

(TF)2
(Tax Fraud) x (Terrorist Funding)

Richard T. Ainsworth
Director, Graduate Tax Program
October 10, 2014

Theme

- Tax systems that that rely on businesses to collect and remit tax paid by others are vulnerable to systemic tax fraud. They are a magnet for terrorist organizations in search of funds:
 - Retail sales tax (skimming)
 - Value Added Tax (missing trader fraud)
- Technology-based frauds are preferred
- Technology-based solutions need to be adopted to block the fraud

Funded by Tax Fraud ?

**Hizballah Sheikh
Muhammad Hussein**

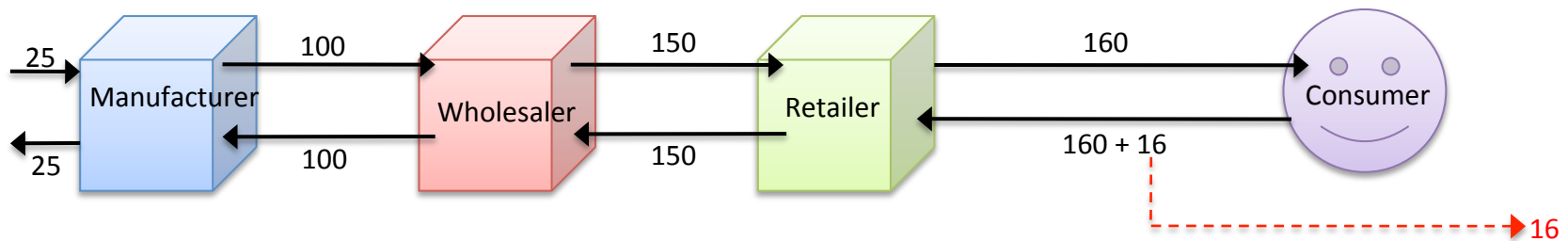


Osama bin Laden

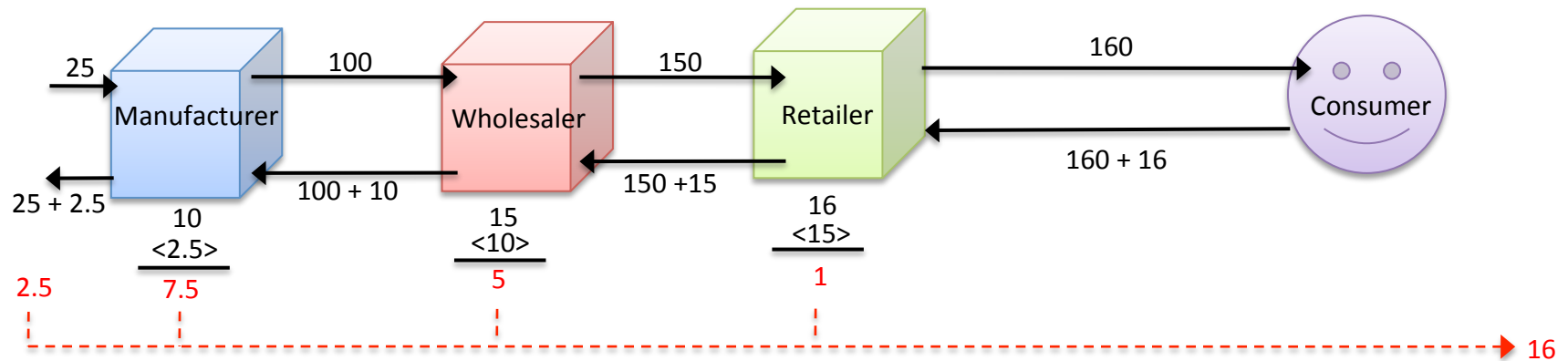


RST v. VAT

- RST – 10%



- VAT – 10%



Retail Sale Tax Frauds

It is now

“... part of the market-place”

Skimming is a Small/Medium Enterprise issue not a
Large/Mid-size Enterprise issue

- (1) Skimming has been an individual fraud, not a market-place fraud
- (2) SSaaS – Sales Suppression as a Service
- (3) Phantom-ware applications show skimming entering the market-place:
 - Self-help phantom-ware
 - Factory-installed phantom-ware
- (4) Zappers developed next
 - Installers, rogue developers, smaller developers
- (5) Internet based programs

Quebec

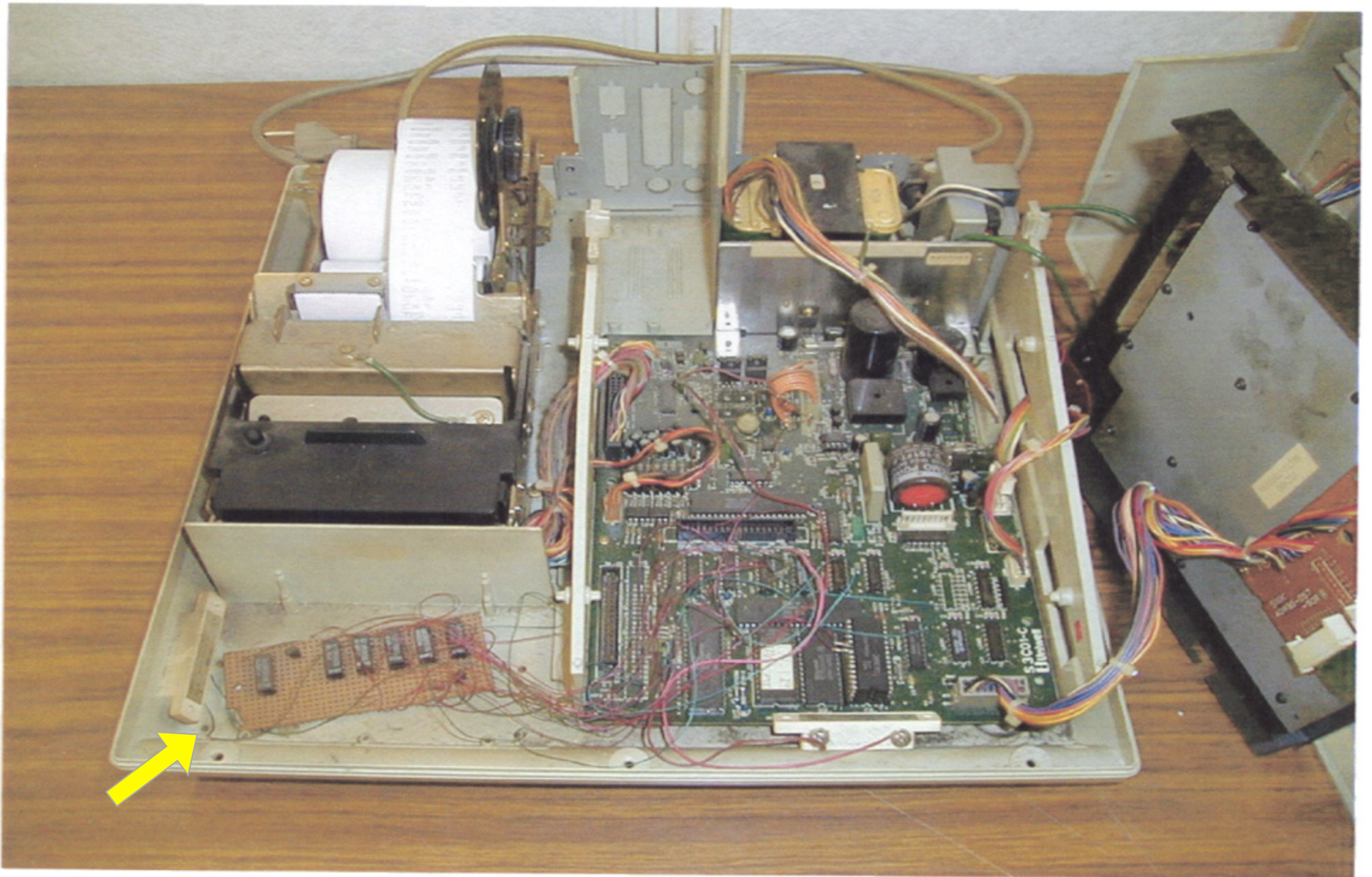
- **Problem:**
 - 500 new cases each year
 - 10,000 delinquent accounts
 - \$425 million per year – tax loss in restaurant sales (only)
- **Solution:**
 - Sales Recording Module (SRM)
 - Hand-help optical scanner
 - 46 restaurants/ 7 cities [pilot project] November 2009
 - 2011 full roll out
 - Results (published February 14, 2013):
 - C\$160 million (voluntary increase) ... by 2018/19 C\$2.3 billion
 - C\$1.3 billion (fines and assessments)

Based on Quebec

State	GDP (billions)	% of Quebec	Est. Tax Losses
Quebec	\$166.9		\$425 million
California [1]	\$1,118.7	670%	\$2.847 billion
New York [2]	\$706.6	423%	\$1.798 billion
Texas [3]	\$641.3	384%	\$1.632 billion
Illinois [4]	\$422.2	253%	\$1.075 billion
Florida [5]	\$413.9	248%	\$1.054 billion
Massachusetts	\$239.4	143%	\$608 million
Total			\$21.095 billion

Zapper from the Past

- This is an old Quebec Zapper. It has been “hard wired” into the ECR. The picture shows the top of the ECR removed, and the yellow arrow points to the device.
- When Zappers are added to ECRs this way it is very easy to find them.
- People only do it this way in jurisdictions that are not looking for them.



Contemporary Zapper

Note: this Swedish zapper requires a lot of manual intervention.



Back-Office PC

Notice the “dongle” (grey memory stick) protecting proprietary program

Notice the silver memory stick – this is the “zapper”

Restodata is programmed to automatically download **all** information about **all** transactions from **all** cash registers every morning at (for example) 5:00 am

So, before manipulation here is the
electronic journal
the sales report
the sales receipt

Fil Ändra
 ----- 208
 (TEL)
 ORG NR
 2006-10-05 15:02:41 **ELECTRONIC JOURNAL UTSKRIFT -** - 2005-03-11 00:00
 --> 2005-03-11 23:59

Nr	Namn	Ant	SUM
21	LUNCH B	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,00
TOTAL KVITTO			65,00
Direkt POS number:1			
Bord NR:0 GÄST ANT:1 Nyk nr:1			
2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1			

23	LUNCH BUFFE	1	68,00
1	KONTANT	1	68,00
	MOMS 25%	1	13,60

Electronic Journal (before manipulation)

1. Item number 21 is a Lunch B
2. It cost 65,00 kroner
3. The receipt is number 2/1

AB

ORG NR.

Förs.per familj
2005-03-11 till 2005-03-11

Namn	SUM
Unknown family	693,00 kr
AVHÄMTNING	1 701,01 kr
DRINK	340,00 kr
DRYCK	1 026,00 kr
MAT	19 981,00 kr
SPRIT	669,00 kr
STARKÖL	13 492,00 kr
VIN	3 144,00 kr
TOTAL	41 046,01 kr
Out of SALES :	0,00 kr
Rabatt :	-209,70 kr

Sales Report (before manipulation)

We need this for comparison later

T00120050311.TIC - Anteckningar

Arkiv Redigera Format Visa Hjälp

A	21	1	1	6500H	2
R	1		1	6500I	
X	1		1	1300P	
C	0		2	OG	
D	0	1	1	1L	
-1103051113000002/1					3
650007670006001H					
F					
A	23		1	6800G	
R	1		1	6800D	
X	1		1	1360B	
C	0		2	OG	
D	0	1	1	1L	
-1103051120000003/1					
680007676006001N					
F					

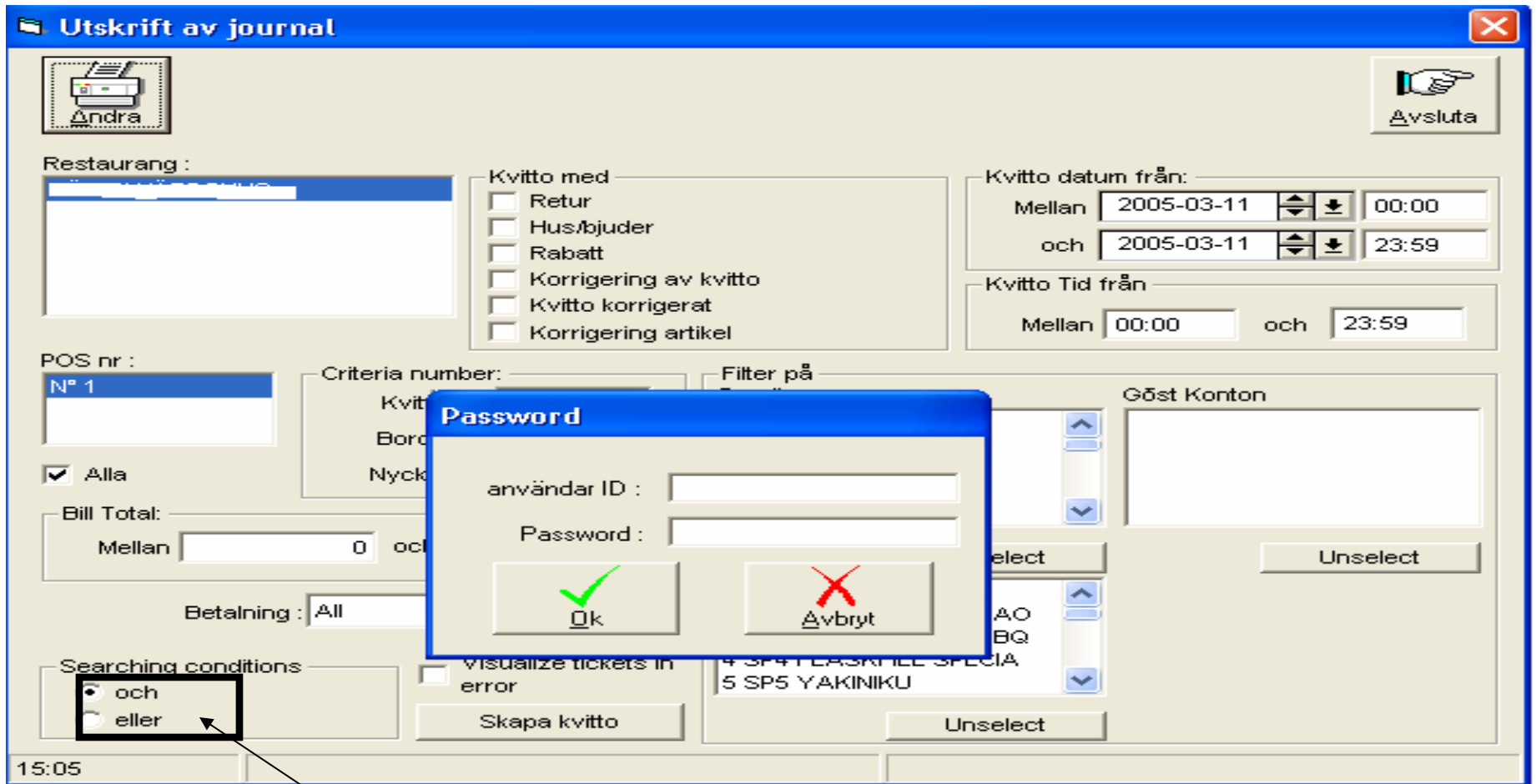
Sales receipt (before manipulation)

These are in the ".TIC" files (for "tickets"). Notice:

1. Item number 21
2. Sales price of 65,00 kroner
3. Ticket number (receipt number) 2/1

To manipulate the data you insert
the zapper (silver memory stick)

There is a new version of the
CMD CAR.DLL program on the zapper



Double-Click on the secret module

It is not all that apparent what you need to do here, but by double clicking in the box in the lower left, entering an ID and a password, you will get to the next screen – the Electronic Journal (which can be adjusted).

Elektronisk journal

Change password

Change

End

Restaurant :

POS Nb : N° 1

Waiters : 2 CAFE 2, 3 SERV 3, 4 SERV 4, 5 SERV 5

Date: 2005-03-11 au 2005-03-11

Bill Total: Upper to 0

Receipt time: Entre 00:00 och 23:59

All

List of tickets paid in cash			Replacement tickets		Articles à exclure: 0			
Date	Time	Nb ticket	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Direkt	65,00 kr		
05-03-11	11:20	000003/1	1	1	Direkt	68,00 kr		
05-03-11	11:30	000004/1	1	1	Direkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Bord	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Select the tickets to replace in the list Manual selecting of replacement tickets

Total Sales: 40 836,31 kr

- Total P Total: 0,00 kr

Total Gross: 40 836,31 kr

Amount to remove:

Threshold amount: 100

Analyse

“Manipulate-able” Electronic Journal

Notice that we can either

- (1) select a ticket to adjust, or
- (2) auto-replace

So, assume we take the selection of a ticket approach ... (1),

When we select the first item (ticket number 2/1) we then get ...

Elektronisk journal

Change password

Change

End

Restaurant: [] POS Nb: N° 1 Waiters: 2 CAFE 2, 3 SERV 3, 4 SERV 4, 5 SERV 5 Date: 2005-03-11 au 2005-03-11 Bill Total: Upper to 0 Receipt time: Entre 00:00 och 23:59

List of tickets paid in cash				Replacement tickets		Articles à exclure: 0		
Date	Time	Nb ticket	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Direkt	65,00 kr	Nr1 45,00 kr	20,00 kr
05-03-11	11:20	000003/1	1	1	Direkt	60,00 kr		
05-03-11	11:30	000004/1	1	1	Direkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Bord	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Total Sales: 40 836,31 kr Amount to remove: Threshold amount: 100

- Total P Total: 20,00 kr

Total Gross: 40 816,31 kr

Analyse Replace auto Validate

Manipulated Electronic Journal (pro-forma)

Here is what we have done so far – is this enough manipulation?

Ticket 2/1 has been changed from 65,00 to 45,00 with a reduction of 20,00 on this ticket

There is a running total kept (in case you want to remove more)

Elektronisk journal

Change password

Change End

Restaurant: [] POS Nb: N° 1 Waiters: 2 CAFE 2, 3 SERV 3, 4 SERV 4, 5 SERV 5 Date: 2005-03-11 au 2005-03-11

Bill Total: Upper to 0 Receipt time: Entre 00:00 och 23:59

List of tickets paid in cash **Replacement tickets** **Articles à exclure: 0**

Article List :

134 D	60,00 kr
233 ESPRESSO	25,00 kr
534 FAUSTINO	238,00 kr
330 FLASKÖL 33CL	35,00 kr
334 FLASKÖL 50CL	45,00 kr
341 FOLKÖL 33CL	25,00 kr
210 FYRA SMÅ RÄTTER	105,00 kr

Price Level: Normal

Tickets

334 FLASKÖL 50CL	1	45,00 kr
------------------	---	----------

Total: 45,00 kr

Erase Ticket Add

Ticket with commission

List of replacement tickets

334 FLASKÖL 50CL	1	45,00 kr
Cash		45,00 kr
MOMS 25%		9,00 kr

Total Sales: 40 836,31 kr Amount to remove: Threshold amount: 100

Total P Total: 0,00 kr

Total Gross: 40 836,31 kr

Analyse Replace auto Validate

Replace the Lunch Buffet (65,00) – with a beer (45,00)

Notice the price reduction (we could have gone lower) – Notice the tax reduction

The Swedish VAT is at 25%

Nr	Namn	Ant	SUM
21	LUNCH B	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,00
TOTAL KVITTO			65,00

Direkt POS number:1
 Bord NR:0 GÄST ANT:1 Nyk nr:1
 2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1

Original

Nr	Namn	Ant	SUM
334	FLASKÖL SOCL	1	45,00
1	KONTANT	1	45,00
	MOMS 25%	1	9,00
TOTAL KVITTO			45,00

Direkt POS number:1
 Bord NR:0 GÄST ANT:1 Nyk nr:1
 2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1

Manipulated

Comparison: Original & Manipulated Electronic Journal

Notice the reduction in gross sales & the reduction in tax.

If this record is tied into inventory control, adjustments in related purchases will be necessary [some zappers will do this for you] because you may have just "sold" more beer than you ordered

T00120050311.TIC - Anteckningar

Arkiv Redigera Format Visa Hjälp

A 334 1 4500?
R 1 1 4500?
X 1 1 900?
C 0 2 0G
D 0 1 1 1 1L
-1103051113000002/1 45000767000600LH
F
A 23 1 6800G
R 1 1 6800D
X 1 1 1360B
C 0 2 0G
D 0 1 1 1 1L
-1103051120000003/1 68000767600600LN
F

Manipulated

A 21 1 6500H
R 1 1 6500I
X 1 1 1300P
C 0 2 0G
D 0 1 1 1 1L
-1103051113000002/1 650007670006001H

Original

Comparison of the TIC-files – Manipulated & Original

Notice the “?” in the Manipulated version in contrast with the letters “H”, “I” & “P” in the original version. This one of the tell-tale signs of manipulation in this particular program. It may indicate that the system has not been correctly updated since the manipulation procedure.

American Zapper Cases

\$17m in 10 years – St. Thomas \$20m in 4 years - Hezbollah



The Three Big US Zapper Cases

- **Stew Leonard's Dairy – 1994**
 - Custom made zapper (former NCR IT expert)
 - Zapper is kept in a hollowed out book in office
 - \$17m (IRS income tax audit) – Customs uncovered
- **LaShish Restaurants – 2007**
 - Zapper kept at owner's residence connected to ECRs at 13 restaurants
 - Skim \$20m (4 years) sent to Hezbollah (Lebanon)
 - CIA mole (sister-in-law); wife in prison
 - Husband is fugitive from US (in Lebanon)
- **Theodore Kramer – 2011**
 - Installer (Journal Sales Remover program)
 - 2 strip clubs – over \$500,000 gross sales
 - 5 years in prison (plea bargain – will talk)

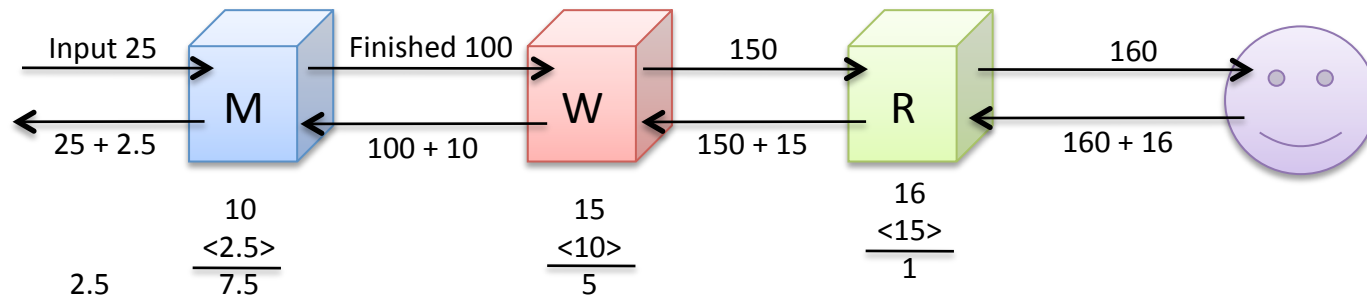
Value Added Tax Frauds

Estimated losses

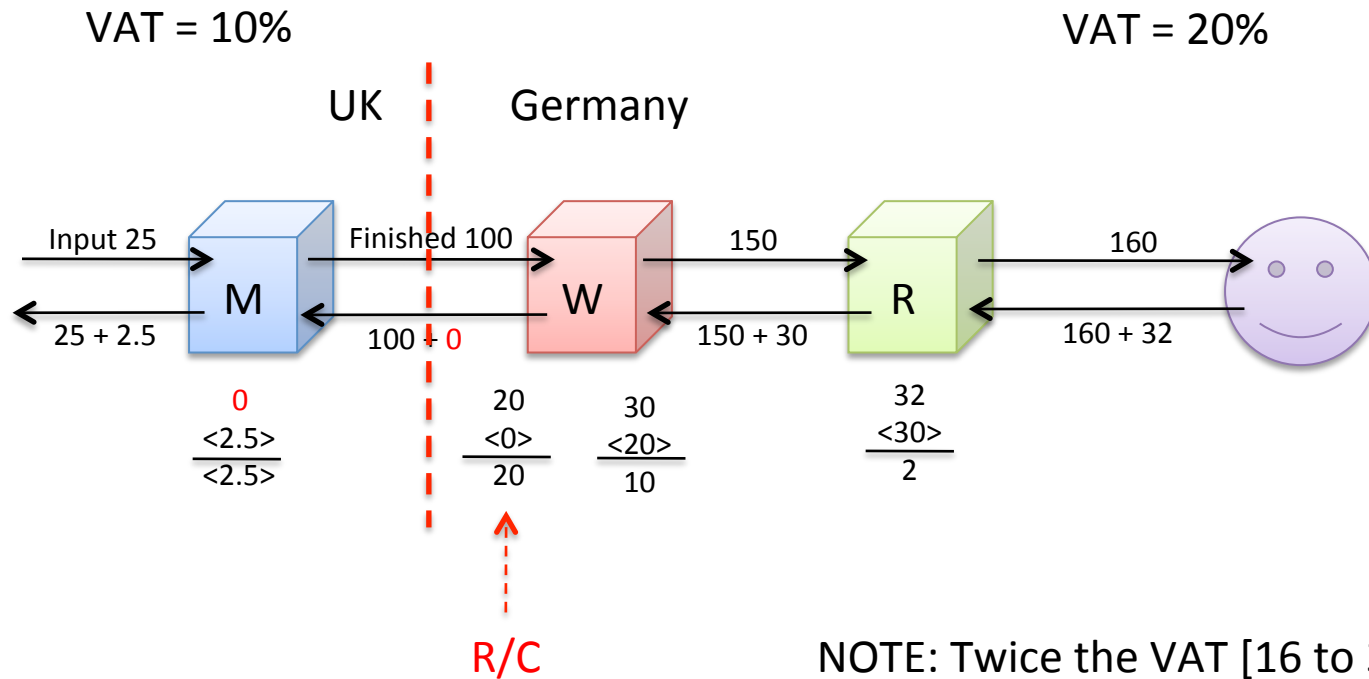
- Missing Traders
 - MTIC fraud
 - MTEC fraud
 - Bankruptcy
- Quantification:
 - €100 billion **fraud** (annually) Europol, *SOCTA (Serious and Organized Crime Threat Assessment)* March 2013.
 - €193 billion (in 2011) \$258 billion **VAT gap** *Study to Quantify and Analyze the VAT Gap in the 27 Member States* (TAXUD/2012/DE/316) (July 2013).

One State – 10% VAT

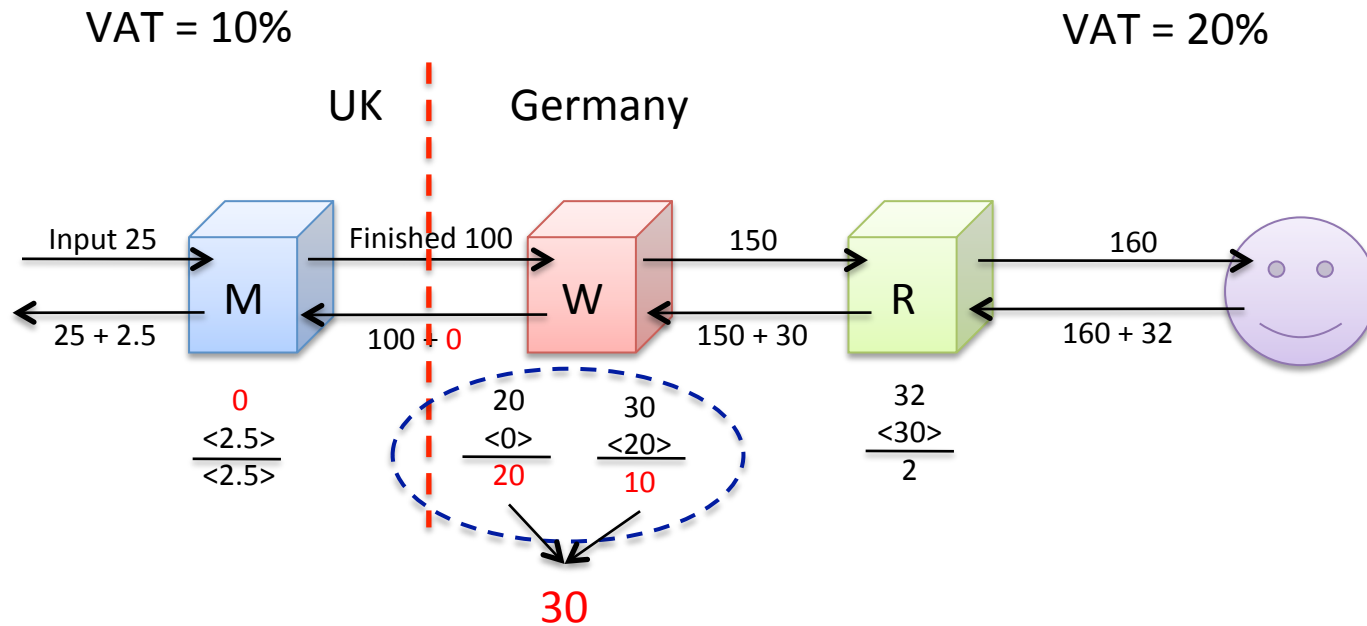
VAT = 10%



Same Facts – Two States

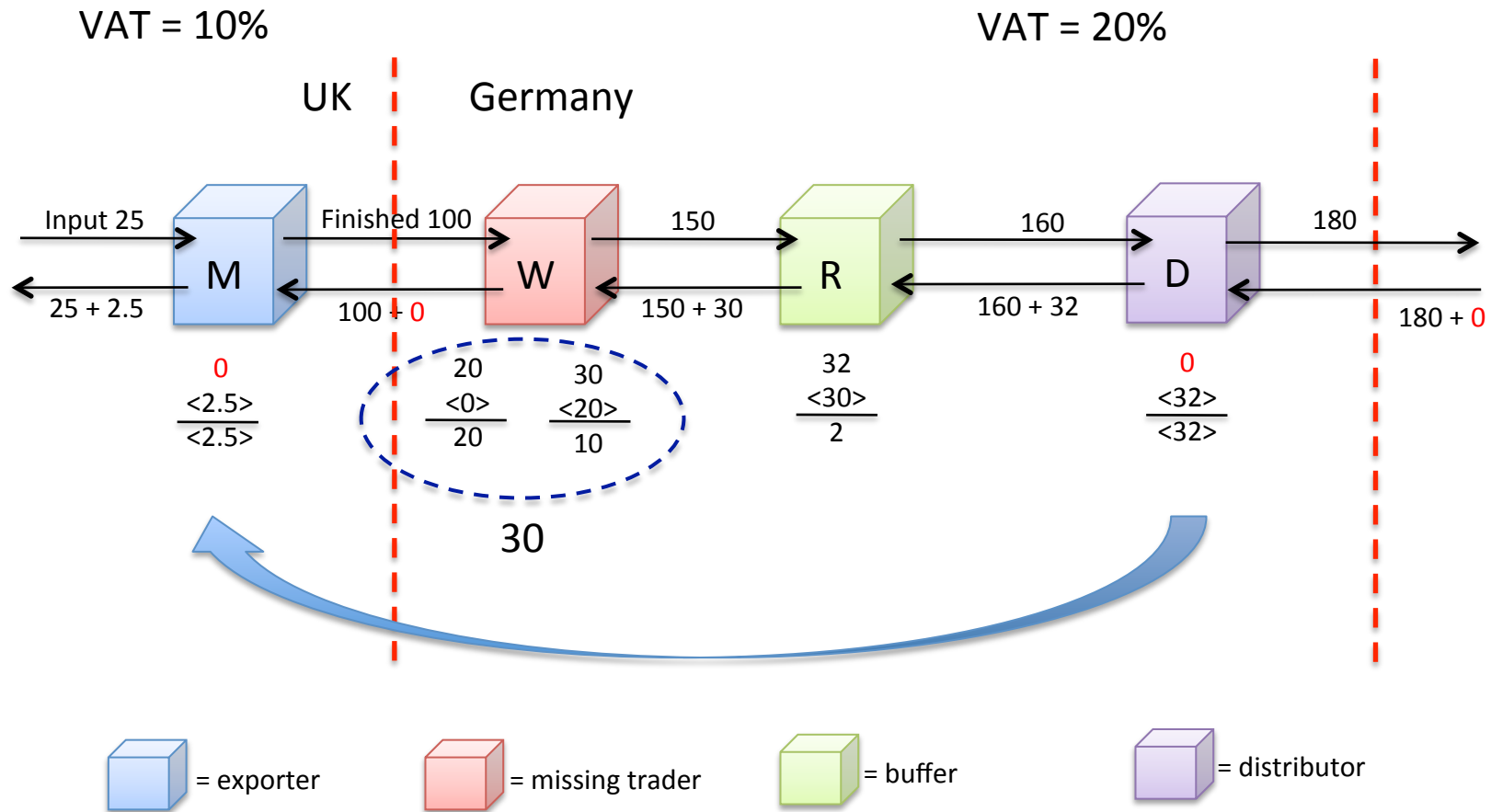


R/C = Two Transactions



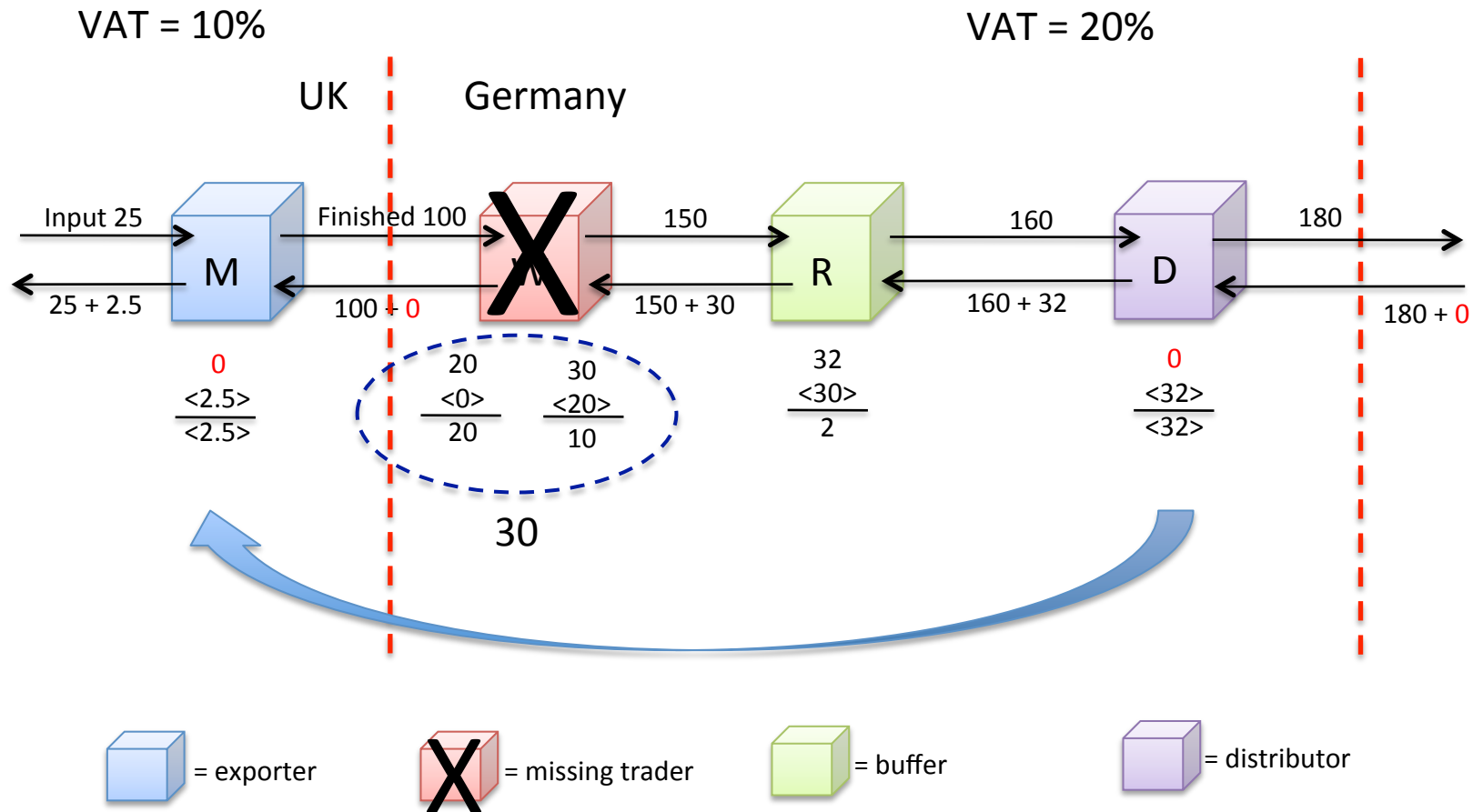
Two entries on the same return filed by W in Germany.
 W sells/buys to/from W
 W sells to R

Carousel



MTIC Carousel

Fraud by "M" – Refund for "D"



Interview with 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]
- 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)

CO2 Permits

- 10/13/2003 – Directive 2003/87/EC – trade rules set down (CO2 permit = ton of carbon emission)
- Allowances granted – based on status quo
- 1/1/2005 – Trading begins
- The *registry is an electronic, web-based system* for holding and transferring greenhouse gas emission allowances. These *allowances exist only in electronic form*, each with a unique serial number.
- Department of Energy and Climate Change, *UK Emissions Trading Scheme — Emissions Trading Registry User Manual 4* (Mar. 2009).

US & UK Raid in 2010

Documents w/ names & companies



Notice of Investigation & Conclusion

9-24-2014 (16 days ago)

N. 72955/10 R.G.N.R. mod. 21



Procura della Repubblica presso il Tribunale di Milano

INFORMAZIONE DI GARANZIA E SUL DIRITTO DI DIFESA

~ art. 369 e 369 bis c.p.p. ~

AVVISO DI CONCLUSIONE DELLE INDAGINI

~ art. 415 bis c.p.p. ~

Il Pubblico Ministero visti gli atti del procedimento penale in epigrafe nei confronti di:

- 1) AHMED Imran Yakub nato il 22 mag 1974 a PRESTON (REGNO UNITO), ivi residente in 145, WATLING STREET ROAD, allo stato senza difensore;
- 2) BENVEDUTI Andrea nato il 30 giu 1963 a GENOVA (GE) ivi residente in CORSO FIRENZE, 16, difeso di fiducia dagli avvocati Avv. Riccardo Olivo e Avv. Silvia Furlan del foro di MILANO con studio in MILANO-VIA VISCONTE DI MODRONE, 21;
- 3) CALCAGNO Agostino nato il 26 dic 1963 a GENOVA (GE) ivi residente in VIA LEMERLE, 23/25, allo stato senza difensore;
- 4) CAPODIGI Savio Gaetano nato il 16 giu 1976 a SAN CATALDO (CL) residente in 26, BINCOKE ROAD (REGNO UNITO), difeso di fiducia dagli avv. Raffaele BERGOGLIO e Silvia DE DURA elettivamente domiciliato c/o lo studio dei difensori sito in Milano via Cosimo del fante n. 13;
- 5) CASATUTO Giuseppe nato il 19 mar 1966 a MILANO (MI) residente in CARONNO PERTUSELLA (VA)-VIA ISONZO, 160, allo stato senza difensore;
- 6) CHAUDHARY Sajjad Mehmood nato il 14 apr 1977 a GUJRAT (PAKISTAN) residente in CENTO (FE)-VIA DE GASPERI, 14, elettivamente domiciliato presso lo studio dell'avv. Mario Moriggi, sito in BOLOGNA-VIA FARINI, 9, difeso di fiducia dall'avv. Avv. Mario Moriggi del foro di BOLOGNA, con studio in BOLOGNA-VIA FARINI, 9;
- 7) CHOWDHURY Shah Khasru nato il 25 set 1974 nel REGNO UNITO fiscalmente domiciliato in BRESCIA (BS)-VIA CIPRO, 1, allo stato senza difensore;
- 8) COHEN Alain nato il 22 apr 1955 a PARIGI (FRANCIA) ivi residente in 23, AVENUE DE LA DAME BLANCHE-FONTENAY SOUS BOIS (PARIGI), allo stato senza difensore;
- 9) COLELLA Ettore nato il 25 ago 1958 a MILANO (MI) ivi residente in VIA CARLO RAVIZZA, 14, allo stato senza difensore;
- 10) CONTI Alessandro nato il 22 apr 1978 a NAPOLI (NA) ivi residente in RIONE SAPIO-VIA DELIZIA, 16, elettivamente domiciliato presso lo studio dell'Avv. Gianluca Bucciero, sito in NAPOLI-VIA LUCA GIORDANO, 93, difeso di fiducia dagli avvocati Avv. Vincenzo Maiello del foro di NAPOLI, con studio in NAPOLI-VIA CORSO UMBERTO I, 237 e Avv. Gianluca Bucciero del foro di NAPOLI con studio in NAPOLI-VIA LUCA GIORDANO, 93;

1.15b€ MTIC Fraud (2009-12)

- 38 individuals investigated
 - Yakub Ahmen (40)
 - Administered SF Energy Trading Co. (Milan)
 - Adam Umerji (36)
 - Zubara Tailor (32)
 - Sarfaraz Patel (32)
- Anglo-Pakistani & Franco-Israeli criminal orgs.
- Purchased in Germany, NL, UK, France and sold on to Italy

Alleged Fraud Trading Pattern

1. Pan Energy Market (UK)
2. World Base Trading FZE (Buffer/Dubai)
3. Stock Complete (Buffer/ Portugal)
4. Euro Trading (Missing Trader/ Italy)
5. I.M.S. (Buffer/ Italy)
6. SF Energy Trading (Buffer/ Italy)
7. EGL (Distributor/ Italy)
- 8(a). Axpo (parent of EGL) (User/ Switzerland)
- 8(b). BNP Paribas (UK office/French HQ)

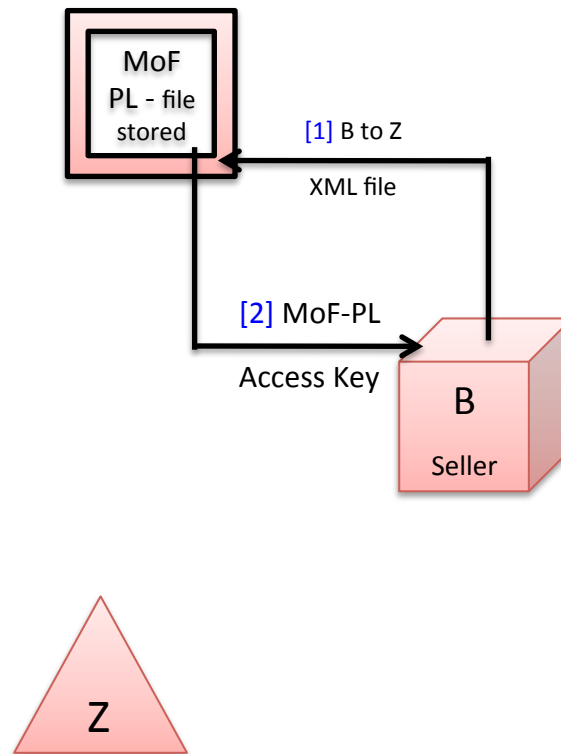
Proposed Solution - DICE

- Digital Invoice Customs Exchange (DICE)
 - Each invoice must have a digital signature (from the tax administration) based on invoice contents to be valid
 - DICE collects data on transactions in real time and shares data with traders and the tax authorities
 - Data collection occurs in advance of transaction
 - Remote risk assessments can be performed
 - Tax administrations can block suspect transactions
 - In operation (in part) in:
 - Brazil: *Sistema Publico de Escrituracao Digital* or Public System for Digital Accounting (SPED) – cross border invoice & signatures
 - Rwanda: Ministerial Order on Modalities of Use of Certified Electronic Billing Machine – remote audit & virtual compliance
 - Croatia: *Fiskalizacija – IT* (Fiscalization program) – central data & virtual remote compliance

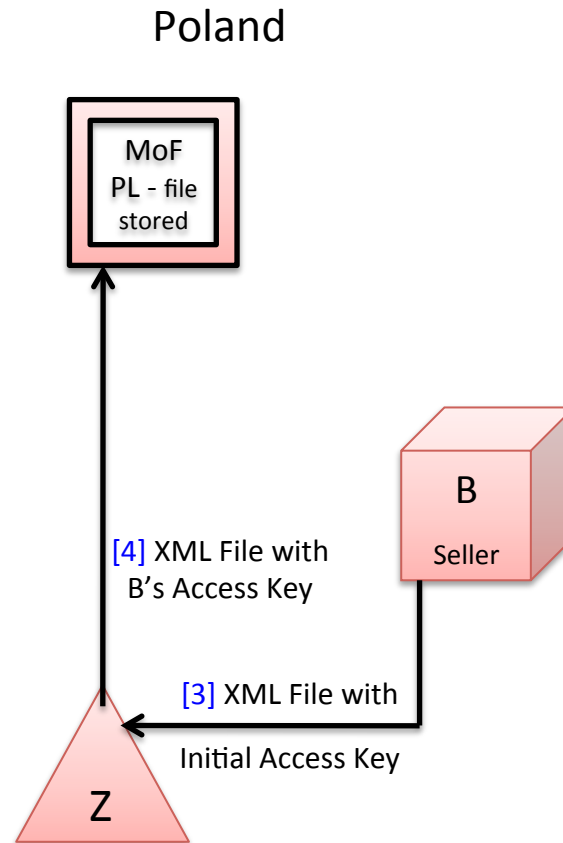
Domestic DICE 1/5

Digital Invoice Customs Exchange

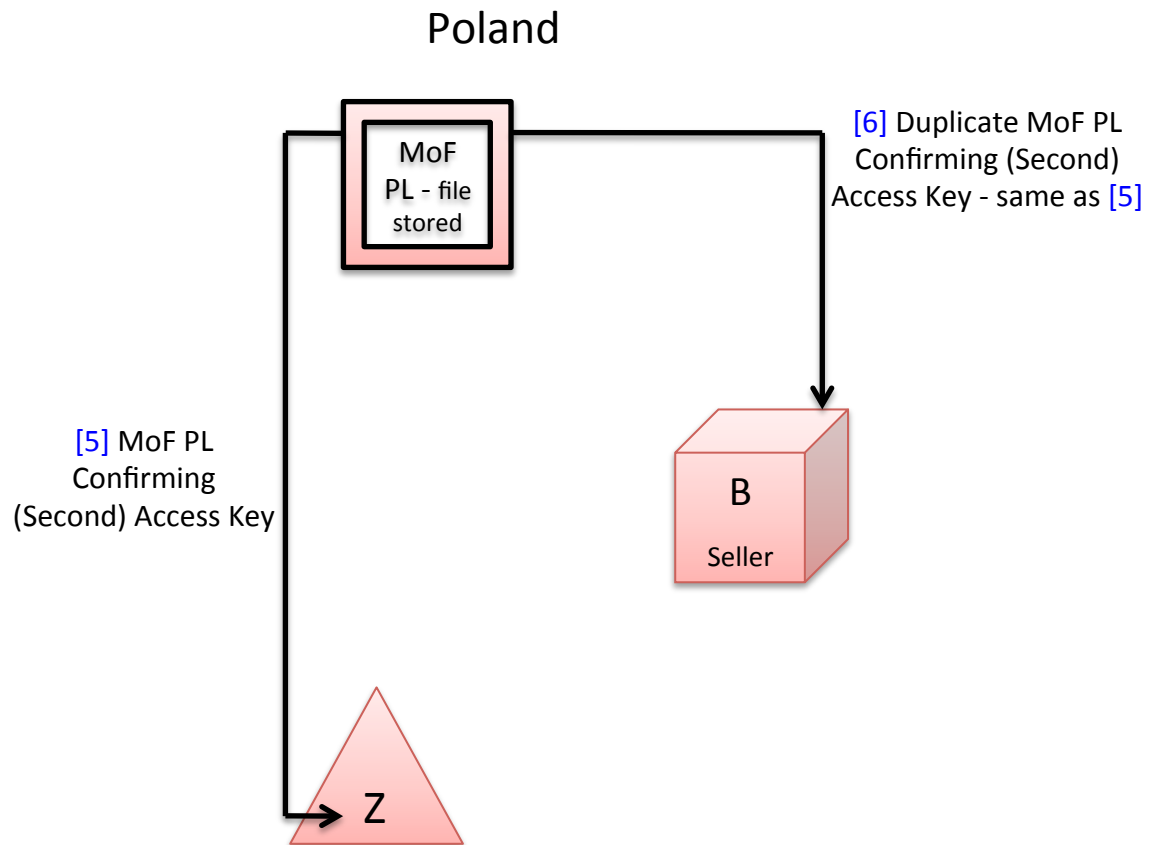
Poland



Domestic DICE 2/5

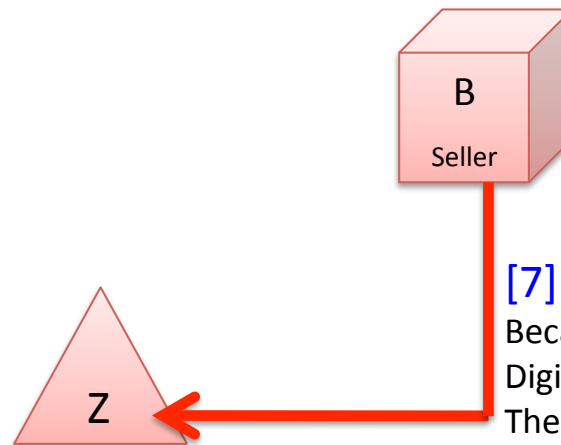
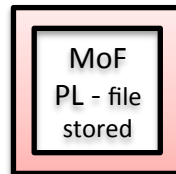


Domestic DICE 3/5



Domestic DICE 4/5

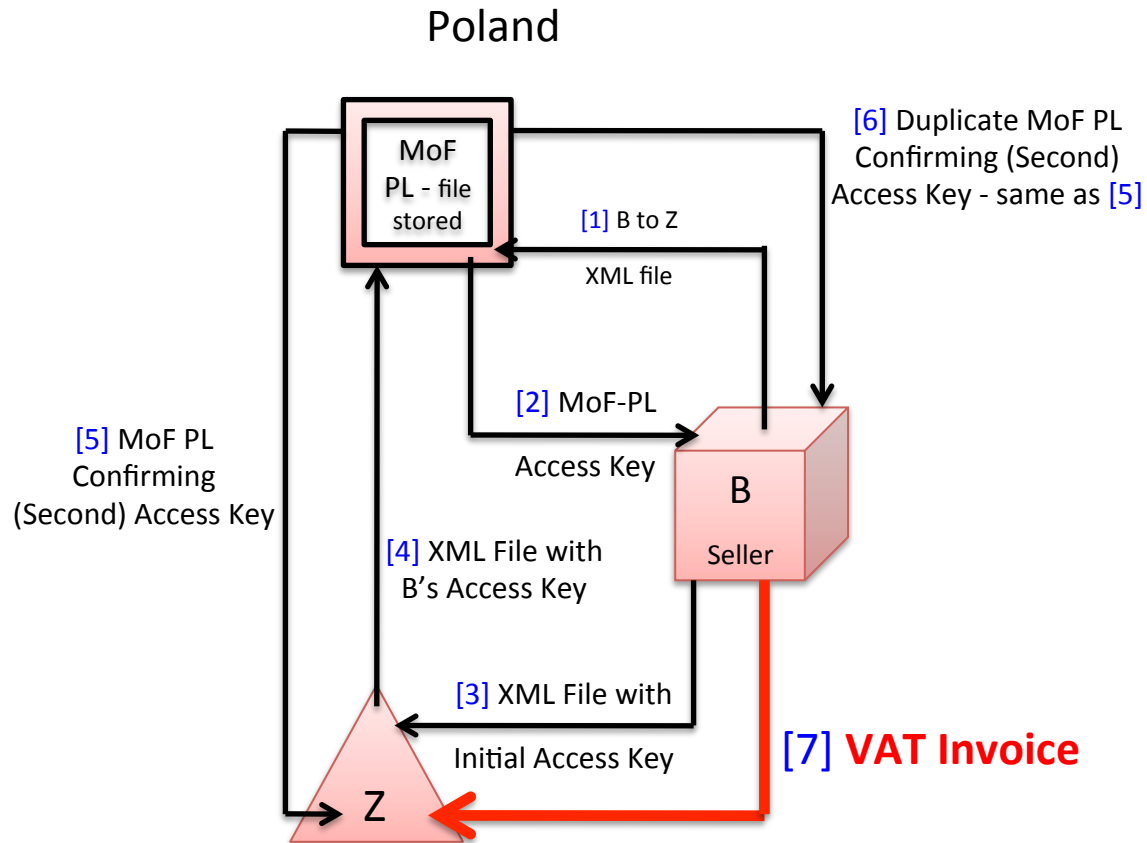
Poland



[7] VAT Invoice

Because the invoice contains both Digital signatures and access keys The contents of the invoice can be confirmed

Domestic DICE 5/5

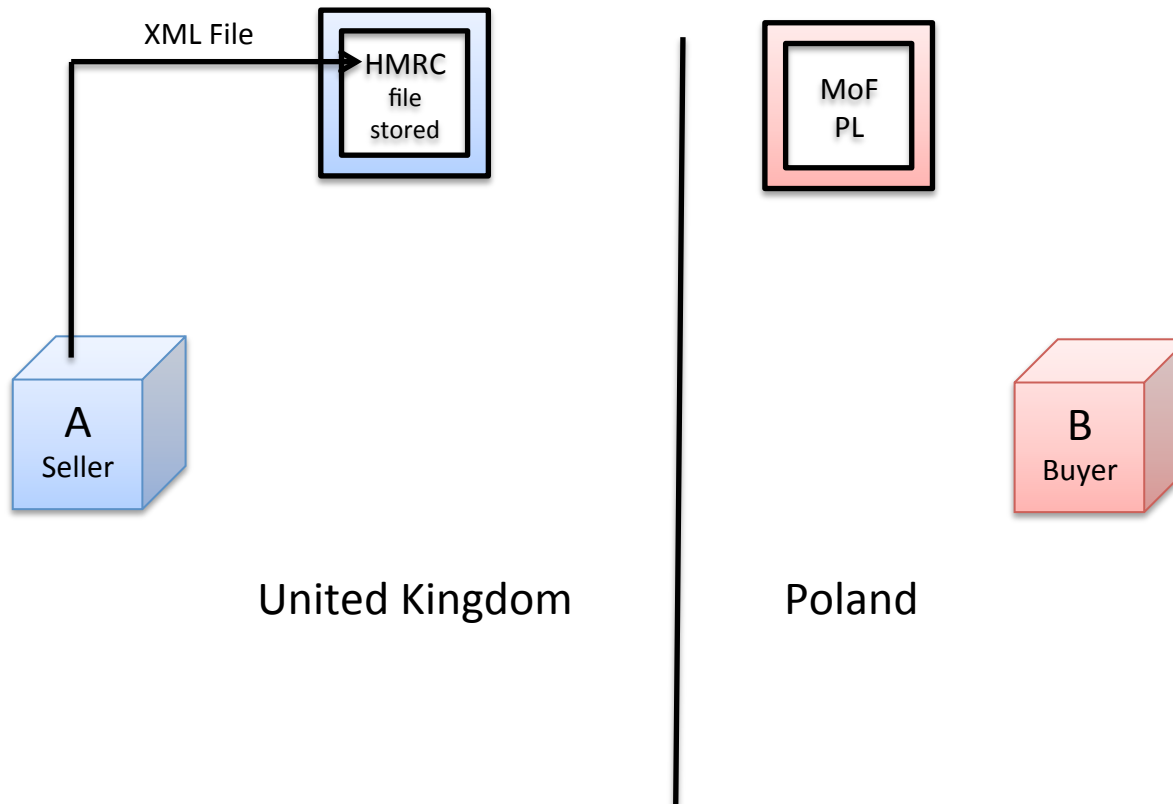


Domestic DICE & MTIC

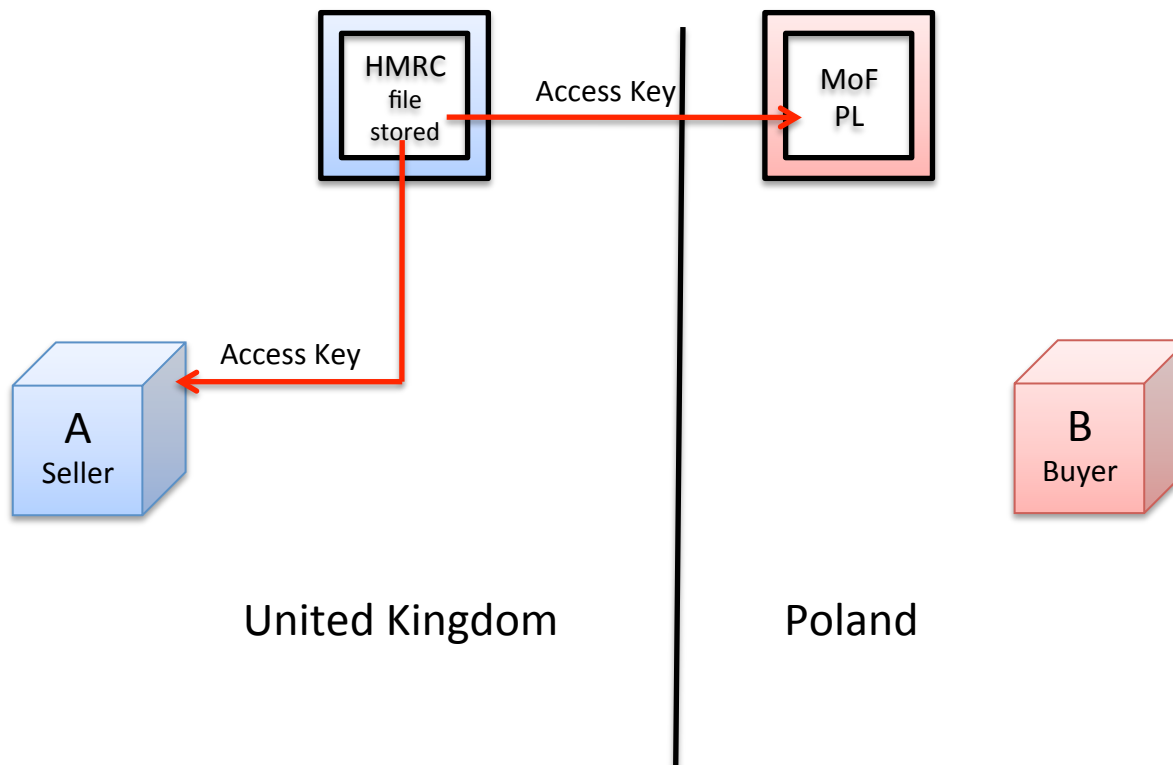
- MTIC is stopped
 - A domestic buyer (Z) will insist on a valid invoice from the seller (B) to be able to deduct VAT paid
 - Valid invoice requires digital signatures & access codes of tax administration
 - Early notice (to tax administration) of transaction (B-Z) allows risk assessment, remote audit, and blocking of transactions before fraud occurs.
 - Access keys can be revoked.
 - **The question is** ... does Poland believe that B will file a return and pay VAT, based on past history, nature and size of the transaction. Z will demand a deduction.

Cross-border DICE 1/5

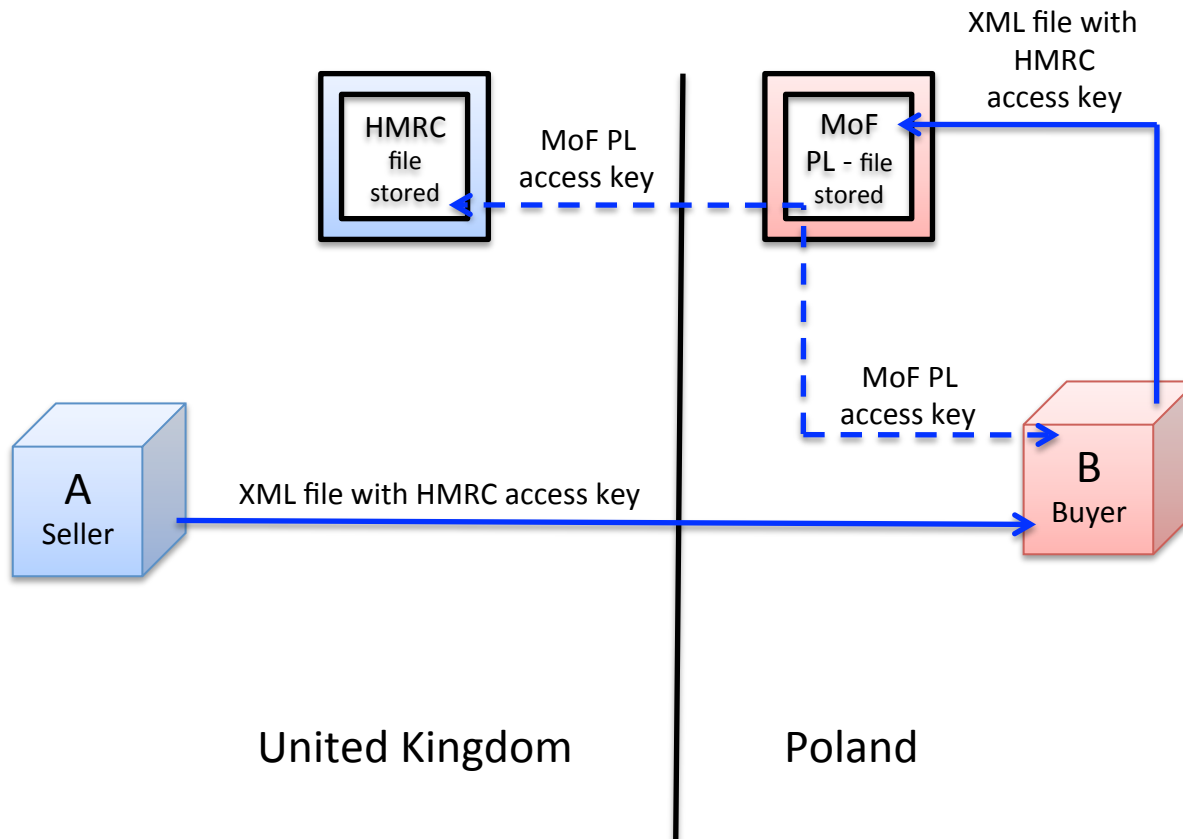
Digital Invoice Customs Exchange



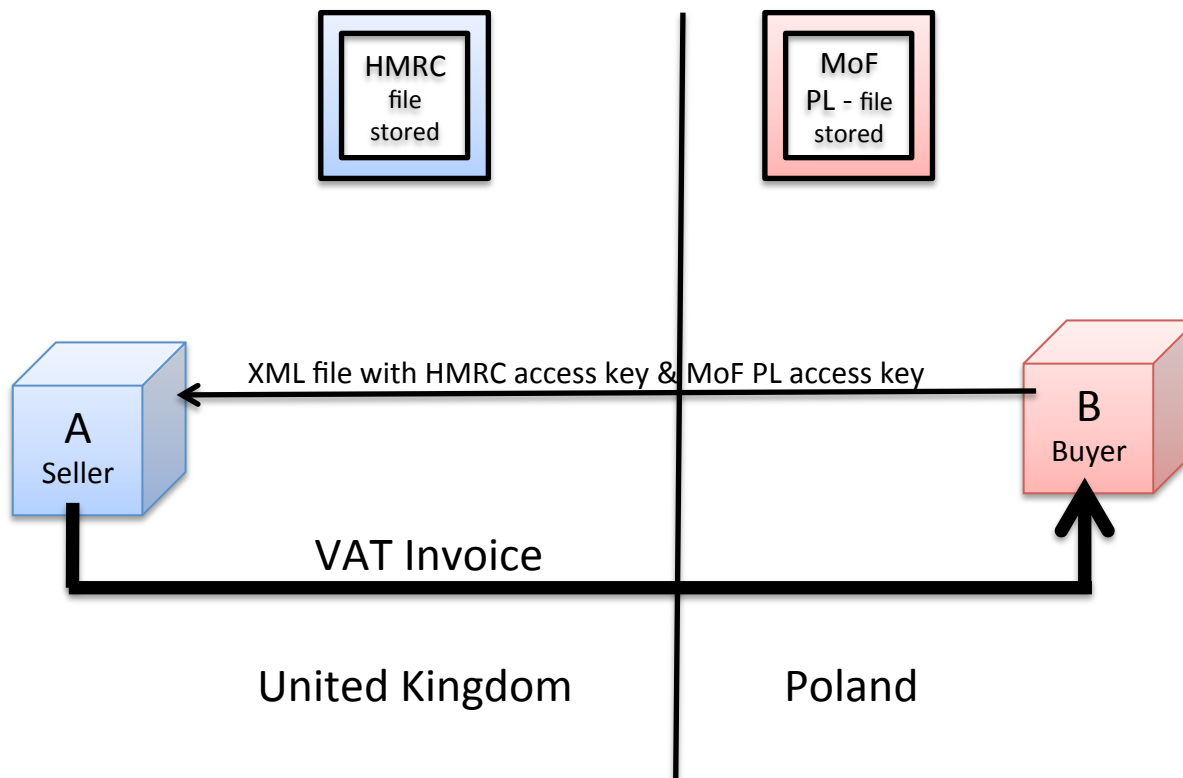
Cross-border DICE 2/5



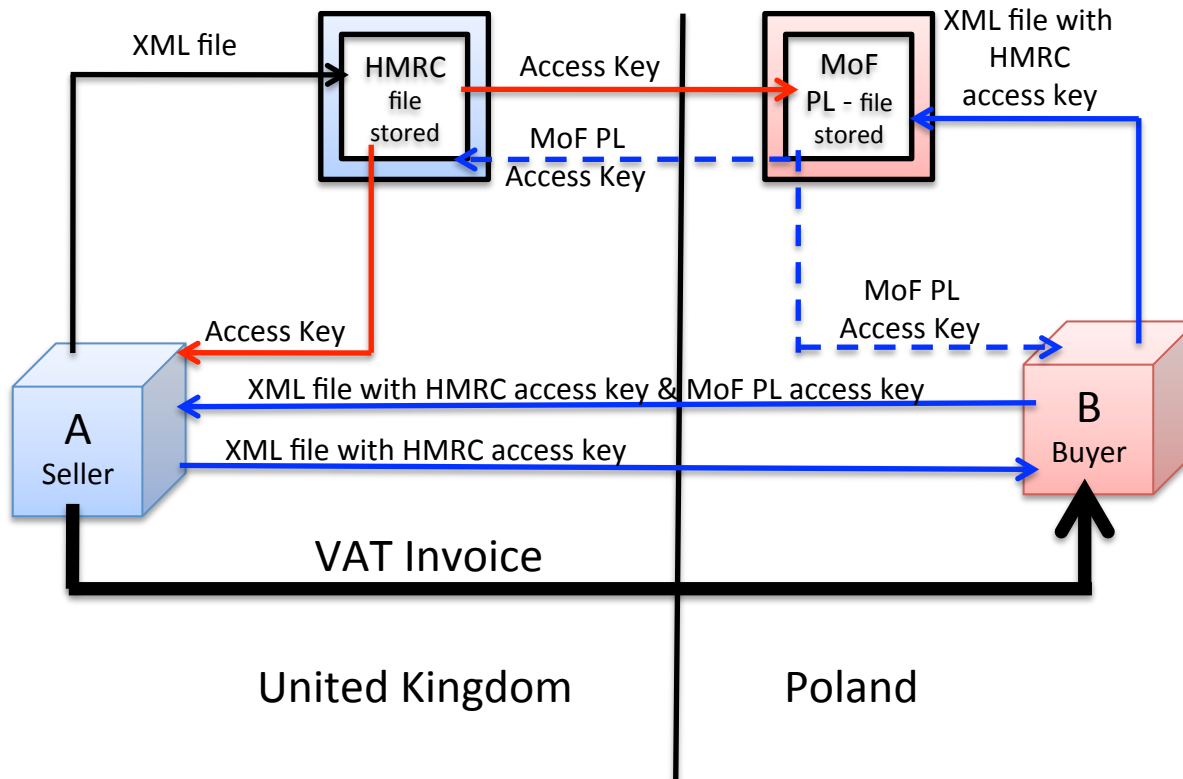
Cross-border DICE 3/5



Cross-border DICE 4/5



Cross-border DICE 5/5



Cross-border DICE & MTIC

- MTIC is stopped
 - An intra-community seller (A) will insist on issuing a valid invoice to a buyer (B) in another member state so that (A) can apply a zero-rate [to get a VAT **refund**]
 - Valid cross-border invoices require digital signatures (access codes) from both tax administrations
 - Early notification (to tax administrations) of the A-B transaction allows risk assessment and audit. The transaction could be blocked before the fraud occurs
 - Access keys can be revoked.

Thanks

- Richard T. Ainsworth, Director
- Boston University, Graduate Tax Program
 - prof482@bu.edu