

The Neglected Mega-Problem: Illicit Trade in “Normally Licit” Goods

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We are all familiar with the “War on Drugs” initiated by Richard Nixon in 1971, Pablo Escobar’s infamous role in the cocaine trade, and the “Pizza Connection” trial that laid bare Cosa Nostra’s historic role in the global heroin trade.¹ This recognition is well-deserved; even today, many of the most powerful organized crime groups, as well as terrorist groups, generate significant profits from the narcotics trade. As a result, counternarcotics efforts have enjoyed tremendous political and law enforcement prioritization, with estimates that over \$100 billion are invested annually in combating it globally.²

The United Nations Office on Drugs and Crime (UNODC) estimates that the global narcotics market turns over \$320 billion each year.³ At the same time, the International Chamber of Commerce (ICC) estimates that the illicit trade in counterfeit and pirated goods will treble from around \$500 billion in 2008 to \$1.3 trillion in 2015.⁴ Yet, despite this magnitude, have we heard of a corresponding “War on Intellectual Property Theft?”

Although it is the largest category, counterfeiting is not the only form of illicit trade in goods that displaces normally licit goods. The illicit markets for contraband excise goods, such as tobacco, alcohol, and petroleum products, are also extensive global problems. Furthermore, the illicit trade in substandard or unauthorized/unapproved (noncounterfeit) products affects such a broad range of goods, from agrochemicals to medicines, that efforts to quantify the problem as a whole have not been attempted.

This chapter addresses this illicit trade that displaces normally licit goods, its scale and impact, as well as the challenges in addressing it. For practical reasons, the focus will be on counterfeit goods and certain excise goods.

The Magnitude of Leading Forms of Illicit Trade Displacing Legal Goods

Counterfeit and Intellectual Property Infringing Goods

The most frequently stated estimate of the value of counterfeit goods is the estimate from the Organisation for Economic Co-operation and Development (OECD) of \$250 billion in 2007.⁵ The figure is derived from extrapolations based on customs seizures and trade data, resulting in an estimate that counterfeit and pirated goods constituted 1.95 percent of world trade. Although seizures do confirm illicit trade, extrapolating its scale based on

seizure data is problematic as the true interception rate is impossible to know. Furthermore, the effectiveness of customs can vary between jurisdictions and sectors. Despite these limitations, the ICC decided to expand on the OECD study, as that did not include domestically produced and consumed products, or nontangible pirated digital products. The ICC used the OECD study as a foundation for its estimates, and added further estimates for domestically produced (nontraded) counterfeit goods, projecting that by 2015, the global turnover of counterfeit and pirated goods would be around \$1.3 trillion.⁶

The OECD published new counterfeit estimates, based on more recent seizure and trade data, in 2016.⁷ The previous OECD data had suggested a significant growth rate, with the international trade in counterfeit goods more than doubling in value in the five-year period from 2002 to 2007.⁸ The new OECD publication supports that the prevalence of counterfeit goods and pirated goods as a percentage of world trade has continued to increase, constituting 2.5 percent of world trade in 2013, and valued up to \$461 billion that year.⁹

In 2014, a clear majority of interviewed international corporations on the NASDAQ OMX 30 Stockholm Index believed that counterfeiting and intellectual property theft had increased in the past five years, and the overwhelming majority asserted that it would continue to increase in the next five years. The primary reasons cited for this increase were the growing importance of emerging markets (where the extent of counterfeiting and intellectual property theft is greater) and the role of the internet as a facilitator of counterfeit trade.¹⁰

This growth trend is also supported by European interception data. The European Union (EU) has reported sharp increases in detentions of intellectual property infringing products. In 2013, national customs authorities had opened almost 87,000 cases, resulting in the detention of millions of articles. Consider that in 2002, only 7,553 such cases were opened. This marks more than a tenfold increase. Moreover, the single largest source of counterfeit products is China.¹¹

Contraband Trade in Excise Goods: Tobacco, Alcohol, and Petroleum Products

Certain counterfeit goods, such as cigarettes and alcohol, can also fall into another category of illicit trade, which is the contraband trade in excise goods.¹² Contraband cigarettes have long served as a significant source of income for organized crime groups. The global illicit tobacco trade has been estimated to exceed 650 billion cigarettes a year, representing 11.6 percent of total consumption. The burden of this trade, representing over a million illicit cigarettes sold every minute, is not merely placed on tobacco corporations; tobacco smuggling resulted in tax losses exceeding \$40 billion annually in 2007.¹³ As tobacco taxes have been on an upward trajectory since that study, due to both public health concerns as well as fiscal interests, it is logical to assume that annual tax losses are even greater today. In the EU, where data is available, illicit tobacco consumption as a percentage of total consumption increased every year but one between 2006 and 2013. On average, the total proportion of consumption that was illicit increased by over 0.3 percent every year, from 8.3 percent in 2006 to 10.5 percent in 2013.¹⁴ In Greece and Spain, the increase was

particularly extreme. In the first year of the 2008 financial crisis, illicit consumption in both countries was just over two percent. When the economic fallout hit, and pressured governments to raise revenues through tax increases, it made the less costly illicit cigarettes even more attractive to smokers. By 2013, illicit consumption in Spain had risen to 9 percent, and in harder-hit Greece, it reached almost 18 percent.¹⁵

Alongside tobacco, the other major category of consumer goods subject to “sin taxes” is alcohol. The World Health Organization (WHO) estimates that approximately a quarter of total global alcohol consumption is unrecorded (either homemade and/or illegal).¹⁶ Global estimates on tax losses due to illicit alcohol do not exist, but as an example, a Euromonitor study assessing only 6 Latin American countries estimated illicit consumption at 27 percent, generating \$2.4 billion in illegal revenues, and government fiscal losses in excess of \$700 million.¹⁷

Untaxed or illicitly sourced, petroleum products are also of economic significance. Oil theft from pipelines is a major issue generating losses of billions of dollars in certain countries, such as Nigeria, Russia, and Mexico.¹⁸ But the sale of improperly taxed and/or contraband petroleum affects many more countries and regions; two examples are Bulgaria and Northern Ireland. According to a 2010-11 Serious Organized Crime Threat Assessment report focusing on Bulgaria, financed by the European Commission, international oil companies estimated that between 20 and 40 percent of the fuel sold in the country was illegal.¹⁹ In 2014, the executive director of the Bulgarian Petroleum and Gas Association stated that 10 to 15 percent of the fuel market was illicit.²⁰ In Northern Ireland, it is estimated that 13 percent of diesel tax revenues are lost due to illicit trade.²¹ Illicit oil can also play a major role in conflict zones, such as Serbia’s reliance on contraband oil during the conflict in the Balkans, or Islamic State of Iraq and the Levant’s (ISIL) role as a petroleum product supplier in the ongoing conflict in Syria.²² The scale of the illicit trade in petroleum products is such that it can noticeably hurt government revenues, and at the same time, provide a strategic income stream for nonstate actors. In Mexico, for example, the state petroleum company, Pemex, estimated that it lost over \$1 billion due to oil theft in 2014.²³ Organizations like Los Zetas and the Gulf Cartel are known to be involved in some of this theft.²⁴ In 2015, it was estimated that ISIL generated \$1.5 million a day on the illicit oil trade from Syria.²⁵

Illicit Trade in Other Substandard and Unapproved Goods

The 2013 horse meat scandal, in which several leading European food manufacturers’ beef products were found to contain horse meat, brought public awareness to the fact that there were severe shortcomings in food supply chain control mechanisms.²⁶ A Dutch meat wholesaler was later convicted of having sold over 300 tons of horse meat, labelled as beef, to over 500 companies.²⁷ A few years earlier, in 2008, the more serious milk scandal had brought concerns over food fraud to the fore in China. Chinese officials estimated that as many as 6 babies died, and nearly 300,000 infants were sickened by dairy products contaminated with melamine, which had been added to watered-down milk in order to

fool protein content tests.²⁸ In Italy, mafia organizations were estimated to generate illicit revenues exceeding €15 billion in 2014 in the food and agriculture sector alone. Counterfeit and substandard foods production and sales are amongst their many illicit activities in the sector, which can also interconnect with other food-related crimes from which the mafia also profits, such as: control of distribution and transport of food products, forcing the sale of certain products in retail outlets, price fixing, money laundering through food-related businesses (particularly restaurants, of which mafia organizations control at least 5,000 in Italy), and illegal slaughtering.²⁹ As Italy is a major exporter of food products, substandard foods also affect consumers beyond the country's borders.

An example of the connection between organized crime and major food manufacturers is provided by Giuseppe Mandara, also known as Italy's "Mozzarella King" and "the Armani of Mozzarella." Mandara, who headed Italy's largest mozzarella manufacturer, was arrested in 2012 accused of having sold contaminated and falsely labelled cheeses, as well as having received money from a Camorra clan.³⁰ He was acquitted due to lack of evidence only to be arrested again in 2014 accused of involvement in Camorra extortion of landowners and money laundering.³¹

Substandard and noncompliant items range from illicit foodstuffs (such as Chinese gutter oil, falsified olive oil, and nonorganic foods passed off as organic), to nonfood items like noncompliant agrochemicals, vehicle components, and electronics.³² Although there are huge numbers of products affected over a wide range of geographies, there is no collected holistic meta-analysis of the extent of the problem and to what extent organized crime is involved in the different form of illicit trade in substandard and unapproved products.

Table 12.1 Intellectual Property Infringing Detentions Reported by National Customs Organizations to the World Customs Organization³¹

Commodity	Quantity (pieces)	Value (USD)	Quantity (pieces)	Value (USD)
	2012	2012	2013	2013
Pharmaceutical products	4,140,318	14,405,404	2,325,247,466	19,388,693
Electronic appliances	3,423,896	170,355,748	470,821,728	74,551,410
Other	17,722,180	121,548,149	95,242,873	56,865,587
Foodstuff	1,316,034	6,924,247	50,338,796	5,715,238
Clothing	12,090,266	111,511,445	32,877,929	115,400,776
Transportation and spare parts	4,120,790	27,887,278	17,957,325	13,945,339
Cigarettes	47,322	214,095	17,636,183	21,819
Accessories	6,712,922	426,677,500	10,079,064	229,781,652
Games and toys	3,505,486	22,649,732	5,750,377	28,882,956
Toiletries/cosmetics	3,268,255	60,318,717	5,663,822	65,590,057
Mobile phones and accessories	1,736,595	21,293,090	3,783,787	24,427,504
Footwear	2,352,318	69,881,973	3,139,816	112,530,010
Computers and accessories	848,578	11,493,152	2,227,604	22,461,541
Textiles other than clothing (towels, bed sheets etc.)	4,106,207	8,653,485	1,716,023	7,916,642
Watches	602,911	391,236,132	1,510,171	229,694,582
Phonographic products	3,929,684	6,483,568	736,330	6,112,419
Soft drinks	0	0	11,580	22,168
Alcoholic beverages	24,041	118,340	9,864	179,522
Total	69,947,803	1,471,652,055	3,044,750,738	1,013,487,915

Source: WCO

Impacts

Even though the overall prevalence of illicit goods displacing legal goods and its overall scale are unknown, we do have enough insight to determine that it is a problem of enormous magnitude. The consequences of this illicit trade are significant, and affect a number of areas.

Economic

The most obvious economic impact is the direct effect of illicit products displacing legitimate products on the market. As illicit products are generally (although not always) provided at lower prices than their legitimate equivalents, they squeeze legitimate products out of the market, both reducing revenues for law-abiding companies, and if the product is improperly taxed or untaxed, also reducing government revenues.

Reduced business revenues and tax revenues in turn have a negative multiplier effect on the economy. Both government and private sector investments and expenditures are reduced, having a negative impact on job creation and economic growth. Furthermore, there appears to be a correlation between a state's protection of intellectual property rights and foreign direct investment, suggesting that counterfeiting and piracy have a detrimental effect on foreign direct investment.³³ This appears to be supported by the view of multinational corporations, whose representatives have stated that their companies are less willing to invest in markets that lack effective intellectual property rights enforcement.³⁴ Jobs producing counterfeit products are also likely to be low-wage jobs, possibly without employment rights and characterized by unsavory working conditions.³⁵

The economic importance of enforcing intellectual property rights is reinforced by Benoît Battistelli, president of the European Patent Office, who, in 2014, stated:

For innovating companies the protection of their intellectual property (IP) has become extremely important: one in three jobs in the EU today is created in industrial sectors with an above average use of IP rights. These sectors account for almost 40 percent of the GDP and 90 percent of exports of the EU. They are a pillar of the competitiveness of the European economy at global level. Similarly, continued violation of these rights puts a serious threat to Europe's capacity to innovate and compete, and to lastingly secure economic growth and employment for its citizens. It is necessary, therefore, to improve and strengthen the use of IP rights not only in Europe, but also internationally.³⁶

On the other side of the Atlantic, the Commission on the Theft of American Intellectual Property writes the following about economic costs incurred by IP theft in the United States:

The annual losses [due to intellectual property theft] are likely to be comparable to the current annual level of U.S. exports to Asia—over \$300 billion. The exact figure is unknowable, but private and governmental studies tend to understate the impacts due to inadequacies in data or scope. The members of the Commission agree with the assessment by the Commander of the United States Cyber Command and Director of the

National Security Agency, General Keith Alexander, that the ongoing theft of IP is “the greatest transfer of wealth in history.”

The Commission’s report further stated that enhanced intellectual property protection globally would add millions of jobs, boost research and development, facilitate investment, and increase the growth of the U.S. economy.³⁷

The strong interest in enhancing intellectual property rights enforcement is reflected in the Trans-Pacific Partnership (TPP) trade agreement, which, at the time of writing, still has not been signed and ratified by the potential members. TPP raises the bar significantly beyond the intellectual property rights protection provided by the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).³⁸

The Philippines offers an illustrative example of tax losses from illicit trade. A Global Financial Integrity study estimated that 25 percent of all import value in the country over the last decade was undeclared. As more than one-fifth of Philippine tax revenues is generated by international trade, the fiscal impact is major.³⁹ A government report in Ghana estimated that the state loses 36 billion Ghanaian Cedi (approximately \$9.5 billion) annually in revenues due to the fraudulent activities of importers.⁴⁰ To put this in perspective, Ghana’s gross domestic product (GDP) in 2014 was 113 billion Cedi.⁴¹ Even if the estimate exaggerates the scale of the problem, it is indicative of a problem of immense proportions. Global Financial Integrity has also identified trade misinvoicing as a major issue for a number of countries, and can be assumed to be a major source of revenue loss in several more. The higher the incidence of illicit trade, the greater the income loss for the state, undermining its capacity to deal with the multiple challenges it faces, including illicit trade itself.

Income for Criminal Actors

While illicit trade deprives the state and the legitimate economy of revenues, criminals stand to benefit. Europol and the EU’s Office for Harmonization of the Internal Market states in the “2015 Situation Report on Counterfeiting in the European Union” that:

...counterfeiting is now regarded by criminals as having lower risks and providing higher returns than drug trafficking. It has emerged as an ever-increasing and profitable transnational business in which organized crime networks manufacture and distribute counterfeit products widely, taking advantage of advances in technology and the rise of e-shopping and e-commerce.⁴²

That same year, a study by the organized crime research institute Transcrime estimated that organized crime in the European Union generated greater revenues from counterfeiting than all forms of narcotics put together.⁴³ It is worth bearing in mind that counterfeiting is a more extensive problem in many other parts of the world, as compared to the European Union.

Europol estimates that there are approximately 3,600 international organized crime groups in the European Union, and over 1,000 of these are so-called “poly-crime groups,” deriving their profits from multiple criminal activities.⁴⁴ This highlights the point that revenues generated from counterfeiting and other contraband trade in consumer goods empowers organizations involved in other crimes, which may be of greater public concern. Europol has also claimed that “it is difficult to identify any organized crime group involved exclusively in the trafficking or production of counterfeit goods, as they are inevitably linked to other crime areas.”⁴⁵ Europol has identified several organized crime groups, with different national origins and ethnic compositions, that are involved in counterfeiting activities in the European Union, and Chinese crime syndicates are among the more prominent.⁴⁶

The Chinese diaspora, spread across Europe, is leveraged by Chinese organized crime groups that utilize legitimate businesses involved in the import and sale of textiles, kitchenware, appliances, and other products. In order to facilitate money laundering, they have developed collusive relationships with money transfer agencies, enabling them to send large amounts of money to China. Similarly, relationships with corrupt shipping agents enable the transportation of illicit goods. Beyond regular consumer goods, Chinese organized crime syndicates are also involved in the production and distribution of counterfeit pesticides, medicines, and tobacco across the European continent. In the case of pesticides and tobacco, they also control manufacturing operations inside the European Union. In Italy, Chinese organized crime groups enjoy close collaborative relationships with the Italian Camorra, where it is also believed that Chinese groups supply human trafficking victims to work in counterfeit textile sweatshops.⁴⁷

The synergistic effects between the illicit trade in counterfeit excise goods with other crimes is also illustrated by the Balkan route, a key channel for Afghan heroin reaching Central and West European markets. The UNODC estimates that 60 to 65 tons of heroin flow into Southeast Europe annually, and cannabis cultivation in the region is also of growing importance, with cannabis seizures reaching 48 tons in 2012.⁴⁸ The Balkans are also an important source of small arms and explosives for the European black market.⁴⁹ Albanian mafia clans play a key role in the smuggling of both heroin and cannabis, as well as the illicit arms trade, and play a role in several other criminal activities. According to Europol, they are involved in the manufacture and trade of counterfeit cigarettes, smuggling the cigarettes along the same routes they use for marijuana and heroin. In the process, they use false documents for the cargo and bribe law enforcement officers to turn a blind eye to transports.⁵⁰ The Kosovar Albanian Naser Kelmendi, designated a “foreign narcotics kingpin” by the U.S. president in 2012 and arrested in 2013, has described himself as a trader, and has allegedly profited on numerous criminal activities, including contraband trade in both tobacco and oil.⁵¹

The aforementioned involvement of Chinese crime syndicates in European counterfeit trade points to the Camorra as a stakeholder in the counterfeit business. The Camorra, along with the Sicilian Cosa Nostra and ‘Ndrangheta, are the most established and powerful

Italian mafia-type organizations. Like the Cosa Nostra and ‘Ndrangheta families, Camorra clans control or profiteer on the multitude of criminal activities taking place in the territories under their control, implying that profits from any one activity empower groups active in multiple other crime areas. Although the Sicilian Cosa Nostra and ‘Ndrangheta are also known to profit on the illicit counterfeit trade, the Camorra has gained more attention for their involvement in counterfeiting, including large-scale operations targeting international markets outside Italy with different kinds of counterfeit products.⁵²

In the United States, Federal Bureau of Investigation (FBI) Operation *Smoking Dragon* illustrates how the same networks used to smuggle contraband consumer goods can be leveraged for narcotics and weapons. The FBI operation resulted in the dismantling of a smuggling ring that initially smuggled contraband tobacco, then progressed to smuggling narcotics, false medicines, and counterfeit currency into the United States. Before being taken down, the criminals offered to smuggle weapons from China, including QW-2 surface-to-air missiles.⁵³ Terrorists, rather than organized crime groups, would appear to have a stronger interest in shooting down aircraft in the United States. Fortunately, the buyer was neither a criminal nor a terrorist, but the FBI. An undercover agent described one of the targets in the case as “the most dangerous man in America.” In the agent’s view, “Whatever we wanted, whatever we brought up, he was capable of getting.” He stated plainly that “this guy could put you together with anybody to make any deal. He said he could get us any weapons—anything but nuclear weapons—and I think he could have. Whatever China had, this guy was capable of getting.”⁵⁴

Undermining Border Security

In addition to organized crime groups being economically empowered by illicit trade, the facilitation of illicit trade undermines border security in general. The routes established to move one type of contraband goods across borders can be leveraged for other uses. An illustrative example is the 700-meter-long tunnel, equipped with an electric railway between Ukraine and Slovakia, discovered in 2012. Police found contraband cigarettes in the tunnel, but according to the Slovak Interior Minister, the small train in the tunnel was also “capable of transporting various kinds of goods and we suspect also people.”⁵⁵ Another example is the autonomous aircraft detained by the Russian Federal Security Service (FSB) in 2014, carrying a 10-kilogram payload of cigarettes, used for smuggling between the Russian and Lithuanian border.⁵⁶

Beyond techniques for physically bypassing border controls, illicit trade networks corrupt border guards to facilitate passage of smuggled cigarettes and other consumer goods. The more extensive the smuggling of “low priority” items (such as cigarettes, alcohol, counterfeits, etc.), the more extensive smuggling routes are established that can be leveraged for other uses, perhaps unbeknownst to some of the facilitators involved. Such corrupt border guards could also be used to facilitate the passage of other materials that are of greater concern.⁵⁷

The illicit tobacco consumption in the European Union, for example, was estimated at 58.6 billion cigarettes in 2013, representing approximately a volume of 5,860 20-foot containers.⁵⁸ The breadth of the illicit cigarette market, with the majority of products originating outside the EU, illustrates not only how porous the borders are, but also that an established smuggling infrastructure is in place, which can likely be leveraged for other purposes. The large-scale illicit supply of alcohol and counterfeit goods creates similar vulnerabilities.

Terrorism

Just as organized criminals find illicit trade in counterfeit and contraband excise goods an attractive high profit and low risk revenue generator, so do terrorist groups. Irish Republican Army (IRA) factions, the Kurdistan Workers Party (PKK), Hezbollah, Hamas, the Revolutionary Armed Forces of Colombia (FARC), ISIL, various al-Qaeda affiliated groups, and others, have all profited from illicit trade in goods that displace normally legal goods. These terrorist organizations have profited from a diverse range of activities. Some examples are: the smuggling of sugar in East Africa, charcoal from the Horn of Africa to the Gulf, contraband across Turkish borders, interstate cigarette smuggling in North America, illicit tunnel trade between the Gaza Strip and Egypt, illicit trade in excise goods in Ireland and Northern Ireland, and the international trade in counterfeit medicines.⁵⁹

The connection between the narcotics trade and the funding of terrorist organizations has long been established. Yet, if organized crime is increasingly moving into the expanding counterfeit market, due to high profits and lower risks, it is a logical assumption that it is of growing importance to terrorists, too.

Dr. Louise Shelley testified before the Congressional Task Force to Investigate Terrorism Financing in the U.S. in 2015. In her view, the concept of narco-terrorism has meant that there has been focus on the large-scale financial generators, such as the drug trade, while other income streams have been neglected. She states that "...increasingly smaller-scale illicit trade in commodities such as counterfeit goods, fuel, cigarettes, food, medicine, textiles, and clothing are used by terrorists to fund themselves in the United States, Europe, North Africa, and the Middle East." In her view, "the limited penalties attached to trade in consumer goods such as counterfeit pharmaceuticals, food, alcohol, cell phones, cigarettes have made these important growth areas for terrorist revenues." Shelley also points out that when terrorists function as criminal entrepreneurs they require a number of services, including those provided by corrupt officials, as well as witting and unwitting facilitators in the corporate world. Furthermore, "they also require professional services from the criminal world as they retain the services of human smugglers and specialists in nontraceable communications, forgers, and money launderers. Without hiring this expertise, they cannot make their business function."⁶⁰

Bigger black markets sustain larger numbers of "criminal service providers," who are as essential to the regular criminal as to the terrorist who wants to profiteer on illicit trade. Furthermore, terrorists engaging in illicit trade will likely establish useful criminal

connections that can be leveraged for terrorist purposes (without the “criminal service providers” needing to be aware of what they are truly facilitating). In the same way that illicit arms dealers may be useful to criminals and terrorists alike, so are dishonest shippers, suppliers of fraudulent documentation, and corrupt customs officials.

Other Costs of Illicit Trade

The ill effects of illicit trade do not stop at the economic losses and its undermining of national security. A significant proportion of the global timber and fish supplies are illicitly sourced, which contributes to the depletion of ecosystems, while generating several billions of dollars in illicit revenue annually.⁶¹ Other forms of illicit trade with negative environmental impact include chemicals used in products, or production processes, which may not comply with environmental standards (e.g., such as consumer goods containing CFCs/HFCs, or other compounds detrimental to the environment).⁶² Illicit mining is another area of concern, where mining operations frequently do not comply with environmental standards.⁶³

As it is logical for profit-maximizing counterfeit producers to cut corners on quality and safety standards, their products may pose dangers to their consumers, who frequently are unknowing victims. Electrical goods, for example, may pose fire hazards; faulty vehicle components may affect road safety; and unregulated food products expose their consumers to danger.

The clearest public health danger posed by illicit goods, however, is that of substandard medicines. These counterfeit medicines may contain incorrect amounts of active ingredients, no active ingredients, or the wrong ingredients. Worryingly, there are no exact estimates of global prevalence. Although the problem also exists in developed countries, it is particularly prevalent in the developing world, and affects most categories of medicines.⁶⁴ In a 2012 meta-study published in the *Lancet*, 35 percent of sampled antimalarials in Southeast Asia and sub-Saharan Africa failed chemical analysis, while 36 percent of the examined medications in Southeast Asia were falsified, as were 20 percent of the African samples.⁶⁵ With hundreds of thousands of deaths every year due to malaria, substandard medicines have a major impact on preventing effective treatment, and have further been identified as a factor contributing to increased drug resistance.⁶⁶ The development community has devoted significant attention to improving the means of delivering malaria drugs to affected communities. It is clear, however, that medical supply chains remain vulnerable to the abuse of counterfeit and substandard medicine dealers, to the detriment of the local populations and global public health efforts.

As with other forms of illicit trade, such as the narcotics trade, corruption can also play a role in facilitating flows of illicit products that displace legitimate products.⁶⁷ Corruptive payments can be made to facilitate passage of the products, prevent apprehension by law enforcement, avoid detection by public inspectors, and prevent convictions in the courts. Higher-level “protection” can also be bought from politicians and other socially prominent actors.⁶⁸ The larger the illicit flows and the more entrenched the operators, the more logical it is to assume that entrenched corruption is associated with the flows.

The prevalence of illicit cigarettes and contraband products is generally higher in developing countries, which are generally subject to higher levels of corruption.⁶⁹ The causal link could go both ways. Corrupt environments (many of which in the developing world also suffer from weak state capacity) would appear to be conducive for illicit trade, but extensive illicit trade may also be a contributing factor (amongst other factors) towards corruption.

Illicit trade can play a nefarious role in the corruption of public officials. Yet the state itself, or the leading individuals in it, can also play a central role in controlling illicit flows. Anecdotally, senior corporate executives have complained about the relative of a head of state controlling illicit flows of counterfeit goods, and a customs official explained that his government had employed a strategy of favoring certain organized crime groups engaged in illicit trade, in order to negatively impact the income stream for a major terrorist organization in the country.⁷⁰ There are several public sources alleging the corrupt involvement of states or heads of state (or their family members) in illicit trade. Contraband tobacco alone provides some striking examples. The president of Paraguay owns the company producing the greatest number of smuggled cigarettes in Latin America.⁷¹ Montenegrin Prime Minister (and former President) Milo Djukanovic was accused by Italian prosecutors of having run a cigarette smuggling operation worth more than \$1 billion, but charges were eventually dropped in 2009, due to his immunity from prosecution as head of state.⁷² Since 2010, Belarus has remained the largest single identifiable source of contraband cigarettes that are smuggled into the European Union.⁷³ It is worth noting that Belarus only has two state-regulated tobacco manufacturers, and the largest of the two is state-owned.⁷⁴

State involvement in illicit trade can also be “noncorrupt,” in the sense that it may be actual state policy, as opposed to primarily generating revenue for corrupt individuals within it. One such example is North Korea, a state-controlled economy, where the production of counterfeit goods in the country and the involvement of diplomats in illicit trade can be assumed to be pursued under government orders in order to generate foreign currency revenue.⁷⁵ Production of counterfeit goods, and the diplomatic corps involvement in contraband trade, is by no means unique to North Korea, but presumptions relating to the state sanctioning the activity may be less clear-cut in other cases.⁷⁶

Regimes such as apartheid South Africa, Saddam’s Iraq, and more recently Iran, have all utilized illicit trade as a sanctions-busting tool to undermine the will of the international community. The Iranian President Hassan Rouhani even turns this into a virtue, having stated on national television that “of course we bypass sanctions. We are proud that we bypass sanctions because the sanctions are illegal.”⁷⁷

Challenges

Data

A major challenge, due to the multifaceted nature of the problem, is a lack of data to measure the scale of the various black markets, and how they impact individual nation-

states. Without this elementary foundation, it is very difficult to justify investing the prerequisite resources—and political will—to combat illicit trade. There are some rough global estimates of relevance, such as the OECD and ICC estimates relating to counterfeiting, but global estimates are not directly relevant from the state's perspective.⁷⁸

At the national level, there are useful estimates in some countries relating to particular categories of goods, such as the KPMG estimates for illicit tobacco consumption in Europe, which are updated on an annual basis and based on a systematic methodology.⁷⁹ However, such illicit tobacco estimates do not exist in all countries and this estimate is only for one sector of illicit trade. Publicly available nongovernment estimates regarding illicit alcohol are less common, and like in the tobacco sector they are, to some degree, driven by industry. However, by virtue of being excise goods, tobacco and alcohol (and, to some extent, petrochemical fuels) do enjoy some degree of government interest, from a revenue perspective. The picture, when it comes to the much bigger category of counterfeit and substandard goods, is much more problematic. In terms of public studies, there may be individual studies in individual geographies focusing on a particular category of goods. Most of these are not regularly recurring (although some efforts are now being made for some categories of pharmaceutical drugs, in some countries).⁸⁰ This lack of data means that it is very difficult to assess the scale of the problem from the perspective of individual states and to, thus, develop country-specific assessments, as well as strategies to counter these flows.

Furthermore, counterfeits and intellectual property infringing goods do have negative ramifications beyond a nation's borders. It is not only the states subjected to illicit trade that suffer. The owners of the intellectual property, frequently based in different jurisdictions, can suffer reduced sales revenues for their legitimate products and erosion of their "brand equity" as low quality products flood the market. This means that, in addition to estimating the loss due to illicit trade within a national territory, it is also important to assess how illicit trade impacts a country's business activities globally. The Japan Patent Office (JPO) conducts an annual survey of how leading companies are affected by counterfeiting, which provides an indication of the proportion of companies affected. It is quite a basic survey, but the JPO has conducted it every year for about two decades. Its finding, that over 20 percent of responding companies state that they are affected by counterfeiting, has potentially been a causal factor in the Japanese government's decision to prioritize combating counterfeiting.⁸¹

From the perspective of capturing the extraterritorial impact of counterfeiting, the intellectual property-owning companies themselves are best placed to assess the scale and impact of the problems they face. However, they face a dilemma. Publicly flagging counterfeiting problems risks undermining not only consumer confidence in their products, but also shareholder and investor sentiment. Consequently, they are unlikely to disclose their problems with complete transparency, and furthermore, may even be reluctant to commission effective studies as this could lead to unpleasant disclosures.⁸² This implies that although companies themselves are likely key sources of data, these data sources

are unlikely to be fully utilized without governments playing a role in facilitating the collection.⁸³

Professor Tom Berglund, head of the Centre for Corporate Governance at the Hanken School of Economics (Svenska Handelshögskolan) in Helsinki and chairman of the Nordic Corporate Governance Network, states:

Counterfeiting and intellectual property related crime is a significant challenge for many companies. But to demand that companies should account more transparently about this is problematic. It goes against the companies' commercial interests to openly account for issues such as the prevalence of cheaper counterfeits which are difficult to differentiate from the original. It can therefore be very difficult to find a trustworthy basis upon which to evaluate the problem's breadth, costs and risks. That makes it unreasonable to expect that companies shall become better at accounting for how they are affected by illicit trade. And this creates a larger societal responsibility, which ultimately means that the state must assume responsibility for deriving the foundation upon which it can evaluate how the national interests are affected by IP crimes.⁸⁴

Fundamentally, without data it is not possible to make a diagnosis about the extent, effects, and best means of preventing counterfeiting. Better data could also highlight the mutual interests of developing countries and developed countries in reducing the prevalence of counterfeit goods. Weaker states with a high prevalence of counterfeit goods may have limited capacity to enhance their enforcement, whereas richer exporting states of intellectual property may be in a position to assist. Visualizing present losses could further incentivize developed countries to enhance their assistance efforts in this space.

The Global Trade System is Better at Facilitating Flows than Regulating Them

Global merchandise trade has expanded rapidly in the past decades, constituting an increasing proportion of global GDP, rising from 32 percent in 1990 to 49 percent in 2013. This has been a tremendous success story in terms of boosting economic development. There is, however, a darker underside to this story. While the facilitation of trade has generated positive results, the need to regulate illicit flows has been neglected.

The WTO, the multilateral body responsible for regulating global trade, not only lacks effective tools to prevent illicit trade, but some countermeasures to prevent illicit trade can actually be deemed to contravene WTO obligations. For example, it was ruled that Colombia had acted in contravention of WTO obligations when it attempted to reduce smuggling and under-invoicing of textiles and footwear from Panama and China by restricting imports to certain ports, in order to increase the efficiency of customs controls. Similarly, efforts to reduce tobacco smuggling in the Dominican Republic, by requiring that tax stamps be attached to imported tobacco within the country's territory under the supervision of that country's tax officials, were found to be in contravention of WTO obligations.⁸⁵

In terms of substantive legal rules, the clearest linkage between the WTO and illicit trade is the Agreement on TRIPS, which sets out global minimum standards on

the protection and enforcement of intellectual property rights. TRIPS sets out general standards, to be implemented according to the framework determined by each member, and it recognizes the existence of different standards in the enforcement of intellectual property rights among countries. Consequently, the protections required under TRIPS are more of a “floor,” rather than a “ceiling,” requiring only minimum standards. As the WTO has 161 members, these standards vary significantly.⁸⁶

In a WTO case brought by the United States against China, the WTO panel stated that “China has a level of protection higher than the minimum standard required by the TRIPS Agreement.”⁸⁷ Considering that China has been identified as the number one source of global counterfeits, it is clear that the TRIPS Agreement provides very limited protection. And under the WTO trade framework, there is very little else providing potential protection against illicit trade. Consequently, if the legal framework of the global trading system is to be efficient in terms of reducing illicit trade, it would need a major overhaul—a difficult and lengthy process if it were to be attempted. The seed of the TRIPS Agreement was planted in 1978, by the “anti-counterfeiting code.” Yet, it took another 16 years for the TRIPS Agreement to come to fruition.⁸⁸

Among those calling for reform of the current trade system are critics, such as Professor Amir Attaran, who holds the Canada Research Chair in Law, Population Health and Global Development Policy at the University of Ottawa, and has focused specifically on medicines. He describes the present situation as globalization having gone only halfway. In his view, there have been significant steps to facilitate global trade flows, but the mechanisms to regulate these flows are not in place. Historically, the biggest trade flows were between advanced economies, and a liberalization of trade between states—like Canada and Germany, which have strong regulatory systems in place—does not present the same challenges that increased flows between states with weak regulatory systems pose. As South-South trade has grown, countries like China and India have become major global pharmaceutical suppliers to developing countries. One problem associated with these growing exports is substandard and falsified medicines, something the importing states are not well-placed to handle. The result is a high prevalence of substandard medication, with a high public price in terms of public health in the developing world. In short, Attaran’s proposed solution is to put the onus of quality control on the exporting state through a new treaty framework, whereby states that cannot not live up to the required quality standards for their pharmaceutical exports could be barred from exporting pharmaceuticals. This would place a strong incentive on pharmaceutical exporting countries to ensure that only compliant products were exported.⁸⁹

The practicality of such a solution needs to be investigated, bearing in mind the WTO obligations on states regarding obstacles to trade. A joint study by the WTO and WHO, *WTO Agreements and Public Health*, points out that the General Agreement on Tariffs and Trade (GATT) guarantees member states the right to take measures to restrict imports and exports of products when those measures are necessary to protect the health of humans.

Furthermore, TRIPS “does not contain an exception for health purposes per se, but it does allow measures necessary to protect public health and nutrition, provided they are consistent with other TRIPS provisions.” In the assessment of the WTO and WHO, “WTO jurisprudence has clearly established that WTO Members have the right to determine the level of health protection they deem appropriate....”⁹⁰

For a WTO member state to make use of health exceptions, the health measures may not be more trade-restrictive than necessary.

Determining whether a measure is “necessary” involves a process of weighing and balancing a series of factors which include the importance of the interests protected by the measure, its efficacy in pursuing the policies, and its impact on imports or exports. The more vital or important the policies, the easier it would be to accept as “necessary” a measure designed for that purpose. Human health has been recognized by the WTO as being “important in the highest degree.”⁹¹

The study’s conclusion states that, “To monitor and evaluate the health impacts of existing WTO agreements and assess the potential health effects of proposed WTO rules and disciplines, there is a need for research and analysis. A current obstacle to analysis is the absence of systematic data collection....”⁹² This reiterates the previously identified challenge regarding illicit trade, namely, the need for better data. It will be hard to justify measures that may be deemed detrimental to trade, unless there is reliable data demonstrating the deleterious effects on public health.

Whether a treaty to reduce false and substandard pharmaceuticals, as advocated by Professor Attaran, would be deemed compliant under existing WTO obligations would need thorough analysis. If such a proposal is deemed to be practical for medicines, there may even be other categories of illicit and substandard goods, such as foodstuffs and certain consumer goods that have human health implications, which could justify a similar approach.

The list of challenges to address illicit trade is long: addressing weak enforcement capacity and corruption in developing countries, the need to mobilize a more robust and coordinated global approach dealing with the problem, addressing specific issues such as the roles of intermediaries (e.g., payment and transportation providers) and suppliers, regulation of free trade zones, ensuring effective implementation of technical track-and-trace and product authentication solutions, addressing fundamental economic drivers of illicit trade (such as prohibition, taxation, subsidies, and sanctions), raising consumer and societal awareness of fake and substandard products, and more. Many of these challenges, however, will remain hard to address without policy-relevant data, which are a prerequisite to mobilize governments and the international community.⁹³ Likewise, mobilization behind a more effective global legal framework for preventing illicit trade will not be possible without better data.

A paradigm shift in how to address certain forms of illicit trade is desirable. The present approach, largely dependent upon preventing illicit trade by trying to catch

individual perpetrators, is ineffective. Instead, the states responsible for the origins of the illicit flows could be held accountable. A new legal framework could motivate states, through self-interest, by making their continued access to free trade conditional upon compliance requirements for their exports.

The Future: A Growing Problem

Although the illicit trade in goods displacing normally licit goods is already a major problem that merits international attention, there are reasons to believe that it will continue to grow in magnitude.

Intellectual Property and the Evolution of the Digital Economy

As mentioned in the section describing the magnitude of counterfeiting earlier in this chapter, historical estimates from the OECD indicate a growing scale of trade in intellectual property infringing counterfeit and pirated goods.⁹⁴ Leading multinationals have identified a growth trend during the past five years, which they see as driven predominately by the role of the internet as a facilitator of illicit trade, and the growing significance of emerging markets, where counterfeiting is much more prevalent than in developed economies. These corporations also expect that the growth trend in counterfeiting and intellectual property theft will continue over the coming five years.⁹⁵

In addition to the expected continued growth of counterfeiting, there are ongoing transformational changes relating to the growing importance of digital content, which will further increase opportunities for intellectual property theft-driven illicit trade. Digital piracy is already a major issue, affecting music, film and television, software, e-books, and other sectors of the global economy. According to a 2013 report by NetNames, intellectual property infringing material stood for almost a quarter of the internet bandwidth in North America, Europe, and Asia, and the piracy-focused websites facilitating this traffic are run for profit.⁹⁶

The IT research firm Gartner predicts that by 2018, 3D printing will result in losses of at least \$100 billion per year through global intellectual property infringement.⁹⁷ Leading manufacturing firms have already identified the threat, that in the future, a critical commodity being sold will be digital blueprints, where the customer is also the manufacturer. This has raised concerns that even manufacturing industries may suffer like other industries that have “turned digital,” such as the music industry.⁹⁸ Since the emergence of the early peer-to-peer sharing services in 1999, U.S. music industry revenues have practically halved, declining from \$14.6 billion to \$7.9 billion in 2013.⁹⁹

The failure, so far, in regulating and policing the “digital ecosystem” may very well have consequences in the future, for industries previously unaffected by digital piracy. It is perhaps understandable that pirated music, film, and computer games did not raise critical alarm bells in governments. But, perhaps these should have been seen as canaries in a coal mine. As more and more industries become increasingly dependent on the digital ecosystem, the economic and social costs of complacency may become unacceptable.

Only targeting the actors who make pirated content available, or those who buy it, is

a very limited approach. A broader approach, which also includes the actors who facilitate illicit activities, is needed. Success requires fostering a digital ecosystem where internet service providers, search engines, payment solution providers, and online advertisers all behave responsibly, rather than aid and abet intellectual property theft. There are reasons for optimism. In certain countries, internet service providers have started blocking access to pirate websites, advertisers have taken measures to avoid advertising on such sites, and payment providers have implemented policies to block payments to such sites.¹⁰⁰ But with estimates that a quarter of internet bandwidth usage relates to intellectual property infringing content, much remains to be done, and the growth of dark net transactions and cryptocurrencies poses some tough challenges ahead.¹⁰¹

Excise Goods

If the illicit trade in counterfeit and other intellectual property infringing products is expected to continue on an upward trajectory, there are few reasons to expect a different development for illicitly traded excise goods. “Sin taxes,” such as those on tobacco, are a politically attractive source of raising revenues, as they can be justified as “good” on the grounds of their expected positive impact on public health. Consequently, sin taxes frequently enjoy a long-term growth rate over and above inflation. In terms of economic logic, this also implies that the profit potential for criminals supplying illicit cigarettes is on a long-term upward trajectory, coupled with a growing incentive for the consumers to switch to a cheaper illicit alternative.

Although there are reasons to believe that both the illicit trade in both intellectual property infringing goods and excise goods will grow, there are also developments that may mitigate these expected trends. A more effective global coordinated response may not yet be around the corner, but the continued development and broader application of product authentication (as well as track-and-trace) technologies is empowering customers, public servants, and businesses to more effectively identify illicit products; it is one such area that could have significant impact, even if other enforcement efforts remain insufficient. The solutions provided by companies such as Sproxil and MPedigree enable customers to verify whether a consumer product is genuine or not, using a mobile phone and a scratch code on the product itself. Such solutions may not address the underlying causes of illicit trade, but they at least provide a tool to prevent individuals from becoming unwitting victims of counterfeits. They can also provide real-time data and analytics on the illicit market. Furthermore, if authentication solutions help an increasing number of customers discover that they are purchasing fakes, they could in turn pressure retailers to reconsider using the suppliers providing fakes.

Nonetheless, bearing in mind the likely growing scale of illicit trade in goods displacing normally legal goods, the price of underprioritizing this already enormous problem will likely continue to grow. Unless these trends can be reversed, an already large and neglected income stream for the criminal underworld will grow even larger, empowering nonstate actors, while further undermining state capacity through its detrimental impact on economic development.

It is characteristic of human behavior to prioritize, and even exaggerate, threats with a high “fear factor,” such as terrorism, mass shootings, or narcotics. Highly visible human suffering engages our emotions and pressures leaders to act. The illicit trade in normally legal goods does not directly generate fear-inducing, high-profile incidents. It is largely an invisible flow, remaining below the radar, yet incurring enormous economic, human, and security costs.

Consequently, success in tackling illicit trade requires leadership that takes us beyond the politically intuitive threats. A holistic approach towards tackling the underlying enablers, or accelerators, of organized crime, corruption, and terrorism must address all its major components. Thus, we can no longer afford to neglect the mega-problem of illicit trade in “normally licit” goods.

Notes

¹ The longest criminal jury trial in U.S. history, which exposed Cosa Nostra’s major transatlantic role in the drug trade.

² “50 Years of the War on Drugs, Wasting Billions and Undermining Economies,” *Transform Drug Policy Foundation*, Count the Costs economics briefing, available at <<http://www.countthecosts.org/sites/default/files/Economics-briefing.pdf>>.

³ United Nations Office on Drugs and Crime, *World Drug Report 2011* (New York, NY: United Nations Publications, 2011).

⁴ Frontier Economics, “Estimating the global economic and social impacts of counterfeiting and piracy,” commissioned by *Business Action to Stop Counterfeiting and Piracy* (London: Frontier Economics Ltd., February 2011).

⁵ “Magnitude of Counterfeiting and Piracy of Tangible Products: An Update,” *OECD*, November 2009, available at <<http://www.oecd.org/sti/ind/44088872.pdf>>.

⁶ Specifically, an estimate of US\$1,160 – 1,530 billion.

⁷ OECD, *Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact* (Paris, OECD Publishing, 2016).

⁸ “Magnitude of Counterfeiting and Piracy of Tangible Products,” *OECD*.

⁹ OECD, *Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact* (Paris, OECD Publishing, 2016).

¹⁰ Karl Lallerstedt and Patrick Krassén, *How Leading Companies Are Affected by Counterfeiting and IP Infringement: A Study of the NASDAQ OMX 30 Stockholm Index* (Stockholm: Swedish Confederation of Enterprise and Black Market Watch, 2015), available at <http://www.svensktnaringsliv.se/migration_catalog/Rapporter_och_opinionsmaterial/Rapporter/omx30_english_webbpdf_617515.html/BINARY/OMX30_English_webb.pdf>.

¹¹ Europol and the Office for Harmonization in the Internal Market, ‘2015 Situation Report on Counterfeiting in the European Union,’ April 2015, available at <<https://www.europol.europa.eu/content/2015-situation-report-counterfeiting-european-union>>.

¹² The majority of illicit alcohol and tobacco are not counterfeit products; but, rather, products that either evade taxation altogether or evade taxes due in the country of consumption.

¹³ Luk Joossens and Martin Raw, “Strategic directions and emerging issues in tobacco control: From cigarette smuggling to illicit tobacco trade,” *Tobacco Control* 21, no. 2 (2012): 230-234.

¹⁴ “A study of the illicit cigarette market in the European Union: 2013 Results,” *KPMG Project SUN*, 2014.

¹⁵ *Ibid.*

¹⁶ According to the World Health Organization, “unrecorded alcohol refers to alcohol that is not taxed in the country where it is consumed because it is usually produced, distributed and sold outside the formal channels under government control.” See “Global Status Report on Alcohol and Health 2014,” *World Health Organization* (Geneva: WHO, 2014).

¹⁷ The six countries were Colombia, Ecuador, Peru, Honduras, El Salvador, and Panama. Euromonitor Research, “Latin American Illegal Alcohol Market Valued at US\$2.4 Billion,” *Euromonitor International*, May 12, 2014, available at <<http://blog.euromonitor.com/2014/05/latin-american-illegal-alcohol-market-valued-at-us24-billion.html>>.

¹⁸ A 2013 report by Chatham House states that the best estimate is that an average of 100,000 barrels of oil a day vanished from onshore, swamp, and shallow-water areas in Nigeria in the first quarter of 2013. The report estimated that only Russia has a higher level of oil theft, estimated at 150,000 BPD, primarily in the Caucasus; Pemex, the Mexican state oil company, reported that it lost US\$1.14 billion to oil theft in 2014; See Christina Katsouris and Aaron Sayne, *Nigeria's Criminal Crude: International Options to Combat the Export of Stolen Oil* (London: Chatham House, September 2013); "Mexico Pemex to stop gasoline via pipeline to curb theft," *Reuters*, February 17, 2015, available at <<http://www.reuters.com/article/mexico-pemex-theft-idUSL1N0VS00X20150218>>; Nayeli González, "Crece 58 percent el robo de combustibles," *Dinero en Imagen*, April 27, 2015, available at <<http://www.dineroenimagen.com/2015-04-27/54592>>.

¹⁹ Center for the Study of Democracy, "Public Discussion Serious and Organized Crime Threat Assessment," 2012, available at <<http://www.csd.bg/artShow.php?id=15995>>.

²⁰ Clive Leviev-Sawyer, "Seasonal fuel price hikes in Bulgaria 'could be affected by Ukraine' – report," *Independent Balkan News Agency*, May 5, 2014, available at <<http://www.balkaneu.com/seasonal-fuel-price-hikes-bulgaria-could-affected-ukraine-report/>>.

²¹ "Report from Committee A (Sovereign Matters) on Cross-border Police Cooperation and Illicit Trade," *British-Irish Parliamentary Assembly*, 2015.

²² Marko Hajdinjak, *Smuggling in Southeast Europe: The Yugoslav Wars and the Development of Regional Criminal Networks in the Balkans* (Sofia: Center for the Study of Democracy, 2002). Investigative journalists writing for the *Financial Times* in October 2015 estimated that ISIL earned US\$1.5 million daily from the oil trade. See Erika Solomon, Robin Kwong, and Steven Bernard, "Inside Isis Inc: The journey of a barrel of oil," *Financial Times*, December 11, 2015, available at <<http://ig.ft.com/sites/2015/isis-oil/>>.

²³ "Mexico Pemex to stop gasoline via pipeline to curb theft," *Reuters*.

²⁴ Kathryn Haahr, *Addressing the Concerns of the Oil Industry: Security Challenges in Northeastern Mexico and Government Responses*, Wilson Center Case Study (Washington, DC: Wilson Center Mexico Institute, January 2015).

²⁵ Investigative journalists writing for the *Financial Times* in October 2015 estimated that the ISIL earned 1.5 million USD daily on the oil trade. Erika Solomon, Robin Kwong and Steven Bernard, "Inside Isis Inc: The journey of a barrel of oil," *Financial Times*, December 11, 2015, <<http://ig.ft.com/sites/2015/isis-oil/>>.

²⁶ European Commission Press Release Database, "Horsemeat: one year after – Actions announced and delivered!" *European Commission*, February 14, 2014, available at <http://europa.eu/rapid/press-release_MEMO-14-113_en.htm>.

²⁷ Dan Mitchell, "Justice Handed Down in Horsemeat Scandal," *Time*, April 7, 2015, available at <<http://time.com/3774528/justice-handed-down-in-horsemeat-scandal/>>.

²⁸ Andrew Jacobs, "Chinese Release Increased Numbers in Tainted Milk Scandal," *New York Times*, December 2, 2008, available at <<http://www.nytimes.com/2008/12/03/world/asia/03milk.html>>.

²⁹ "Agromafia. Third report on food crime in Italy 2015 (Agromafie. 3° Rapporto sui crimini agroalimentari in Italia 2015)," *Institute of Political, Economic and Social Studies (EURISPES)*, available at <<http://www.eurispes.eu/content/agromafie-rapporto-crimini-agroalimentari-eurispes>>.

³⁰ Nick Squires, "Italy's 'Mozzarella King' arrested over 'contaminated cheese,'" *The Telegraph*, July 17, 2012, available at <<http://www.telegraph.co.uk/news/worldnews/europe/italy/9406507/Italys-Mozzarella-King-arrested-over-contaminated-cheese.html>>.

³¹ "Italy's 'mozzarella king' arrested over mafia links," *The Local*, May 14, 2014, available at <<http://www.thelocal.it/20140514/italys-mozzarella-king-arrested-over-mafia-links>>.

³² The term "gutter oil" actually covers a range of oils not fit for human consumption, which enter the food supply. But the term likely originates from the practice of recycling oil from the gutter. A *Radio Free Asia* film clip from China showing sewer refuse being used as an ingredient in gutter oil gained significant attention. See "'Gutter Oil' Video Goes Viral," *Radio Free Asia*, November 4, 2013, available at <<http://www.rfa.org/about/releases/gutter-oil-11042013112018.html>>. Mislabeling of lower quality olive oil as "extra virgin olive oil" is common, but there have also been several cases of mixing olive oil with other vegetable oils, or adulteration of other cheaper oil types in order to pass them off as olive oil. The highest profile oil adulteration case occurred in Spain in the early 1980s, having caused almost 700 deaths and leaving 25,000 victims with lifelong ailments. Victims consumed what they thought was olive oil, which was in fact rapeseed oil adulterated with aniline (a coal tar extract). See Alan Riding, "Trial in Spain on Toxic Cooking Oil Ends in Uproar," *The New York Times*, May 21, 1989, available at <<http://www.nytimes.com/1989/05/21/world/trial-in-spain-on-toxic-cooking-oil-ends-in-uproar.html>>. With prices for organic products commanding a premium over nonorganic products, there is an incentive to cheat and present nonorganic produce as organic. Organic soy beans, for example, command a price that is over 300 percent higher than their nonorganic counterparts. See Edward C. Jaenicke and Iryna Demko, "Preliminary Analysis of USDA's Organic Trade Data: 2011 to 2014," *Organic Trade Association Policy Conference Infographic*, April 2015, available at <http://ota.com/sites/default/files/indexed_files/PolicyConference2015_Infographic_8.5x11_1a_0.pdf>.

³³ Walter G. Park and Douglas C. Lippoldt, *Technology Transfer and the Economic Implications of the Strengthening of Intellectual Property Rights in Developing Countries*, OECD Trade Policy Working Paper No. 62 (2008).

³⁴ Representatives of companies listed on the NASDAQ OMX 30 Stockholm stock index interviewed by this author in 2014 explicitly stated that extensive counterfeiting and IP theft in particular markets acted as a deterrent to investment. Krassén and Lallerstedt, *How leading companies are affected by counterfeiting and IP infringement*.

³⁵ “The Illicit Trafficking of Counterfeit Goods and Transnational Organized Crime,” *United Nations Office on Drugs and Crime*, Vienna, <https://www.unodc.org/documents/counterfeit/FocusSheet/Counterfeit_focussheet_EN_HIRES.pdf>.

³⁶ Karl Lallerstedt and Mikael Wigell, *Illicit Trade Flows: How to deal with the neglected economic and security threat*, Finnish Institute of International Affairs Briefing Paper No. 151 (Helsinki: Finnish Institute of International Affairs: March 12, 2008).

³⁷ The Commission on the Theft of American Intellectual Property, “The IP Commission Report,” *The National Bureau of Asian Research*, 2013.

³⁸ *U.S. Trade Representative*, The Trans-Pacific Partnership, Chapter 18, “Intellectual Property,” available at <https://medium.com/the-transpacific-partnership/intellectual-property-3479efdc7ad#ptv7ataxp>.

³⁹ Dev Kar and Brian LeBlanc, *Illicit Financial Flows to and from the Philippines: A Study in Dynamic Simulation, 1960-2011* (Washington, DC: Global Financial Integrity, 2014).

⁴⁰ A copy of the government report was provided to the author by a high-level Ghanaian public official in 2015. The report had previously been leaked to the media, and the estimate was published in news sources.

⁴¹ “Revised 2014 Annual Gross Domestic Product,” (Ghana Statistical Service: Accra, 2015).

⁴² Europol and the Office for Harmonization in the Internal Market, “2015 Situation Report on Counterfeiting in the European Union.”

⁴³ Ernesto U. Savona and Michele Riccardi, “From Illegal Markets to Legitimate Businesses: The Portfolio of Organised Crime in Europe,” final report of *Project OCP Organised Crime Portfolio, Joint Research Centre on Transnational Crime*, 2015.

⁴⁴ “EU Serious and Organised Crime Threat Assessment (SOCTA) 2013,” *Europol*, March 19, 2013, available at <<https://www.europol.europa.eu/content/eu-serious-and-organised-crime-threat-assessment-socta>>.

⁴⁵ Europol and the Office for Harmonization in the Internal Market, “2015 Situation Report on Counterfeiting in the European Union.”

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ United Nations Office on Drugs and Crime, *The Illicit Drug Trade through South-Eastern Europe* (Vienna: United Nations, March 2014).

⁴⁹ Frontex, “Western Balkans Annual Risk Analysis 2015,” May 2015, available at <http://frontex.europa.eu/assets/Publications/Risk_Analysis/WB_ARA_2015.pdf>.

⁵⁰ Europol and the Office for Harmonization in the Internal Market, “2015 Situation Report on Counterfeiting in the European Union.”

⁵¹ “Naser Kelmendi,” *Reporting Project*, available at <<https://www.reportingproject.net/peopleofinterest/profil.php?profil=18>>;

“Naser Kelmendi Criminal Organization,” *U.S. Department of the Treasury*, March 2015, available at <https://www.treasury.gov/resource-center/sanctions/Programs/Documents/20150324_kelmendi.pdf>.

⁵² Eurojust: The Hague, “Camorra-type clan behind massive counterfeiting of power tools and clothing,” press release, May 21, 2010, available at <<http://www.eurojust.europa.eu/press/PressReleases/Pages/2010/2010-05-21.aspx>>; Gregory F. Treverton, Carl Matthies, Karla J. Cunningham, Jeremiah Goulka, Greg Ridgeway, and Anny Wong, “Film Piracy, Organized Crime, and Terrorism,” *RAND Safety and Justice Program and the Global Risk and Security Center*, (Washington, DC: RAND Corporation, 2009); Europol and the Office for Harmonization in the Internal Market, “2015 Situation Report on Counterfeiting in the European Union.”

⁵³ “Operation Smoking Dragon,” *Federal Bureau of Investigation*, 2011, available at <http://www.fbi.gov/news/stories/2011/july/dragon_070511>.

⁵⁴ *Ibid.*

⁵⁵ Martin Santa, “Slovaks find railway smuggling tunnel to Ukraine,” *Reuters*, July 19, 2012, available at <<http://www.reuters.com/article/us-slovakia-ukraine-tunnel-idUSBRE8610ZO20120719>>.

⁵⁶ Sean Gallagher, “Update: Russians capture cigarette-smuggling drone,” *ars technica*, May 16, 2014, available at <<http://arstechnica.com/tech-policy/2014/05/russians-capture-cigarette-smuggling-drone/>>.

⁵⁷ Between 2007 and 2010, 15 EU member states identified corrupt involvement of their border guards in the trafficking of cigarettes, and 13 states identified corrupt involvement in the smuggling of other consumer goods; see “Study on anti-corruption measures in EU border control,” *Center for the Study of Democracy*, 2012,

available at <http://frontex.europa.eu/assets/Publications/Research/Study_on_anticorruption_measures_in_EU_border_control.pdf>.

⁵⁸ “A study of the illicit cigarette market in the European Union,” *KPMG Project SUN*.

⁵⁹ Mark Leon Goldberg, “How the Charcoal Trade Fuels Terrorism,” *UN Dispatch*, February 22, 2012, available at <<http://www.undispatch.com/how-the-charcoal-trade-fuels-terrorism/>>; Amanda Ferguson, “Real IRA ‘is ninth richest terror group in the world,’” *Belfast Telegraph*, November 17, 2014 available at <<http://www.belfasttelegraph.co.uk/news/northern-ireland/real-ira-is-ninth-richest-terror-group-in-the-world-30748913.html>>; “Report from Committee A (Sovereign Matters),” *British-Irish Parliamentary Assembly*; “How Can Counterfeit Drugs Be Useful to Terrorists?” *The Partnership for Safe Medicines*, available at <<http://www.safemedicines.org/counterfeit-drugs-and-terrorism.html>>; “Operation Smokescreen: The Crime and Investigation,” *Bureau of Alcohol, Tobacco, Firearms and Explosives*, available at <<https://www.atf.gov/our-history/operation-smokescreen>>; Paul Alster, “The Truth about Hamas’ Smuggling Tunnels,” *The Investigative Project on Terrorism*, February 15, 2013, available at <<http://www.investigativeproject.org/3915/the-truth-about-hamas-smuggling-tunnels>>; “Cigarette smuggling biggest source of income for PKK,” *Daily Sabah*, September 26, 2015, available at <<http://www.dailysabah.com/investigations/2015/09/26/cigarette-smuggling-biggest-source-of-income-for-pkk>>; Benoit Faucon and Ayla Albayrak, “Islamic State Funds Push Into Syria and Iraq With Labyrinthine Oil-Smuggling Operation,” *The Wall Street Journal*, September 16, 2014 available at <<http://www.wsj.com/articles/islamic-state-funds-push-into-syria-and-iraq-with-labyrinthine-oil-smuggling-operation-1410826325>>; Drazen Jorgic, “Kenya wages war on smugglers who fund Somali militants,” *Reuters*, June 21, 2015, available at <<http://www.reuters.com/article/us-kenya-security-somalia-insight-idUSKBN0P105320150621>>.

⁶⁰ Statement of Dr. Louise Shelley, “Could America Do More? An Examination of U.S. Efforts to Stop the Financing of Terror,” testimony before the Congressional Task Force to Investigate Terrorism Financing in the U.S., U.S. House of Representatives, September 2015.

⁶¹ “Momentum gathers for international agreement to combat rogue fishing,” *Food and Agricultural Organization of the United Nations*, July 30, 2015, available at <<http://www.fao.org/news/story/en/item/318052/icode/>>; “Scale of illegal logging,” *Illegal Logging Portal*, available at <<http://www.illegal-logging.info/topics/scale-illegal-logging>>; “Momentum gathers for international agreement to combat rogue fishing,” *Food and Agricultural Organization of the United Nations*, July 30, 2015, available at <<http://www.fao.org/news/story/en/item/318052/icode/>>.

⁶² “Illegal Trade in Environmentally Sensitive Goods,” *OECD Trade Policy Studies*, 2012, available at <<http://www.oecd.org/tad/envtrade/illegaltradeinenvironmentallysensitivesgoods.htm>>.

⁶³ “Risk Assessment of Illegal Trade in HCFCs,” *United Nations Environment Programme*, 2011.

⁶⁴ “Medicines: spurious/falsely-labelled/falsified/counterfeit (SFFC) medicines,” World Health Fact Sheet No. 275, *World Health Organization*, 2012.

⁶⁵ Gaurvika M.L. Nayyar, Joel G. Breman, Paul N. Newton, and James Herrington, “Poor-quality antimalarial drugs in southeast Asia and sub-Saharan Africa,” *The Lancet*, no. 6 (2012): 488-496.

⁶⁶ “Counterfeit and Substandard Antimalarial Drugs,” *Centers for Disease Control and Prevention*, September 22, 2015, available at <http://www.cdc.gov/malaria/malaria_worldwide/reduction/counterfeit.html>.

⁶⁷ An illustrative example is provided in the records on the seized computer of the arrested narco-trafficker, Juan Carlos Ramírez Abadía, detailing corrupt payments made between 2003 and 2006. There were three admirals, seven army and police colonels, and two naval captains on his payroll. See “Illicit Networks and Politics in Latin America,” *Netherlands Institute for Multiparty Democracy and Netherlands Institute of International Relations*, 2014.

⁶⁸ As an example, representatives of political parties, religious institutions, and tribal chiefs solicit payments from prominent illicit traders. From: public officials in Ghana, interviews by author for a forthcoming OECD publication, 2015.

⁶⁹ A 2012 paper by Joossens indicates that the prevalence of illicit tobacco is higher in low-income countries. Joossens and Raw, “Strategic Directions and Emerging Issues in Tobacco Control.” In a 2015 paper, the author interviewed corporations stated that counterfeiting and the illicit trade in intellectual infringing goods was much more extensive in non-OECD states than in OECD states. Lallerstedt and Krassén, *How leading companies are affected by counterfeiting and IP infringement*; “Corruption Perceptions Index 2014,” *Transparency International*, 2014, available at <<https://www.transparency.org/cpi2014/results>>.

⁷⁰ Discussions with corporate representatives and a senior customs representative.

⁷¹ James Bargent, “Colombia Criminals Use Paraguay Contraband Cigarettes to Launder Drug Money,” *InSight Crime*, March 24, 2014, available at <<http://www.insightcrime.org/news-briefs/colombia-criminals-use-paraguay-contraband-cigarettes-to-launder-drug-money>>.

⁷² Liz MacKean and Meirion Jones, “Documents tarnish Montenegro’s EU bid,” *BBC News*, May 29, 2012, available at <<http://www.bbc.com/news/world-europe-18237811>>.

⁷³ “A study of the illicit cigarette market in the European Union,” *KPMG Project SUN*.

⁷⁴ “Tobacco in Belarus,” *Euromonitor International*, 2015, available at <<http://www.euromonitor.com/tobacco-in-belarus/report>>.

⁷⁵ Paul Rexton Kan, Bruce E. Bechtol, Jr., and Robert M. Collins, *Criminal Sovereignty: Understanding North Korea's Illicit International Activities* (Carlisle, PA: Strategic Studies Institute, 2010); North Korean diplomats at the Stockholm Embassy in Sweden were discovered to be involved in contraband tobacco and alcohol sales as early as 1976, and in a more recent case, two North Korean diplomats were caught smuggling cigarettes into Sweden in 2009. See Lovisa Lamm, "Smuggling ring at North Korean Embassy (Smuggelhärvarn på nordkoreanska ambassaden, P3 Dokumentär)," *Sveriges Radio*, April 11, 2010; Micke Ölander, "Diplomats caught for smuggling (Diplomater fast för smuggling)," *Expressen*, November 20, 2009.

⁷⁶ In 2014, for example, seven Gambian diplomats were convicted for their involvement in illicit tobacco sales, defrauding the HM Treasury of £4.7 million. See Kunal Dutta, "Gambian diplomats found guilty of using London embassy for tobacco fraud," *Independent*, December 8, 2014, available at <<http://www.independent.co.uk/news/uk/crime/gambian-diplomats-found-guilty-of-using-london-embassy-for-tobacco-fraud-9911414.html>>.

⁷⁷ Colum Lynch, "U.S. Accuses Iran of Secretly Breaching U.N. Nuclear Sanctions," *Foreign Policy*, December 8, 2014, available at <<http://foreignpolicy.com/2014/12/08/us-accuses-iran-of-secretly-breaking-un-nuclear-sanctions-exclusive/>>.

⁷⁸ "Magnitude of Counterfeiting and Piracy of Tangible Products," *OECD*; Frontier Economics, "Estimating the global economic and social impacts of counterfeiting and piracy."

⁷⁹ "A study of the illicit cigarette market in the European Union," *KPMG Project SUN*.

⁸⁰ There are some systematic efforts to analyze the quality of pharmaceutical drugs, such as the results stored in the U.S. Pharmacopeial Convention's Medicines Quality Database, which contains test results for select categories of drugs for select countries. But with more extensive testing, and ensuring that more results are made public, could enhance the value of the present efforts. "Medicines Quality Database," *The United States Pharmacopeial Convention*, 2015.

⁸¹ Japan Patent Office, "FY2014 Survey Report on Losses Caused by Counterfeiting has been Compiled," *Ministry of Economy, Trade and Industry*, March, 11, 2015. The prioritization of intellectual property rights enforcement by the Japanese government is reflected by its Intellectual Property Strategy Headquarters (IPSH), whose meetings are directed by the prime minister and include cabinet ministers as well as external experts. The IPSH is responsible for setting intellectual property strategy, as well as ensuring its coordination and follow-up. Japan is also a generous donor to both the World Customs Organisation (whose secretary-general happens to be Japanese) and the World Intellectual Property Organisation, and it has provided bilateral support to help other states enhance their intellectual property rights enforcement, and Japan was also a strong proponent of the Anti-Counterfeit Trade Agreement (ACTA). See Japan Patent Office, "Formulation and Implementation of National IP Strategy in Japan – Intellectual Property Strategic Program 2011," *Ministry of Economy, Trade and Industry*, February 3, 2012.

⁸² This is an assumption based on the author's personal experiences, having worked in the private sector with anti-illicit trade activities, and what individuals working at multinational corporations have stated in informal discussions with the author.

⁸³ This implies a particular challenge in countries with weak state capacities, which the international community could play a role in addressing.

⁸⁴ Krassén and Lallerstedt, *How leading companies are affected by counterfeiting and IP infringement*.

⁸⁵ Karl Lallerstedt, Elva (Jing) Zhang, and Joost Pauwelyn, "The world trade system must arm itself to fight illicit trade," *The Global Initiative Against Transnational Organized Crime*, available at <http://www.globalinitiative.net/the-world-trade-system-must-arm-itself-to-fight-illicit-trade/#_ftnref1>.

⁸⁶ *Ibid.*

⁸⁷ "China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights (WT/DS362/1)," panel report, *First Submission of the United States of America*, January 30, 2008, available at <<http://www.ifta-online.org/sites/default/files/58.pdf>>.

⁸⁸ Lallerstedt, Zhang, and Pauwelyn, "The world trade system must arm itself to fight illicit trade."

⁸⁹ Amir Attaran, Donna Barry, Shamnad Basheer, Roger Bate, David Benton, James Chauvin, Laurie Garrett, Ilona Kickbusch, Jillian Clare Kohler, Karnal Midha, Paul N. Newton, Sania Nishtar, Paul Orhii, and Martin McKee, "How to achieve international action on falsified and substandard medicines," *British Medical Journal* 345 (November 2012); Professor Attaran, interview by the author, 2015.

⁹⁰ "WTO Agreements and Public Health: A joint study by the WHO and the WTO Secretariat," *World Trade Organization/World Health Organization*, 2002, available at <https://www.wto.org/english/res_e/booksp_e/who_wto_e.pdf>.

⁹¹ *Ibid.*

⁹² *Ibid.*

⁹³ The OECD Task Force on Charting Illicit Trade, established in 2013, is a manifestation of this recognition.

⁹⁴ "Magnitude of Counterfeiting and Piracy of Tangible Products," *OECD*, (2009).

⁹⁵ Krassén and Lallerstedt, *How leading companies are affected by counterfeiting and IP infringement*.

⁹⁶ “Nearly 25 percent of global Internet traffic involves the illegal distribution of copyrighted work,” *Net-Names*, February 2011, available at <<http://www.netnames.com/news/nearly-25-global-internet-traffic-involves-illegal-distribution-copyrighted-work>>.

⁹⁷ “Gartner Says Uses of 3D Printing Will Ignite Major Debate on Ethics and Regulation,” *Gartner Press Release*, January 29, 2014, available at <<http://www.gartner.com/newsroom/id/2658315>>.

⁹⁸ Krassén and Lallerstedt, *How leading companies are affected by counterfeiting and IP infringement*.

⁹⁹ “Scope of the problem,” *Recording Industry Association of America*, available at <http://riaa.com/physicalpiracy.php?content_selector=piracy-online-scope-of-the-problem>.

¹⁰⁰ The UK is one example, but internet service providers act similarly in a number of other countries. “ISPs asked to block more pirate sites,” *BBC News*, October 20, 2015, available at <<http://www.bbc.com/news/technology-34581801>>.

In a country like Sweden, where internet service providers do not block pirate websites, the Association of Swedish Advertisers (Sveriges Annonsörer) has produced a so-called “blacklist” of websites through which it recommends its members to avoid advertising. See “The Black list – movie sites you don’t want to advertise on (Svarta listan – filmsajterna du inte vill synas på som annonsör!)” *Association of Swedish Advertisers*, May 16, 2015. Online payment solutions providers, such as PayPal, have implemented policies to prevent payments to entities infringing intellectual property rights, and have introduced a reporting mechanism for rights owners. See “Infringement Report Policy,” *PayPal*, August 28, 2012.

¹⁰¹ “Darknet Marketplace Watch – Monitoring Sales of Illegal Drugs on the Darknet (Q1),” *Digital Citizens Alliance*, April 24, 2015, available at <<http://www.digitalcitizensalliance.org/cac/alliance/content.aspx?page=Darknet>>; “Money is no object: Understanding the evolving cryptocurrency market,” *PwC*, 2015.