Fighting VAT Fraud: The Bulgarian Experience

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Abstract: This paper draws on the experience of Bulgaria in identifying the types and modus operandi of VAT frauds with a focus on the abuse of tax credit. It analyses the elements of tax design permissive of such abuses and discusses the possible solutions in the light of the international and domestic experience and the capacity of the tax administration. It offers a critical analysis of the Bulgarian anti-fraud device *the VAT account,* as well as the various alternative policy and administrative measures proposed or applied as barriers to abuse of VAT credit, including those pertaining to the domain of commercial registration, or those related to indicative "market" prices of commercial transactions. The study concludes that the possible solutions should be sought along the lines of optimizing risk management and the principle of joint liability rather than through tighter controls at entry and on the conduct of business.

JEL: E26, H26, K34, K42

Противодействие на измамите с ДДС: Опитът на България

Анализират се механизмите на ДДС измамите като се акцентира върху злоупотребите с правото на данъчен кредит. На основата на натрупания международен и български опит са разгледани нормативните и административни предпоставки за данъчни измами в нашето законодателство и възможните решения на проблема. Прави се критичен анализ на опита с ДДС сметката и различните предложения за мерки на данъчната политика и администрация, включително по отношение на затягане на директния контрол върху регистрациите и прехвърлянията, и върху сделките. Защитава се идеята, че решението трябва да се търси по-скоро в оптимизирането на системата за управление на риска и принципа на солидарната отговорност, отколкото в затягане на контрола върху стартирането и воденето на търговска дейност.

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Introduction

VAT fraud is the leading single challenge encountered by the Bulgarian revenue administration on the doorway to enlarged Europe. The elimination of border controls on the flow of goods and the expansion of trade in services as well as of e-commerce complicate the administration of VAT in intra-community trade. Furthermore the introduction of the principle of voluntary VAT registration below the compulsory threshold in 2006 increases the scope of risk management. With the accession to the EU VAT frauds cease to be domestic problem only and incur losses for the Union. Tax effort becomes much more international than before as VAT collection in one member-state depends on the administrative efficiency of tax auditors in the trading partners' country as well. Risk management and selection of audits requires much closer cross-border integration and cooperation between member states at all levels of law enforcement.

European Commission's estimates of the size of the losses from VAT fraud point at about EUR 60 billion. The losses of Germany alone may account for about one third of that figure. Estimates for 2004 point at EUR 17,6 billion. Estimates by the UK statistical office show that the scale of fiscal losses there might have more than doubled in the last 2 years from GBP 1,1 -1,9 billion in 2004-2005 to about GBP 5 billion in the last fiscal year and can hit GBP 7 billion in the current fiscal year.[2] Against this background Bulgarian official figures of up to EUR 300 million a year appear modest in absolute terms. They however are about 4-5 times higher than the UK figure if taken as a percentage of overall VAT revenues.

The European Union is trying hard to work out a "coherent strategy" to combat VAT fraud. Two years ago the EC recommended that countermeasures are sought within the framework of the existing VAT design and pushed forth increased integration of the revenue administrations.[3] Today, EcoFin suggests more radical measures that may change the very fundaments on which the VAT has operated in the last four decades. It backed the introduction of the so called "reverse charge mechanism" in regard to the riskiest goods such as mobile phones and computer chips and decided to work a directive allowing its broader use by member states.[4]

Drawing on the VAT literature and the international experience, this paper studies the modus operandi of VAT frauds by putting the emphasis on the abuse of tax credit. It analyses the impact of the countermeasures applied so far and the advantages and disadvantages of the new countermeasures which are currently in the focus of the European debate. Section one reviews the mechanics of fraudulent drain schemes. Section two studies the Bulgarian anti-fraud device, the VAT account. Section three discusses the pros and cons of the various barriers to the abuse of tax credit applied or proposed so far, including the replacement of the credit mechanism by the reverse charge system. Paragraph one looks into the challenges of the single market to the administration of the VAT. Paragraph two examines the cost and benefits of replacing the credit

[2] *The Guardian,* May 9, 2006

[3] Commission of the European Communities, "Report from the Commission to the Council and the European Parliament on the use of administrative cooperation arrangements in the fight against VAT fraud", Brussels 16.04.2004 COM(2004) 260.

[4] Council of the European Union, Economic and Financial Affairs, Press release, June 7, 2006, 9831/06 (Presse 154)

mechanism. Paragraph three studies some conventional barriers related to the control of business registration and the prices of the transactions. The last paragraph in this section studies the principle of joint and several liability. The last section concludes.

The mechanics of organized fraud

VAT fraud is usually interpreted in two broad categories. One includes various techniques of conventional tax evasion. This implies hiding of taxable receipts coming from the production and distribution of *real* products and services. Sales are not recorded in the books, or are recorded at lower than actual prices and/or quantities. Alternatively, conventional evasion may be effected through overvaluing of spending on inputs. Both aim at reducing the tax liability stemming from real transactions. The second category includes methods of abuse of tax return through *fictitious* transactions and traders. It implies a net cash outflow from the Treasury which is usually a result of multistage paper transactions between accomplices.

The distinction between VAT evasion (i.e. hiding of tax liability) and siphoning of VAT credit may seem elusive and a matter of scale rather than content. In the final account it is the magnitude of the fraud that determines whether the fraudster will end up with net cash inflow from the Treasury. Therefore for the purpose of this paper the distinction is rather between individual evasion through hiding of net revenues from real transactions on one hand; and organized abuse of tax credit through fraudulent networks based on fake transactions and traders. The crime network includes not only real and fake companies, but depends crucially as well on the collusion by tax auditors, customs officers and other law-enforcement authorities. This makes network tax fraud a type of organized crime rather than tax evasion. Consequently combating it requires a different set of instruments and skills and close cross-border cooperation in investigation and prosecution.

The most common international instruments of abuse of the right to VAT credit are fictitious export and the missing (insolvent) trader fraud. In the case of *fake exports*, the exporter carries the transaction on paper, applying the zero VAT rate on exports and claiming tax credit on the inputs, while actually selling the products on the domestic market without sales invoices, i.e. without paying VAT. A safer version would use real exports, but would overstate the quantities exported. The scheme's success depends on the co-operation of a customs officer, who processes the paperwork on the export transaction. But it may not imply accomplices at the higher level of the customs administration, or in the tax audit unit. In its basic versions it does not necessarily depend on the complicity of traders up the supply chain, or high level customs officers and it may not even include tax auditors. It may rely on random bribery rather than structured network. Therefore a fictitious export is more of a border type fraud between individual evasion and network abuse of credit.

The replacement of physical border control with the VIES system in intra-community trade eliminates the necessity of customs officer in the fraudsters' network and makes this fraud an instrument in the missing trader fraud rather than stand-alone scheme. Upon accession, Bulgaria however becomes the land and the sea border of the EU in regard to Turkey, the Western Balkans, Russia and the Asian cargos via Russia and Turkey, which will increase the relative weight of this type abuse of tax credit.

A more structured type of network fraud is the *missing trader fraud.* It uses a chain of paper transactions at prices deviating from the market ones. This leads to accumulation of a large portion of the VAT liability in a phantom undertaking, thereby making it uncollectible. However, for actual cash to flow out of the Treasury to the fraudsters the chain must end with a zero-rate trader. Therefore the scheme is operational usually with an exporter at the end of the chain. Even in case exports are real, the value of inputs is so inflated that it entitles the exporter to a large refund. The illegal refund of the VAT credit flows to a "legal" real exporter before the tax office discovers that there is a missing trader up the chain. Thus, the "collected" on documents tax on the inflated inputs is never paid to the Treasury.

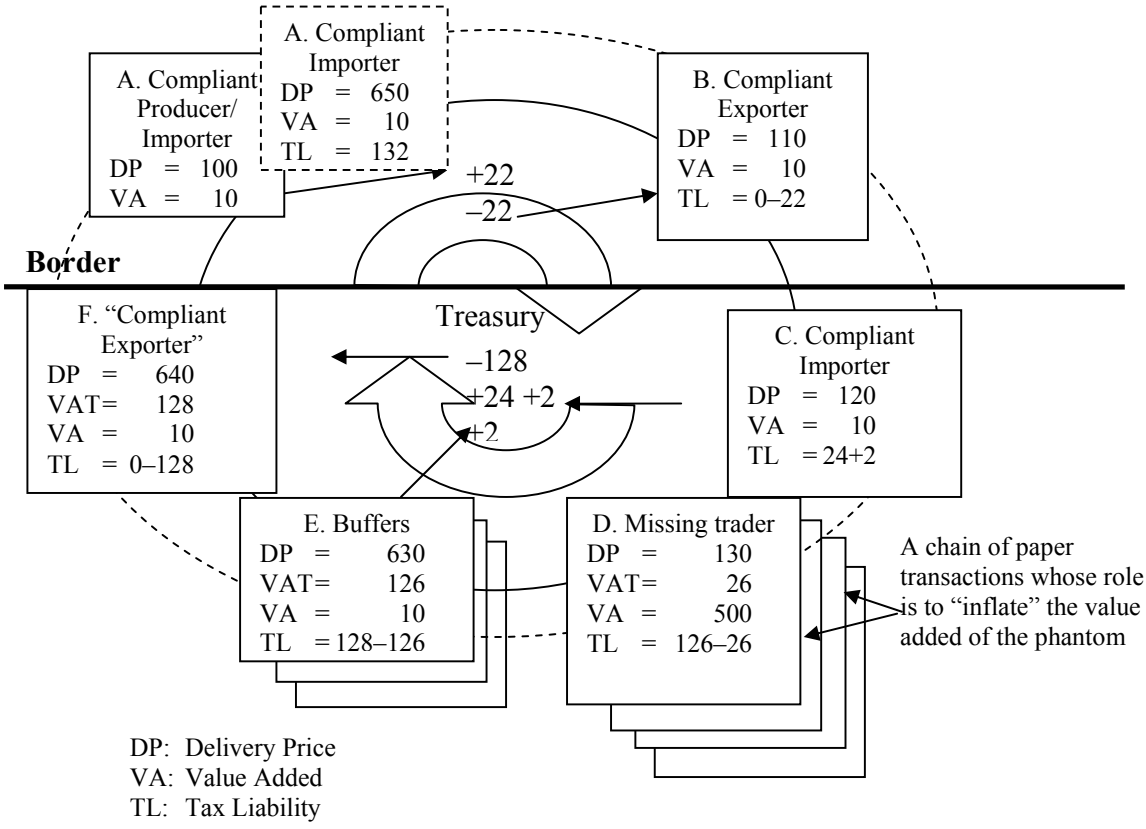
A Bulgarian version of the missing trader fraud is the *insolvent trader fraud.* Instead of using a missing trader, which is easier to detect before the refund is completed, this version uses existing firm, but before the tax collector reaches it, it is already transferred to indigent or half-literate individuals without any assets.

Most often the missing/insolvent trader fraud is implemented through repeated rounds of cross border transactions known as *carousel fraud.* This, on the one hand, makes tracking and countering it more difficult and slow, while on the other, it multiplies the cash return on the missing-trader fraud. A simplified numeric illustration is provided below (fig. 1) with the assumption of VAT rate of 20 per cent on each side of the border.

In this example VAT trader A spends EUR100 on inputs from non-VAT supplier, adds value worth EUR10 and sells to B at the price of EUR 110 levying a VAT of EUR 22, which it transfers to the tax office. Supplier B exports the good by levying 0 rate VAT on the value added by him (EUR 10) and claiming back from the tax collector the taxes paid on inputs (EUR22). The good crosses the border without the tax of the origin country in the price. It is worth 120, which is exactly the value added at the three stages of the supply chain in the country of origin. The importer in the country of destination pays VAT on the value of the imports plus the value added by him, a total of EUR 26. After crossing the border the supply chain goes through a number of fictitious and buffer transactions, whose effect is twofold. First, they inflate the value added by the prospective missing trader (D), which allows the rebate of the tax credit by the organizer. Second, they make the connection between the fake and the real players (C and F) hard to prove. Traders between the missing trader and the zero-rate player may be compliant taxpayers as their compliance is needed for the flawless drawing of the tax credit by F. In result, the missing trader enters in the account a payment of EUR 130 on inputs to VAT suppliers plus VAT payment of EUR 26 and adds value through labour inputs, or supplies from non-VAT traders worth EUR500. As the goods continue around the carousel to E, it generates a tax liability for D in the amount of EUR 100 (20 percent on the value added of EUR500). Supplier E duly pays to the Treasury the liability on the value added by him and passes the goods to the zero-rate trader, who completes the round by drawing the tax credit of EUR 128 paid on inputs. The net cash flow to the network from the first round (unbroken line) is EUR 100, but the same goods are worth after the first round EUR 650, i.e. six times more. Thus the effect of the second turnaround (dotted line) is several times higher. The scheme's capacity is considerable, especially if fictitious traders are involved on both sides of the border. Summing up the carousel fraud

makes detection difficult across borders and jurisdictions, while at the same time multiplying the return on the scam.

***Figure 1*. International Carousel Fraud**



The Bulgarian experience: The VAT account

The problem with organized VAT fraud is relatively new for Bulgaria. The tax was introduced in 1994 but fraudulent refund schemes only started to spread after 1997, when the introduction of the currency board reduced inflation. Prior to that, the long time-limits for credit refunds and the high rate of inflation rendered such schemes unprofitable. The second half of the 1990s also saw the first high-profile cases of VAT fraud. Major countermeasures had not been introduced until 1999 – 2000. Those included: closing some of the loopholes in the legal framework; streamlining the large taxpayers unit; restructuring the tax audit area to account for the abuse of credit; establishing special anti-fraud units; monitoring of VAT losses; etc.

According to tax authorities in Bulgaria, the detected fraud under the Value Added Tax Act (VATA) over the 2000–2004 period, amounts to an annual average of BGN 280-300 million (10-12 per cent of VAT revenue collected)[5]. The actual loss,

[5] *Доклад на Временната анкетна комисия за разследване на измамите с ДДС към 39-ото Народно събрание,* 2005 [Report of the 39th National Assembly's Temporary Committee of Inquiry into VAT Fraud, 2005]

according to the administration's own estimates, is two to four times bigger, i.e. between BGN 600-1,200 million (20-45 per cent of VAT revenues). International estimates have been sporadic. The Canadian consultant SG Group estimates the evaded VAT in 1999 and 2000 at BGN 605 million (31.5% of VAT revenue collected) and BGN 454 million (19.4%) respectively.[6] According to World Bank estimates, VAT compliance gap in 2002 is about BGN 900 million (33 per cent of VAT revenues).[7] In absolute terms, the size of the problem may look small by international standards. The losses of the UK Treasury amount to about GBP 5 billion, while those of Germany to about EUR 17,6 billion. In terms of compliance gap, however, i.e. the size of the loss as a percent of VAT revenue, Bulgaria's leakages are much higher than those of the other EU countries. The UK losses for instance amount to less than 7 percent of the VAT revenues, while in Bulgaria the gap is 4-5 times larger.

Like most modern tax systems, the Bulgarian legislation has placed a number of obstacles to the abuse of tax credit. Firstly, rather than being immediately refunded, the VAT credit is deducted from the tax liability during the following three reporting periods. Only after that, is any remainder of tax credit, not so deducted, refunded within 45 days. This arrangement is designed to allow *bona fide* traders to deduct credit from real liabilities. It is only exporters that are entitled to priority refund within 30 days in order to avoid liquidity constraints. Therefore organized VAT fraud schemes are mostly export-related frauds and cannot be accomplished without the complicity of customs officers. Secondly, actual cash is only refunded after a tax audit, and during the audit, the statutory time-limit is suspended. Finally, the principle of joint liability is the last barrier to abuse of VAT credit. It was introduced by the Code of Tax Procedure (CTP), in force since 2000. Under its provisions (article 109), the administration could deny a tax refund if any trader in the supply chain has not paid the tax as due. In practice, this meant that, without having proof of any relatedness between the refund claimant and the non-compliant trader, the administration would anyway penalise the former. However, a number of cases brought by taxpayers have gone against the tax authority. In 2002, these provisions in the CTP Article 109 were repealed. The principle of joint liability remained embodied in VATA (Article 65(4)), but was considerably mitigated by the introduction in the same year of the new anti-fraud device - the VAT account.

Since 2003 all VAT-registered businesses are required to open a VAT account. It can be used only for incoming and outgoing VAT payments, thus separating VAT moneys from the undertaking's other cash flows so as to ensure their safe passage to the Treasury. Any tax amount above BGN 1,000 must be paid to a VAT account. This threshold corresponds to the limit for cash payments of BGL 5000. Thus the VAT account was meant as a device to fight the missing trader fraud by virtually extending the control of the Treasury on the VAT balances of the firm irrespective of the actual tax payment (i.e. before and after the pay day).

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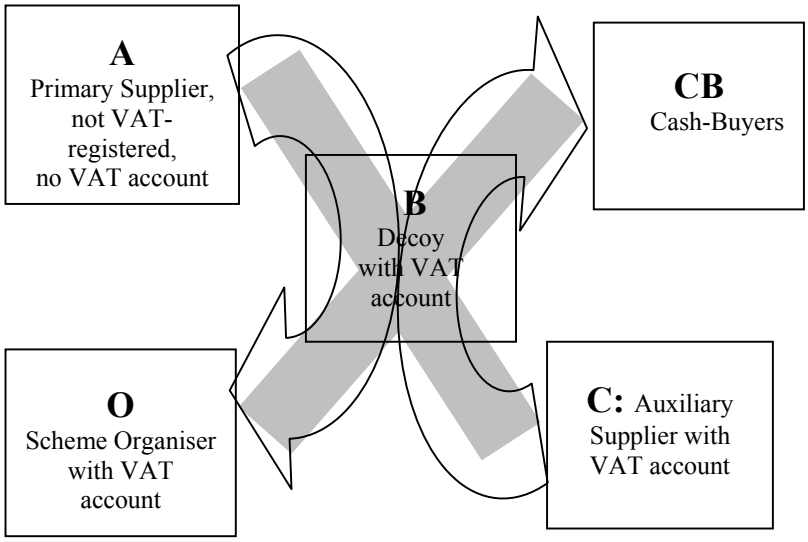
[6] SG Group Consultants (2002) "Study of Taxpayer Compliance and Law Enforcement", Final Report, June 28, mimeo.

[7] World Bank (2003), "*Project appraisal document on a proposed loan in the amount of EUR 31.9 million to the Republic of Bulgaria for a Revenue Administration Reform Project",* Report No: 25010-BUL, May 9

In return, compliant users of VAT accounts receive two kinds of relief with regard to the triple security arrangement outlined above. Traders, which pay to the VAT account not less than 80 per cent of the VAT charged to them (i.e. have at least 80 percent of the cash flow going though bank transfers), are entitled to a refund within 45 days from filing a VAT return. Even if a tax audit is ordered (in the tax authority's discretion), this time-limit will not be suspended. Thus, under the VAT account arrangement, the requirement to deduct a tax credit from subsequent VAT liabilities, before any remainder can be refunded, is dropped, together with the requirement for a tax audit, and the waiting time for a refund is limited to 45 days, including the duration of any discretionary tax audit. The second advantage has to do with the joint liability principle. The provisions of VATA Article 65(4), which prevent refunds if any trader in the supply chain is non-compliant, do not apply if the subject payment has been made to a VAT account by the end of the reporting period for which a tax credit has been claimed (VATA, article 65(8).

Summing up, the VAT account was designed to counter the missing trader fraud, providing at the same time relief to compliant taxpayers caught in the trap of joint liability. Only a year after its introduction its performance on both accounts fell short of the expectations. Firstly, it failed to raise an effective barrier against organized fraud. Missing-trader networks found a relatively easy way to draw down the VAT account f the missing trader, taking at the same time advantage of the shelter against the joint liability principle provided by the VAT account. The upgraded version of the missing trader fraud, dubbed X-type VAT fraud, includes a supply "sub-chain", whose purpose is to draw down the liability of the missing trader from his VAT account. A basic scenario is illustrated on figure 2.

Figure 2. **X-type VAT Fraud**



The initial (primary) good comes from a non-VAT-registered trader (*A*) to a VAT-registered purchaser/supplier (*B*) at a VAT-exempt price. The latter acts as a decoy: its task is to ensure the right to VAT refund to the organiser (*O*), as *O* pays the tax into

B's VAT account. However B's tax liability will not be collectible—when it is established, *B* will have no balance left on its VAT account. *B*'s account is drawn down by purchases from another supplier (*C*) and the transfer of the VAT on them to its VAT account. On paper, *B* receives auxiliary fast moving consumer goods which, it sells to cash-buyers (*CB*). These are either end consumers or non-VAT-registered traders or VAT-registered traders whose tax liability is below BGN 1,000. The idea is to avoid payment of the VAT charged on these sales into *B*'s VAT account. In summary then, the VAT payable on the primary supply is refunded to the scheme organiser, having been simultaneously withdrawn from its supplier's VAT account. In the meantime, it has also been used to legalise the auxiliary sales. Therefore, in its basic variety, the X-scheme is a method of VAT evasion, rather than unlawful refund. But it is possible to double, at least, its effect if the organiser (*O*), instead of selling the primary goods on the domestic market, and reporting the sales, exports them fictitiously and sells them domestically for unregistered cash, or else, exports them genuinely but at a lower reported value. In addition, the basic chain could be made much longer and more complicated, with the involvement of a number of witting or unwitting intermediaries, so as to make it difficult to trace and break. Table 1 provides numeric illustration of these two scenarios.

Table 1. Financial return on the x-type VAT fraud: evasion vs. leaking

(a) Non-VAT-Registered Supplier *A* delivers goods worth 1,000 to Intermediary/Decoy *B*. The supply is VAT-exempt.

(b) Supplier *B* adds value of 100 and resells the goods to Scheme Organiser *O* at 1,320 gross, of which 220 goes to *B*'s VAT account. Thereby, *O* is entitled to claim a tax credit of 220.

(c) *B* draws down its VAT account by transferring 220 to *C*'s VAT account in respect of goods (rapidly marketable) purchased from it at 1,100 net.

(d) The goods purchased from *C* are rapidly placed on the cash market, the VAT on them going straight into the organisers' pockets.

Evasion Scenario (220 of budget revenue lost)	**Unlawful Refund Scenario** (440 + of budget revenue lost)
(e) Scheme Organiser *O* sells the primary goods on the domestic market, charging VAT of 220, which it does not pay as it is exactly offset by its tax credit. The net result is that, being owed VAT of 440 (220 on the primary supply and as much on the auxiliary supply), the Treasury only gets 220—from *C*'s VAT account in respect of the auxiliary supply.	**(e)** Scheme Organiser *O* exports the primary goods, charges the zero VAT rate on the export transaction, and receives a cash refund of 220 in respect of its tax credit. The net result is that, being owed VAT of 440 (220 on the primary supply and as much on the auxiliary supply), they Treasury gets naught. The 220 it does receive from *C*'s VAT account in respect of the auxiliary supply is exactly offset by the cash refund in respect of *O*'s exports. Or—
	(f) Scheme Organiser *O* exports the primary goods on paper, charges the zero VAT rate on the export transaction, and receives a cash refund of 220 in respect of its tax credit, while in reality, it adds value of, say, 500 and sells the goods domestically for unregistered cash. The net result is that, being owed VAT of 540 (a total of 320 on the two primary supplies and 220 on the auxiliary supply), the Treasury gets naught. The 220 it does receive from *C*'s VAT account in respect of the auxiliary supply is exactly offset by the cash refund in respect of *O*'s exports. Or—
	(g) The same loss effect of 540 is produced if Scheme Organiser *O* has a genuine foreign buyer ready to accept the goods at an invoice price lower than the actual one (which a foreign buyer might have the incentive to, considering that based on the destination rule it would save VAT on imports). In this case, Scheme Organiser *O* avoids the costs and risks of selling the primary goods on the domestic unregistered-cash market.

In brief, the VAT account speeded up the network scam by relieving the missing-trader fraudsters from the audit requirement rather than providing effective safeguard. Furthermore, because of its inefficiency as an anti-fraud device, it failed to guarantee the unconditional refund of tax credit to compliant businesses. Administrative practice and jurisprudence abound in cases of VAT refund denial, and appeals from it, despite the taxpayer's compliant use of a VAT account. On the other hand the cost of compliance has increased because of the effective freezing of companies' cash flows in the VAT accounts.[8]

[8] The VAT account was dropped from the VAT Bill submitted to Parliament by the Council of Ministers in the Spring of 2006 (to come into effect in 2007), but the debate in Parliament and outside has not been completed yet at the time of writing of this paper.

In search of antifraud instruments

The challenge of the single market

Fighting VAT fraud is the single gravest accession challenge to Bulgarian tax and customs administrations. Its gravity comes from the need to find effective fraud deterrents at the least cost of restrictions on *bona fide* businesses. Striking this balance is not easy. The problem is that, more often than not, deterrents are successfully circumvented by fraudsters and their accomplices in the audit units, while compliant undertakings incur additional costs on account of them. If the tax authority can deny VAT credit on the mere suspicion of involvement in a fraudulent scheme, this can open the door to corruption and incur additional losses to compliant traders. Conversely, if solid proof is required in all cases before the tax administration can take appropriate countermeasures, this is likely to tie its hands and place it in a catching-up position, while offenders would walk away unpunished.

After accession to the EU, the risks and difficulties related to VAT administration will increase for two reasons. *Firstly*, as Bulgaria goes further in allowing VAT registration under the threshold for compulsory registration, this would make the VAT status within reach for any small or start-up undertaking. In the past a missing trader scheme needed initial high-value paper transactions to reach the threshold of EUR 25000, which raised the probability of detection.[9] As voluntary registrations below the thresholds grow in number, so will the cost of control and audit preventing missing trader frauds. This argument is especially valid in an administration which relies on pervasive auditing rather than on effective risk assessment. In addition, the expansion of the VAT system to cover small undertakings will increase the economic cost of the administration's ineffectiveness (from wilful or accidental errors and omissions, bribe seeking, etc.). As a rule, smaller undertakings have relatively limited capabilities of putting up a defence against administrative extortion.

Secondly, the abolition of customs borders between Bulgaria and the other member states will do away with the border control of trade flows, removing the customs barriers to cross-border fraud. Of course, the problem is not exceptional to Bulgaria. By its structure, VAT is a central tax. Its local application - across tax jurisdictions of different tax rates and given the unlimited freedom of movement of goods, persons, and capital - is very difficult. The best solution in such a union is to apply the origin principle of VAT, i.e., tax the exports at the rate applicable in the country of origin and allow the importer to claim tax credit from its tax jurisdiction in respect of the tax paid to the exporter. In other words, under this arrangement, the good is taxed as if it does not cross the border. It actually does however, and the result is that the tax is paid to the country of origin, while the credit is refunded by the country of destination. If the purpose of the VAT is to tax consumption rather than production, there must be some mechanism that the destination country could claim the credit paid from the country of origin. Therefore the operation of the origin principle in the intra-community trade hinges crucially on the smooth operation of a multilateral clearing system, by which the member states can settle

[9] 2006 amendments of VATA allowed optional registration upon reaching a minimum turnover threshold of EUR 12500.

mutual VAT claims. Such an arrangement, however, is yet to come. It requires a high degree of rates harmonisation among the participating countries and the operational integration of their respective tax administrations. If it becomes a reality, a country's tax revenues will depend heavily on the level of operational interaction between its tax authorities and their counterparts across the border, as well as on their professionalism and integrity. Any large disparities of administrative capacity, including levels of corruption, would result in material discrepancies between declared volumes of import and export, which would in turn disrupt the operation of the international settlement mechanism. This was the reason why a transitional VAT arrangement for intra-community supplies was introduced at the launch of the Single Market in 1993. The transitional arrangement retains the destination principle: exports are subject to a zero VAT rate, and imports, to the VAT rate in the country of destination. In the absence of border control however, this broadens the opportunities for unlawful VAT refunds by cross-border supplies and missing traders. Their prevention depends primarily on the level of operational interaction between the tax authorities.

Therefore, Bulgaria's EU accession will place heavier and more demanding requirements on its tax administration. One certain consequence will be the increase of fraud prevention costs, both in the public and in the private sector, without the benefit of such certainty as to effectiveness. Thus, to strike the right balance between the positive and negative effect of deterrents will become even more difficult.

Ignoring the technicalities involved in the various organized VAT fraud schemes, they involve the use of the right of credit by a zero-rate trader before his accomplice up the chain has paid the corresponding tax liability. If the credit system causes such problems in compliance and enforcement, then the first policy question to be considered is whether or not the modern tax and trade system can do without it? As the argument often goes, the biggest economy in the world, the USA, has been doing well without it, by taxing consumption at the final phase. Or alternatively, the credit mechanism may be suspended only for exports. This is the rationale behind the proposal to the Bulgarian Parliament to exempt the inputs to exporters from VAT, so that they would not be able to claim credit on them.

Can the credit mechanism be replaced?

The advantages of the European VAT are mainly in the multiple-phase taxation of consumption. Unlike turnover taxes, which it replaced, it taxes only the value added at each stage, thus reducing substantially the cascading effect (i.e. multiple taxation of the same base and levying of taxes over taxes.) Furthermore, taxing the value added at each stage rather than the cumulative value added at the retail stage, like in the US, has important administrative advantages. Multiple phase taxation is believed to be more evasion-proof than single-phase taxation as it has in-built barriers against undervaluing of sales receipts and overvaluing of purchases. In the case of the common credit-invoice VAT the tax liability is calculated by subtracting taxes paid on inputs (the tax credit) from taxes collected on sales. If not a final consumer, the buyer has a strong incentive to require that the full value of the purchase is registered in the tax invoice, so that s/he can credit the tax paid against the tax collected from customers down the line. Even if there is exempt supplier or tax evader down the line, the tax is likely to be collected from the next

VAT-registered supplier, as s/he would not be able to subtract the credit from his own tax liability. Even if the exempt or tax-evading trader is a final supplier, the loss of the treasury is limited to the tax due on the value added at this final stage of production, not on the whole value of the merchandise. This is not the case under the single-phase final sales tax levied in the US for instance, where the obligation to collect and pay the tax falls only on the final supplier. If s/he fails to record the sales or receives fake exempt certificate from the client, the loss amounts to the full tax and not only to the tax due on the last portion of the value added. In most post-communist economies, the final supplier is in a best position to evade the tax for two reasons. First, the final consumer rarely needs invoice for tax or other purposes; therefore he does not have strong incentive to ask for it. Second, the bulk of retail traders belong to the group of the hard-to-tax, where inspection and law enforcement is difficult.[10] Therefore for a country with large number of micro-businesses in the sectors of retail trade and services multiple-phase taxation is a better revenue instrument than taxation of sales at the final stage.

The self-enforcement benefits of the credit-invoice VAT in a country with a large share of the hidden economy however, should not be overestimated. In practice it may have the opposite effect: i.e. lead to a chain reaction of non-compliance. If invoice is undervalued up the supply chain, the buyer may have little choice other than to continue the double accounting down the chain unless s/he stands ready to pay the tax owed but evaded by the supplier. This may happen in a seller's market with single or few producers or importers when buyers are too weak to impose the rules of the game and cannot choose another compliant supplier. It is even more likely to occur when the products of exempt sectors like farming are inputs in the beginning of production and distribution lines. In this case it is not very likely that the buyer will undervalue sales only to avoid the loss of paying someone else's liabilities. If the reverse behavioral relationship between non-compliance and punishment is triggered, the forced non-compliance may grow in proportion to justify the risk of detection and penalty caused by supplier's actions. This becomes an especially powerful driver where the size of the penalty is not in any clearly fixed proportion to the amount of tax evaded, but is rather left to the discretion of the enforcement authority. And this is exactly the case under the existing Bulgarian legislation. It is worth noting however, that such a chain reaction, even though possible in practice, is easier to prevent through audits and control of the large suppliers and taxpayers up the chain. Therefore it does not undermine so much the administrative advantages of the credit-invoice type VAT.

The self-enforcement advantages of the credit type VAT concern mainly the risk of tax evasion through hiding of sales or overvaluing of purchases. In the same time, it provides much larger opportunities for chain fraud. Moreover, the size of evasion through concealing of sales receipts or overvaluing of input purchases is limited to the size of the value added at each stage of the supply chain and is easier to track as it usually applies to actual transactions. In the VAT network frauds with fictitious traders and transactions the size of the fraud is virtually unlimited and much harder to track down and prove due to lack of real flow of goods. Therefore the credit mechanism is often regarded as the Achilles' heel of the VAT. Further to its vulnerability to individual evasion and organized

[10] See Alm, James, Jorge Martinez-Vazquez and Sally Wallace (Editors), *Taxing the Hard to Tax: Lessons from Theory and Practice* Elsevier, 2004

fraud, the credit mechanism is also the biggest challenge to economic efficiency. If it does not operate smoothly, i.e. tax refunds are slow and far from guaranteed (which depends crucially as well on how fraud-proof it is), then the tax ceases to be a tax on consumption alone, but may discourage investment and exports, which generate the largest tax refund claims.

Most of the self-enforcement advantages of multiple-phase taxation can be achieved through the alternative *subtraction method* of taxing value added at each stage of the production and distribution process. The tax rate in this case would be applied to the difference between the value of total sales and the value of inputs, thus eliminating the risk of abuse of tax credit. [11] Each trader down the chain has an incentive to demand precise registration of the purchase value in the invoice. Otherwise and unless s/he is in a position to transfer down the chain the tax liability evaded by the supplier s/he would be liable to pay it. The tax office has a second chance to collect the evaded tax from the next registered trader. Furthermore, the subtraction method is a more effective instrument against the cascading effect. Under the credit method cascading occurs when non-VAT trader is a supplier to VAT customer. This effect is eliminated under the subtraction method. The small entrepreneur enjoys the tax advantage not only at the retail stage, but also in the position of a subcontractor.[12] This alternative however remains more in theory than in practice. What makes the tax credit such an indispensable component of the design of the modern VAT?

The credit mechanism is important above all for the international trade and the free movement of goods. The taxation of exports and intra-community deliveries is based on the destination principle. Deliveries are levied a zero VAT rate, i.e. they are not taxed, but the supplier has the right of credit on the taxes paid on inputs. Imports carry the rate of the destination country. Therefore exports depend crucially on the smooth functioning of the credit mechanism. Furthermore exporters will lose most by the application of the subtraction method. They would levy zero rate on the value added by them but would not be able to recover the tax paid on inputs. The good would cross the border with the tax paid on inputs included in the sales price. The effect is similar to origin-based taxation with exemption of exports. In this case, the competitiveness of the goods sold abroad depends on the VAT rate in the origin country. A partial solution would be to grant the right to credit to the buyer in the destination country. But if the rate there is lower, the credit cannot be equal to the taxes actually paid as this would amount to actual outflow of tax receipts from the destination to the origin country. Therefore the subtraction method is inferior to the credit method in regard to the free movement of goods. In the same line of reasoning, the exemption of inputs used by exporters (the proposal to the Bulgarian Parliament referred above) will put them in the position of final consumers of those goods and will make their products not competitive abroad. More importantly, it will not eliminate the risk of abuse of tax credit, but only move it back up the chain.

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[11] За On the pros and cons of the alternative VAT designs see Ebrill, L. and M. Keen, J-P. Bodin and V. Summers *The Modern VAT,*IMF, 2001

[12] See more in Пашев, К. *Данъчна политика и администрация: теория и практика,* УИ Св. Климент Охридски, София 2006: 114-115 [Pashev, K. *Tax Policy and Administration: Theory and Practice,* Sofia University Press, 2006, pp 114-115, in Bulgarian language]

Further to its importance for cross-border movement of goods and services, the credit mechanism is indispensable for the functioning of domestic transactions as well. The subtraction method can do without refund only if the value of sales exceeds the value of inputs. It is not uncommon in certain business periods, especially if they are short[13], the tax collected on outputs to exceed the tax paid on inputs. Tax refunds are indispensable in the case of investment spending. The Bulgarian VAT is of the consumption type, which means that spending on real assets is subtracted from the VAT base, and the taxpayer receives refund on the difference. This implies that in the time of spending on machines and equipment, the tax paid to suppliers is likely to exceed the tax levied on sales. Therefore the credit is crucial for making the VAT a consumption tax rather than a tax on investment.

Furthermore, the credit mechanism is important if there are multiple VAT rates. The EU VAT directive allows the use of two preferential lower rates on certain goods and services of an indicative list. [14] Preferential rates on foods and other sensitive goods are the norm rather than the exception in most member states. Only Denmark from the old members and Slovakia from the new ones have one rate. Differentiated VAT rates are the prevailing practice on the Balkans as well. One rate is applied only in Albania, Bulgaria and Croatia. [15]

The risks of abuse of tax credit related to the differentiated VAT rates are similar to those stemming from the zero rate on exports. Under a standard rate of 20 percent and a preferential rate of 5 percent on foodstuff for instance food manufacturers levy 5 percent on their output, but claim a credit of 20% on their inputs. Unlike exports, however, the internal transactions are not a subject of physical border controls and raise additional challenges to the revenue administrations. The multiple rates increase the risks and incidence of credit frauds.

The free movement of goods, investment spending and multiple VAT rates in Europe make the credit an indispensable part of the VAT design. The size of the VAT rebates in advanced and new market economies alike (e.g. the UK, Nederland, Sweden, Canada, South Africa, Russia, Hungary) exceeds 40 percent of the gross VAT revenues.[16] Finally, the VAT is one of the most sensitive and advanced areas of tax harmonization with direct impact on the basic freedoms on which the EU is based. Radical solutions are possible only through broad consensus. In a 2004 special report on the fight against VAT

[13] Statutory tax period in Bulgaria is one month

[14] The list includes mainly foodstuff, medicines, water supply, passenger transportation services, books and print media accommodation services, use of sports facilities, etc.

[15] Multiple VAT rates for Bulgaria has been in the center of tax policy debate in Bulgaria especially in regard to tourist and print sectors and was part of the election campaign of the winners of the 2005 parliamentary elections, the Bulgarian Socialist Party. On the pros and cons of multiple rates for Bulgaria see more in Pashev. K. *Corruption and Tax Compliance: Challenges to Tax Policy and Administration,* Center for the Study of Democracy, Sofia 2005 p. 88

[16] International Tax Dialogue, "The Value Added Tax: Experiences and Issues" Background paper prepared for the International Tax Dialogue Conference on VAT, Rome, March 15-16, 2005

fraud, the European Commission urges the Member States to consider the adoption of measures strictly within the existing VAT arrangement.[17]

Barriers to the abuse of the right to credit

The modus operandi outlined in paragraph two shows that organized abuse of credit boils down to the accumulation of inflated tax liabilities to a nonexistent or insolvent trader. Correspondingly, the focus of antifraud measures falls usually on three targets:

a. to prevent invoicing at fictitious prices
b. to prevent the entry to the market of fictitious traders
c. to design a mechanism which would not allow the beneficiary of the illegal refund to walk away unpunished

The illustration of the carousel fraud shows that it relies on invoicing at prices which deviate substantially from the prevailing market ones. Undervalued prices of inputs and overvalued prices of outputs are applied to inflate the value added by the prospective missing trader and the related tax refund to the network. Accordingly, much priority is attached to mechanisms to prevent invoicing at fictitious prices. One of the anti-fraud measures, proposed by the special Investigative Committee on VAT Fraud in the Bulgarian Parliament in 2005 was to allow customs to halt shipments for up to three business days if the declared export price deviates from the going market price by more than 25 per cent.[18] Above all after accession to the EU such a measure may have effect only on exports to non-EU countries, as intra-community flows are not subject to border control. But more importantly, the use of this method with all its conditionality and uncertainty may provide extra room for administrative discretion and corruption pressure at the border. Thus, the proposed measure would hardly prove a serious barrier against intra-community VAT fraud, but may create opportunities for extortion of bribes from exporters to third countries. Therefore market prices (with all reservations on how they are determined and by whom) should serve as reference for risk assessment rather than as a sufficient evidence for putting transactions on halt.

A second line of countermeasures targets the legal opportunities for undertakings to be registered in the name of, or transferred to, insolvent or nonexistent owners. As noted above, after the siphoning of the credit is completed, the hollow company which holds the underlying tax liabilities is "sold" to poor and semi-literate people, who receive small money for buying huge debts. Countermeasures are usually sought along the lines of strengthening controls on the regime of registration and sales of limited liability companies. There are several proposals submitted to the Bulgarian Parliament in regard to amendments to the relevant sections of the Commercial Code. One is to allow business acquisitions only after a proof of absence of outstanding tax liabilities. Furthermore, the tax administration has recommended an increase of the minimum authorised capital

[17] See Commission of the European Communities, *Report from the Commission to the Council and the European Parliament on the use of administrative cooperation arrangements in the fight against VAT fraud*, Brussels, 16.04.2004 COM(2004) 260.
[18] Report of the 39th National Assembly's Temporary Investigative Committee on VAT Fraud, 2005 proceedings in Bulgarian language

required for the incorporation of a limited liability company, so as to narrow the opportunities for the involvement in fraudulent schemes of indigent persons posing as company owners. Another recommendation is to restrict the right of traders once adjudged bankrupt to start or participate in other undertakings. There are such restrictions under the Bulgarian Commercial Act regarding sole proprietorships (ET) and joint-stock companies (AD), but not in regard to limited liability companies (OOD). The proponents of these measures believe that they will raise efficient barriers to insolvent trader fraud.

The effect of these measures should not be overestimated. A higher capital threshold would hardly stop the fraudsters in a scheme that pays back millions of euro from creating a hollow company, but certainly would raise a higher barrier to starting-up a business by compliant entrepreneurs. Similarly, the statement of tax liability outstanding does not provide much assurance: any such liability may not have been established yet at the time of ownership transfer but may arise subsequently as a result of a tax audit. In this sense it would be more appropriate to provide for a tax audit in the event of any change of ownership.

Joint liability principle

A more promising line of countering the missing trader fraud is the one related to the application of the principle of joint liability. Bulgarian tax administration tried in the past an extreme anti-business version of this principle. If there were a missing or non-compliant trader up the chain the credit would be refused until the claimant is proven innocent in court. A lot of appeals by compliant businesses were won in court, and the authorities tried to find an alternative solution in the VAT account. A more balanced version of the joint liability principle would require that tax credit is denied only if the administration has good reasons to believe that the claimant is really involved in the scam with the missing trader up the chain, i.e. s/he has known or could not but have known that the liabilities underlying the rebate are not paid. Of course it may not be easy for the administration to prove a link between a tax credit claimant and a non-compliant taxpayer up the supply chain. Furthermore there is still the risk that acting on their own discretion, the auditors may use the joint liability principle to extort bribes from compliant businesses confronted by the alternative to engage in long and costly litigation of uncertain outcome.

Therefore the first priority in putting the principle of joint liability at work is the reduction of the opportunities for its discretionary enforcement. A survey of the Bulgarian tax administration finds out that refund of VAT credit is among the tax services that are most often accompanied by a bribe.[19] Bribes are used not only to hide VAT fraud and evasion, but also to receive without delays what might be lawfully due to compliant taxpayers. This kind of bribery does not seem to pose well in the context of the crime networks discussed here. It may however constitute the initial phase in structuring them. Taxpayers and auditors alike may be tempted to increase the return on the risk and cost they are taking by this relatively milder form of bribery and go to tax evasion or organized fraud. The flawless operation of the rebate mechanism is important for the prevention of corrupt interaction between taxpayers and auditors. Despite the decrease of

[19] See more in Pashev, *Corruption and Tax Compliance* ...CSD, Sofia 2005, pp. 35-37

statutory time limits for the refund of tax credit in Bulgaria, business surveys indicate that the average duration is still six weeks in average.[20] This opens the door to corruption and the establishment of fraudulent VAT schemes. A standard of service that may be used as a benchmark for monitoring and assessing of the administrative efficiency in the VAT service is an inexpensive measure with much effect for the compliant taxpayers. Furthermore, tax auditors should bear personal accountability in the case of a loss of administrative or court appeal. This may discourage further the abuse of the principle of joint liability for the purpose of extortion of bribes.

The successful implementation of the principle of joint liability hinges crucially as well on the effectiveness of audits. It implies that the audit system is based on advanced risk-assessment system. Except for the risk assessment methodology, the major pillars of such a system are the unified information system with incentives to companies that allow electronic cross-checking of invoices; effective cooperation between revenue and crime prevention agencies; assessment of corruption and fraud risks through improved individual accountability of auditors and through monitoring of their individual performance and effectiveness. None of these have attained yet the level needed for a modern risk-assessment system in Bulgaria.

There might be better alternatives to guaranteeing the receivables than the VAT account. Such alternative is to use real assets such as land, buildings and equipment owned by the firms as a guarantee of the VAT liabilities of the companies. These will not come without cost for the companies, but may not hurt their liquidity so much as the VAT account.

Last but not least, the issue of penalties for organized fraud need also be revisited. The existing Criminal Code in Bulgaria does not treat unlawfully claimed VAT refunds as a special kind of tax or financial crime. This should change, considering that VAT fraud is more akin to organised crime than to conventional tax evasion. A criminal liability treating VAT fraud as organized crime should be expressly provided for in the legislation. Second, the current administrative penalties in the Bulgarian VAT Law do not target illegal refund of VAT credit. They target mainly the conventional tax evasion through concealing of sales receipts and registration, reporting and payment non-compliance. Even those are fixed by the law in broad boundaries with a ceiling, above which the marginal penalty rate is zero. This not only leaves large room for administrative discretion in regard to the size of the penalty, but encourages also large-scale fraud. Both the criminal liability code and the administrative liability section of the VAT Law should be amended to include organized VAT fraud and the abuse of tax credit.

In conclusion, one-size-fits-all approach may be far from optimal. Some businesses are more prone to abuse of tax credit than others and the tax administration may treat them differently. Thus the missing trader scam is usually associated with high-value goods such as mobile phones and computer chips, or the export of farming goods and scrap, which can generate sizeable credit claims. The safeguards in these risky

[20] "Assessment of Administrative Procedures for Doing Business in Bulgaria" Foreign Investment Advisory Service of the IFC and the World Bank, seminar presentation, June 14-15, 2004, Hilton Hotel, Sofia

sectors may be stronger than in the other export sectors. Such a differentiated approach should be based on the output of a modern risk assessment methodology and the experience in the EU, and should be developed with the cooperation between law enforcing agencies and the respective industry associations of entrepreneurs. Once risk profiles are defined by sectors, the appropriate industry associations should be involved in the development of preventive measures. Risk assessment audit targeting and administrative control needs to be differentiated according to sector taxpayer and product characteristics, to maximise the effectiveness of prevention and deterrence. For their part, industry associations should also assume greater responsibility for fighting fraud and corruption. The business community is best placed to provide input for risk assessment and effective countermeasures. Besides, it should see its own interest in cooperating with the authorities as this would reduce unfair competition and keep *bona fide* businesses out of the administration's VAT watch-list and away from the additional administrative hassle which being on that list would imply. Of course, even then, there would be compliant taxpayers who would have to prove that they did not, or could not, have knowledge of any fictitious deals up the supply chain of which they are also part. However, such cases should be few and far between.

Conclusion

In the four decades of its use in Europe the VAT had turned into a major vehicle of fiscal management and free trade. Compliance and enforcement policies have been focused so far predominantly on the prevention of conventional tax evasion. Therefore the credit-invoice mechanism of self-assessment and payment of tax liabilities has become the international standard. The globalisation and especially the establishment of the single market in Europe make the VAT vulnerable to the abuse of international network fraud. The VAT design is crucial for the fundamental freedoms in the EU: the free movement of goods, capital and people. But in its nature it is a central tax and operates much better in one tax jurisdictions than across borders. Correspondingly, EU tax harmonization in the field of VAT is most advanced. Any changes in its design need to be pursued through broad consensus. The overall picture is complicated by the unprecedented enlargement of the EU with the accession of 12 new members in 2004-2007 with broadly varying levels of administrative capacity in handling conventional evasion and organized fraud. This poses the difficult question of whether a solution can be found within the framework of the current credit mechanism, or more radical departure from the established design is needed.

The credit mechanism is superior as a barrier to conventional tax evasion, but makes the tax vulnerable to illegal refunds through missing/insolvent trader fraud. While conventional tax evasion may not be such a problem in the old member states, it is still a problem in some of the new member states. And this is not just a matter of administrative capacity, but also of opportunities for legal tax avoidance, which are much bigger in the old members. This makes finding the best solution difficult. One line of countering missing trader fraud in the framework of the credit mechanism is based on strengthening the barriers to allowing fake businesses and fake transactions. Increased administrative controls on the business entry and on transaction prices may increase compliance costs for start-up and compliant firms without raising efficient barriers to fraudsters. The Bulgarian VAT account is a case in point. It increased much more the cost of voluntary

compliance than the cost of organized fraud. In result it could neither reduce network fraud, nor provide a relief to compliant traders in regard to the principle of joint liability.

Despite its bad reputation, the principle of joint liability appears an important element of the overall strategy to combat network fraud. Of course it needs to be optimized in the direction of more impartial implementation, so that it targets better the fraudsters rather than compliant traders that have been caught unwittingly in the fraudsters' network. The principle of joint liability is a serious test of the professionalism and integrity of the revenue administration and law enforcement as the market links in one chain compliant traders and fraudsters. Therefore it may be applied only through a state-of-the-art system of risk management. It needs to identify the risk sectors and goods and equip the audit and law enforcing units with the relevant databases on technology processes, production capacities, and price calculations. One-size-fits-all approach is far from optimal. More radical solutions such as special guarantees on tax liabilities or reverse charge system may be applied to such export shipments as cellular phones and computer chips, where frauds are most common and costly.

The cooperation with the business is indispensable in this regard. Traders are in a better position than the administration to know what is going on their market and to be able to tell the fake from the real suppliers. Still the perceptions among entrepreneurs that VAT frauds are a problem of the revenue administration rather than of their sector seem to prevail. There must be special incentives for companies in the risky sectors who share with the revenue administration their invoice databases and allow cross-checking of invoices. In this regard the potential of modern IT are not yet fully utilized in the prevention of organized fraud, especially across tax jurisdictions.

Finally, no perfect system seems to exist that can work the miracle of distinguishing easily fraudsters from law-abiding taxpayers and delivering deserved punishment on the ones while shielding the others from the tax authorities' errors of judgment. A trade-off is necessary between the interests of business and those of the administration, based on a clear understanding of its net benefit. This implies, for tax officers, that they should learn to live with the fact that fraudsters are after all the exception and not the rule, and also, that they should be ready to accept responsibility and liability for their errors and the damage caused by them to compliant taxpayers. As for business, it should learn to live with the principle of joint liability and such other restrictive measures, especially if it operates in a high-risk sector, as a necessary cost to be incurred if VAT fraud is to be reduced and with it, unfair competition and the need for higher tax rates.