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MTIC (Carousel) Fraud: Twelve Ways Forward; Two Ways 'Preferred' - Has the Technology-Based Administrative Solution Been Rejected?

Richard Thompson Ainsworth

BOSTON
UNIVERSITY

Boston University

School of Law

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MTIC (CAROUSEL) FRAUD:
TWELVE WAYS FORWARD; TWO WAYS "PREFERRED" –
HAS THE TECHNOLOGY-BASED ADMINISTRATIVE SOLUTION BEEN REJECTED?

Richard T. Ainsworth

In a May 31, 2006 Communication to the Council, the European Parliament, and the European Economic and Social Committee, the European Commission indicated a need to develop a co-ordinated strategy to improve the fight against fiscal fraud [COM(2006) 254 final].[1] Although the Communication considers fiscal fraud broadly (VAT, excise duties and direct taxes) the most pressing need seems to be for a VAT strategy that will effectively deal with MTIC (Missing Trader Intra-Community) or carousel fraud.

Estimates of annual EU losses to VAT fraud are in the range of 60 billion euros,[2] with about 40% of that amount attributable to MTIC or carousel fraud. Best estimates of EU losses to carousel fraud are put at 23 billion euros annually.[3] The UK estimates its carousel fraud losses to be 2.98 to 4.47 billion euros annually.[4] For example, French authorities recently uncovered a single 100million euros MTIC (carousel) fraud involving cell phones sold in and out of the UK.[5]

To this end the Commission hosted a conference: Fiscal Fraud – Tackling VAT Fraud: Possible Ways Forward. The March 29, 2007 conference was constructed workshop-style, and divided into three concurrent sessions:
1. VAT fraud: what problems does it cause to business and how can they assist the tax administration in combating it?
2. Enhancing the fight against fraud and the burden on businesses: striking the right balance
3. Changing the VAT system: the ultimate solution?

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[1] *Available at* http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0254en01.pdf
[2] Commissioner László Kovács, *Speech at the Press Conference on the Adoption of the Communication on Fraud* (May 31, 2006) *available at*
http://ec.europa.eu/commission_barroso/kovacs/speeches/introductory_speech_REV4.pdf
[3] Europol Press release, *Experts discuss 'Missing Trader Inter-Community Fraud*, (Dec. 13, 2006) *available at:* http://www.europol.europa.eu/index.asp?page=news&news=pr061213.htm
[4] H.M. Treasury, 2006 PRE-BUDGET REPORT: INVESTING IN BRITAIN'S POTENTIAL – BUILDING OUR LONG TERM FUTURE 126 (Dec. 2006) Cm 6984, *available at*: http://www.hm-treasury.gov.k/media/5CC/43/pbr06_completereport_1439.pdf
[5] Guirec Gombert, *A Huge Network of VAT Fraud Dismantled,* LE FIGARO (Mar. 4, 2008) (in French) *available at*: http://www.lefigaro.fr/impots/2008/03/04/05003-20080304ARTFIG00413-un-gigantesque-reseau-de-fraude-a-la-tva-demantele-.php

What was the "way forward?" On February 22, 2008 a press release[6] and a communication[7] from the Commission indicated that after consideration, the ECOFIN Council of June 5, 2007 was of the opinion that two "ways" were preferred: "… [1] a generalized reverse-charge system, where liability for VAT payments would be shifted from the supplier to the purchaser, … [and 2] taxing intra-Community supplies of goods."[8] Among these, the second "way" is preferred over the first. "… [T]he preferred system of taxing intra-Community supplies should be based on taxation in the Member State of departure and not in the Member State of arrival…"[9] Both of these solutions require significant structural changes to be made to the VAT.

The previous year, the Commission (as opposed to the ECOFIN) had been of the opinion that an administrative (not a structural) solution was preferable.

> The Commission considers at this stage that fraud could better be controlled through joint action by the Commission and Member States and through *an efficient and modern organization of the control system*, accompanied by strong and rapid cooperation between the Member States and, where appropriate OLAF [European Anti-fraud Office], on the basis of suitable legal instruments.[10]

Although the Commission did not specify in this Communication what it meant by "an efficient and modern organization of the control system," the Frequently Asked Questions Memo released at the same time was more specific. The administrative answer for the Commission was a technology-intensive answer.

> The Commission proposes to reinforce the existing cooperation tools between the member States as well as to introduce innovative measures if necessary in view of the development of an EU strategy against tax fraud. The Commission believes that exchange of information could be improved by taking advantage of *information technologies*.[11]

To locate the solution to MTIC (carousel) fraud in technology and administrative improvements (rather than major structural change to the VAT) is to follow the Lisbon Strategy.[12]

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[6] EU Commission, *VAT Fraud: The European Commission presents possible far-reaching measures on VAT to better combat fraud* (IP/08/291) Feb. 22, 2008 *available at*:
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/291&format=HTML&aged=0&language=en&guiLanguage=en

[7] EU Commission, *Commission Staff Working Paper: On Measures to Change the VAT System to Fight Fraud* COM(2008) 109 final, *available at*:
http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/SEC(2008)249_en.pdf

[8] *Id.* at 4.

[9] *Id.* at 4.

[10] EU Commission, *supra* note 1 at 10 (emphasis added).

[11] EU Commission, EU Coherent Strategy Against Fiscal Fraud – Frequently Asked Questions, MEMO/06/221 (May 31, 2006) (emphasis added) *available at*:
http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/221&format=HTML&aged=0&language=en&guiLanguage=en.

[12] EU Commission, *supra* note 1, at 3 citing its earlier Communication: Contribution of taxation and Customs Policies to the Lisbon Strategy COM(2005) 532 final (Oct. 25, 2005) *available at*
http://europa.eu/scadplus/leg/en/lvb/l11027.htm.

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TWELVE PROPOSALS (AND ONE MORE)

Over the years, a large number of changes have been proposed to the VAT, many of these proposals would have as one of their many effects the significant reduction (or elimination) of MTIC (carousel) fraud. These solutions can be divided into traditional and current proposals.

Traditional proposals date from the re-design of the EU VAT in 1991 when border controls were removed. They have a broad scope and impact. Recent proposals focus more narrowly on MTIC (carousel) fraud. This article summarizes the twelve most discussed proposals for change (including the two preferred by the ECOFIN), and proposes one more – a technology-based administrative solution. The suggestion is that this last approach offers a superior solution. It answers the Commission's call for a targeted, non-structural change that tackles the MTIC (carouse) fraud problem through technology without impacting the overall operation of the VAT.

Traditional Proposals

There are seven traditional proposals. The first two eliminate MTIC (carousel) fraud by taxing intra-Community transactions at origin. The next four eliminate carousel fraud by imposing a community level "Euro-VAT" to coordinate transactions among Member States. The final proposal requires pre-payment for intra-Community transaction.

(1) *Common VAT*.[13] Called an "origin system" of VAT by the Commission, this proposal, based on research efforts dating to the 1980's, was for the taxation of intra-community sales at the rate of the country from which the goods were supplied. Under this system, the importer would be deducting in one Member State the VAT that was collected in another Member State, resulting in a displacement of VAT revenues.

As a result, the "Common VAT" requires a clearing mechanism to reallocate VAT revenue from origin to destination jurisdictions. Two approaches to clearing were considered. The initial proposal (1987) measured the amount to be allocated on a transactional basis [COM(1987) 323 final]. The 1996 proposal used aggregate consumption data. Both approaches were considered complex. More critically however, clearing mechanisms, no matter how they were designed, created disincentives to audit cross-border transactions. Thus, the "Common VAT" would close the door to MTIC (carousel) fraud, but it would open another much wider door across the whole range of cross-border trade.

(2) *Vanistendael's foreign tax offices proposal*.[14] In 1995 Professor Fransiscus Vanistendael proposed to tax all cross-border transactions at the rate of the country of destination. To ease business compliance burdens he required destination jurisdictions to

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[13] European Commission, A Common System of VAT: A Program for the Single Market," COM(1996) 328 final.

[14] Fransiscus Vanistendael, *A Proposal for a Definitive VAT System Taxation in the Country of Origin at the Rate of the Country of Destination, Without Clearing*, 1 EC TAX R. 45, 48 (1995).

establish branch tax offices in the country of origin to accept tax payments, issue refunds and handle all foreign VAT matters.

Vanistendael's proposal ran into problems with compliance cost symmetry – in both businesses and tax administration contexts. Compared with the simple zero-rating of all intra-Community transactions, Vanistendael's would require exporters to comply with the tax rules of 14 other jurisdictions. Deemed too costly and too complex in 1995, Vanistendael's approach would be even more difficult today with 27 Member States.

The next four proposals, the CVAT, VIVAT, Dual VAT-HST and Dual VAT-QST have a common theme. Each proposal would "add-on" to the current VAT structure in the EU a "federal level" VAT.

(3) *CVAT*. The Compensating VAT (CVAT), designed by Ricardo Varsano and extended by Charles McLure,[15] adds a federal VAT (only) at internal borders. Under the CVAT a Member State would still zero-rate exports, and the importing Member State would still require the importer to reverse charge at the rate imposed in that jurisdiction.

The critical addition made by the CVAT is that when exporting (across an internal border) a federal obligation arises to collect an additional federal VAT – the CVAT. The importing party deducts this amount in full, but only in conjunction with filing a return that includes the required reverse charge.

Seen in terms of MTIC (carousel) fraud, the federal level CVAT prevents goods from entering into free circulation in a domestic economy unburdened by VAT in the same way that the Common VAT does. Where the "Common VAT" burdens goods with VAT of the *origin jurisdiction*; the CVAT burdens goods with a *federal* VAT.

(4) *VIVAT*. The Variable Integrated VAT (VIVAT), designed by Michael Keen and Stephen Smith,[16] is a two-tiered tax that relies on a Euro-VAT in conjunction with a Member State origin-based retail sales taxes (RST).[17] VAT and RST rates are coordinated. Once the Euro-VAT rate is established, the rate of the RST becomes the difference between the federal rate and state's decision on how heavily to burden final consumption.

This proposal represents the preferred approach for the ECOFIN.[18] The Commission believes that this approach would "… contribute effectively to a solution to the problem of MTIC fraud … that such a system also might increase proportionally

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[15] Charles McLure, *Implementing Sub-national VATs on International Trade: The Compensating VAT (CVAT),* 7 INT'L TAX & PUB. FIN. 723-40 (2000).

[16] Michael Keen & Stephen Smith, *The Future o f Value Added Tax in the European Union,* 23 ECON. POL'Y 373-411 (1996).

[17] A destination-based RST would violate compliance symmetry. Cross border B2C transactions would be subject to the tax rates and rules of the 26 other Member States.

[18] *See supra* note 9 and accompanying text.

other already well known types of VAT fraud … [and has] some concern as to the effects of the cash-flow consequences for businesses and in particular for SMEs …"[19]

The VIVAT does not distinguish between local and cross-border transactions; it distinguishes between B2B and B2C transactions. MTIC (carousel) fraud is eliminated because intra-community transactions are not zero-rated. However, simple "missing trader" fraud is very possible both at the B2B level, and (depending on rate differentials) at the B2C level.

The VIVAT's dilemma is that by setting the VAT rate low to avoid problems with excess VAT refunds (as Keen and Smith recommend[20]) the rate of the RST will breed fraud. In some Member States the origin-based RST will rise to 20%, in others it will be 10%. Cross-border B2C missing trader/ missing consumer fraud will proliferate, as will domestic "shell business" purchasing for personal consumption at the lower business rate. This is a situation that begs for an add-on use tax, similar to those in all US states with an RST.[21]

The Commission identifies two additional fraud avenues that this proposal would open up. The first (in a B2B context) is where "… the Member State of acquisition allows the taxable person the right of deduction without the supplier paying over the VAT to the Member State of supply."[22] In a sense this is a fraud where the fraudsters simply get on the carousel and move it backwards. If excess deductions are refunded without the tax being paid in the other Member State the question will now be about which Member State will bear the loss? Should it be the Member State that issued the unsupported refund, or the Member State that never received the VAT payment?

"Secondly, [also in a B2B context] a taxable person [could] create an artificial refund position using a taxed intra-Community supply, more likely in combination with a third-country export. These frauds could involve false intra-Community invoices."[23] Again, this is the carousel moving backward, but with an export out of the Community involved. However, third-country involvement would most likely make this a "one-off" fraud as "… the declaration requirements for third-country imports and exports and the enhanced customs controls [would make this variant more difficult.]"[24]

(5) *Dual VAT – HST version*. Richard Bird and Pierre Gendron[25] suggest that there are a variety of Canadian experiences with dual (federal/ provincial) consumption

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[19] EU Commission, Working Paper, *supra* note 7, at 18.
[20] Michael Keen & Stephen Smith, *supra* note 16, at 404.
[21] EU Commission, Working Paper, *supra* note 7, at 7.
[22] *Id.* at 7.
[23] *Id.* at 7.
[24] *Id.* at 7.
[25] Richard Bird & Pierre Gendron, *Dual VATs and Cross-Border Trade: Two Problems, One Solution?* 5 INT'L TAX & PUB. FIN. 429 (1998).

taxes that might be useful for the EU to consider as it searches for a fraud-free solution to the operation of the VAT in a single market.[26]

The HST is one of these models. Under the HST the federal government administers and collects the local VAT as part of a uniform national VAT.[27] The Provincial government determines a portion of the combined rate, but the base is uniform. Newfoundland, Nova Scotia and New Brunswick participate in the HST. Each imposes an 8% provincial rate that is combined with the 6% federal rate.

The next proposal is related.

(6) *Dual VAT – QST version*. If a high value is placed on local autonomy, Bird and Gendron suggest that the Quebec Sales Tax is the template for the EU to consider.

The defining characteristic of the QST/GST relationship is that the local government administers both taxes. It is a bottoms-up administration, unlike the HST which is administered top-down by the federal government. In addition, because the national GST is included in the QST tax base there is an incentive for sub-national administrators to pay close attention to the GST. Minor differences in the tax base have not caused a problem.

Does either of the Canadian dual VATs prevent MTIC (carousel) fraud? The answer is disappointing. Good theory does not seem to be supported by good practice.

The largest GST frauds in Canadian history are MTIC (carousel) frauds – $50 million.[28] These frauds frequently involve the sale and re-sale of automobiles[29] or heavy equipment.[30] They are known as "car-flipping" or "equipment-flipping" schemes. These schemes, "… generate profit by rapidly buying and selling vehicles, while abusing input tax credits or failing to pay GST/HST."[31] Schemes costing millions of dollars in revenue have been a problem since 1994.[32] The Canadian experience is a "wake-up" call to those who believe this MTIC (carousel) fraud is reasonably confined to the cell phone and computer chip market.

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[26] Five Canadian provinces (Ontario, British Columbia, Prince Edward Island, Saskatchewan and Manitoba) combine a provincial level RST with the federal GST, and could provide a practical model for the VIVAT, except the provincial/ federal rates are not linked as in the VIVAT, and all the Canadian RSTs are destination-based, not origin-based as in the VIVAT.

[27] Richard Bird & Pierre Gendron, *supra* note 25, at 435-37.

[28] OMVIC, 2004 ANNUAL REPORT & 2005 BUSINESS PLAN, 9 *available at*:
http://www.omvic.on.ca/News/Annual_Report_2004.pdf

[29] Regina v. Prokofiew (Ontario Superior Court of Justice) 2004 CarswellOnt 3827; [2004] G.S.T.C. 103 (Mar. 22, 2004).

[30] Regina v Prokofiew; Regina v. Solty, (Ontario Superior Court of Justice) [2005] O.J. No. 1824; 2005 ON. C. LEXIS 2016 (Apr. 11,2005)

[31] Canadian Customs and Revenue Agency, Performance Report, DPR 1999-2000, at Strategic Goal 3, n.8 *available at*: http://www.tbs-sct.gc.ca/rma/dpr/99-00/ccra-adrc/CCRA9900dpr-PR_e.asp?printable=True

[32] Regina v. Paul Foy, 2003 CarswellOnt 5861; [2005] G.S.T.C. 31 (Mar. 3, 2003) at ¶ 34 &45

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The last of the traditional solutions to MTIC (carousel) fraud is a pre-payment solution. It is a solution that has been reconsidered in some of the contemporary solutions.

(7) *PVAT*. The Prepaid VAT (PVAT), developed by Satya Poddar and Eric Hutton,[33] requires vendors to collect VAT on all sales, domestic and interstate, with the sole exception of interstate sales where the buyer prepays the VAT to the state of destination – and provides proof of this payment to the vendor. Proof would be a tax deposit receipt.

The PVAT solves MTIC (carousel) fraud by re-introducing restrictions on the free flow of goods. It turns the vendor into a customs agent. Goods are not released into cross-border trade without payment of tax either at origin at destination. If tax needs to be paid at origin to get goods released expeditiously, problems will arise over the crediting of origin taxes at destination, or about the refund of these taxes at origin (upon proof of payment at destination).

Like the VIVAT, the PVAT has difficulties with B2C transactions. If tax rates among the Member States are not harmonized an incentive develops for consumers to rate-shop. This leads correspondingly to an incentive for high-tax destination states to adopt compensating use taxes. The question then becomes whether or not the destination state will credit consumers with an origin tax (with the understanding that the origin state will pass along the amount collected at origin to the destination state), or whether the consumer will be required to file a refund claim in the origin jurisdiction.

One of the common complaints raised against each of the last five "solutions" (CVAT, VIVAT, Dual VAT-HST, Dual VAT-QST and PVAT) is that they all burden cross-border trade. However, is the kernel of a solution embedded in this criticism? Could a *surgical disincentive* be devised, one that would be targeted at cross-border trade that was identified as "high-risk" MTIC (carousel) fraud trade? Could the market-place itself become a barrier to MTIC (carousel) fraud.

More specifically, could technology be marshaled to manipulate structural disincentives to cross-border trade so that the barrier would "melt away" when assurances (on a transactional basis) are offered that MTIC (carousel) fraud is not possible? Isn't this exactly what we are searching for – a selective disincentive? In other words, shouldn't the goal be to direct market (rather than regulatory) forces against MTIC (carousel) fraud, and thereby eliminate it?

This is the kernel of the technology-based administrative solution that is proposed here. But before we get to that proposal, a five more recent solutions need to be considered first.

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[33] Satya Poddar & Eric Hutton, *Zero-rating of Interstate Sales Under a Sub-national VAT: A New Approach*, in NATIONAL TAX ASSOCIATION PROCEEDINGS: NINETY-FOURTH ANNUAL CONFERENCE (2001) 200-07.

Recent Proposals

Each of the next five proposals for resolving carousel fraud were considered at the September 29, 2003 Tax Policy Conference of the Ifo Institute for Economic Research.[34] This conference was a watershed event for new solutions to MTIC (carousel) fraud. All together there was an exemption model, two reverse charge models and two "pay-first" models considered.

(8) *Mittler Model*. The Mittler Model is a digital exemption certificate system that essentially turns the VAT into a retail sales tax (RST). The American RST is similarly based on exemption certificates, and even though proposals have been made to automate this core functionality in the US, no American jurisdiction has done what the Mittler Model proposes. American exemption certificates remain paper-based.

Procedurally, under the Mittler Model firms qualifying for exempt purchases receive a special identification number, called an F-number ("F" standing for "free"). Firms present their F-number to suppliers to indicate that they are entitled to make purchases "free of VAT." The supplier then checks the F-number through an electronic registration system, and when confirmation of validity is received an invoice net of VAT is issued. The supplier does not collect VAT. The purchaser neither pays VAT nor has the right to an input tax deduction on these purchases. The supplier gives an on-line notification of exempt transactions. Buyer and seller are required to report exempt sales and purchases on their respective VAT returns.

The Mittler Model is an exemption system that includes sales-for-resale as a category of exempt-use. The American experience suggests that two issues are raised by this system: (1) how to determine the validity of the certificate, and (2) whether to enforce a "good faith" requirement – the proposition that only sellers who accept apparently valid certificates in good faith are absolved from liability to collect the tax. The Mittler Model answers the first question, how it deals with the good faith issue is not clear.

The Mittler Model would eliminate MTIC (carousel) fraud because cross-border B2B sales would be exempt from VAT, as would the onward sale to other businesses. However, as it closes off MTIC (carousel) fraud the example of the American RST shows how the Mittler Model will open the VAT to new frauds.

The American RST and the Mittler Model VAT generate their revenue at exactly the same point – the point where non-exempt sales are made, typically to the end consumer. As a result, both systems encourage (a) buyers to avoid the tax through improper use of exemption certificates (called the "excess registration" problem)[35], and

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[34] Ifo Institute, Value Added Tax Evasion and Model Approaches for its Avoidance (Sept. 29, 2003) *available at* http://www.cesifo-group.de/portal/page?_pageid=36,385339&_dad=portal&_schema=PORTAL&item_link=steuer-gemeinschaftskonferenz-2003-bericht.htm (English and German).
[35] JOHN F. DUE & JOHN L. MIKESELL, SALES TAXATION: STATE AND LOCAL STRUCTURE AND ADMINISTRATION 140 & n.3 (2d ed. 1994)

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(b) sellers to find ways to make final sales without including tax. The Mittler Model would benefit from reconsideration in light of the avoidance pressures that are obvious under the American RST where tax rates are approximately 7% (as opposed to 20% under the EU VAT).

(9 & 10) *Two reverse charge models*. The Ifo institute considered two comprehensive reverse charge models, one with an *input tax settlement* feature, the other with an additional *joint and several liability* feature. Because both models share the same core functionality for countering carousel fraud, they are considered together.

The ECOFIN invited the Commission was "… invited to analyze [a general reverse-charge system with] a threshold set at €5,000 … for each transaction." It is not the most preferred solution.

A reverse charge prevents carousel fraud in the same manner that an exemption system does. Taxable businesses making purchases (for which they have the right to claim an input VAT deduction) pay no VAT. They self-assess, and in most cases claim a credit simultaneously. The invoice includes no amount for VAT. Without VAT in-hand, the seller no longer has an incentive to "disappear."

This is a workable option. It is a solution however, that places exceptional pressure on an accurate determination *by the seller* of the buyer's qualifications for input credit. The Ifo Institute's reverse charge models rely on an automated identity system that is similar to the "F-number" mechanism under the Mittler Model. In a comprehensive reverse charge regime the critical distinction is between B2B and B2C transactions. The seller would not tax sales for business use, whereas sales for personal consumption would be taxed. In a partial reverse charge regime the seller needs to further distinguish among B2B sales based on the type of goods sold or how they will be used. This is an exceptionally difficult task in the American context.

The American retail sales tax does employ a very successful B2B reverse charge mechanism – the Direct Pay Permit (DPP) authorization system. The DPP allows sellers to issue invoices free of sales tax to buyers (who would otherwise be obligated to pay tax to the seller). The buyer then self-assesses. The vast majority of American jurisdictions imposing a retail sales tax have DPP systems to reverse the liability to collect the tax. Most are automated.

The critical difference between the Ifo and the American reverse charge models is that the Ifo proposals are universal and mandatory, whereas the American DPP is selective and voluntary. The Commission had favored a hybrid type of reverse charge solution – one that would be (a) selective – confined to a market segment like cell phones, and (b) mandatory – all businesses within that segment must apply it.[36] This is

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[36] *Compare* COM(2006) 555 final (indicating the Commission's favorable opinion of the UK application for a partial reverse charge mechanism in cell phones and computer chips) *with* COM (2006) 404 final (indicating the Commission's unfavorable opinion of the German and Austrian application for a comprehensive reverse charge mechanism).

different from the general reverse-charge system with a transactional €5,000 threshold that the ECOFIN "invited" the Commission to analyze.

When the Commission's analysis is considered, the significance of the Ifo emphasis on the F-number mechanism to mitigate fraud under a general reverse charge system becomes very clear. The Commission lists "… the following already existing fraud patterns [that] will be the most likely to increase [if the ECOFIN's reverse-charge proposal were to be adopted]."[37]

    (a) [The] concentration of VAT fraud at the retail level … [and] the potential loss of VAT revenue at that stage of distribution could in absolute terms be higher compared with the current system …

    (b) Hijacking of VAT identification numbers by pure holdings, sham companies, non-established taxable persons, end consumers) … committed … to avoid paying VAT, but also … for entering goods into the black market. …

    (c) Abuse by pure holdings of their own, valid VAT identification number;

    (d) Migration of MTIC fraud to member States not implementing the reverse charge and having a high VAT rate;

    (e) Creation of fake invoices to lower (high) payment position …

    (f) Replication of MTIC patterns in a purely domestic scenario;

    (g) Easier access of goods to national (and cross border) black markets …[38]

In addition, two new types of fraud are anticipated under the ECOFIN's general reverse-charge with €5,000 threshold proposal:

    (h) direct of disguised artificial splitting of the taxable amount of a transaction in order to circumvent the threshold;

    (i) migration of artificial splitting to other Member States that have implemented the reverse-charge system and apply a high VAT rate.[39]

The Commission could not estimate VAT fraud losses under the ECOFIN's general reverse-charge with €5,000 threshold because of the magnitude of the economic modeling exercise, the number of variables involved, and the difficulty in quantifying the unknown values. The Commission concludes that, "… so far [there is] no real experience with a generalized reverse-charge system [that] exists that could [either] confirm or contest the more theoretical findings of the study – even using the knowledge of experienced VAT experts."[40]

(11 & 12) *Two pay first models.* The Ifo Institute's "pay first" models have theoretical and practical heritages. The 2001 Poddar-Hutton PVAT is their theoretical analogue. In practically terms, there are (or have been) pre-payment (or banking-system/ controlled payment) models in Bulgaria, France, Hungary, Turkey, and Azerbaijan. The

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[37] EU Commission, Working Paper, *supra* note 7, at 20.
[38] *Id*. at 21.
[39] *Id*. at 21.
[40] *Id*. at 26.

Bulgarian VAT Bank regime, established in July 2002, was removed upon Bulgaria's accession to the EU (January 1, 2007).

The linchpin of the Ifo Institute's "pay first" models is the requirement that buyers only claim input tax deductions if they can prove that the *seller* has paid over the VAT to the authorities. There are two permutations to the Ifo "pay first" proposals – non-cash (trust account) and cash (tax stamp) versions. Each can function independently, or they can be combined into a comprehensive "pay first" model.

The non-cash payment (trust account) model. Under this model, if an invoice is paid by bank transfer or credit card the amount of VAT (shown separately on the invoice) is required to be directly passed to the tax authorities via a trust account established at the bank. The seller's bank acts as a trustee of government funds.

The IMF reports that in countries where banking-system dependent regimes are used, the system is mandatory for a defined set of high value transactions. It is not universally mandatory, as under the Ifo model.

The IMF is critical even of these limited systems. It indicates that forcing traders to pass transactions through banks disrupts business. IMF surveys indicate that some traders prefer to be paid in cash, particularly when they are concerned about customer solvency. For this reason, if the Ifo Institute's pay first model were to be adopted comprehensively it is best to merge the (non-cash) trust account model with (cash) tax stamp model.

The cash payment (tax stamp system) model. The cash payment model requires prepayment of VAT by the *seller*. There are two variations. The first uses a stamp machine similar to a postage meter that is filled with pre-paid stamps against which the VAT can be debited. The second system is modeled on the Italian Scontrino model, where a VAT receipt must accompany each sale. In this case, a tax stamp must be affixed to the receipt.

Virtual stamps are contemplated under the Ifo proposal. Each cash register is required to be connected to an on-line database so that at the time of each sale the *seller* automatically purchases a VAT stamp. The stamp is passed to the buyer along with the register receipt. Businesses entitled to a credit would provide the stamped receipt as documentation.

If both of these *cash payment* models were adopted and applied comprehensively in an economy, IMF reservations about mandating the use of the banking system might be answered. Businesses preferring to conduct business in cash may do so, but they must issue a receipt with a VAT stamp.

However, like the PVAT, the Ifo Institute's "pay first" regimes solve carousel fraud by placing financial restrictions on the free flow of goods. The restrictions are not targeted to "high-risk" cross-border trade, but are placed on all transactions in the

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economy. The cross-border vendors become customs agents. Goods will not be released into cross-border trade without payment of tax at origin. As with the PVAT, a clearing function is needed.

<center>A Technology-intensive Administrative Solution</center>

The Commission has sought a technology-intensive administrative solution to MTIC (carousel) fraud at least since the May 5, 2006 Communication.[41] None has been advanced, either by the Commission or interested parties.

The key to an effective solution would be to design administrative elements in the VAT such that "high-risk" cross-border trade could be surgically targeted. Marshalling market-mechanisms against fraudsters would be the goal. Modern technology can make this happen.

There are two parts to the solution: (1) the limited adoption of the Digital VAT (D-VAT)[42] throughout the EU, and (2) community-wide (and coordinated) adoption of the recently enacted French rules removing zero-rates from "high-risk" intra-community cross-border transactions.[43]

The D -VAT proposes no structural changes to the operation of the VAT. It proposes digitization and certification of the current system. The D-VAT is premised on the wide acceptance of tax technology in the modern economy, and requires that VAT administrations be willing to certify this technology along the line of the Streamlined Sales Tax in the US.

The French rules referred to apply to businesses that make domestic purchases of goods from French suppliers and/or any business that makes intra-community supplies to or from France. The rules require a demonstration that all necessary steps and appropriate due diligence has been undertaken to ensure that clients and supplies are bona fide.

If businesses do not meet these requirements the French exemption for intra-community supplies is disallowed (or the recovery of VAT incurred on a local purchase of goods is disallowed). The rules require a demonstration that:

(1) Customers carry out actual business activities;
(2) Suppliers that supply French businesses with goods (and that charge VAT) are not involved in a carousel fraud scheme; and
(3) All VAT due during the previous supply of the same goods has been paid to the tax authorities.

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[41] COM(2006) 254 final, *supra* note 1

[42] Richard T. Ainsworth, *The Digital VAT (D-VAT)* 25 Virginia Tax Review 875 (2006); Richard T. Ainsworth, *Carousel Fraud in the EU: A Digital VAT Solution* 42 TAX NOTES INT'L 443 (May 1, 2006).

[43] *La loi de Finances* rectificative pour 2006 (n°2006-1771) du 30 décembre 2006.

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The French rules do not explain how a business is to meet these standards, other to assume that businesses will perform due diligence audits on *customers*. The D-VAT can provide businesses with an automated due diligence check.

Under such a system this "proof" would be accurate, instantaneous, and fully automated (if both buyer and seller had certified VAT compliance systems). Data exchanges between buyer and seller would confirm that both ends of a cross-border transaction were being/ would be being handled properly. A *certified seller's* system would only zero-rate exports if it received an encrypted data feed verifying the buyer status.[44] Cost effective security regimes of critical data exchanges like this across open networks have been demonstrated.[45] A *certified buyer's* system would reverse charge in all cases where the seller's system was authorized to zero-rate.

A D-VAT approach to carousel fraud can be universal or selective. The American preference (as in the case of Direct Pay Permits) is for voluntary regimes. The Streamlined Sales Tax emphasizes off-site third-party certified service providers (CSP). Other American models include certified automated systems (CAS) installed in a company's ERP system, and certified proprietary software (CPS) systems.

There is a cost to the D-VAT, and most of that is embedded in the certification process. However, certification is really no more that an advanced audit (of the information technology) coupled with an Advance Pricing Agreement. Under the Streamlined Sales Tax online access to a CSP is provided free of charge to taxpayers who agree to collect taxes on remote sales. Similar arrangements for free access in the EU could be arranged, particularly for small businesses engaged in "high-risk" transactions. Business operating outside of a voluntary certification regime could be subject to more intense audit, or less-than-immediate VAT refund regime.

Examples

Two applications are considered below – domestic and cross-border. In both applications the following example will be applied: "A" in one Member State sells goods to "B" in another Member State. "B" then sells these goods in a domestic intermediate wholesale market where they pass in a series of transactions first with "B's" sale to "C" who in turn sells to "D." "D" thereafter makes a sale to "E" who is a final consumer.

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[44] It is anticipated that an encryption-based smart card system similar to that proposed by Professor Norbert Zisky of the PTB (Physikalisch-Technische Bundesanstalt; the national Metrology Institute) to the Fiscalis Committee's Cash Register Project Group would be adopted. *See*, Norbert Zisky, *Manipulation Protection – Electronic Cash Registers and POS Systems*, German Federal Standards Laboratory, Brunswick & Berlin (May 2005) (unpublished draft on file with author); Norbert Zisky, *Manipulationsschutz elektronischer Registrierkassen und Kassensysteme* German Federal Standards Laboratory, Brunswick & Berlin (Mar. 15, 2004) (Ger.) (unpublished draft on file with author).

[45] Luigi Lo Iacono, Christoph Rulans & Norbert Zisky, *Secure Transfer of Measurement Data in Open Systems*, 28 COMP. STANDARDS & INTERFACES 311 (Jan. 2006);SELMA Project http://www.selma-projekt.de (in German) (last visited Feb. 12, 2008).

In a MTIC (carousel) fraud "B" would try to disappear with the VAT receipts. This is what certification seeks to prevent. To better visualize these transactions one might want to think about sales of commodity cell phones in the UK.

Domestic application. In a domestic application each participant in a particular intermediate wholesale market [the sales of "B" to "C" and "C" to "D" in the hypothetical] would be required to use certified software to be compliant with the VAT regime. What this means is that the tax authority would test (and certify) the VAT functionality of the "B," "C," and "D" systems in a sufficiently rigorous manner. As a result, it would be assured that any transaction processed through this system would (a) have the correct tax applied to it, (b) be correctly invoiced, (c) have proper returns compiled and electronically submitted to the tax authority by it, (d) have a related funds transfer link to automatically send or receive net VAT amounts payable or receivable, and (e) determine all other necessary reports, including the liking VAT processes to the financial reporting system.

Once the tax authority was assured that the taxpayer's automated system functioned properly an agreement would be entered into between the authority and the taxpayer which would assure expedited processing of VAT returns in exchange for taxpayer assurances that no transactions in the specified intermediate market would be entered into outside of the certified system. This agreement would be enforced with a related provision in the law that would deny all input credits to anyone entering into transactions in goods of this specified market without using a certified system. In effect, this rule would function as a very selective reverse charge mechanism.

For example, if "B" makes sales to "C" in the intermediate wholesale market for cell phones in the UK, and if "B" had installed a certified system then the following would happen: (1) a reverse charge on the import of the cell phones would be recorded at the proper rate, (2) the onward sale to "C" would be recorded in the tax files and a VAT invoice would be issued – the invoice would indicate that it came from a certified system because the goods involved were part of a regulated intermediate wholesale market, (3) an amount reflecting the VAT received from "C" would be recorded in the tax files, and (4) a VAT return along with the VAT due would be automatically remitted to the tax authorities through an automatic clearing house (ACH) debit or credit mechanism. It would not matter (from "B's" perspective) if "C" used a certified automated system.

From "C's" perspective the use of a certified automated system would be essential if it wanted a credit for the VAT paid to "B." The invoice itself would indicate this.

What if the situation was reversed, and "B" did not have a certified system but "C" did? Then, the functionality of "C's" certified system would recognize that the goods received needed to be associated with an invoice from a certified system in order for the VAT payable to be creditable. Because this kind of invoice would not be available, "C's" certified system would not authorize payment of VAT. It would however, authorize payment for the goods. The VAT would be self-assessed through a selective reverse charge.

The same thing would happen on transactions between "C" and "D," but "D's" transactions with final consumers ("E") would always be subject to VAT. A final consumer would not have a VAT ID number. They system would then know to collect and remit the VAT.

As has always been the case in the VAT, the invoice is the critical document. This proposal raises the quality of invoice in the "suspect" intermediate wholesale marketplaces. Quality assurance of the invoice can, of course, be raised much higher. An automated system can verify that an invoice (that represents itself as coming from a certified system) does indeed come from a certified source. In addition, an automated system can also be linked directly to a government system. Such a system could produce and verify the invoice – as is the case in Brazil.[46]

Most businesses already have automated systems that determine VAT, record purchases and sales, fill out all invoices, and make out returns and reports. Automated systems are frequently employed on both the sales and the purchase side, one to assure that the correct VAT is charged to customers, the other to check purchase invoices to be sure that suppliers are not overcharging VAT.

What is missing in the current commercial environment? Two things: (a) the automated systems widely in use are not certified – they must be audited one-by-one to guarantee compliance, and (b) non-digital compliance is allowed, even in "high-risk" transactions. As a result, very difficult audits are needed to assure compliance.

Cross-border application. The cross-border application closes the loop on carousel fraud. It requires cooperation among Member States. This is the transaction between "A" and "B" in the hypothetical fact pattern. The concern is with the zero-rating of goods leaving the Member State where "A" is established and the related requirement that "B" perform a reverse charge in the corresponding Member State.

If "B" is using a certified system, there should be no problem with this transaction. A certified system will always perform a required reverse charge regardless of the certification of the other party's system. "B's" VAT return will be properly prepared along with all related reports, and the funds will be properly remitted to the government. If there is a problem it might only be when "A" is not using a certified system. The following summarizes these applications:

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[46] On September 30, 2005 the states and the federal government of Brazil signed an agreement (*Ajuste Sinief No. 07 de 30 de Setembro de 2005*) *available at*:
http://www.sef.rj.gov.br/legislacao/tributaria/convenios_ajustes_protocolos/confaz/ajustes/2005/aj05007.shtml (in Portuguese). This agreement created (1) the "e-invoice" (Nota Fiscal Eletrônica) and (2) the auxiliary document of the e-invoice (Documento Auxiliar da Nota Fiscal Eletrônica). On December 20, 2005 the layout of the e-invoice was established and tests were conducted among some of the largest companies in Brazil (Ato Cotepe/ICM No. 72 de 20 de Dezembro de 2005) *available at*:
http://www.sef.rj.gov.br/legislacao/tributaria/convenios_ajustes_protocolos/confaz/pareceres_ecf/2005/ato072_05.shtml (in Portuguese).

1. "A" certified; "B" certified. If "A" and "B" are both using certified systems the zero-rating and the reverse charge will properly made, reported and the VAT remitted to "B's" government.

2. "A" not certified; "B" certified. If "A" is not using a certified system and "B" is certified, then the only question could be whether or not "A's" Member State would be willing to accept the certification of "B's" system as proof that it had fulfilled a due diligence obligation to verify that "B" was not participating in carousel fraud. This might be a problem under rules newly established in France if they were narrowly construed.[47]

Most difficulties arise however, when "B" is not using a certified system. Although it is unlikely that "B" could resell the goods and collect the VAT from a domestic "C" (because "B's" invoice would not be sufficient to support a deduction of the VAT by "C"), this does not prevent goods from circulating VAT-free in the domestic marketplace. Something more is needed.

What is needed is a coordinated certification system that spans both Member States. The goal is to remove the zero-rating from goods (by "A") that are part of a "suspect" intermediate wholesale market in another state when the purchasers ("B") in that other Member State are not certified. Removing the zero-rating would remove the incentive from any "B" to participate in any "suspect" intermediate wholesale markets without first installing a certified VAT system. The following summarizes these applications:

3. "A" certified; "B" not certified. If "A" is using a certified system and "B" is not, then "A" would not zero-rate the transaction. It would impose the domestic tax. "B's" Member State would not be assured that this trader ("B") would properly apply the reverse charge. The functionality in "A's" certified system would be assisting in efforts to assure a proper reverse charge in another Member State. If not certified, "B" would be in the difficult situation of having VAT imposed on its purchases in another jurisdiction (it would need to file for refunds there) as well as being obligated to comply with the reverse charge obligations in the jurisdiction where it was established.

4. "A" not certified; "B" not certified. If "A" is not using a certified system and neither is "B," then "A" should not zero-rate the transaction. Because "A" is not using certified software then the policing of this rule would require audit. The same would be true of "B's reverse charge obligation (although the possibility of "B" being able to resell the goods and collect VAT from an unsuspecting "C" so that it could "disappear" would be minimal). Without a certified system "B" cannot issue invoices that will support a VAT deduction by "C."

It is expected – in a certification regime extended throughout a federal system – that notifications of certified status between automated systems would be automatic, and

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[47] *See* Richard T. Ainsworth *supra* note **Error! Bookmark not defined.** at 1074.

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handled securely over open networks.[48] Dual notifications would be expected: (1) "A's" system, for example, would receive direct on-line notification that "B's" system is certified from "B's" system; in addition (2) "B's" status as a firm using certified VAT software would be confirmed through an on-line acknowledgement by the tax administration in "B's" Member State. All of this could occur almost instantly.

The Certification Process

Although certification of VAT software systems in a federal system could be adopted as stand-alone regimes (independently within each sub-federal jurisdiction), there are advantages in adopting a single, harmonized certification regime throughout a federation. In the EU the standards for certification (and perhaps a secondary level of certification approval) should come from the Community. This type of harmonized approach might be most important for businesses operating with a single instance ERP (enterprise resource planning) system and a single add-on VAT package.

Much of this material has been covered elsewhere, and the details of any specific certification must respond to local concerns and standards. However, a model for accomplishing certification has been put in place under the Streamlined Sales and Use Tax Agreement (SSUTA)[49] in the US. The SSUTA certification process involves measuring software against three third party standards; (1) the AICPA's SAS 94[50] and (2) the US- GAO Federal Information Systems Control Audit Manual.[51] In addition, software developers must comply with (3) ISO Number 17799[52] of the International Organization for Standardization.[53] A discussion of similar standards for certification and accreditation of software can be found in the recent O.E.C.D. materials.[54]

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[48] *See supra* notes 44 through 45 and accompanying text.

[49] 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).

[50] 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*.

[51] 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.

[52] INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO 17799: INFORMATION TECHNOLOGY, SECURITY TECHNIQUES, CODE FOR INFORMATION SECURITY MANAGEMENT (ISO/IEC 17799:2005).

[53] STREAMLINED SALE TAX PROJECT, CERTIFICATION STANDARDS (rev. 5/17-04) *available at* http://www.streamlinedsalestax.org/ (provides a detailed application of SAS 94, FISCAM and ISO 17799 to the SSUTA).

[54] *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 "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

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Essentially the certification process involves two steps; (1) an extensive security check of the software system, the developer and the service provider, and (2) a comprehensive test of tax calculations and return preparation capabilities by conducting tests (literally in the millions) of hypothetical tax scenarios and processing them through the system. Software solutions should also satisfy the May 2005 O.E.C.D. *Guidance Notes*, the *Guidance for the Standard Audit File – Tax,* and the *Guidance on Tax Compliance for Business and Accounting Software*.

The SSUTA uses three certification regimes: (1) the certification of an independent trusted third party called a certified service provider (CSP), [55] (2) the certification of a third party developed system that has been installed in a taxpayer's financial system called a certified automated system (CAS),[56] and (3) the certification of a proprietary software system, one developed and used exclusively by a taxpayer, called a certified proprietary system (CPS).[57] The SSUTA makes the CSP model available to taxpayers at no charge, if they are willing to volunteer to collect distant sales, and a similar option might be considered under a VAT regime if there is a concern about small taxpayers and mandatory use of this system.

The SSUTA has worked out a system around liability for tax calculation errors whereby the government agrees to provide a downloadable taxability matrix of changes,[58] and have promised to make those changes effective only the first day of a calendar quarter.[59] In conjunction with these promises the States have agreed not to hold a CSP or other software developer liable for over or under assessments of taxes if the errors are attributable to government errors in the taxability matrix.[60] CSPs and software developers however would be liable for errors of their own making.[61]

There are important differences under these models. Under a CSP all VAT compliance functions would be transferred to a third-party, the CSP. The determination of taxability, the calculation of tax, provision of invoices, maintenance of the tax audit file, production of VAT returns and related reports, as well as the payment of VAT liabilities would be handled through this trusted third-party. Under a CAS model only the tax calculation function is provided by third-party software. The remaining tax functions are still the responsibility of the taxpayer, and should be required to be automated. With CPS the tax calculation software is proprietary but in all other respects this configuration would resemble the CAS. In the CSP and CAS environment, the tax

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is "certification," an approval process that designates software as "an officially authorized mechanism to perform specified functions."

[55] SSUTA, *supra* note 49, at § 501 (B).
[56] SSUTA, *supra* note 49, at § 501 (C).
[57] SSUTA, *supra* note 49, at § 501 (D).
[58] SSUTA, *supra* note 49, at § 328.
[59] SSUTA, *supra* note 49, at § 304.
[60] SSUTA, *supra* note 49, at § 306.
[61] Uniform Sales and Use Tax Administration Act (as approved on Dec. 22, 200, and as amended on Jan. 22, 2001) at § 9(a).

calculation and audit file process can be located remotely in a secure environment, or on a server at the seller's location.

Although the CSP, CAS, and CPS concepts have their genesis with the SSUTA, a retail sales tax system, they would be far more effective in a VAT. The critical accuracy component (calculating the correct tax) using accurate rates, and taxability determinations, benefits considerably from the inherent "self-checking" attribute of the credit invoice VAT. Buyers and sellers have an incentive to assure correct determinations in a VAT, whereas under a retail sales tax (where the SSUTA operates), the accuracy of the digital record remains dependent on state oversight of the CSP, CAS or CPS.

CONCLUSION

Has a technology-based administrative solution to MTIC (carousel) fraud been rejected? The answer is "no." No such solution has even been considered. Among the "ways forward" both traditional and contemporary, there is none.

This paper makes such a proposal. The proposal is for a limited adoption of the Digital VAT (D-VAT) throughout the EU, and community-wide (and coordinated) adoption of the recently enacted French rules that remove zero-rates from "high-risk" intra-community cross-border transactions.

This solution creates a *surgical disincentive* that targets the cross-border trade identified as "high-risk" MTIC (carousel) fraud trade. At the present time this trade is in cell phones and computer chips, if MTIC (carousel) migrates to other products so too would this solution. This proposal flexibly re-directs market forces so that the market itself becomes a barrier to MTIC (carousel) fraud.

Unlike all other proposals, this approach involves no structural change to the VAT itself. It simply seeks digitization and certification of the current system. It has a working and effective model in the American Streamlined Sales Tax.

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