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Changing times: trading carbon in Phase 3 and the fallout from cyber thefts

Reading about the events of the last two years in the EU Emissions Trading Scheme (the "**EU ETS**") is a bit like reading a crime novel. EU Member States re-selling surrendered Kyoto credits, fraudsters using the spot market to carry out carousel VAT fraud and most recently, cyber thefts of credits from Member State registries. The question on the minds of market participants is whether this novel will have a happy ending. To say that these events have put a strain on the market is an understatement. The impact was most visible in the action taken by the EU Commission to undertake 'temporary measures' to simultaneously shutdown all Member State registries on 19 January 2011. These 'temporary measures' were not fully lifted until four months later when the last of the Member State registries (Lithuania) came back on-line.

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As each one of these scandals hit the market, the EU Commission sought to put a 'band-aid' over the problem by implementing swift legislative changes to prevent their further occurrence. Between 2008 and 2011, there have been no less than three iterations of the EU regulation dealing with the functioning of registries (the "**Registry Regulation**"). The fourth and most recent iteration of the Registry Regulation (the "**Fourth Registry Regulation**") is still in draft form and but has been approved by the Climate Change Committee on the 17th June 2011 and should become law in the Autumn of 2011 if the Council of Ministers and the European Parliament do not vote against it during its three month scrutiny period. This note is drafted on the basis on the text approved by the Climate Change Committee and assumes no further changes to that text.

This band-aid approach of the EU Commission has arguably arisen out of necessity, although some might argue through lack of foresight. It nonetheless leaves a very confusing legislative picture for the market as, once the Fourth Registry Regulation becomes law, there will be three Registry Regulations in simultaneous existence applying to different aspects and periods of the EU ETS. The purpose of this client briefing note is to seek to pull together the impact of such changes for the benefit of the reader and to highlight how it will change the way carbon is traded in the future.

The Registry Regulations

Commission Regulation (EC) 2216/2004 (the "**First Registry Regulation**") has been amended by two subsequent regulations, Commission Regulation (EC) 994/2008 (the "**Second Registry Regulation**") and Commission Regulation (EC) 920/2010 (the "**Third Registry Regulation**"). The Third Registry Regulation revoked the changes proposed by the Second Registry Regulation even before those changes had the opportunity to be implemented. The Second Registry Regulation may therefore be ignored. Although the Third Registry Regulation only became law in October 2010, the Fourth Registry Regulation will further amend that. Once the draft gains the force of law, the three Registry Regulations will have the following scope:

For Phase 2 (excluding 2012):	The First Registry Regulation, as amended by the Third Registry Regulation and the Fourth Registry Regulation.
For Phase 2 from 1 Jan 2012:	The Third Registry Regulation, as amended by the Fourth Registry Regulation and with respect to the auctioning aspects of aviation allowances, the Fourth Registry Regulation.
For Phase 3:	The Fourth Registry Regulation.

Taking all the Registry Regulations into account, the changes can be grouped into five main categories:

- Dealing with the introduction of Aviation into the EU ETS and Phase 3;
- Moving trading into a single Union Registry;
- Enhancing the security of the registries;
- Granting new regulatory powers to the authorities; and
- Addressing the legal consequences of the cyber thefts;

We explore these changes in more detail below.

Dealing with Aviation and Phase 3

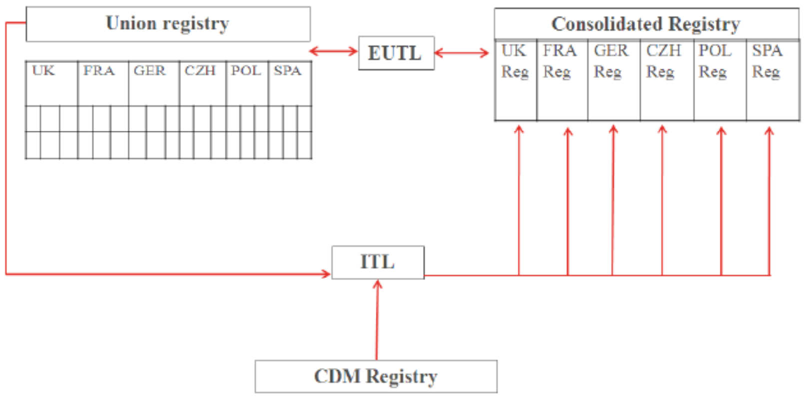
The EU ETS Directive[1] introduces the aviation sector into the scope of the EU ETS from 2012. As both the Kyoto Protocol and the EU ETS are, as the Member States' main weapon for complying with its obligations under the Protocol, cap and trade schemes, during 2008-2012[2] they share a common unit of currency - the Assigned Amount Unit ("**AAU**"). In the EU ETS context although the AAU has been tagged as an EU allowance, it nonetheless remains a Kyoto unit. However, the aviation scheme requires the introduction of distinct allowances for use by aviation operators (i.e. aviation allowance ("**AEUAs**")) which will not be Kyoto units as this sector is outside its scope.

This left the EU ETS with a headache as to how a new type of unit would be introduced that was not contemplated by either the First or the Second Registry Regulations. The Third Registry Regulation sought to correct that. A key aspect of ensuring that the EU ETS was able to take control of its own matters, was to ensure that transfers of EUAs and AEUAs were within its own control. In order to maintain its Kyoto compliance obligations, Member States must maintain a direct connection with the International Transaction Log ("**ITL**")[3]. Absent the ITL, it is not possible for account holders in various registries to communicate to transfer Kyoto units. The EU however, has its own version of the ITL, called the EU Transaction Log ("**EUTL**"). Therefore, in order to remove the requirement that EUAs (as Kyoto units) have to be transferred via the ITL, it was decided to de-tag them from AAUs and reissue them as EUAs that can be transferred (along with AEUAs) via the EUTL.

Moving trading to a single Union Registry

Article 19 of the EU ETS Directive requires all trading from 2012 and Phase 3 (2013-2020) onwards to be carried out in a single Union Registry rather than in the 27 separate Member State registries as is currently the case. This caused another headache in that the Member States are obliged, under the Kyoto Protocol, to maintain a registry connected at all times to the ITL until 2015, even in the absence of a second commitment period. This left the Member States with the concern of having to maintain accounts in both the Union Registry for trading as well as national Kyoto-compliant registries for holding AAUs. Therefore, to save Member States the cost of maintaining two registries, a decision was taken by the Climate Change Committee in mid-2010 to consolidate the current Member State registries into one.

Following such consolidation, the registry infrastructure will appear as set out in the diagram below.



The Third Registry Regulation sets this consolidation process in motion and it is scheduled to occur sometime during 2012. No fixed date has been set but recent communication from the EU Commission has suggested that it might be in early 2012 with a further enhancement or upgrade to occur just before the 30th June 2012. Following such consolidation event, EU ETS trading will change in a number of ways, some of which are highlighted below:

- Member State registries will not be used by EU ETS market participants
- Suspension of activity in the Member State registries will occur at the time consolidation occurs which is estimated to last two weeks
- Accounts currently sitting in the Member State registries along with its balances will be migrated across into sub-accounts of the respective Member State maintained in the Union Registry
- All EUA, AEUAs, CERs and ERUs will be traded in accounts in the Union Registry
- All Member State registries will be consolidated in to a single IT platform, using common software[4]
- EUAs and AEUAs transfers will not be dependent on checks carried out by the ITL or connectivity to the ITL as all checks will be performed by the EUTL
- Different events may impact the ability to transfer EUAs and AEUAs compared to CERs and ERUs. For example, suspension of a Member State registry for non-compliance with Kyoto obligations[5] will not automatically prevent EUA or AEUA trading.

Enhancing the security of the registries

The VAT carousel fraud and the cyber thefts highlighted a number of weaknesses in the EU ETS. The Third and Fourth Registry Regulations seek to redress some of these weaknesses.

The VAT carousel fraud occurred for three primary reasons. First, the fact that the sellers collected VAT for emissions trades on behalf of the government and were able to do very high volumes of repeat transactions using the OTC and exchange traded spot allowance markets. Second, the registry account opening procedures in different Member States were inconsistent and slack. Third, a lack of or insufficient know-your-customer (KYC) checks were undertaken by some participants in the market.

In order to address these issues, the Commission took a number of steps. First, it amended the rules relating to charging of VAT by amending the 6th VAT Directive[6] and introduced the reverse charge rule to make the buyer liable for VAT rather than the seller. Second, the Third Registry Regulation set a minimum standard of information and account opening requirements of the Member State registries and these requirements have been further enhanced by the Fourth Registry Regulation. Finally, to try to ensure that all participants are required to comply with equal KYC and money laundering check requirements, the Commission would like to have participation in the carbon markets regulated by the Markets in Financial Instruments Directive (MiFID). This last step, though yet to be finalised, has been heavily pushed for by the Commission.

The cyber thefts highlighted other weaknesses in the EU ETS. The Fourth Registry Regulation seeks to redress some of these. The weakness that was most evident was the inconsistency of registry security standards adopted by the various Member States. The fact that different Member States used different software platforms and that security standards recommended by the Commission were not implemented by certain Member States, resulted in some registries being more vulnerable than others to cyber attacks. It is perhaps telling that the security of the UK registry, the most active and used of all Member State registries, was not known to have been breached. Most of the security standards that other Member States were required to adopt following their 19 January 2011 suspension, were already used by the UK registry.

Other weaknesses that were exploited by the cyber thieves included the swift transfer of credits out of the victim's account into accounts of third parties in other Member States whereupon, either through OTC spot trading or on-exchange dealings, the credits transferred hands a number of times before the victim was even aware of the theft. This diminished the chances of the victim and law enforcement authorities in recovering the carbon credits as there was insufficient mechanism in place for cross-border cooperation.

[4] Member State registries currently use different software platforms leading to differences in functionality and security across the Member States.

[5] As was the situation recently with Bulgaria.

[6] Directive 2010/23/EU amending Directive 2006/112/EC.

To reduce the chance of these events happening again, the Third and Fourth Registry Regulations introduce the following changes:

- Mandatory two-level log-in security - user name, password + second authentication (e.g. digital certificates or RAS key authentication).
- New Data Exchange Standards to specify technical security specs incl. standards of communication encryption.
- Introduction of different types of market participant accounts including, operator accounts, person accounts and trading accounts.
- Minimum two authorised person confirmation requirement unless transfer is to an account on a trusted list (i.e. implementing IETA's master data proposal). Such trusted lists will not be available to users before 30 June 2012. Other than for external platform accounts (i.e. exchanges) and trading accounts, transfers from all other types of accounts cannot be completed unless it is to a trusted list. Any changes to the trusted account list may take up to 7 days to implement.
- A 26-hour delayed delivery mechanism between the initiation of a transfer and communication of EUTL notification to the Union Registry (that leads to finalisation of transfer) will be applied to any transfer unless the transfer is from a trading account to an account on its trusted account list.
- 'Out of band' confirmation for each trade must be provided before a transfer can be completed, except for trades initiated by an external platform. This means that transactions will need to be confirmed by two different channels, e.g. by phone and by email.
- Creating minimum account-opening requirements for Member States to follow but allowing Member States to introduce super-equivalent requirements including limiting account-opening or authorised persons approvals to permanent residents of the Member State
- Limitation of transfer initiation to between 10:00-16:00 CET and Mon-Friday only, rather than the current 24/7 approach.

Granting new regulatory powers to the authorities

The lessons learnt from the VAT carousel fraud and the cyber thefts were hard ones. But the rude awakening led to the realisation that: (a) implementation of EU obligations by Member States needs to be policed; (b) the EU ETS is a large enough and valuable enough market to attract sophisticated international criminals; (c) Member States had been naïve and complacent and did not allocate sufficient resources to the relevant authorities responsible for the market in those countries; and (d) that greater harmonised laws are required to ensure the efficient running of the EU ETS on a cross-border basis. To that effect, the Fourth Registry Regulation proposes that new powers be granted so that:

- The Commission can co-ordinate implementation of the Registry Regulation obligations with National Administrators leading to the adoption of common operational procedures;
- Central Administrators can suspend access to the EUTL, the Union Registry or to accounts therein if there is reasonable suspicion of a serious security risk. This power did not expressly exist when the registries were suspended on 19 January 2011; therefore, this provision ensures that such actions in the future are not potentially *ultra vires*;
- National Administrators can block access to specific units in accounts for up to two weeks if they suspect their use in fraud, money laundering, terrorism financing or other serious crimes;
- Providing better and swifter access to confidential account information to various Member State law enforcement authorities (including those authorised to investigate market manipulation, insider trading and money laundering) and tax authorities and EU investigative agencies such as the European Anti-Fraud office, etc.
- Europol is to be given permanent read-only access to all accounts in the EU ETS, no doubt allowing us to say in the future that "big-brother is indeed watching" us; and
- 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 report any lapses or breach of security immediately.

Addressing the legal consequences of the cyber thefts

The Fourth Registry Regulation amends the Third Registry Regulation and the First Registry Regulation to require the "unique unit identification codes" of EUAs and AEUAs and the "unique numeric value" of Kyoto units to be treated as confidential. Additionally, from 1 January 2012, the Fourth Registry Regulation requires such information to be hidden from account users, although such information will continue to exist and be visible to the National and Central Administrators.

This was a highly controversial solution adopted by the Commission to address the fallout that occurred in the immediate aftermath of the cyber thefts. The Commission noted that participants in the spot market stopped trading allowances or Kyoto units because of the fear of acquiring allowances or Kyoto units that had been acquired by cyber criminals and on-sold to innocent purchasers. Victims of the crimes had published the serial numbers of the allowances or Kyoto units that had been stolen and (over time) exchanges adopted the approach of not accepting such allowances or Kyoto units as good settlement and published black-lists of such allowances or Kyoto units using the serial numbers published by the victims. In some instances, victims of the crime brought legal action to seek recovery of the allowances or Kyoto units that were known to be in the accounts of innocent purchasers. However, because of legal uncertainty as to whether innocent purchasers could nonetheless acquire good title to such allegedly stolen allowances or Kyoto units, market users remained fearful of the consequences of acquiring such allowances or Kyoto units.

In response, in the Fourth Registry Regulation, the Commission has decided to adopt a 'what you don't know doesn't hurt' you solution to this issue by concealing from account users the relevant information in an allowance or Kyoto unit that allows them to identify it as stolen or not. By making one allowance artificially indistinguishable from another, the Commission hopes market users will feel more confident to return to trading.

In addition, the Fourth Registry Regulation attempts to grant additional protection to market users trading in the Union Registry by providing in Article 37 that:

- Allowances or Kyoto units are fungible, dematerialised instruments;
- The dematerialised nature of an allowance or Kyoto unit shall imply that the record of an account in the Union Registry shall constitute *prima facie* evidence of title;
- Finalised transfers of allowances and Kyoto units are final and irrevocable, except where initiated in error or where discrepancies had been identified during any subsequent reconciliation;
- Recovery or restitution rights that may exist under national law will not be affected by Article 37 so long as they do not require the unwinding of a finalised transfer (i.e. a national law remedy requiring the return of the stolen allowances or Kyoto units will not be possible but 'in-kind' remedies may still be available);
- A purchaser and holder of an allowance or Kyoto unit acting in good faith shall acquire title to an allowance or Kyoto unit free of any defects in the title of the transferor.

When the impact of hiding the relevant information in the serial numbers of allowances and Kyoto units (that makes them indistinguishable) is taken together with the intended impact of Article 37 the following may be surmised:

(a) After 1 January 2012, a receiver of a stolen allowance or Kyoto unit will not know that it has received it until it is either informed of it by the National Administrator or the competent law enforcement authority or it finds that the National Administrator has frozen certain allowances or Kyoto units in its account for up to two weeks under the new powers described above.

(b) Exchanges will no longer be able to block or filter out any stolen allowances or Kyoto unites as they too will not be able to see the relevant serial numbers. In short, if a theft were to again occur, the exchanges would not be able to do much to prevent its wider dissemination.

(c) An account holder may claim title to an allowance or Kyoto unit in its Union Registry account on the basis of that record but given that one allowance or Kyoto unit will be indistinguishable from another, the benefit of such a record seems questionable. After all it will not be possible for an account holder to point to a specific allowance (in distinction to another allowances in its account) or Kyoto unit and claim that he has good title to that allowance or Kyoto unit. Furthermore such title in the Union Registry is *prima facie* only, suggesting that it may be set aside by contravening national law requirements.

(d) Since national law remedies (that do not lead to an unwinding of a finalised transfer) are expressly recognised by Article 37, victims of a theft may nonetheless bring claims against holders of stolen allowances or Kyoto units (assuming they can find out who is holding them through the competent law enforcement authorities) for compensation or restitution 'in-kind' (e.g. delivery of equivalent number of allowances or Kyoto units). Whether the good faith purchaser's right provided by Article 37(4) can expressly defeat the well known *nemo dat* principle[7] in national law will be a matter to be only finally resolved through judicial consideration. Article 37(4) takes what is otherwise merely a national law exception to a rule and converts it into a rule itself. On the face of it, it is clear what is intended by the provision but this will ultimately be subject to interpretation at a national law level. Until settled by case precedent, it remains to be seen whether this will give sufficient protection to innocent purchasers.

[7]According to the *nemo dat quod non habet* principle, no one can give better title than he himself possesses.

Conclusion

At a practical level, these changes will impact the way people do business. They will require account holders to be more diligent in maintaining their accounts, it will slow down trading because of the 26 hour transfer delay and because of the process requirements for updating trusted account lists. It will limit the access to the registry system to only those entities with a bank account in an EEA country. If Member States introduce domicile requirements for account holders and authorised users, this may impact a number of off-shore companies (e.g. hedge funds) that participate in the EU ETS.

The changes will require all OTC standard trading documentation to be amended to reflect the transfer of trading into the Union Registry before the end of Phase 2 and to allocate risk between parties for new circumstances where trading may be suspended by the Central Administrator or National Administrators. Although the changes introduced by the Registry Regulations are intended to be beneficial, not all changes will necessarily be good. Due to the swift and, in some instances, knee-jerk reactions that lead to the introduction of the changes there is every likelihood that unintended consequences may follow (e.g. the impact on hiding of serial numbers in Kyoto units may prevent people from identifying the vintage year for which they were issued). The quick turn-over of versions of the Registry Regulation leave little doubt that the changes are, in most cases, being rushed through in a reactive, rather than pre-planned, manner. Market users (and we are told Member States) are yet to have sight of the data exchange standards referred to in the Third Registry Regulation, let alone those for the Fourth Registry Regulation.

If the security of the EU ETS is indeed increased and market confidence is restored by these steps, then the swift action of the Commission and Member States are indeed to be applauded. However, it is perhaps surprising and unfortunate that they were necessary in the first place.