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## **CO2 MTIC FRAUD – TECHNOLOGICALLY EXPLOITING THE EU VAT (AGAIN)**

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Richard T. Ainsworth

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## CO2 MTIC FRAUD – TECHNOLOGICALLY EXPLOITING THE EU VAT (AGAIN)

Richard T. Ainsworth

On February 1, 2010 Algirdas Šemeta<sup>1</sup> is expected to be confirmed as the next European commissioner for taxation, customs union, audit and anti-fraud. If his nomination passes a confirmation hearing at the European Parliament he will succeed László Kovács.<sup>2</sup> At the top of Mr. Šemeta's list of things requiring attention should be MTIC fraud in tradable CO2 permits. Political and fiscal realities make CO2 MTIC fraud a top priority.

CO2 MTIC is a technology-driven fraud that takes advantage of the same weaknesses in the EU VAT that have become well known in the cell phone and computer chip trade.<sup>3</sup> CO2 MTIC is much simpler to carry out than its predecessors, but solutions are known, well tested, and readily available.<sup>4</sup> Implementing these administrative measures relies upon Member State cooperation, and Commission leadership. Technology is needed to fight technology, and technology is ready. Mr. Šemeta, an economist-mathematician<sup>5</sup> from the Faculty of Economic Cybernetics and Finance at Vilnius University, may be the right man at just the right time.

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<sup>1</sup> Algirdas Šemeta since July 2009 has been a member of the European Commission. He is in charge of financial programming and the budget, and was the Lithuanian Minister of Finance twice from 1997 through 1999, and then from December 2008 to June 2009.

<sup>2</sup> László Kovács was the Hungarian Foreign Minister twice from 1994 to 1998 and from 2002 to 2004. Since November 22, 2004 he has been the Commissioner for taxation, customs union, audit and anti-fraud.

<sup>3</sup> HOUSE OF LORDS, EUROPEAN UNION COMMITTEE, STOPPING THE CAROUSEL: MISSING TRADER FRAUD IN THE EU (REPORT WITH EVIDENCE) HL Paper 101 (May 25, 2007) (particularly noting the contributions of Michael Cheetham at 78 – 82 referencing his VAT Logging Number system (VLN) described here as a “clever solution” that solves cross-border Californian/Mexican trade problems, as well as in the powerpoint presentations *5 Years On* [considering MTIC in the UK from 2002 – 2007] and *For who so firm that cannot be seduced?* [further assessing UK MTIC efforts from 2002 – 2007, and setting out the VLN system in detail at slides 59-91]. The VLN system mirrors many aspects of the Streamlined Sales Tax adapted a VAT system instead of a retail sales tax. Both powerpoint presentations on file with the author).

<sup>4</sup> See: Charlene-Adline Herbain, *VAT Fraud on Carbon Allowances*, TAX PLANNING INT. – INDIRECT TAXES (Sept. 2009) 4 (suggesting that the Commission should follow the software certification provisions of the American Streamlined Sales Tax Initiative); Richard T. Ainsworth, *MTIC Fraud Infects Tradable Carbon Permits*, 55 TAX NOTES INT. 733 (Aug. 31, 2009) (setting out a targeted solution to MTIC in the CO2 market); Richard T. Ainsworth, *Car Flipping in the UK The VAT Fraud Marketplace and Certified Solutions*, 47 TAX NOTES INT. 1157 (Sept. 24, 2007) (assessing the car-flipping VAT fraud in the UK to MTIC fraud and proposing a limited certified software solution); Richard T. Ainsworth, *Tackling VAT Fraud: Car Flipping and Computer Chips on a Carousel*, 46 TAX NOTES INT. 267 (Apr. 16, 2007) (comparing car-flipping fraud in Canada with MTIC fraud in the UK and proposing a certified software solution); Richard T. Ainsworth, *Tackling VAT Fraud: 13 Ways Forward*, 45 TAX NOTES INT. 1205 (Mar. 26, 2007) (assessing and comparing many of the most viable solutions for MTIC fraud and further proposing a fully digital solution); Richard T. Ainsworth, *Carousel Fraud in the EU – A Digital VAT Solution*, 42 TAX NOTES INT. 443 (May 1, 2006) (setting out a fully digital solution for MTIC fraud).

<sup>5</sup> See: Curriculum vitae of Algirdas Šemeta posted on EU Commission web site, available at: [http://ec.europa.eu/commission\\_barroso/semeta/about/cv/index\\_en.htm](http://ec.europa.eu/commission_barroso/semeta/about/cv/index_en.htm)

The Europol press release from the third day of the 2009 UN Climate Change Conference in Copenhagen<sup>6</sup> underscores the political and fiscal imperatives that Mr. Šemeta faces. Europol indicated:

The European Union (EU) Emission Trading System (ETS) has been the victim of fraudulent traders in the past 18 months. This resulted in losses of approximately 5 billion euros for several national tax revenues. It is estimated that in some countries, up to 90% of the whole market volume was caused by fraudulent activities.

Indications of suspicious trading activities were noted in late 2008, when several market platforms saw an unprecedented increase in the trade volume of European Unit Allowances (EUAs). Market volume peaked in May 2009, with several hundred million EUAs traded in e.g. in France and Denmark. At that time the market price of 1 EUA, which equals 1 ton of carbon dioxide, was around EUR 12,5. ... More than 2 billion European Unit Allowances (EUA) have been allocated to 12.000 emitting facilities in the 27 MS. The EU carbon market is estimated to be worth about €90 billion a year!<sup>7</sup>

Politically, Mr. Šemeta recognizes that EU leadership in the fight against global warming is at stake. The European Union Emissions Trading System (EU ETS) is the largest multi-national emissions trading scheme in the world. If trading on the EU ETS is susceptible to widespread fraud, this directly impacts not only the workability of the “cap and trade” mechanism in the Kyoto Protocol,<sup>8</sup> but it strikes at the very heart of the EU’s climate policy.<sup>9</sup>

Fiscally, Mr. Šemeta understands the significance of Europol’s estimate of 5 billion euro (\$7.4b) in revenue losses from CO2 MTIC fraud. Europol’s estimate under-represents total revenue loss. If 5 billion euro has been stolen from *several national revenues*, then the losses for all 27 Member States is several multiples of this amount.

This paper assess the unfolding reports of CO2 MTIC fraud, examines the errors in tax policy that allowed MTIC to morph from cell phones and computer chips into CO2 permits, and then diagrams one CO2 MTIC pathway, explaining why CO2 MTIC fraud is far more dangerous

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<sup>6</sup> The 2009 UN Climate Change Conference was held in the Bella Center in Copenhagen, Denmark from December 7 through the 18th. The conference included the 15<sup>th</sup> Conference of the Parties (COP 15) to the UN Framework Convention on Climate Change.

<sup>7</sup> Europol Press Release, *Carbon Credit fraud causes more than 5 billion euros damage for European Taxpayer* (Dec. 9, 2009) available at: <http://www.europol.europa.eu/index.asp?page=news&news=pr091209.htm>.

<sup>8</sup> Available at: [http://unfccc.int/kyoto\\_protocol/items/3145.php](http://unfccc.int/kyoto_protocol/items/3145.php). In brief, 187 states have signed the Kyoto protocol to the United Nations Framework Convention on Climate Change. It was initially adopted on December 11, 1997 (and came into force on February 16, 2005). The Protocol commits industrialized countries to a reduction of four greenhouse gases (GHG) (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride) and two groups of gasses (hydroflorocarbons and perfluorocarbons) produced by them. The Protocol allows these countries to use several “flexible mechanisms” to achieve reductions – emissions trading, clean development mechanisms and joint implementation.

<sup>9</sup> Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, 2003 O.J. (L 275) 32 as amended by Directive 2004/101/EC, 2004 O.J. (L 338) 18; Directive 2008/101/EC 2008 O.J. (L 8) 3; Regulation (EC) No. 219/2009, 2009 O.J. (L 87) 109; Directive 2009/29/EC, 2009 O.J. (L 140) 63, available as a consolidated text at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>.

than what has come before. It concludes with a discussion of the technology-based administrative solution, and indicates several avenues for moving forward.

### THE UNFOLDING REPORTS OF/ RESPONSES TO CO2 MTIC FRAUD

Two sets of press reports are appearing in the popular press about the mutation of traditional goods-based MTIC fraud into the services-based MTIC fraud found in CO2 permits. They can roughly be classified as the environmentalist/ financial markets approach and the tax administration approach. The financial market reporters tend to focus on enforcement problems at the major European exchanges or with ease of access to these exchanges through the Emissions Trading Registries established in each Member State.<sup>10</sup> The tax reporters focus on the VAT rules and how some Member States have unilaterally acted to prevent tax losses by changing them. Because these perspectives intertwine, a distinction is important.

CO2 MTIC fraud is *facilitated* by the exchanges – the BlueNext, for example, can clear a spot EUA transaction in 15 minutes. CO2 MTIC fraud is also *facilitated* by Emissions Trading Registries – securing a listing with an exchange makes a fraudster appear legitimate and helps them pass *Kittel*<sup>11</sup> due diligence tests. However, neither the exchanges, nor the registries *cause* the fraud. Fraud occurs because of how the EU VAT operates, not because of how the EU ETS operates. Losses arise in the Member State where the VAT rules obligate a trader within that jurisdiction to perform *both* a reverse charge, and collect VAT on an onward sale.

CO2 MTIC is an exceedingly simple fraud. It is important not to be distracted by the complexity of the EU ETS, although one can come to appreciate how the EU ETS streamlines the fraudster's profession – not something that is at all desirable, and not something that was considered when the EU ETS was set up.

*EU ETS (exchanges & registries).* Each EU Member State must grant emission rights (called EUAs or European Unit Allowances) to domestic emitting facilities<sup>12</sup> through a National Emissions Plan.<sup>13</sup> Parties that take physical delivery of a EUA (from the government or from a trader) must be registered with a Member State. Parties who simply trade in EUAs do not need to be registered, although they could be (and might want to be).

Registration in some Member States is only on-line. For example, the UK registry, operated by the Department of Energy and Climate Change, functions in this way. It indicates: *The registry is an electronic, web-based system for holding and transferring greenhouse gas emission allowances. These allowances exist only in electronic*

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<sup>10</sup> Under the EU ETS Registry Regulation 2216/2004/EC, each Member State establishes a national registry that links to the others and to the Community Independent Transactions Log (CITL). By connecting each national registry to the CITL a secure, compatible and smooth integration of all systems arises under an EU umbrella. The sum of all registries together with the CITL is the Registration System.

<sup>11</sup> Alex Kittel v. Etat belge Case 439/04 (July 6, 2006) (holding that .

<sup>12</sup> There are roughly 12,000 energy and industrial plants across the 27 EU Member States that have been granted EUAs. European Climate Exchange Home Page, available at: <http://www.ecx.eu/What-is-the-EU-ETS>.

<sup>13</sup> See: National Allocation Plans for 2008 through 2012 with Commission Decisions, available at: [http://ec.europa.eu/environment/climat/emission/2nd\\_phase\\_ep.htm](http://ec.europa.eu/environment/climat/emission/2nd_phase_ep.htm)

*form*, each with a unique serial number. Anyone wanting to hold, buy or sell allowances in the UK Emissions Trading Scheme will need to have an account in the registry which will record the holdings of allowances by all Participants, tracking allowances from their initial allocation through all transfers of ownership right through to final cancellation or retirement. (emphasis added)<sup>14</sup>

Twenty-three items<sup>15</sup> of personal or corporate information are demanded by the Department of Energy and Climate Change during the registration process. None of these items require anything more than basic data-entry.

Holders of EUAs can trade these rights (like a commodity) on any one of six major European exchanges. The major European exchanges are:

- European Climate Exchange (London, UK),<sup>16</sup>

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<sup>14</sup> DEPARTMENT OF ENERGY AND CLIMATE CHANGE, UK EMISSIONS TRADING SCHEME – EMISSIONS TRADING REGISTRY USER MANUAL 4 (March 2009) available at: [http://etr.defra.gov.uk/pdf/ETR\\_User\\_Manual.pdf](http://etr.defra.gov.uk/pdf/ETR_User_Manual.pdf)

<sup>15</sup> The twenty-one items are specified, *Id.*, at 14 – 18:

1. Whether you are registering as an Individual or as an employee on behalf of an Organization (mandatory)
2. Your Family Name (mandatory)
3. Your First Name (mandatory)
4. Your Initials (optional)
5. Your Date of Birth (mandatory)
6. Your Title (optional)
7. Your Job Title (mandatory if you are registering on behalf of an Organization)
8. Your Organizations Name (mandatory if you are registering on behalf of an Organization)
9. Your Organizations Address (mandatory if you are registering on behalf of an Organization)
10. Your Organizations Postcode/Zip Code (mandatory if you are registering on behalf of an Organization)
11. The Country the Organization Address specified is located in. (mandatory if you are registering on behalf of an Organization)
12. Your Organizations Fax Number (mandatory if you are registering on behalf of an Organization)
13. Your Organizations Company Registration Number – as recorded at Companies House (if appropriate) (mandatory if you are registering on behalf of an Organization)
  - a. This is the registration number your firm was given when it registered with Companies House to be a private limited company and gain protection under the Companies Act.
  - b. You can find your registration information on your company stationary.
  - c. If you do not have a Companies House Registration Number, the Registry will allocate you with a system generated Organization ID.
14. Your Contact Address (mandatory – can be set to the Organization details given above (if applicable))
15. Your Contact Postcode/Zip Code (mandatory – can be set to the Organization details given above (if applicable))
16. The Country the Contact Address specified is located in (mandatory – can be set to the Organization details given above (if applicable))
17. Your Contact Telephone Number (mandatory for all users)
18. Your Contact Fax Number (optional)
19. Your Email Address (mandatory – this must be a valid email address that you have regular access to. You will not be able to gain access to the Registry without a valid email address)
20. Sector where you wish your initial Trading Account to reside (mandatory)
21. Your Mother's Maiden Name – required for securely identifying you if you contact the ETA (mandatory)
22. The Name of the First School you attended – required for securely identifying you should you contact the ETA (mandatory)
23. A Date that is Memorable to you – required for securely identifying you should you contact the ETA (mandatory)

<sup>16</sup> European Climate Exchange (ECX) currently trades two types of carbon credits, EUAs and Certified Emissions Credits (CERs).

- Nordic Power Exchange (Oslo, Norway),<sup>17</sup>
- European Energy Exchange (Leipzig, Germany),<sup>18</sup>
- Energy Exchange Austria (Graz, Austria),<sup>19</sup>
- Climex (Amsterdam, the Netherlands),<sup>20</sup> and
- BlueNext (Paris, France).<sup>21</sup>

Other European trading platforms include:

- SENDECO2,<sup>22</sup>
- Italian Power Exchange GME<sup>23</sup> and
- Greenmarket (set up by Deutsche Bank at the Munich exchange).<sup>24</sup>

The EU ETS (which is the EU umbrella organization that coordinates the trade in CO2 permits) is designed to be like any other commodity exchange. Individual investors can trade directly and commonly do so. There are very low barriers to direct entry.

Registry accounts [on the exchange] can be established by any person or business. In order to make or take delivery of EUAs on ECX [European Climate Exchange], one will need to open an account in one of the National Registries. *There is, however, no requirement to open a registry account if one merely wishes to trade* but has no intention of going to physical delivery. (emphasis added)<sup>25</sup>

What draws traders (and fraudsters) to the exchanges is their exceptional efficiency. This is why the exchanges *facilitate* CO2 MTIC fraud, but they should not be viewed as the *cause* of the fraud. As Aline Robert notes:

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<sup>17</sup> The Nordic power exchange (Nord Pool) provides market places for trading in physical and financial contracts in the Nordic countries (Finland, Sweden, Denmark and Norway). The Nord Pool trading provides a carbon market, being the first exchange in Europe to offer standardized contracts for emission allowances (EUA) and carbon credits (CER).

<sup>18</sup> The European Energy Exchange AG (EEX) was founded in 2002 as a result of the merger of the two German power exchanges Leipzig and Frankfurt. In 2010 the EEX will run the primary market auction for European emission allowances (EUA) in Germany on behalf of German Federal Ministry for the Environment.

<sup>19</sup> Spot market trading in CO2 certificates on EXAA started in June 2005.

<sup>20</sup> Climex started in the Netherlands in 2003 under the name New Values. New Values offered support in emission rights trading by offering an online trading platform called Climex. In 2005, New Values founded the Climex Alliance, comprised of regional partners all over Europe. In 2008, the Climex Alliance partners merged to form Climex, a pan-European organization committed to providing a world-wide marketplace for trading and auctioning environmental commodities and energy contracts.

<sup>21</sup> BlueNext is Europe's largest carbon credit exchange. It is owned jointly by NYSE Euronext and French state-owned bank Caisse des Depots.

<sup>22</sup> SENDECO2 is an exchange for EUAs and Carbon Credits (CER's). It specializes in providing a secondary market for Small and Medium companies. SENDECO2 has been active since 2005 and is the reference for the Portuguese, Spanish and Italian markets. SENDECO2 currently has offices in Lisbon, Madrid, Barcelona, Castellón and Milan. There are expansion plans to open new offices in North and Eastern European countries.

<sup>23</sup> The Italian Power Exchange (or IPEX, or Gestore del Mercato Elettrico or GME in Italian) is the electricity futures market for Italy.

<sup>24</sup> The Munich Stock Exchange offers trading of certified emission reductions (CERs) based on different project types. The commercial products are referred to as CE standard. A CE standard means any certified emission reductions within the meaning of Article 12 of the Kyoto Protocol, which comes from bilateral projects, and an investor of the host country.

<sup>25</sup> European Climate Exchange Home Page, available at: <http://www.ecx.eu/What-is-the-EU-ETS>.



With the accessibility of Bluenext and effectiveness of the platform, which allows regulatory-delivery in 15 minutes, fraudsters indeed have a place where they can place orders on millions of tonnes of CO2 while quietly installed in their Parisian cafes. Using temporary internet addresses on sites like Yahoo! or Gmail also makes it easier for crooks. The cases reveal a crying absence of regulation in the CO2 market.<sup>26</sup>

Thus, even though the 12,000 emitting facilities and the CO2 they discharge is tangible, what the EU ETS has done is to develop a trading system around these properties that is entirely virtual. The transactions (and the fraud) that occurs in this market is digital. Unlike MTIC fraud in cell phones or computer chips, in this market there is no need to deliver goods, no inventories in warehouses, no shipping documents to issue, or releases to draft. There is no insurance, airfreight, road freight, or multiple bank accounts needed in this market. Both legitimate and illegitimate transactions can be conducted from a lap top.

VAT. MTIC opportunities arise (in goods or services) whenever a fraudster is able to align: (1) an obligation to reverse charge on a purchase coupled with (2) a requirement to collect VAT on an onward supply (a resale). All MTIC fraud fits this pattern. When a fraudster achieves this alignment (on a purchase and re-sale of a supply of goods or services) he will not report either transaction, and will disappear (VAT in-hand) before the tax authority notices.

Tradable CO2 permits are services. Thus, the rules in the VAT Directive that produce the first condition are in Articles 44 and 196; the rules that produce the second condition are in Articles 44 and 193. Article 44 is the general rule for services:

The place of supply of services to a taxable person acting as such shall be the place where that person has established his business. ...<sup>27</sup>

Article 196 obliges the buyer (not the seller) to remit VAT when the buyer is established in a different Member State. The short-hand expression for this is a “reverse charge.” It states:

VAT shall be payable by any taxable person, or non-taxable legal person identified for VAT purposes, to whom the services referred to in Article 44 are supplied, *if the services are supplied by a taxable person not established within the territory of the Member State.* (emphasis supplied)<sup>28</sup>

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<sup>26</sup> Aline Robert, *La fraude a la TVA du CO2 se revele gigantesque*, La Tribune 22 (Dec. 16, 2009) (in French, original and translation on file with author)

<sup>27</sup> VAT DIRECTIVE, Art. 44. The SIXTH COUNCIL DIRECTIVE of 17 May 1977 on the harmonization of the laws of the Member States relating to turnover tax – Common system of value added tax: uniform basis of assessment (77/388/EEC) 1977 O.J. (L 145) 1 was repealed and replaced on November 28, 2006 with the RECAST VAT DIRECTIVE. Council Directive 2006/112/EC on the Common system of value added tax, O.J. (L 347) 1. DIRECTIVE 2008/8/EC made significant changes to the place of supply rules for services, effective January 1, 2010. Citations throughout this document will be to the most updated version, and will be referenced as the VAT DIRECTIVE. Prior to January 1, 2010 this rule was contained in Article 56(1) which stated:

The place of supply of the following services ... to taxable persons established within the Community but not in the same country as the supplier, shall be the place where the customer has established his business ...

(a) Transfers and assignments of copyrights, patents, licenses, trademarks and similar rights; ...

<sup>28</sup> VAT DIRECTIVE, Art. 196. Prior to January 1, 2010 Article 196 contained the same rule, although it was phrased differently:



When services are supplied between taxable persons established within the same Member State the place of supply rules are irrelevant,<sup>29</sup> but the reporting obligations are different. Article 193 states:

VAT shall be payable by any taxable person carrying out a taxable supply of goods or services, except where it is payable by another person in the cases referred to in Articles 194 to 199 and Article 202.<sup>30</sup>

*Confusion in the press.* The EU ETS does not *cause* CO2 MTIC fraud – the VAT Directive does, but this does not always seem clear. For example, on the eve of the UN Climate Change Conference in Copenhagen a local Danish paper, *Ekstra Bladet*, ran a sensationalized story that was picked up globally. The Copenhagen Post picked up a version of this account and ran the following on the front page:

### **DENMARK RIFE WITH CO2 FRAUD**

#### **Scams in many countries are subject to investigation by authorities**

Authorities in several countries investigate VAT tax fraud stemming from the Danish CO2 quota register.

Denmark is the centre of a comprehensive tax scam involving CO2 quotas, in which the cheats exploit a so-called ‘VAT carrousel’, reports *Ekstra Bladet* newspaper.

Police and authorities in several European countries are investigating scams worth billions of kroner, which all originate in the Danish quota register.

The CO2 quotas are traded in other EU countries.<sup>31</sup>

However, Denmark is not “rife with CO2 fraud” *because of* “the Danish quota registry.” The extensive CO2 MTIC fraud in the EU is not “*stemming from* the Danish CO2 quota register.” Improving the Danish register will necessarily bring about a reduction in CO2 MTIC losses in the EU. Reducing the loss in Germany from CO2 MTIC fraud requires a VAT law change in Germany, not a regulatory improvement in the Danish quota registry.

The Danish government responded immediately in two ways. The first response was a denial. There was no causal link between the Danish registry and CO2 MTIC fraud. The second response was to rush through Parliament some long overdue changes in the VAT law.<sup>32</sup> If Denmark is “rife” with CO2 fraud, it is the second, not the first action that will bring about a reduction in losses. The press release stated:

### **COLLABORATION AMONG AUTHORITIES MAKES CARBON TRADING FRAUD MORE DIFFICULT**

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VAT shall be payable by any taxable person *to whom the services* referred to in Article 56 *are supplied ...* (emphasis added)

<sup>29</sup> Prior to January 1, 2010, Article 43 contained a general place of supply rule that would apply in this situation. It stated:

The place of supply of services shall be deemed to be the place where the supplier has established his business or has a fixed establishment from which the service is supplied ...

<sup>30</sup> VAT DIRECTIVE, Art. 193.

<sup>31</sup> *Denmark Rife with CO2 Fraud*, Copenhagen Post On-line (Dec. 1, 2009) available at: <http://www.cphpost.dk/component/content/47643.html?task=view>

<sup>32</sup> As of this writing, it appears that these VAT changes have not become law.

Danish daily newspaper *Ekstra Bladet* claims on 1 December that Denmark is a haven for carbon trading fraudsters. Neither the Danish tax authorities nor the Danish Energy Agency agrees with this claim.

There is no evidence to suggest that the Danish Emission Trading Registry has been used extensively for VAT fraud, or to suggest that the Danish Emission Trading Registry is a centre for all VAT fraud taking place at EU level....

[And secondly] ... the Danish Parliament adopted a bill on 3 December 2009 submitted by the Danish Minister for Taxation which aims to eliminate the possibility for VAT fraud in connection with carbon emission trading. ... With the adoption of the bill, Denmark follows the lead of France, the UK, the Netherlands and Spain, which have introduced similar legislative measures in order to prevent this type of fraud.<sup>33</sup>

Effective January 1, 2010 Denmark will apply a domestic reverse charge for all trade in CO2 permits. The law change was unanimously approved by Parliament on December 3, and the Danish Energy Authority suspended applications for new Personal Holding Accounts on December 23, 2009 pending new regulations. This is the solution recommended by the Commission. It follows four earlier “self-help” remedies by France, the Netherlands, Spain, and the UK. It will stop the losses – in Denmark.

CO2 MTIC first became a public concern on June 8 in France where rumors of MTIC fraud in carbon emission permits closed the BlueNext exchange (the main European exchange for spot trading of EUAs). When trading began again on June 10, the certificates, which had previously been subject to the 19.6% French VAT, were exempt (without right of deduction).

The Netherlands and the UK soon followed the French, but in each case the solutions were different. On July 14 the Dutch took a page from the earlier enforcement efforts in the UK (in the cell phone and computer chips markets) – they applied a domestic *reverse charge*.<sup>34</sup> On July 31<sup>st</sup> the UK changed its treatment of CO2 permits, but instead of following the French or the Dutch, the UK exempted transactions in CO2 permits *with a right of deduction*. HMRC’s Revenue and Customs Brief 46/09 indicated:

In response to the escalating threat of VAT fraud in connection with trading of emissions allowances (often called ‘carbon credits’), the Government has introduced legislation to zero rate the supply of emissions allowances within the UK with effect from 31 July 2009. *This is an interim measure that the Government expects to remain in force until an EU-wide solution is implemented.* It follows similar action taken by France and the Netherlands earlier in the

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<sup>33</sup> Danish Energy Agency, *Collaboration Among Authorities Makes Carbon Trading Fraud More Difficult* (Dec. 3, 2009) available at: <http://www.ens.dk/en-us/info/news/sider/20091203collaborationamongauthoritiesmakescarbontradingfraudmoredifficult.aspx>

<sup>34</sup> COUNCIL DECISION 2007/250/EC, authorizing the United Kingdom to introduce a special measure derogating from Article 193 of Directive 2006/112/EC on the common system of value added tax, O.J. (L 109) 24, available at: [http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l\\_109/l\\_10920070426en00420043.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_109/l_10920070426en00420043.pdf). The derogation expired on April 30, 2009, and was extended until April 2011. HMRC, *Revenue & Customs Brief 28/09 VAT -Reverse charge accounting for businesses trading in mobile telephones and computer chips: renewal of EU derogation*, available at: <http://www.hmrc.gov.uk/briefs/vat/brief2809.htm>

summer. The UK has applied to the EU for a retrospective derogation to remove VAT from these products.<sup>35</sup>

An EU-wide solution is still not in place, but all indications are that by February 24, 2010 the European Parliament will adopt the Commission's proposal<sup>36</sup> for an "optional and temporary application of the reverse charge mechanism" to mobile telephones, integrated circuit devices, perfumes, precious metals and allowances to emit greenhouse gases. The Danish, Dutch and Spanish have effectively adopted this proposal already. It is expected that the UK and France will adopt conforming rules once the Directive is in force – and if all other Member States agree to the domestic reverse charge.

But be forewarned, if the European Parliament does remove the potential for VAT fraud in carbon credits via a pan-European reverse charge mechanism, then the fraudsters will undoubtedly look elsewhere as happened when the UK introduced this measure in computer chips and mobile phones. As Europol further indicated in the press release referenced above, it is already concerned about other markets, very similar to carbon credits, such as the online gas and electricity trading platforms. The migration path that MTIC should be expected to take, as well as the pre-emptive solutions that should be considered will be covered in additional papers.

#### VAT POLICY: METAPHYSICS AT THE VAT COMMITTEE

Under Directive 2003/87/EC of October 13, 2003 trade in greenhouse gas emissions was to commence on January 1, 2005.<sup>37</sup> As a result France requested that the VAT Committee<sup>38</sup> consider the VAT treatment of the issuance and the trade in greenhouse gas emissions allowances. This question came up in two meetings of the committee, the first on March 26, 2004 and the second on May 27, 2004. It was important that all Member States agree on the VAT treatment before the markets opened. It seems that the reason for the second meeting was

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<sup>35</sup> HMRC, REVENUE & CUSTOMS BRIEF 46/09, *VAT: Zero rating of emission allowances with effect from 31 July 2009*, available at: <http://www.hmrc.gov.uk/briefs/vat/brief4609.htm> (emphasis added).

<sup>36</sup> Proposal for a COUNCIL DIRECTIVE amending DIRECTIVE 2006/112/EC as regards an optional and temporary application of the reverse charge mechanism in relation to supplies of certain goods and services susceptible to fraud, COM(2009)511 final (indicating that Member States will have the option to elect the reverse charge for CO2 permits, and for two of the other four categories of goods). The Council of Finance Ministers generally agreed on the introduction of the reverse charge on the basis of the Directive Proposal.

<sup>37</sup> DIRECTIVE 2003/87/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a scheme for greenhouse gas emission allowance trading within the Community and amending COUNCIL DIRECTIVE 96/61/EC, O.J. (L 275) 32, Art. 4.

<sup>38</sup> The VAT Committee is an advisory committee on VAT under VAT Directive, Art. 398. The VAT Committee consists of representatives of the Member States and of the Commission. Certain provisions of the Directive require that the VAT Committee be consulted before certain measures are applied; see Articles 11 (single taxable person), 27 (internal supplies of services), 80 (objective valuation), 155 (special exemptions linked to international goods traffic), 164 (exemption supply to exporter), 177 (cyclical economic reasons, mentioned below), 191 (non-application of adjustment rules), 199 (reverse charge). The Committee must also examine questions raised by the chairman on his own initiative or at the request of the representative of a Member State, concerning the application of VAT. The Committee is merely an advisory body, although originally it was the intention to apply the procedure of a regulatory nature (i.e. a procedure based on which the Committee can prescribe binding rules as is common in customs matters). Nevertheless its "decisions", which are not published, have a big influence on the day-to-day practice of VAT.

that “most of the delegates who commented on this subject [in the first meeting] expressed reservations about the Commission’s working paper.”<sup>39</sup>

Three types of transactions were considered: (1) the VAT treatment of allowances sold by Member States, (2) the VAT treatment on transfers of allowances between operators, and (3) the VAT treatment on transfers by individuals/ or by operators as financial instruments. The first question seemed more problematical than the second, and seems to have been the main focus of the second meeting. The third question is fact intensive, turning on whether or not the individuals or operators are engaging in economic activity. However, it was the way the second question was answered that determined the results in each of the others, and opened the door for MTIC fraud in CO2 permits.

*First question.* With respect to the first question, the Commission presented a revised Working Paper 443. The Commission argued that (1) common rules were needed on the sale of allowances by Member States, (2) distortion in competition needed to be avoided – the competition at issue was between Member State and the operators that would both be selling CO2 permits into the same market, and (3) that this distortion was very likely to increase over time because volume of allowances sold by Member States was scheduled to increase – the 2005 ceiling was 5% of all allowances allocated, but by 2008 the ceiling for Member State sales was 10%, and this percentage was expected to continue to increase.

Thus, because of the answer to question (2) – that operator-to-operator sales were taxable – the answer to question (1) was predetermined. Of course if question (2) was answered differently – that operator-to-operator sale of CO2 permits was exempt instead of taxable – then the same logic would work in reverse. The sale of allowances by Member States should be exempt. In fact, “... one delegate considered that the transfer of allowances [among operators] *could be exempt* from VAT under Article 13(B) of the Sixth Directive.” (emphasis added)<sup>40</sup> This delegate was evidently not persuasive.

*Second question.* If everything turns on the answer to question (2), the most critical thing decided at the earlier, March 26<sup>th</sup>, meeting was that “... all the delegates who spoke agreed with the Commission and France that the transfer of greenhouse gas emission allowances between operators *were services subject to VAT*. The place of taxation of the supply of such services is determined by Article 9(1) or 9(2)(e) of the Sixth Directive concerning transfers and assignments of copyrights, patents, licenses, trade marks and similar rights. The later provision applies in particular when the recipient of a supply of services is a taxable person established in a different Member State to the supplier.”<sup>41</sup> (emphasis added)

The Commission could not agree that operator-to-operator sales of CO2 permits were financial transactions. This might have exempted them. However, the operators selling permits are industrial companies and have excess allowances either because of reduced production

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<sup>39</sup> VALUE ADDED TAX COMMITTEE, WORKING PAPER 443 REV 1, *Question Concerning the Application of Community VAT Provisions: Greenhouse Gas Emission Allowances*, TAXUD/1625/04 REV 1 (May 27 2004) at ¶ 1.

<sup>40</sup> VALUE ADDED TAX COMMITTEE, WORKING PAPER 443 REV 1, *Question Concerning the Application of Community VAT Provisions: Greenhouse Gas Emission Allowances*, TAXUD/1625/04 REV 1 (May 27 2004) at ¶ 2.

<sup>41</sup> *Id.*

activity or improved anti-pollution investments and these are business related assets. Secondly, even if they could be characterized as financial transaction the Commission could not find a provision under then Article 13(B)(d) [most likely the current Article 135(1)(f) as “debts” or “other securities”] where they would fit. And, thirdly, exemptions are always construed narrowly, so the Commission would not reason by analogy here.

*Third question.* The third question never had a simple answer. The EU ETS anticipates that third parties (neither the operator that has achieved the pollution reduction nor the operator that will use the excess allowances) will enter the market and buy or sell allowances as an investment. This becomes a fact intensive inquiry into the intended use of the allowance. The ECJ has been very clear that the mere acquisition, holding, and sale of shares are not economic activities. As such they are outside the scope of the VAT. However, transactions in securities can be an economic activity if revenue is derived on a continuing basis from activities that go beyond mere acquisition and sale.<sup>42</sup> The delegates were asked if they agreed with the Commission. The outcome was unanimous:

The delegations agreed unanimously that the transfer of greenhouse gas emission allowances as described in Article 12 of Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003, when made for consideration by a taxable person is a taxable supply of services falling within the scope of Article 9(2)(e) of Directive 77/388/EEC. None of the exemptions provided for in Article 13 of Directive 77/388/EEC can be applied to these transfers of allowances.<sup>43</sup>

With this unanimous agreement the door to CO2 MTIC fraud was flung wide open. Things could just as easily gone the other way, if a decision on second question was that operator-to-operator transfer were exempt. Such a decision would mean that there would be no distortion of competition when Member States sold emission certificates. The transactions encompassed by the first question would be exempt, and so too would be any of the financial investment transactions. But this was not the recommendation of the VAT Committee.

What went wrong? The problem is not in the analysis – it’s in how the question is framed. Like a Cyclops, both the VAT Committee and the Commission look at tradable emission allowances through one eye. They are asking “what is it?” Once they agree on “what it is” the normal VAT rules will apply. As a result, the analysis is static and in its full version borders on the metaphysical.

Another eye needs to open. An additional question will balance the analysis and bring the problem into focus. We need to ask: “how will this item [whatever it is] be traded?” In other

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<sup>42</sup> *Empresa de Desenvolvimento Mineiro SGPS SA (EDM), formerly Empresa de Desenvolvimento Mineiro SA (EDM) v. Fazenda Pública* (Case C-77/01) [2004] ECR I-4295 (holding that simply selling share and other securities held in investment funds is not an economic activity, nor is the service of placing these funds for consideration a taxable supply under the EU VAT).

<sup>43</sup> European Commission, Taxation and Customs Union, *A SELECTION OF GUIDELINES ADOPTED BY THE VAT COMMITTEE FROM 1977 to 2008* (as of December 31, 2008) with regard to QUESTIONS concerning the application of the Community VAT provisions, available at: [http://ec.europa.eu/environment/climat/pdf/vat\\_guidelines.pdf](http://ec.europa.eu/environment/climat/pdf/vat_guidelines.pdf)

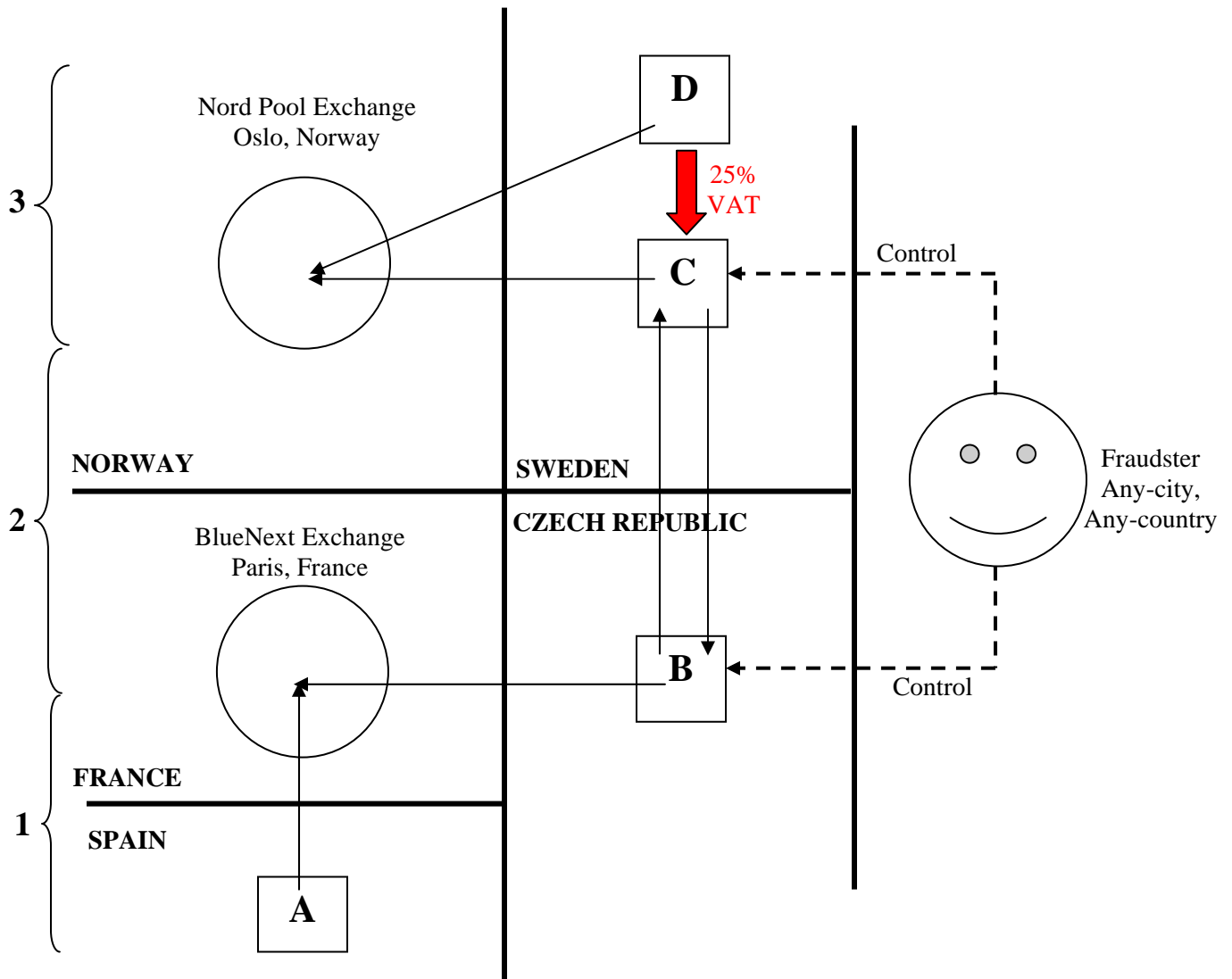
words, the VAT Committee and the Commission need to look at the marketplace. When TAXUD/1625/04 REV 1 is read carefully, it is very apparent that all of the critical pieces are on the table: (1) zero-rating and reverse charge, (2) onward sales collecting VAT, (3) multiple sellers [Member States granting and selling emissions certificates, operators selling excess allowances, investors selling allowances for gain], (4) multiple buyers [operators buying excess allowances for production, and investors buying allowances for a gain], and (5) a highly efficient exchange looking for global expansion. The problem is, no one places these piece in the context of a real marketplace and “thinks like a fraudster.” Doing so would open another eye.

The key here is that there was an opportunity for prevention. If the VAT Committee and the Commission had looked with both eyes, balanced the metaphysical inquiry of “what is this,” with an appreciation of the marketplace, then there would have been a reason to take very seriously the suggestion of “... one delegate [who] considered that the transfer of allowances [among operators] *could be exempt* from VAT under Article 13(B) of the Sixth Directive.” Like dominoes, if this suggestion is endorsed, and the operator-to-operator transaction in second question is deemed to be exempt, then all the other transactions must follow suit. The metaphysical needs to make a concession to the practical to reach this result, but with massive CO2 MTIC fraud hanging in the balance this might be a decision that could have been made.

AN EXAMPLE: ONE CO2 MTIC PATHWAY  
AND WHY THIS MTIC MUTATION IS SO DANGEROUS

*The pathway.* There are three transactions in the following diagram: [1] a Spanish operator sells excess emissions allowance to a Czech Republic entity, which [2] re-sells in a private sale to a Swedish entity, and then [3] sells onward to a Swedish end-user through the Nord Pool exchange.

### DIAGRAM #1



In the first transaction [1], A (a Spanish power company) has extra EUAs, and a sale of these credits is arranged on the BlueNext Exchange in Paris, France to B (a Czech company). B is a legitimate company, although it is owned and controlled by a fraudster. A is registered on the BlueNext Exchange, and B is not. B purchases the EUAs through an experienced broker on the BlueNext. There are due diligence requirements under *Kittle* that may need to be complied with, but by using an established company the fraudster can be sure that no problems will arise.

The reason B might use a broker in this transaction instead of registering on the BlueNext Exchange directly is to make the transaction more difficult to follow. Emission permits are services, A and B are established in different Member States and Articles 44 and 196 require a zero-rating by A, with B obliged to reverse charge.



The second transaction [2] does not occur on an exchange. In it the Spanish EUAs are sold by B to C (a Swedish company). C is a shell company that is owned and controlled by the fraudster. This transaction is also zero-rated because B and C are established in different Member States. C has an obligation to perform a reverse charge. B can complete its VAT return – the EUAs it purchased without VAT have been sold in a zero-rated transaction. No net VAT is due. The reason B sells to C outside of the exchange system is to disguise this transaction. The intent is to make the trail difficult to follow. The price charged is the fair market value of the EUAs as recorded on one of the major exchanges.

The third transaction [3] is performed on the Nord Pool exchange, and in it C (a Swedish company) sells to D (another Swedish company). D is an end-user of the credits. Because C and D are established in the same Member State (Sweden) C is obligated to collect VAT from D. Although C could register and sell the EUAs to D on the exchange directly, it is likely that a broker will be used.

C will go missing as soon as it becomes apparent that the tax authorities are making inquiries. It is very likely that B will hear about an investigation before C, and a phone call to the controlling fraudster is all it will take to make C disappear. The VAT collected at 25% of value of the emissions allowances will long ago have been deposit in a safe bank.

*Dangerousness.* CO2 MTIC is far more dangerous than earlier MTIC frauds because the entire fraud can be conducted remotely. Emission allowances are virtual. They are tracked and transferred by the EU ETS. Fund transfers are all online and established exchanges close out transactions in 15 minutes.

In the early days there were hints that MTIC would become a fully digital fraud; one that could be conducted remotely. At the height of the MTIC fraud in computer chips the Guardian interviewed a fraudster.

[Carousel fraud] is Britain's fastest-growing criminal enterprise, ... Among the [criminals is] a man who likes to be known as Colin, a genial wheeler dealer, ... and his mate "Andy", said to be "a bit of an anorak" when it comes to computers. "He's the technical expert," Colin explained. "I'm into banking, investments, things like that." Each afternoon, hunched over a couple of PCs in his apartment ... Andy spins the wheels of carousel fraud, ... "You can turn the carousel in just 10 minutes, and then you just have to wait 30 days for the money to come in," says Colin. "You can run it round five companies but there are up to 300 that can be used. Each spin can give you up to 200,000 pounds. The longest it stays in any bank account is two hours. ... You can move money so fast. The scale of it is beyond comprehension, you have no idea how much money is being made." ... The downside, as Colin and Andy discovered late last year, is that carousel fraud is becoming increasingly attractive to violent criminals. ... "Andy had a knock on his door [one day] and then he found he was having to pay out to some really

heavy people ... I thought he was going to get cracked. He didn't get cracked, but, ...” [said Colin].<sup>44</sup>

But with computer chips there were always problems with making physical delivery. In CO2 MTIC that is no longer a problem. Thus, when Aline Robert reported that the “... BlueNext ... platform ... allows ... fraudsters a place orders on millions of tons of CO2 while quietly installed in their Parisian cafes ...” it seems that the digital future of MTIC fraud has arrived in the CO2 market.

If we return to Diagram #1 and look at it from the fraudster’s point of view, there are several things that stand out, and a few more details that can be added. First of all, Sweden was targeted in this fraud. The standard rate in Sweden is 25%, so it is a more profitable target for fraudsters than Luxembourg with a standard rate of 15%. Any of the 22 Member States that still tax transactions in emissions allowances in accord with TAXUD/1625/04 REV 1 could have been targeted.

Secondly, the only contact the fraudster wants to have with Sweden is the shell company C. Once the Swedish end-user (D) pays the VAT to C, there is very little the Swedish tax administration can do until the time comes for C to file a VAT return (which could be as long as 90 days from the time of the transaction). There is no “early warning system for Sweden. No amount of cooperation among the Member States will pre-empt this fraud. In fact all of the critical transactions occur outside of Sweden. There is however, an early warning system for the fraudster. If Sweden makes inquiries about the emissions permit, it will most likely contact Spain, and this trail will lead to B.

Third, the most significant barrier to the fraudster’s plan is the chance that the Swedish end-user D will perform a serious due diligence review of C (as required by *Kittel*) and refuse to go through with the transaction. To minimize this risk C will use a broker. C will also try to construct a coherent business profile in a National Registry. C will not use the Swedish registry, instead it will use Denmark. Reportedly, one of the easiest registries to access has been the Danish Emissions Trading Registry run by the Danish Energy Authority.<sup>45</sup> In this manner the Danish registry facilitates CO2 MTIC fraud, but it is not the cause of it. The cause is in the Swedish VAT statute.

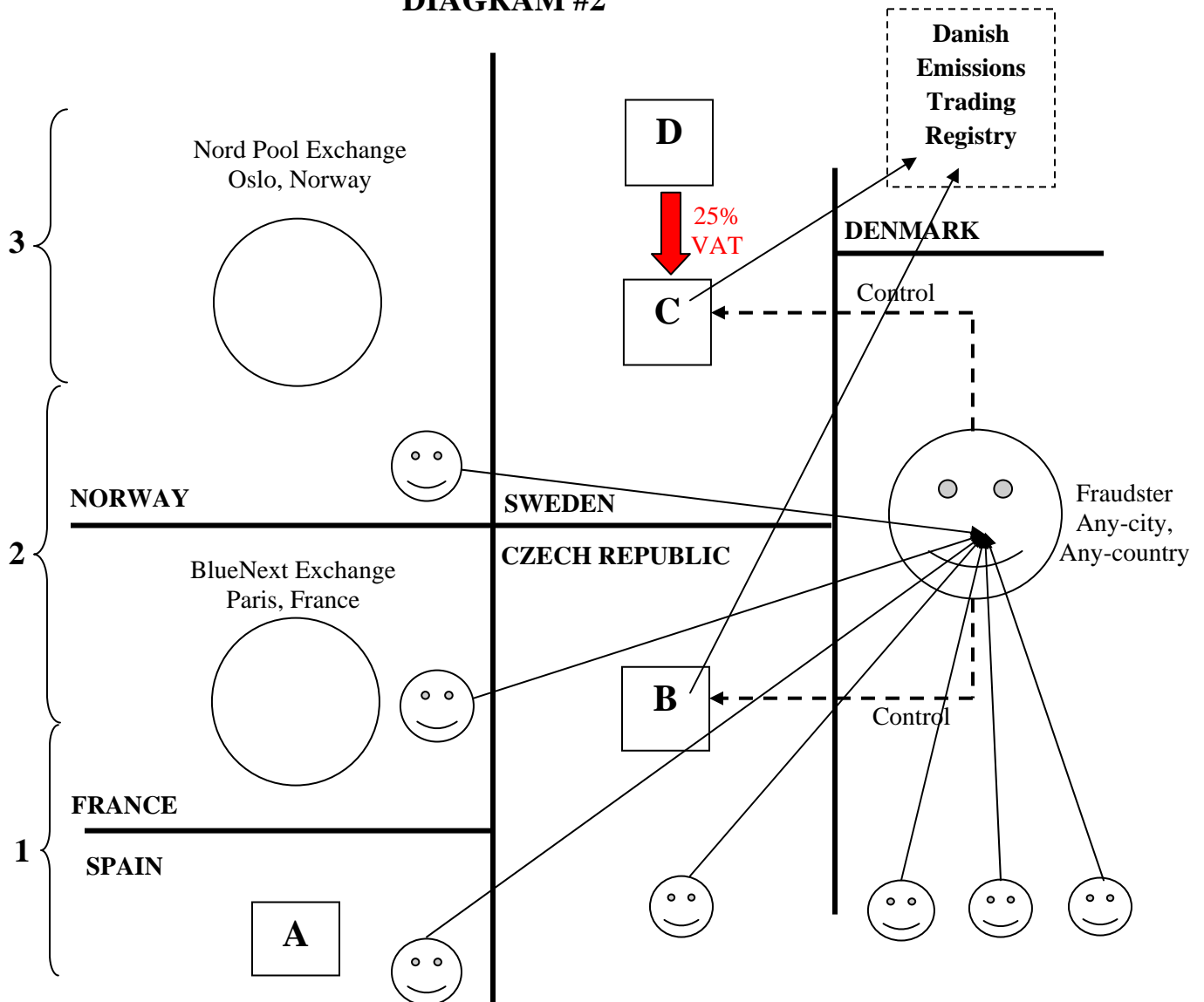
Finally, the diagram places a single fraudster in an unspecified country. In fact, there is very seldom a single fraudster involved in CO2 MTIC; instead there is a network of people some of whom only invest in the fraud. At the time of this paper the return offered by CO2 MTIC fraud rings is between 5% and 10% return on funds per week (personal communication). Diagram #2 shows these additional factors.

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<sup>44</sup> Ashley Seager & Ian Cobain, *Carousel fraud: Bogus deals keep Customs in a spin: Smart criminals stay ahead of investigators Russian mafia and IRA linked to swindles*, Guardian (May 9, 2006) available at: <http://www.guardian.co.uk/uk/2006/may/09/ukcrime.ashleyseager>

<sup>45</sup> The Danish Emissions Trading Registry can be accessed and searched remotely at: <https://www.kvoteregister.dk/reportAccountsList.do?UName=&passwordIn=&accountIdentifier=&accountTypeCode=-1&search=Search>

**DIAGRAM #2**



**THE TECHNOLOGY-BASED ADMINISTRATIVE SOLUTION TO MTIC FRAUD**

In one sense, CO2 MTIC is no different than any of the other MTIC frauds we have seen in recent years – frauds in cell phones, computer chips, perfume and precious metals. In another sense CO2 MTIC is very different from all the MTIC frauds that have come before. It is highly receptive to technology – it is a click-of-the-mouse transfer of intangible assets around an efficient, but highly porous EU-sponsored digital marketplace.

MTIC is not product-specific; it is statute-specific. MTIC relies on a zero-rated sale (between member states) that places both a reverse charge requirement and an obligation to collect VAT on an onward sale in an enterprise that can easily go missing. The problem is the temporary break in the chain of fractionated payments. Fractionated payments are the hallmark

attribute of the VAT. A solution to MTIC should heal the break – not break the chain again. Considered narrowly (for just CO2 permits) a domestic reverse charge is a workable solution only if all Member States apply it. Considered broadly (as a general solution for all MTIC fraud) a domestic reverse charge is not scalable<sup>46</sup> (unless it is acceptable that the VAT devolves into a retail sales tax).

Stripped to essentials, the problem is about *assurance*. Where is the *assurance* that when an enterprise purchases supplies with an obligation to perform a reverse charge that it will make and report this charge, and collect and remit the VAT collected on an onward sale? This same question can be asked in the computer chip and cell phone trade, in the perfumes and precious metals business, and in CO2 permits. The important question is not *who* should remit the VAT; the important question is how can we be *assured* that whoever is charged with doing so actually does it?

Certified tax software and a change in the place of supply (and reporting requirements) for CO2 credits can solve this problem. Certified software is currently being used in the US retail sales tax by 23 states<sup>47</sup> under the Streamlined Sales and Use Tax Agreement (SSUTA).<sup>48</sup> The same software mechanisms could be applied in the EU to close the broken link in the fractionated payment system.

Only one statutory change is necessary – a conditional change in reporting obligations. Under the current rules the place of supply for CO2 credits is where the customer is established [Article 44]. The reporting obligations are on the supplier [Article 193] unless the supplier and customer are located in different Member States, in which case it is the customer's obligation [Article 196]. This is the intra-community reverse charge provision.

If both buyer and seller are using certified systems nothing would need to be changed. However, if the buyer is not using a certified system the obligation to collect and remit the VAT would need to be shifted back to the supplier [Article 193]. This would mean that a seller in the UK would collect the French VAT on a sale to a French established enterprise.

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<sup>46</sup> In other words, if every time MTIC showed up in a type of supply we applied the Dutch solution we would eventually turn the VAT into a retail sales tax. If instead we selected the French solution we would severely compromise the tax base – no one would suggest solving MTIC in cell phone or computer chips by exempting them, or in the case of the UK simply zero rating them.

<sup>47</sup> These twenty-three states are divided into two groups, the full members, and the associate members. A full member state is a state that is in compliance with the Streamlined Sales and Use Tax Agreement through its laws, rules, regulations, and policies. Those states are: Arkansas, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, Nevada, New Jersey, North Carolina, North Dakota, Oklahoma, Rhode Island, South Dakota, Vermont, Washington, West Virginia, Wisconsin, and Wyoming. An associate member state is a State that has achieved substantial compliance with the terms of the Streamlined Sales and Use Tax Agreement taken as a whole, but not necessarily each provision, and there is an expectation that the state will achieve compliance soon. Those states are: Ohio, Tennessee, and Utah, see <http://www.streamlinedsalestax.org> (last visited Jan. 24, 2009).

<sup>48</sup> STREAMLINED SALES AND USE TAX AGREEMENT (adopted November 12, 2002, amended November 19, 2003 and further amended November 16, 2004) available at <http://www.streamlinedsalestax.org> [hereinafter SSUTA] (providing for fully digital compliance with sales and use taxes through certified intermediaries and certified software solutions).

This is a modification of a similar proposal made in an earlier paper.<sup>49</sup> In that earlier proposal the place of supply rules were also changed conditionally. Thus, in the previous example the UK seller would not only be obligated to collect and remit the VAT, but the VAT he collected was UK, not French. The author has been made aware that this would distort competition in cases where VAT in the supplier's jurisdiction was significantly lower than that in the buyer's jurisdiction.

*Certified tax software solution.* This proposal requires each Member State to adopt a testing regime for the certification of enterprise-level transaction tax software.<sup>50</sup> The software to be certified would be comprehensive. Software must be able to: (a) determine the correct tax for each transaction and calculate the VAT amount due, (b) post this amount on the appropriate invoice, (c) link each VAT input or output amount to the correct VAT return, and (d) complete the VAT return accurately.

Business use of certified software should be voluntary. In some instances however, notably when an enterprise is heavily engaged in transactions deemed inherently prone to MTIC fraud – like tradable emissions permits, cell phones, computer chips, perfume or precious metals – a jurisdiction might make adoption mandatory. Another instance where mandatory adoption might be appropriate is after a judicial proceeding. The government could seek (as a fraud remedy) that a court require the taxpayer to adopt certified software “going forward,” because of proven instances of fraud in the past.<sup>51</sup>

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<sup>49</sup> Richard T. Ainsworth, *MTIC Fraud Infects Tradable CO2 Permits*, 55 *TNI* 733, 742-46 (Aug. 31, 2009).

<sup>50</sup>The SSUTA certification process involves measuring software against three third party standards; (1) the AICPA's SAS 94 [AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, PROFESSIONAL STANDARDS, Vol. 1 AU § 319 *The Effect of Information Technology on the Auditor's Consideration of Internal Control in a Financial Statement Audit, as amending SAS No. 55 Consideration of Internal Control in a Financial Statement Audit*]; and (2) the US-GAO Federal Information Systems Control Audit Manual [U.S. GOVERNMENT ACCOUNTING OFFICE, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, FEDERAL INFORMATION SYSTEMS CONTROL AUDIT MANUAL, (FISCAM) Vol. 1 (GAO-AIMD12.19.6) available at <http://www.gao.gov/special.pubs/ai12.19.6.pdf>]. In addition, software developers must comply with (3) ISO Number 17799 [INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO 17799: INFORMATION TECHNOLOGY, SECURITY TECHNIQUES, CODE FOR INFORMATION SECURITY MANAGEMENT (ISO/IEC 17799:2005)]. A discussion of similar standards for certification and accreditation of software can be found in the recent O.E.C.D. materials [*Electronic Commerce: Facilitating Collection of Consumption Taxes on Business-to-Consumer Cross-Border E-Commerce Transactions*, O.E.C.D. (Feb. 11, 2005) at 9 & 17-18 available at <http://www.oecd.org>. Indicating that, "... a global intermediary may be based in one country and would undertake intermediary activities in as many countries as suppliers are required to collect and remit consumption taxes on behalf of e-commerce suppliers. In cases where satisfactory levels of approval or financial security are evident, countries could be more relaxed ...". The OECD discusses a range of government "approvals" for tax accounting software. At one extreme is "accreditation," an approval process functions simply as a mechanism to "formally identify" software that meets certain criteria of acceptability. At the other extreme is "certification," an approval process that designates software as "an officially authorized mechanism to perform specified functions."].

<sup>51</sup> This was the approach taken by Judge Lise Gaboury of the Court of Quebec in the fraud case against the 28 restaurant chain Casa Grecque. In this instance the fraud involved installing an automated sales skimming program called a Sales Zapper in the point of sale system (the networked electronic cash register). In the Budget Speech of March 23, 2006 the Minister of Revenue had announced the adoption of an automated system [*module d'enregistrement des vents*] that would be voluntary until 2011. Judge Gaboury noted that the system was expected to be available by October 1, 2008 and required all of the Casa Grecque restaurants to adopt it at this time as a condition of remaining in business. Revenue Quebec, *Des restaurants de la chaîne Casa Grecque coupables de*

Although fundamentally a voluntary regime, financial incentives should be used to encourage certified software adoption. In addition, further incentives should encourage businesses to contract with trusted third-party service providers (CSPs) who would use certified software to meet all tax compliance obligations, as is the case under the SSUTA.<sup>52</sup> Under this structure the CSP becomes the taxpayer's agent for return preparation, submission, and remission of tax to the Treasury. Use of a CSP would function like an insurance policy against errors – it would indemnify the taxpayer.<sup>53</sup>

In the unique circumstances presented by the EU ETS where national registries control access to the permits, and major European Exchanges facilitate most of the transactions, it would be relatively easy to require use of a CSP for VAT compliance as a condition of registration. In this instance almost all transactions in emissions allowances would pass through certified systems, with only the occasional private sale occurring outside.

The government will want assurances that unauthorized changes could not be made to the software after certification is awarded. This is easily resolved. There are very cost effective and accurate security systems for tax software. The most notable has been developed by the German government to assure tamper-proof electronic cash registers and point of sale systems with smart cards.<sup>54</sup>

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*fraude fiscale* (in French only) available at:

[http://www.revenu.qc.ca/eng/ministere/centre\\_information/communiqués/ev-fisc/2006/10juillet.asp](http://www.revenu.qc.ca/eng/ministere/centre_information/communiqués/ev-fisc/2006/10juillet.asp)

<sup>52</sup> SSUTA provides for audit immunity when certified technology is used to determine the tax liability. It provides in §203 for Certified Service Providers (CSP) “[a]n agent certified under the Agreement to perform all the seller’s sales and use tax functions, other than the seller’s obligation to remit tax on its own purchases;” in §202 for Certified Automated Systems (CAS) “[s]oftware certified under the Agreement to calculate the tax imposed by each jurisdiction on a transaction, determine the amount of the tax to remit to the appropriate state, and maintain a record of the transaction;” and §207 for Certified Proprietary System (CPS) a system owned by “[a] seller that has sales in at least five member states, has total annual sales of at least five hundred million dollars, has a proprietary system that calculates the amount of tax due each jurisdiction, and has entered into a performance agreement with the member states that establishes a tax performance standard for the seller.”

<sup>53</sup> This is the approach under SSUTA’s enabling Acts (specifically the Uniform Sales and Use Tax Administration Act, at §9(a)):

A Certified Service Provider is the agent of a seller, with whom the Certified Service Provider has contracted, for the collection and remission of sales and use taxes. As the seller’s agent, the Certified Service Provider is liable for sales and use tax due each member state on all sales transactions it processes for the seller except as set out in this section. A seller that contracts with a Certified Service Provider is not liable to the state for sales or use tax due on transactions processed by the Certified Service Provider unless the seller misrepresented the type of items it sells or committed fraud. In the absence of probable cause to believe that the seller has committed fraud or made a material misrepresentation, the seller is not subject to audit on the transactions processed by the Certified Service Provider. A seller is subject to audit for transactions not processed by the Certified Service Provider. The member states acting jointly may perform a system check of the seller and review the seller’s procedures to determine if the Certified Service Provider’s system is functioning properly and the extent to which the seller’s transactions are being processed by the Certified Service Provider.

<sup>54</sup> Mathias Neuhaus, Jörg Wolff & Norbert Zisky, *Proposal for an IT Security Standard for Preventing Tax Fraud in Cash Registers*, INFORMATION SECURITY SOLUTIONS EUROPE, Sept. 2009 (forthcoming, copy on file with author) (describing the German Ministry of Finance engagement of the German National Metrology Institute (Physikalisch-Technische Bundesanstalt to develop an operational smart card solution for cash register/ point of sale system fraud

Under a certified tax software solution, enterprises that contracted with CSPs would be able to (a) assure the tax authority that the VAT was properly assessed, collected and remitted, (b) satisfy any due diligence requirement under joint and several liability provisions,<sup>55</sup> and (c) immunize itself from cash flow or other losses arising from an audit or investigation based on suspected MTIC fraud.<sup>56</sup>

*Four examples.* A full discussion of these examples has been presented earlier.<sup>57</sup> In each of these examples assume an enterprise (A) in Ireland sells emissions credits to an enterprise (B) in Germany.

*Two certified systems.* If both A and B employ certified transaction tax software, and particularly if these systems are operated by trusted third-parties (CSPs) there is no possibility of MTIC fraud. When making the sale to B the tax calculation system in A will need to know if it should charge German VAT or no VAT at all on the invoice. To do this A's system will need to know if B's system is certified.

There are a variety of ways to do this but the most proven and secure would be through the use of public key infrastructure (PKI).<sup>58</sup> A's system would access the public key associated with B and use it to confirm that B's system was certified. With this knowledge, A would then draft an invoice without VAT and forward it to B. In this way A would know that B's system would perform the reverse charge. The CSP at B would then assume full responsibility for filing the VAT return that included this charge, as well as remitting the VAT due to Germany.

This is *certified* due diligence. The Irish certified system in A has not only received confirmation that B's system will correctly follow German law implementing the reverse charge, but it also has received confirmation that a German CSP has accepted full responsibility for paying any VAT due.

In an abundance of caution, it would be expected that B's certified system (when it is notified that A's system is checking for its' certification) will perform a reverse PKI inquiry. It would want to determine (in advance) that the invoice it is receiving (without VAT) from Ireland is correctly issued.

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programs, and the "INSIKA" (INtegrierte SIcherheitslösung für messwertverarbeitende KAAssensysteme) project that made this solution a reality in 2008 with an estimated cost of security at €30-50 per installation).

<sup>55</sup> VAT DIRECTIVE Art. 205.

<sup>56</sup> *Commissioners of Custom & Excise v. Federation of Technological Industries* C-384/04 (May 11, 2006); [2006] ECR I-4191 (concerning a trade association and 53 members all traders in cell phones and computer chips in fact patterns based in "acquisition fraud" and "carousel fraud" with questions concerning the applicability of joint and several liability provisions in the UK VAT Act).

<sup>57</sup> Richard T. Ainsworth, *MTIC Fraud Infects Tradable CO2 Permits*, 55 *TNI* 733, 742-46 (Aug. 31, 2009).

<sup>58</sup> PKI is information technology infrastructure that enables users of a basically unsecure public network (such as the Internet) to securely and privately exchange data through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority. In this case the trusted authority would be the Member State that certifies the transaction tax software in the target entity.



*No certified systems.* If neither A nor B use certified systems there is a high possibility of MTIC fraud. Under this situation the place of supply is Germany, and A will apply a 19% German VAT. German registration by A is required.

Neither party having certified systems might arise in occasional sales. If A is not a major player in the emissions market, but has an occasional excess emissions allowance; and if B is an occasional buyer of emissions allowances, then they might enter the market infrequently. Most likely they would use a broker. It could be a requirement of being a registered broker on an emissions exchange that the broker offer certified transaction services through a CSP. This could be for a charge.

In this case, A (in Ireland) would sell to a CSP-broker in Ireland, and B (in Germany) would buy from a CSP-broker in Germany. The cross border transaction would be between two CSP-brokers and the domestic transactions would be standard.

*Seller (only) with a certified system.* If A (but not B) uses a certified system the German VAT will be charged on the invoice. A's certified system will not be able to find German certification for B when it makes a PKI-based search for B's certificate.

A's CSP will then submit returns and pay over the VAT collected on this transaction to the German Treasury. The place of supply of this service is Germany. B will be in the same situation as in the second example. If the exchanges provided CSP services through registered brokers it would be possible for B to purchase through a CSP, and ease A's compliance requirements. It might be that, because of the costs of compliance with German registration that it would require buyer to work through broker-CSPs (and this is exactly the kind of compliance incentive that the EU VAT needs).

*Buyer (only) with a certified system.* Example four is not the mirror opposite of Example three. There are some interesting differences.

If B (but not A) uses a certified system, then it is possible that A can find this out through a PKI-based search. It is not necessary to have a certified system to determine whether or not your buyer is using one. B's certification is proof that German tax rules will be complied with by B.

If A knows that B's automated system will perform the reverse charge, and if B's CSP will file the return and remit appropriate taxes, then this should be sufficient for the Irish Treasury to know that A has performed due diligence on the intra-community sale. If so, Ireland could allow A to zero-rate this transaction, because it would know that the reverse charge is properly preformed in Germany (there is no possibility of a missing trader).

## CONCLUSION

At the time of this writing it is not entirely clear which way the EU is moving, but it is reasonably clear that the EU needs to move in one direction, and it need to be a unanimous action. At the moment there are four systems in place: (1) France applies an exemption (without

right of deduction);<sup>59</sup> (2) the UK has an exemption (with right of deduction);<sup>60</sup> (3) Netherlands,<sup>61</sup> Denmark<sup>62</sup> and Spain<sup>63</sup> have adopted the reverse charge proposed in COM(2009)511; and (4) the twenty-two other Member States follow the agreement in TAXUD/1625/04 REV 1 and are taxing emissions certificates.

The Commission has proposed that Member States be allowed to elect a reverse charge for emissions allowances in COM(2009)511. This Directive, adding Article 199a to the VAT Directive, is awaiting adoption by the European Parliament (anticipated on February 24, 2010).

If anything is clear, it is that the current situation cannot last for long. The net effect of current law changes is that five countries (in an effort to protect their domestic tax base) have become platforms for the wider spread of CO2 MTIC throughout the EU. Although the rules differ, what France, the UK, the Netherlands, Denmark and Spain allow is the domestic purchase of emission certificates VAT free. If it takes only 15 minutes to close out an emissions allowance transfer on a major exchange, and if the intangible can be moved to an exchange simply by contacting a broker or registering directly then each of these Member States have become the base camps for the fraudsters.

The simple version of this base camp model showed up in Belgium on December 29<sup>th</sup> where three Englishmen were arrested.

Belgian authorities have charged three Britons suspected of VAT fraud on CO2 emissions permits after funds held in Belgian banks were frozen ... "The three Britons were arrested on 29 December in Tournai," said Jean-Bertrand Cambier, a prosecutor in the western city, as part of an investigation into some three million euros (4.3 million dollars) of unpaid taxes ... Cambier said the group were in the country "probably trying to unblock the situation" after accounts through which suspect sums were transited were frozen several weeks ago. ... *With Britain not applying VAT to such purchases, money due to Belgian authorities, where the rate is 21 percent, remains unpaid after staged transactions, the prosecutors say.* ... The trio had set up a company in Tournai to market permits bought in Britain over a period of "several months" with Cambier saying transactions amounted to an estimated "three million euros".<sup>64</sup>

<sup>59</sup> 58 BULLETIN OFFICIEL DES IMPÔTS [OFFICIAL GAZETTE OF TAXES] (June 11, 2009), *Taxe sur la Valeur Ajoutée. Régime Applicable aux Quotas D'émission de Gaz à Effet de Serre* [Value Added Tax. Conditions of Quotas for Emission of Greenhouse Gases] available at: <http://www11.minefi.gouv.fr/boi/boi2009/liste.htm> (in French)

<sup>60</sup> HMRC, REVENUE & CUSTOMS BRIEF 46/09, *VAT: Zero rating of emission allowances with effect from 31 July 2009*, available at: <http://www.hmrc.gov.uk/briefs/vat/brief4609.htm>

<sup>61</sup> Remco Smorenburg, *Netherlands Expands VAT Reverse Charge Mechanism to Transfer of Carbon Dioxide Rights*, (Jul. 14, 2009) TAX ANALYSTS Doc 2009-15989 or 2009 WTD 1344.

<sup>62</sup> The web page of the Danish parliament indicates that the following bill (L 19) was passed unanimously in the Danish Parliament on December 3, 2009 with an effective date of January 1, 2010. This provision adopts the reverse charge for domestic transactions in emissions allowances. L 19 Draft law amending the Law on Value Added Tax (VAT Law) [L 19 Forslag til lov om ændring af lov om merværdiafgift (momsloven)] (in Danish) available at: <http://www.ft.dk/dokumenter/tingdok.aspx?samling/20091/lovforslag/L19/index.htm>

<sup>63</sup> The Spanish VAT was modified in October 2009, by law 11/2009 at article 13, Third Final Provision, establishing a VAT withholding scheme in cases of trade in CO2 emissions rights. Published in the Official Bulletin 259, of October 27, 2009 available at: <http://www.boe.es/boe/dias/2009/10/27/pdfs/BOE-A-2009-17000.pdf>

<sup>64</sup> Yahoo! news, *Three Britons charged in Belgian CO2 fraud probe*, (Jan. 4, 2010) (emphasis added), available at:

Although the direct UK-Belgian pattern is easy to see, it is also easy for the tax authorities to detect it. A pattern that would be far more difficult to detect is set out in the following example. Once again we will assume that the target country is Sweden, because of the 25% Swedish VAT rate, but it could be any of the other 21 Member States that are still following TAXUD/1625/04 REV 1.

Assume a fraudster is in control of three entities, one in the UK, another in Austria and a third in Sweden. In transaction [1], the UK entity (which should be a reasonably legitimate entity, sufficient to pass a *Kittel* due diligence inquiry) purchases allowances from a Portuguese polluter that has excess emissions allowances on the SENDCO2 Exchange. The following will happen: (a) Portugal will zero-rate the transfer because (A) and (B) are established in different Member States and (b) the UK will require (B) to perform a reverse charge. An onward sale in the UK would be zero-rated (with right of deduction), and this could happen several times in the UK to disguise the transaction trail.

In the next step the fraudster (as B) contacts a broker on the BlueNext exchange indicating that he has a excess emissions allowances that he would be willing to sell for a price slightly below the market price. Another call to the same broker (in the guise of C, the Austrian entity) would indicate a willingness to purchase excess emissions credits at a price slightly above market value. If the broker was an “associate” of the fraudster he could be given instructions to find a legitimate French investor anxious to turn a quick, but small profit. This “buffer” would buy (low) and sell (slightly higher) the Portuguese emissions certificates so that they would pass from (B) to (C) through the “buffer.”

Transaction [2a] would be zero-rated for UK purposes. Transaction [2a and 2b] would be outside the scope of VAT for French purposes. Transaction [2b] would be taxable for Austrian purposes, subject to a reverse charge, because the “buffer” and (C) are established in different Member States.

As before (in Diagram #1), (C) then sells to the Swedish entity (D) that is also controlled by the fraudster in a private sale [3]. This sets up the same fraud considered earlier on the Nord Pool exchange [4] where (D) collects 25% VAT from the Swedish end-user of the emissions allowances (E). (D) is obligated to file returns and remit the VAT, but will instead disappear. If Sweden investigates the trail from (E) to (D) will be difficult to follow. Because the emissions certificates in question have a recorded history at the EU ETS it is likely that Swedish investigation will contact (A) and then (B).

Contacting (B) will alert the fraudster. (B) is in no danger. The entire transaction sequence it was involved in was proper. Due diligence could be properly performed, and in fact no net VAT was due at any stage prior to the (D) to (E) transaction. The words of the UK fraudster (Colin) who specialized in lap top MTIC in cell phones can be inserted here:

You can turn the carousel in just 10 minutes, and then you just have to wait 30 days for the money to come in ... You can run it round five companies but there

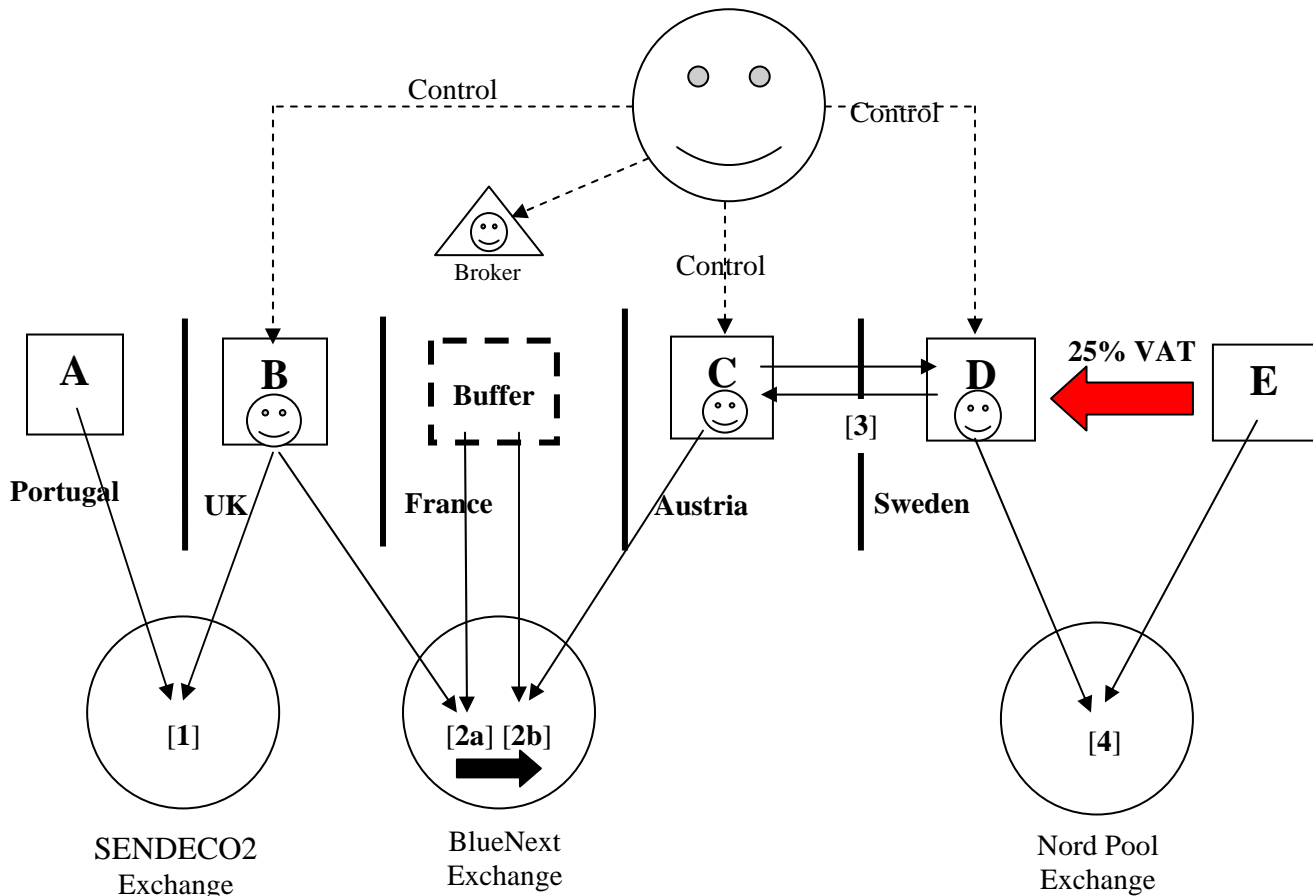
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are up to 300 that can be used. Each spin can give you up to 200,000 pounds. The longest it stays in any bank account is two hours. ... You can move money so fast.

In effect, the UK, French, Dutch, Danish and Spanish law changes have not solved CO2 MTIC fraud. The domestic market has been protected, but considered from an EU perspective these law changes are essentially predatory. Each of the other 22 Member States are now targets of a fraud launched from within these five Members.

DIAGRAM # 3



If the opening assumption of this paper is correct, that Mr. Algirdas Šemeta will have MTIC fraud in tradable CO2 permits near the top of his list of things requiring attention then he should take comfort in knowing that this fraud can be solved. It is important however, to keep both eyes open when solving it. This is not a problem well suited for a Cyclops.

A number of remedies have been considered here, but all of them require at least one fully harmonized unanimous act at the community level. This most likely means a VAT regulation, not a VAT directive. There are choices. The regulation could impose tax rules, or it could impose an administrative regime.

*Tax regulation.* This approach essentially would require the community to go back and reconsider the TAXUD/1625/04 REV 1 decision. CO2 MTIC would be solved deciding that trade in emission allowance was:

- *Outside the scope* – a regulation could be adopted, modeled on the French position making all transactions in emissions allowances exempt (without right of deduction).
- *Zero-rate* – a regulation could be adopted, modeled on the UK position making all transactions in emissions allowances exempt (with the right of deduction).
- *Reverse charge* – a regulation could be adopted, modeled on the Netherlands, Denmark and Spain that would make all transactions in emissions allowances subject to a reverse charge. This rule would necessarily include the investor as well as the business purchaser of allowances. There are no final consumers in this market segment.

*Administrative regulation.* This approach essentially would require the community to adopt a regulation for the certification of tax compliance software. The regulation could be modeled on the American Streamlined Sales Tax, and should include third-party service providers who would guarantee compliance. Two models are possible, voluntary and mandatory:

- *Voluntary* – a voluntary regime would not mandate that traders use certified service providers or adopt certified software, but in cases where traders opted out there would be no instance where a trader could acquire emission allowances VAT free (whether that was through the operation of a reverse charge, zero-rating or an exemption).
- *Mandatory* – a mandatory regime would need to include assistance for the small trader. It would be reasonable to require that all emissions exchanges require brokers to provide the services of a certified service provider to clients. Enterprises wishing to trade emissions allowances outside of the exchanges should be able to secure these services from the exchange itself. Under a mandatory regime the EU ETS would not recognize the transfer of an emissions allowance that was not processed through a certified system.

*What does not work.* It is also clear that there are some options that will not work at all to prevent CO2 MTIC fraud:

- *TAXUD/1625/04 REV 1.* The decision reached in TAXUD/1625/04 REV 1 requiring the taxation of emissions allowances will not work. It is only workable if it is coupled with one of the administrative regulations above. Taxing emissions allowances as a service permits an intra-community acquisition of an allowance tax free. Because this allowance can be sold forward with a VAT charge, it is the very definition of MTIC fraud.
- *COM(2009)511.* An elective regime for domestic reverse charge such as that proposed, but not yet adopted by the European Parliament, will also not work. It is only workable if one of two things occur, either:
  - (a) It is coupled with an administrative regulation set out above, or

- (b) All Member States elect to adopt exactly the same reverse charge language into law (this will achieve the same result as a tax regulation imposing a reverse charge set out above).