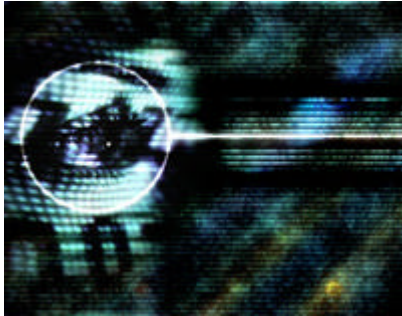


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The Goods Transport Network's Vulnerability to Crime: Opportunities and Control Weaknesses

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Abstract This paper presents the findings of a qualitative study into the goods transport sector and its vulnerability to crime. Based on 33 interviews with professionals and law enforcement agents, four interviews with convicted criminals, 26 case files from the Belgian Federal Police and the customs services and 9 informal conversations with law enforcement agency personnel, academics and professionals, the paper analyses what structures, mechanisms, conditions and interdependencies make the goods transport network susceptible to criminal activity. It is suggested that vulnerability to crime is twofold, consisting of opportunities based on weak sector conditions and weak regulation. It will be demonstrated that small and medium enterprises present particular opportunities for criminal exploitation due to their weaker financial position and the lack of crime prevention measures in place. The study found no criminal 'front' structures that are transport businesses alone, because of the high start-up costs within the industry; rather, non-transport companies are exploited to connect to the legal transport sector. Finally, the paper identifies key weaknesses in the sector, asking whether there should be due diligence or regulatory duties for certain roles in the supply chain like shipping agents.

Keywords Crime vulnerability · Goods transport sector · Opportunity · Control

*... crime? Uhm, that's not our core business.*¹

Security manager of transport company at Brussels Airport

¹All quotes in the text are translated by the author from Dutch or French to English.

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Introduction

Using the operational definition of organised crime² that is also used by the German Bundeskriminalamt (BKA 2008, 8), the Belgian Federal Police reported that in the previous decade the use of ‘commercial or business-like structures’ by organised crime was more prevalent than the use of ‘force or other means of intimidation’ and ‘exerting influence’ in Belgium (DSB-SPC 2001, 2003, 2005, 2008). But what exactly makes the transport sector vulnerable to crime? This question is addressed here by examining the legal structures or enterprises of the goods transport network in Belgium.³ The focus is on the structures, interdependencies, mechanisms and/or conditions within the transport sector that play a crucial role in the sector’s susceptibility to crime.

Earlier research on the vulnerability of economic sectors to organised crime (Vander Beken et al. 2005; Bucquoye et al. 2005; Brunneli and Vettori 2005; Calovi and Pomposo 2007; Calovi 2007; Vander Beken and Van Daele 2008) can be contextualised as ‘environmental approaches’ (Klima et al. 2009). They incorporate many approaches, referring to environmental criminology and opportunity (Mayhew et al. 1976; Brantingham and Brantingham 1981; Cohen and Felson 1979; Clarke 1997). The work on vulnerability incorporates a diversity of approaches and physical opportunity studies, such as the application of CRAVED⁴ (Clarke 1999), and it goes beyond that to take a holistic view of the environment and crime. The research incorporates, for instance, indicators like corporate culture and chain integration (see Bucquoye et al. 2005). The research documented here is also not limited to a study of physical opportunities either, but widens its focus to explore any structures, relations, interdependencies, mechanisms and/or conditions within the sectors that play a crucial role with respect to crime. It will be shown that a diversity of vulnerabilities exist, and this paper tries to order some of them into meaningful categories.

The relationship between crime and commercial structures has been explored from different perspectives, with the consequence that the concept of vulnerability might have diverse configurations. The Belgian Federal Police, for instance, differentiate between a legal economic sector as a ‘victim’, and the ‘use of commercial structures’ (this point consists of three sub-categories: (i) mixing legal and illegal structures, (ii) the use of existing fully legal structures and (iii) the use of front organisations). Similar descriptions about the role the goods transport sector can play are found in the literature, though a range of terms is used. In cases where the transport companies are neither the targets of crime nor the perpetrators, but merely part of what Sieber and Bögel (1993, 65) label ‘Kriminologistik’ or ‘the logistics of organised crime’, the sector seems to play an intermediate role. Kleemans et al. (2002) identified this function as ‘facilitator’ in cases where the service provider (transport company) is aware of the organised criminal activity. Bucquoye et al. (2005) separate the sector’s involvement into victim, facilitator and accomplice. Europol

² “Organised crime is the planned commission of criminal offences determined by the pursuit of profit and power which, individually or as a whole, are of considerable importance if more than two persons, each with his/her own assigned tasks, collaborate for a prolonged or indefinite period of time:

a) by using commercial or business-like structures,
 b) by using force or other means of intimidation, or
 c) by exerting influence on politics, the media, public administration, judicial authorities or the business sector.”

³ In this research ‘transport’ includes not only road transport but also all other forms of transport of goods. Storage, transport support services and export–import activity are also included.

⁴ Concealable, Removable, Available, Valuable, Enjoyable, Disposable.

(2007, 11) indicates that the transport and export–import sector is the ‘most frequently reported’ legal business structure that is used by criminals to facilitate crime. The line between a victim’s role, a perpetrator’s role and a facilitator’s role is blurred and, as the examples from the literature show, there is a need for a consistent definition of the role, with respect to crime, of those individuals who are responsible for certain legal aspects of the supply chain. In addition the role of ‘super controllers’⁵ play a crucial role in speaking about vulnerability to crime as they exert (indirect) influence on the sector and its different roles.

The ‘vulnerability to crime’ approach takes into account that those involved in the sector can play multiple roles depending on the criminal activities that are employed. This approach focuses on the conditions and structures of the legal environment that create the rules and regulations relating to the transport network. To explore vulnerability to crime in the context of transport, a qualitative bottom-up and circular research process (Strauss and Corbin 1998; Flick 2002; Boeije 2010) was implemented, which included 33 interviews with professionals and law enforcement agents, four interviews with convicted criminals, 26 case files from the Belgian Federal Police and the Customs services and nine informal conversations with law enforcement agency personnel, academics and professionals, all of which provided the basis for a content analysis (Krippendorff 2004). The diversity of sources helped to validate the findings (Flick 2002). All sources were analysed jointly so that findings could be conflated and relationships identified. The interviews and case file studies were therefore led by a flexible topic list that allowed for the introduction of new issues during the interview to pick up data on vulnerability to crime in one or another form within the context of transport. In a computer-based analysis (Kuckartz 2007, Lewins and Silver 2007) using the programme MAXQDA 10, the data were categorised in order that it could be used to draw conclusions about the sector’s vulnerability to crime.

The structure of this paper is as follows: First, the economic conditions of the sector, crime prevention measures and *mala fide* business partners are outlined. Second, some weaknesses in regulations will be fleshed out relating to unsecured infrastructure, uncontrolled business start-up conditions and unguarded key positions. Finally, some conclusions are drawn. The findings show that the transport sector’s vulnerability depends on interactions with internal and external factors on different levels. It will be shown that vulnerability is twofold, referring on the one hand to weak sector conditions and on the other to weak regulation. Opportunity theories and control theories pick up the manifestations the sector might show with respect to the victim, perpetrator and facilitator perspective.

Weak Sector Conditions – Opportunities

Financial Pressure on Enterprises and Contact with Criminals

Two circumstances appear to be crucial in transport enterprises starting illegal activities. First, a company’s poor financial situation encourages its bosses to explore new markets,

⁵ The notion ‘super controllers’ was introduced by Sampson et al. (2010) and refers to an extended crime triangle based on the Routine Activity Theory originally presented by Cohen and Felson (1979) and later extended (Eck 1994, 1995; Felson 1995) consisting of a conjunction of offenders and targets at a place and the absence or ineffectiveness of controlling handlers, guardians and place managers. The controlling instances of these ‘controllers’ are labelled ‘super controllers’ (see Sampson et al. 2010).

and second there is some sort of contact with professional criminals who encourage the transport company to participate in crime, in order to gain increased income from illegal activities. In one case a company owner (interviewed for this research) had started large-scale cannabis smuggling runs from Morocco to the Netherlands using a few favoured and trusted employees and two extra trucks. Prior to this he was transporting goods legally to Morocco and had received an offer from people he met to transport occasional packages for them, illegally. His company was in a poor financial situation at the time, so he agreed to participate. Initially he did not know precisely what he was transporting, though he was aware it was illegal. After a while he became fully involved, and he expanded his transport businesses and hired extra employees with the money he earned. He continued to develop the legal side of his business, which flourished as a result of the extra capital, and tried to keep the two businesses separate. When asked about where the criminals had made contact with him, he replied that the transport business is international and people make you these sorts of offers everywhere – for example at highway parking areas, motels, etc.

In another case a self-made transport company owner started his business with one truck and expanded his profitable business over the years to 15 trucks. But due to a combination of circumstances he experienced a sharp fall in orders, bills were not paid on time, and he ended up in financial trouble as the cost of the trucks and his personnel⁶ exceeded his income at a time of economic downturn. He started searching for ways to save his business, as others have reported in the sector. He commented:

“Whenever you have financial problems, you’ll always try to do something, to find a way to save yourself. We don’t immediately say, ‘Let’s file a petition for bankruptcy.’ Someone with only one or two cars, for example, will say, ‘I’m gonna give it a go smuggling cigarettes to England. I’m gonna try smuggling fuel to England’... Everybody tries to survive. It’s the struggle for life that is natural to mankind...even when you have to cross some lines...It’s the same with fuel. Everybody dares to flout the law once in a while. When things turn out for the best, you’ll say, ‘Too bad, let them pay the price’. When you struggle to stay in business, that’s what you do. When you can do it at a better rate, you give it a go...Everyone does it one way or the other...Some will drive without insurance; others will try to find another solution. But everybody tries...People call it criminal when you achieve your goal by dealing drugs, smuggling cigarettes. When you smuggle fuel, no one ever uses the term criminal...”

Kleemans and de Poot (2008) confirmed that in many cases organised crime entrepreneurs (‘starters’) play an active role in initiating a connection: “Sometimes the initiative comes directly from the starters themselves. They often have something to offer, creating a situation of mutual dependence” (Kleemans and de Poot 2008, 82).

The transport-specific costs of this sector, such as a truck (purchase costs approximately EUR 100 000, with a EUR 9000 deposit), driver and premises, are relatively high and companies rapidly come under economic pressure if there are no orders. Small and medium sized enterprises (SMEs) are particularly vulnerable to this situation, whereas bigger companies, especially multinationals, are generally able to absorb a period of recession by

⁶ Costs relating to his personnel were affected by the impact of expansion, as well as the expansion itself. As his business expanded, he had to hire drivers he did not know. When he had only five trucks he could hire people he already knew, but once the business grew he had to change from a trust-based relationship with his employees to a control-based one. He had neither the experience nor the facilities to make this change, and reported that he subsequently suffered from employee theft and fraud (for more on employee crime see, for example, Cools 1991).

activating financial back-up systems, so the business has some protection over the short term. This is underlined by 2009 Belgian bankruptcy figures,⁷ which show that 550 companies out of 611 had zero to four employees. The figures demonstrate that smaller companies feel economic pressure more quickly and more often, and are therefore vulnerable to misuse and/or being approached by criminals.

One-Man Transport Firms Vs. Employed Drivers

One-man transport companies are easy to approach, as they work autonomously. Their business is to carry goods from A to B. To be able to survive, they try to keep busy on a permanent basis. As a police officer from a drug department stated about involvement in drug transport:

“They don't have to account to anyone, they have their commercial number, they have a VAT number and are self-employed. We have caught many of them who work like that; in fact we did so a couple of months ago. Those are the easiest victims for criminals to approach.”

Many of these self-employed drivers are not member of any association. As an SME owner who started as a one-man company explained, there is no reason for these people to be part of an association as they are constantly on the road. The benefits of membership are of no interest to them, as they are trying to keep costs to a minimum. Therefore they miss out on the supervision or information that is available from such associations.

Interviewees reported that one-man enterprises were approached to transport drugs, but many of the cases we studied involving cigarette smuggling mentioned employee drivers (without the involvement of the management/bosses) being approached for 'a smuggling job'. It was reported that employee drivers were approached to transport a few goods (a palette or a box) in addition to their regular load, to be delivered to a certain destination or picked up at the driver's destination by criminals. Drivers are often asked to do someone a favour or carry packages when they are at park and rest areas. This is said to be a particular phenomenon close to the Belgian borders. Many interviewees labelled Belgium a 'transit country' due to its central geographic position and extensive borders. They reported that illegal and/or counterfeited cigarettes, drugs, human beings and medication were all carried through Belgium.

Drivers who are employed by transport companies are regularly approached, but their risk threshold for victimisation is slightly higher due to checking procedures established by their company, and the following-up of their routes and movements in some cases through global positioning systems (GPS) or fuel counters, control of the speedometer, or other drivers on the road from the same company. In one example a driver observed by chance a colleague unloading cargo at a parking area and reported this to his company. It turned out that the cargo was illegal cigarettes.

At first sight the phenotypic character of self-employed and employed drivers seems identical, but a convicted drug trafficker reported that it is better to approach a self-employed driver than an employed one because employees are often supervised by their bosses and they discuss things more with colleagues, which raises the detection risk. The interviewee stated that self-employed transporters with financial problems are easy to win over and therefore they are singled out to do smuggling jobs. The interviewee makes thus a

⁷ FPS Economy, SMEs, Independent Professions and Energy. See <http://statbel.fgov.be/nl/statistieken/webinterface/index.jsp?loadDefaultId=19&IDBr=tcn:325-22373-4>

distinction between the potential victims based on certain criteria. Cornish and Clarke (1987) made similar observations in earlier research on crime displacement. They describe the suitability of the victim from the offender's perspective as "choice structuring properties" (Cornish and Clarke 1987, 1989). They explain that the offender's choice for a target is based on certain factors related to the offences "which are perceived by the offender as being especially salient to his or her goals, motives, experience, abilities, expertise and preferences" (Cornish and Clarke 1987, 935). Controlling these practices of approach by law enforcement is reported to be difficult due to a lack of manpower. A customs officer stated that they rely heavily on tip-offs from informants, or on other types of information gathering, to detect these kinds of connections. Border control is insufficient to identify most of the cases, the interviewee added.

Unknown Companies as Business Partners

From the interviews with SME owners it was apparent that there is, economically, no choice about whom you do business with. One interviewee stated, '*Any customer who pays is considered bona fide!*' Two respondents from big multinational transport companies explained that if there is any suspicion of a *mala fide* business partner or *mala fide* goods, the employees are trained and encouraged to refuse the order. A multinational company like UPS, FedEx, DHL, TNT, Schenker or others, has a high number of customers, and its existence does not depend on one customer. So, as a security manager of a multinational said, there is '*no need to take risks!*'. A representative of a transport association reported that small companies depend on every new customer, and customers come and go regularly, whereas bigger firms have a stock of core customers with whom trust is built up, due to a long business relationship.

The economic globalisation of the last 30 years and the Internet-based, digitalised business world have both affected transport businesses' relationships with their customers. One boss of a SME reported that their customers no longer come from their region and he doesn't know them personally. There are fewer core customers for small firms. Business relationships became more anonymous and diverse. This correlates with what Sheffi (2001) observed: before the Internet boom companies tried to stick to trusted, familiar customers – now, however, small firms are dealing with many more customers, most of whom are unfamiliar. He states, "The more customers, the higher the rate that some don't pay." Eng (2004) also identified that due to the Internet more business partners exist and therefore the risk of misuse has increased.

From case files studied for this research we learned that smaller companies in particular became victims of fraud. Frauds are often initiated through online orders, using the anonymity and invisibility of the World Wide Web. In one fraud case, companies had been set up in order to defraud transport companies and suppliers by buying goods from a supplier and selling them to customers. The criminals paid the first invoice with a supply company, and then the company allowed them to purchase further goods on credit. The transport companies were also asked to provide their services on credit. The goods were not stored, but were immediately sold and transported via diverse transport firms. The buyers paid for the goods, but this money was never used to pay the suppliers or the transport company. After a few months and many unpaid bills the intermediary company disappeared – and it was clear the transport company was a victim of fraud. As mentioned before, small firms in particular are less able to be choosy about which customers they accept, even when some look risky. They are also unable to follow crimes up and take legal steps. They lack the necessary insurance and time (*time is money!*) to proceed against those business

partners they suspect of fraud. One interviewee (a self-employed driver) said that he always tries to get the money personally from his customers if they don't pay. When he goes to the premises where he believes them to be, he often finds that they are 'dummy firms', and there is no one at the address, or the offices are empty. With respect to fraud, a transport industry consultant stated that in his experience transport firms do not recognise fraud as a sector specific threat and don't routinely put in place any prevention measures.

Lack of Crime Prevention Among SMEs

All groups of respondents reported that crime prevention measures had helped in the past to reduce the incidence of crime. Interviewees from smaller companies reported securing trucks and company premises as a prevention measure. Those from bigger companies referred to more integrated and detailed supply chain security management requirements as offered by consultant bureaus and security associations such as, for instance, the Transported Asset Protection Association (TAPA).⁸ Recently, crime prevention has focused on transport business facilities and premises. It was reported that security measures such as fences, guards, camera surveillance, and access control (in some cases with badges) were implemented in the transport premises, or hubs, around the airport and the port of Antwerp. Interviewees from the police and from a transport association confirmed that there had been a decrease in attacks against these premises from criminals outside the businesses. However, employee theft is still occurring. In two cases it was reported that electronic equipment (laptops and mobile telephones) had been stolen at these premises, despite control measures. But according to a security manager of a hub at Brussels Airport, there are always 'grey spots' where employees are not supervised, despite a camera and badge systems. Employees know these spots, he added. Therefore, companies concentrated on human resources management and training to reduce the risk of employee crime. Staff vetting procedures and pre-employment screenings were reported in multinational companies, to the extent they are permitted under Belgian law.

Other successful theft prevention measures included: vehicle crime prevention devices, such as locks and hard covers; cargo security measures, such as locks and camouflage; and cargo tracking technical measures, like bar codes, radio frequency identification (RFID), GPS tracking, etc. In some cases insurance companies or customers insist on these measures. High-tech and valuable goods were particularly subject to them. It seems reasonable to expect that valuable goods are particularly attractive to thieves (Clarke 1997; Armitage and Pease 2008); Clarke and Newman (2005) observed that more than 100 case studies have been published demonstrating that a decline in specific crimes has been achieved through situational crime prevention measures such as these.

The internal incident statistics of a big transport company demonstrated a decline in cargo crimes after the introduction of prevention measures such as locks and electronic devices (at least concerning the company's vehicles, irrespective of possible displacement effects, which were not assessed in particular). The police case files studied for the research, and the interviews with police officers, showed that in some reported cases unprotected or weakly protected vehicles become the target of cargo theft with complete trucks, trailers or just the cargo being stolen. A representative from a transport association stated in this respect that the majority of its members are SMEs, including many one-man firms, and they are not always up-to-date on how to assess risks and prevent crime, and often they are not financially capable of upgrading their vehicles in the necessary way. According to the

⁸ <http://www.tapaemea.com>

interviewee, vehicles that are less protected are more likely to be targeted than highly protected ones. This ‘target’ displacement of crime is commonly recognised in the study of crime prevention effects (Eck 1993; Guerette and Bowers 2009).⁹ The theoretical basis for many of these prevention measures is Clarke’s (1995, 2009) situational crime prevention and the practical amendments to it as proposed by Cornish and Clarke (2003) with their 25 techniques of situational crime prevention.

Asked about these techniques, the SME interviewees vaguely knew about them, as many prevention measures are demanded by insurance or supply chain security programmes (for an overview see Gutierrez and Hintsä 2006). Gutierrez and Hintsä (2006) compared nine supply chain security programmes and found “that there are no two programs suggesting the exact same set of security measures. In contrast, it can be observed that each one targets the same security objectives but suggests different ways to achieve them” (Gutierrez and Hintsä 2006, 8). The measures demanded by several programmes were also reported by some interviewees from bigger companies applying a supply chain security program. Preventive side-effects of measures were also mentioned by interviewees, such as x-ray, which is required by anti-terror measures like International Ship and Port Facility Security code (ISPS code), which also have the effect of reducing crimes that they are not targeting, such as drugs smuggling. This effect was also described in research on transport security as ‘beneficial side-effects’ (Haelterman 2009). In the criminological literature this effect is labeled ‘diffusion of benefits’ (Clarke and Weisburd 1994; Guerette and Bowers 2009). SME interviewees and an association representative reported less crime prevention performance among smaller firms, especially with regard to technological prevention measures. Consequently, bigger companies profit from the ‘diffusion of benefits’ effects.

The Need for Efficiency Hampers Crime Prevention Measures

According to interviewees from the sector, the primary reason for a lack of crime prevention measures is that they are expensive and not financially efficient for the company. A security manager of a multinational expressed the dominant attitude in the sector toward crime prevention when he stated, “*The primary goal of a company is to earn money and not to prevent crime.*” Crime prevention efforts by private companies strongly depend on the companies’ core business and these measures usually hamper, rather than enhance, financial activity. In some cases crime victimisation is a calculated risk: a higher gain by an efficient economic activity (without crime prevention) stands against a lower loss caused by crime (victimisation). In most cases studied where companies undertook crime prevention it was in relation to crime affecting the core business, and put the company at risk of major financial loss. The result is that some crimes, such as cargo-related crimes, are actively tackled whereas others, such as smuggling, are taken less seriously or ignored. Police interviewees expressed the view that the sector is not taking many measures to prevent smuggling, even though smuggling is the most often reported criminal activity in the transport sector. A police officer explained, “*They (companies) gain absolutely no economical benefit from it, they don’t take an interest in it. They consider it to be an individual thing, and when you get caught, you have to take the consequences.*”

Lack of money was identified by one association representative as a key factor in why SMEs did not implement crime prevention measures, and this is reflected in the low

⁹ Reppetto (1976) identified five types of displacement – crime, target, method, place and time. A sixth one was added by Barr and Pease (1990), namely the perpetrator.

participation rate of SMEs in voluntary supply chain security programmes and other public–private initiatives that were launched or enforced in the aftermath of 9/11, such as the Customs–Trade Partnership Against Terrorism (C–TPAT), Authorised Economic Operator (AEO), Transported Asset Protection Association (TAPA), International Organisation for Standardization (ISO), World Customs Organization's SAFE Framework of Standards, etc. However, according to the representative, simple efficiency measures could go a long way in preventing the crime that companies will necessarily face. As one customs officer put it, “*Every transport company is sooner or later confronted with smuggling.*”

A transport consultant stated that companies are acting “*mostly reactively, because companies only take measures when something happens. Otherwise, there are no financial resources, or at least they won't put any in to address the issues.*” According to this consultant, transport companies do not see the added value of some crime prevention measures, such as fraud prevention. However, bigger companies in this sector have recently begun to focus on economic crime prevention in the sector against crimes, such as fraud, asset misappropriation, corruption and bribery, intellectual property infringements, money laundering, etc. (see PwC 2009).

Regulatory Weaknesses

Unsecured Infrastructure: the Case of Parking Facilities

Many respondents, including interviewees from small and large transport companies, associations and police forces, mentioned an allied issue concerning the whole sector, and road transport in particular. They said that most incidents occur on the road networks, which is also where they are the most difficult to control. There is a lack of protection from cargo-related crimes on the road, especially in parking areas.¹⁰ Europol (2009, 28) states that “on-the-road” and “at rest on the road” are “the most vulnerable part[s] of the supply chain”.

In recent years policy efforts were made in Belgium¹¹ and other European countries¹² to counteract crime on the road network. According to the interviewees, ‘hot spot’ parking areas had a clear lack of physical prevention measures such as cameras, guards, number plate controls, fences, etc. In Belgium criminals target the border regions in particular. It was reported that such crimes affected three categories of targets: the driver (who is subjected to violence and theft),¹³ the vehicle (theft, vandalism) and the cargo (theft, vandalism). The reported *modus operandi* is varied (for example, spraying gas in the cabin

¹⁰ The EC 561/2006 requires truck drivers to take rest periods at regular intervals, independent of whether there is a secured parking area close by. See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:102:0001:0001:EN:PDF>

¹¹ In 2006 in Belgium a committee, chaired by the Ministry for Internal Affairs – Section Security and Prevention Policy, was set up, bringing together representatives from the public, private and law enforcement sectors with the aim of tackling cargo-related crime on Belgium's roads.

¹² At the European level programmes financed by the EU Commission have been launched, such as the STEPOS programme (<http://www.setpos.eu/introduction.htm>) and LABEL (<http://www.truckparkinglabel.eu/>) on secured parking spaces.

¹³ Attacks on water have recently been reported in the press, who call the perpetrators ‘pirates’. These attacks often result in ransom demands. See, for example, <http://news.bbc.co.uk/2/hi/7999350.stm> or <http://edition.cnn.com/2010/WORLD/africa/02/04/indian.ocean.pirate.attack/index.html>. Such cases were not reported by the interviewees in this study.

to stun the driver and then stealing the trailer,¹⁴ cutting the trailer's cover at night to steal pallets of electronic equipment using small box-type lorries, theft of drivers' property from the cabin). In all reported cases the infrastructure, namely the parking area, was not secured.

A cabin thief reported that unprotected trucks (those with no hard shell) in particular were targeted at places where there was neither light nor supervision. The interviewee said that no prevention measure would have deterred him and he would have searched for unprotected trucks (see our discussion of displacement effects above). The introduction of secured parking areas that are carefully designed and supervised showed, according to a police officer who specialised in cargo crime, the first positive results in crime incident reduction. No empirical study has, to our knowledge, been conducted on the effects of secured parking areas. But studies on car parks demonstrated that guardianship measures such as CCTV and guards reduce car-related crime (Poyner 1991; Laycock and Austin 1992; Tilley 1993; Barclay et al. 1996). The theoretical basis for many of these measures is known as Crime Prevention Through Environmental Design (CPTED)¹⁵ (for a good overview see Crowe 2000; Cozens et al. 2005). CPTED can be effective in crime reduction even though little research has been done on where it works best, what components are the most crucial and how to evaluate the effects (Cozens et al. 2005, 344). In the setting of the current version of Routine Activity Theory (Felson 1995) place and place managers play a crucial role in crime event explanation and prevention (see Eck 1994, 1995). Eck (2003) summarised it thus: "a crime is highly likely when an offender and a target come together at the same place at the same time, and there is no one nearby to control the offender, protect the target, or regulate conduct at the place" (Eck 2003, 88). In the example of highway parking facilities we see what Sampson et al. (2010) already found: that the difficulty is not whether crime prevention measures do work or not but "getting people and organizations to take the necessary actions" (Sampson et al. 2010, 38). They call these people and organisations 'super controllers' as they have direct influence on the controllers of crime (handlers, guardians and place managers) but indirect influence on the necessary conditions for a criminal event namely offender, target and place (Sampson et al. 2010).

Non-Transport 'Run-of-the-Mill' Enterprise as a Front for Crime

It is noteworthy that none of the case files studied, nor the interviewees, mentioned a case where a transport company (NACE-Bel codes 49–53)¹⁶ was created solely for criminal purposes (as a 'front'). Reasons for this might include the high level of preconditions that need to be fulfilled, and the high level of investment necessary, to open a transport business¹⁷; although this might also be due to the limitation of our data set. However, other authors have made similar observations about the European transport sector (Bucquoye et

¹⁴ These perpetrators were arrested by the specialised cargo crime team in Belgium. Since then this modus operandi has not been reported.

¹⁵ Even though this notion dates back to Jeffery (1971), the territoriality and surveillance themes of Newman's (1972) 'defensible space' are the basis for most of today's CPTED applications.

¹⁶ Nomenclature générale des Activités économiques dans la Communauté Européenne (NACE).

¹⁷ The easiest transport business to open is a road haulage company. But even here the preconditions are higher than in other businesses. A special licence is required from the Ministry for Transport and Mobility, on top of all the usual preconditions to opening a company. In addition to this, the financial investment in trucks (including specialist driving licences) and depots (if needed) is high. For shipping companies the investment is even higher, and the licences stricter. Air shipping and goods transport via rail are limited to a few large companies. Special transport services, such as transporting dangerous goods, food, etc. require additional special licences. See all the preconditions in Belgium (also at EU level) at: <http://www.mobilit.fgov.be/fr/index.htm>

al. 2005). There was, however, a front corporation or dummy firm involved in almost all the organised crime case files we studied. These companies were registered for different kinds of business or just as 'export–import' firms of particular commercial goods, such as textiles, food, non-food, etc. One criminal organisation had set up more than 140 legal firms, and organised large-scale cigarette trafficking to the UK. All interviewees confirmed that there are very few preconditions to opening a basic company (a 'run-of-the-mill' enterprise) in Belgium. In another case, a non-Belgian person opened 15 companies in Belgium dealing with different kinds of goods as a cover for cigarette smuggling to the UK.

There are two main ways to start a business that is to be used for an illegal reason. Either you start up a new firm, or you take over a so-called '*sleeping*' firm, in which case the '*sleeping*' firm's existing VAT number can be used immediately for criminal activity. The preconditions are relatively low. The only things needed are a certification of basic business knowledge (diplomas or working experience), or if this is not available, a partner or 'someone who will execute the business'.¹⁸ Then you register at the FPS Economy, SMEs, Independent Professions and Energy to obtain a company number. With that number you can activate a VAT number. A Belgian bank account is also required. Then you need membership in a social security foundation within the first 90 days after starting your business. To complete the process you need to inform your health insurance of your status and then you may start trading. All this can be done within a single day.

Our data showed that criminals did not open the 'run-of-the-mill' enterprises themselves but used a front man to do so. The point is that all registered firms can theoretically transport goods (e.g. with box-type lorries) or ask another firm to do so for them. This means that as long as there is a dummy firm in the country of destination (Belgium) it is possible to order goods from all over the world. And if you register two companies in two countries you can easily trade and transport goods between them, including illegal goods. In order to hide illegal activity, or simply because of a lack of capacity or expertise, such transport is often outsourced to registered transport companies (in particular bigger cargos, like containers). These companies usually do not control the cargo physically (and the cargo may be sealed anyway by the supplier), nor do they wish to, due to a lack of time and a wish to avoid confrontations and becoming responsible for the content. In such cases the transport companies facilitated the criminal activity as part of the crime logistics (Sieber and Bögel 1993; Kleemans et al. 2002; Bucquoye et al. 2005).

As has been seen, transport companies are not necessarily aware of what they transport, even though they might have suspicions in some cases. This indicates the difficulty of the relationship between legal transport businesses and criminal activity. The criminal is just a customer like any other. And if the papers and the payment are ok transporters may take the order at face value. Even if they suspect illegal activity there is no entrepreneurial reason to reject the business. The transport sector is a necessary part of the logistics of several organised crime activities (see for examples Sieber and Bögel 1993), and is therefore susceptible to smuggling in particular. It is very easy indeed to set up a commodity firm, gain access to economic activity between firms and thereby involve transport companies in illegal activity.

The Unguarded Shipping Agent: An Attractive Key Position for Criminals

The shipping agencies have the expertise to arrange the customs papers and to clear containers through customs. This service is provided to national and international

¹⁸ All preconditions can be found on the website of the FPS Economy, SMEs, Independent Professions and Energy (<http://economie.fgov.be/en/index.jsp>).

companies. The agencies are placed close to the main ports and airports and usually have good contacts with customs authorities due to long business relationships in the field. This makes them interesting both to foreign criminals who are unfamiliar with Belgian procedures, and to indigenous criminals who do not want to compromise their illegal business activity', or simply do not have the expertise. In several case files we studied, shipping agencies cleared containers with illegal cigarettes or drugs. The temptation to do so appears to be high; a customs officer stated that, since no external checks are carried out, *"the shipping agent can always wash his hands of it by referring to the contract and his checks of the papers."* According to several customs officers from different sections, there is a lack of a sense of duty among the shipping agencies. They should actually verify the cargo they clear. However, there are no adequate rules to force more internal control. In one case, concerning the importing of counterfeit textiles, a shipping agency had cleared containers for companies from Spain, Italy and France. The companies existed for a short period only, to process a few orders (they were front companies). The shipping agencies carried out no verification of the customers and the load.

It is crucial that the shipping agent, who is known by the authorities, clears the cargo. The criminal company that places the order uses the shipping company in order to avoid close examination of their goods by customs; this enables companies to avoid direct contact and direct control by the authorities. Such an approach is also used by several legal companies. In the case files we studied, it was always difficult to prove that the shipping agent who cleared the goods was aware they were illegal. In several cases the investigating police and customs officers reported that shipping agents were known from different case files but had not been convicted. A customs official reported that for the port of Antwerp two or three shipping agents constantly come up in investigations but the burden of proof is difficult. According to the officer, some agents limit the number of checks they carry out on papers, customers or goods in order to avoid getting involved. So, the responsibility of the shipping agencies to control goods, and to be controlled themselves, needs a clear and legal basis, and currently that does not exist. A similar finding relating to intermediary key positions (with regard to the waste disposal industry) was reported by Dorn et al. (2007), who found that waste brokers that were not sufficiently controlled by regulation became the vulnerable link in the chain.

Rental Facilities: May be Used by Many

Truck and transport facility rental companies were mentioned in several case files studied. These were used to transport and store drugs or illegal cigarettes. In one example a Turkish heroin trafficking group rented a place to store the containers, with marble as the cover load, together with a hidden load of a significant amount of heroin for European distribution. There is no real control by the rental firms over who is hiring and what is transported or stored in the rentals. The question is, how far can these operators be held responsible in crime prevention and detection?

The rental firms did not face charges in any of the case files we studied. When interviewed they referred to their contract and its observance. This causes frustration among the police because, in case of a conviction, the vehicles cannot be seized. Companies use contractual clauses to try to avoid investigation and to mitigate the risk of seizure once under investigation. In another case, a criminal organisation hired transport premises and asked the rental company to organise and to clear containers to ship second-hand cars to a former Soviet Union state. The cargo also contained illegal medication. The rental company considered that the business relationship was a good one, as the customer paid a good price

and was always on time with payments. So from their point of view there was no reason for suspicion. It was also reported that front men rented trucks to be used later on in a drug transport. There is no control of who is using the trucks, nor for what type of business they are used. Rentals are found to be attractive for criminals in another context too. Eck (1998) found, on the basis of 121 residential rental properties, that rentals are *inter alia* preferable for criminals, as owners do not intervene (they are run by managers). Rental companies' obligations could be increased either by due diligence or by regulatory duties. The question is, how far should the rental companies be held liable (Garland 2001)?

Conclusions

This paper has demonstrated that the transport sector's vulnerability to crime is two-fold – weak sector conditions provide opportunities for crime, and weak controls in terms of legislation and official checks encourage criminal activity. The examples given show that the vulnerability of an economic sector is not only determined by the opportunities that exist due to weak sector conditions, nor only by weak control by controllers (handlers, guardians, place managers) or super controllers.

In terms of weak sector conditions providing opportunities for crime, all players in the sector, both large and small, experience financial pressure. The difference between large and small transport businesses lies in the back-up capacity of bigger enterprises and the fundamental danger of economic collapse for SMEs. We have demonstrated that SMEs tend to search for ways to ensure their business survives, and that the international character of the transport network provides extensive contact with criminals (Kleemans and de Poot 2008 refer to 'social opportunity structure'). Reasons for the financial pressures in the industry might be the high pre-investment in the sector, the generally poor state of the economy, or the fact that SMEs are easy to approach for *mala fide* customers intent on fraud, given that SMEs depend heavily on every single customer. There is also a lack of crime prevention measures among SMEs. This causes higher victimisation, and a displacement effect caused by bigger well-financed companies upgrading their vehicles and transport bases, which leads to more cargo thefts from unsecured vehicles and locations owned by SMEs. More than 50% of businesses in the sector are SMEs so the implications for the sector should not be ignored. However, further research into the SMEs, their crime prevention performance, and locations where they come into contact with criminals might be useful, to explore more deeply the problems they face, and to identify weaknesses that create opportunities for crime.

In terms of regulatory weakness, it can be difficult to specify who exactly is the responsible person or institution, as the example of parking facilities shows. The highways and related parking facilities are usually owned by the authorities, and they are also responsible for its control. A lack of financial capacity has resulted in the creation of public–private partnerships to secure the infrastructure that is used by the transport sector. The effect of highway parking security is not yet measured in academic research but the incident analysis of private organisations shows positive effects concerning cargo crime. Based on Routine Activity Theory (Cohen and Felson 1979) Sampson et al. (2010) introduced the concept of 'super controllers' to describe such structural weaknesses where regulatory or systemic failure in crime prevention is caused by 'indirect effects on the necessary conditions for crime – offenders, targets or places' (Sampson et al. 2010, 40). This might be a basis for creating a more integrated prevention policy that does not focus only on situations but more on the complex structures wherein crime events are embedded.

Second, concerning weak regulation, three general observations seem in order. Surprisingly, according to the variable data, criminals rarely seem to set up transport ‘front’ companies. Rather, fraud and smuggling crimes are committed by *mala fide* customers hiding behind front companies using hitherto ‘clean’ transport companies, which generally speaking are under close check by the authorities. The preconditions for start-up of those front companies are very low and there is little monitoring or regulation once the business is set up and becomes a business partner of transport companies. In the case files studied there were examples of dummy firms that were unchecked by tax authorities, social security or any other authority or agency for more than 3 years, firms that were in business with transport companies. The transport network is indispensable for certain criminal activities, such as smuggling, but the cost of setting up their own transport business is too high for criminals. This reflects the influence of general economic regulation on the transport sector’s vulnerability.

Finally, key roles like shipping agents, who provide the necessary expertise and knowledge to clear in cargo, are another point of weakness. The advantages for criminals in using these service providers are that criminals lack knowledge of the processes themselves, and shipping agents are generally chosen that do not carry out many checks, or ask any questions. The regulation and control duties on this profession are low in relation to the function they fulfil. Often they have good business contacts, building trust with the customs authorities. Criminals use this trust for their own purpose, to hide their business from the authorities. Further research into shipping agents would be useful, to explore the question of their awareness of the criminal activity they might ‘facilitate’ and their potential as ‘controllers’ and ‘super controllers’ using the terminology of Sampson et al. (2010).

On balance, and on the basis of this research, it appears that the transport sector’s vulnerability to crime has two dimensions: on the one hand opportunities and on the other hand poor regulation. Both weaknesses might run in parallel and do not necessarily depend on each other. However, many diverse issues in the transport sector provide opportunities for criminals, and many aspects are not adequately controlled (directly or indirectly). The questions that arise for future research include the extent to which both dimensions can be acted on to prevent crime, and whether all existing or perceived vulnerabilities have been identified, and if so whether they can be removed from the sector. It seems worthwhile to expand the view on crime prevention from the criminal event to the wider structures that might influence crime in a direct or indirect way. The research on the economic (goods transport) sector showed that more complex reasoning is needed to get a grip on the interdependencies, structures, conditions and relations wherein crime might occur.

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