliveries to occur.

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The single EU registry will have two separate parts:

- The EU ETS registry part, which will carry out processes and transactions connected with trading for EU ETS compliance purposes, and this is where the operator and holding accounts previously held in the member state registries have been transferred.
- The Kyoto registry part, which will hold all other accounts previously held in the member state registries.

Only CERS and ERUs can be transferred between the EU ETS registry part and the Kyoto registry part, while allowances and aviation allowances are limited to the EU ETS registry part.

## Security issues

To counteract the problems of VAT fraud and cyber theft, the security of the single EU registry has been enhanced by changes including:

- Mandatory two-level log-in security.
- New data exchange standards to specify technical security.
- The introduction of different types of market participant accounts, including operator accounts, person accounts and trading accounts.
- Requirements that transactions can only be carried out between operator accounts, aircraft operator accounts and personal holding accounts if the receiving account is contained in a trusted accounts list. This list must be provided by

the holder of the account ordering the transaction and can only be amended by authorised representatives (and the first transfers to a newly added account following such amendment can only be carried out after a further seven days have elapsed).

- A 26-hour delayed delivery mechanism between the initiation of a transfer and communication of EUTL notification (that leads to finalisation of transfer) will be applied to any transfer unless the transfer is from a trading account to an account on the trusted account list.
- A requirement that confirmation for a transfer be provided by two different channels (such as email and telephone) before the transfer can be completed.
- Limiting the times in which transfer of allowances may be initiated to weekdays between 10am and 4pm central European time.

## Granting new regulatory powers to the authorities

In addition, further regulatory powers have been granted including:

- The European Commission can co-ordinate implementation with national administrators leading to the adoption of common operational procedures (which is likely to lead to consistent enforcement across the EU).
- Access to the EUTL, the single EU registry and accounts therein can be denied if there is reasonable suspicion of a serious security risk.
- National administrators can block access to specific units in accounts for up to two weeks if they suspect they are used for fraud, money laundering, terrorism financing or other serious crimes.
- Arrangements for the provision of access to confidential account information to member state authorities and other investigative agencies.
- Obligations are placed on account holders and their authorised representatives to keep account access information safe, computer security (including anti-virus software) up-to-date and to immediately report breaches of security.

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## Measures to address theft of allowances

The European Commission has identified that certain participants in the spot market have ceased trading allowances because of the fear of acquiring stolen allowances either directly from those that had committed the theft or from innocent purchasers.

The serial numbers of some of the stolen allowances were published (in early 2011), and some participants brought legal actions to recover the allowances. However, because of uncertainty as to whether innocent purchasers acquired good title to stolen allowances, participants have been fearful of the consequences of acquiring them. In response, the European Commission has decided to adopt a "what you don't know can't hurt you" solution by concealing the serial numbers of allowances in the single EU registry. In some jurisdictions, stolen allowances that can be identified by their serial numbers may have to be returned. To avoid this potential obstacle to operation of the market:

- The disclosure of serial numbers of stolen allowances is now expressly prohibited
- In the single EU registry, the serial number of any particular allowance is only visible to the administrator, not the account holder.
- Buyers who purchase allowances in good faith are protected.
- The fungibility of allowances has been confirmed (meaning that one allowance can be substituted by any other allowance).

The non-disclosure of serial numbers and the fungibility of allowances means that a claim by a victim of theft cannot be made for the return of specific allowances, but it does not exclude claims for the same number of allowances or for damages (although transactions that become final are irrevocable and cannot be unwound).

# Developments in other jurisdictions

In addition to the developments in the EU ETS, there have also been developments in other jurisdictions that create potential new opportunities for investors in international carbon markets.

## Australia

In Australia, a mechanism for putting a price on carbon began on 1 July 2012. Obligations to surrender carbon units will be imposed on around 500 of the largest emitters. For the first three years of the mechanism, until 30 June 2015, an unlimited quantity of fixed price carbon units will be available from the government. From 1 July 2015, the mechanism will operate as a standard cap-and-trade emissions trading scheme. Importantly for international carbon markets, on 28 August 2012, the Australian government announced an agreement with the European Commission to create linkages with the EU ETS. The linkages will occur in two stages:

- From 1 July 2015, it will be possible for liable entities in Australia to use EU allowances to meet up to 50% of the obligations each year.
- From 1 July 2018, it will be possible to use Australian units for compliance purposes in the EU ETS.

This will create international trading opportunities, and assist in creating an international carbon price (as opposed to different prices for different credits in different jurisdictions).

## North America

While the US has not ratified the Kyoto Protocol and Canada is withdrawing, there has been action at a regional level. The first, and most well known, market-based mechanism is the Regional Greenhouse Gas Initiative. There has also been action at the state and provincial level. A number of states have climate action plans, and some have state-wide emissions reduction targets. For example, emissions trading schemes in California and Quebec are expected to commence in 2013.

## Asia

In the future, international attention on domestic measures is likely to focus on Asia, particularly China where the government has announced its intention to establish a national emissions trading scheme by 2015 (starting with a small pilot scheme in 2013). For the time being, the focus is on the domestic market in China but the prospect of international linkages has been discussed.

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# The future of emissions trading

Despite uncertainty as to the future of the CDM and JI, and concerns about an oversupply of EU allowances, the World Bank reported that the value of the international carbon market grew by 11% in 2011 to US$176 billion, and transaction volumes amounted to 10.3 billion tonnes of carbon dioxide equivalent.

As much of the detail of the international mechanisms will need to be resolved, either at the international climate change negotiations in Doha, Qatar this year or later, the uncertainty for international carbon markets is likely to be ongoing, compounded by the general uncertainty in international financial markets. There is also ongoing uncertainty about whether current prices are a sufficient incentive to achieve significant reductions in emissions.

However, the outcome of the Durban talks guarantees the future of the CDM and the JI, and the inclusion of CCS projects opens a new range of opportunities for investors. The main demand for CERs and ERUs will still come from Europe as Phase 3 progresses, but markets will continue to develop elsewhere. The new market-based mechanism under the UNFCCC is particularly significant for investors in countries that are not party to the Kyoto Protocol, such as the US. The links between the EU and Australia may be seen as a blueprint for developing further international links and may lead to the establishment of an international carbon price, but, at this stage, a fully integrated international carbon market is still a long way off.

**Clifford Chance Environmental & Climatic Trading Group**

Clifford Chance's Environment and Climatic Trading Group has recently been boosted by the appointment of Robyn Glindemann as Counsel in the Firm's Perth office. Robyn joins from a major Australian International law firm and has recently been advising companies on the application of the Clean Energy Act 2011 (Cth), which establishes Australia's carbon trading scheme. Robyn has also advised a wide range of companies operating in Australia on their emissions reporting obligations under the National Greenhouse and Energy Reporting Act 2007 (Cth) and the management of carbon cost pass through issues in joint venture arrangements, supply and procurement contracts.

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