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OVERCOMING ILLICIT TRADE'S CORROSIVE EFFECTS IN DEVELOPING ECONOMIES

Mark Shaw and Tuesday Reitano Contributing authors: Simone Haysom and Peter Tinti

Scowcroft Center for Strategy and Security

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Cover: Official from the Kenyan Ministry of East African Affairs, Commerce and Tourism monitors Mombasa Port on Kenya's Indian Ocean coast. Photo credit: MEAACT photo / Stuart Price.

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foreword

Il of us know that trade in illicit goods such as narcotics is dangerous. But we frequently do not appreciate the impacts of the global illegal trade in everyday consumer goods. This "illicit trade in licit goods" is enormous and it takes many forms. Sometimes it's the smuggling of heavily taxed goods such as cigarettes and alcohol. Sometimes it's a trade in lookalike products such as fake handbags and other luxury goods. Sometimes it's an attempt to evade state regulations that are designed to protect public health and welfare, as is now happening with a growing underground pharmaceuticals trade. Regardless of the form, this illicit trade in everyday consumer goods has every bit the corrosive effect on individuals, society, and the state as does the trade in narcotics and other banned substances.

Although this trade is a global phenomenon, affecting all countries in one fashion or another, it hits some countries very hard. The worst impacts fall on developing countries in the Global South, the "states on the cusp" per the report's title. These countries face a combination of factors including low state capacity, elite corruption, and widespread poverty. Unfortunately, in the "states on the cusp," this illicit trade in everyday consumer goods eats at the very foundations of society and economy, threatening their ongoing stability and undermining their governments' ability to function.

This study is the culmination of two years' work conducted by the Atlantic Council's Scowcroft Center for Strategy and Security in cooperation with the Global Initiative Against Transnational Organized Crime. Through a generous grant from SICPA S.A., the authors of this study embarked on an intensive exploration of the topic around the world. Their research, which involved extended research trips to Central America and Southern Africa, focused on a nexus of issues regarding the impact of this trade across the Global South, especially states on the cusp.

The mission of the Scowcroft Center is to develop non-partisan strategies to address the most important security-related challenges facing the world. These strategies are informed by the Center's strategic foresight and risks analysis capability, which enables it to produce world-class, forward-looking analyses of global and regional trends. This study is fully in keeping with these aspects of the Center's mission.

The reader should find great value in this report. It is designed to shed light on this exceedingly complex and important topic. I hope that it both enlightens readers and inspires them to help find solutions to this critical global challenge.

James L. Jones General, USMC (Ret) Chairman Emeritus, Atlantic Council

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executive summary

llicit trade is an umbrella term that covers multiple crimes and commodities, including the theft, diversion, adulteration, counterfeiting, and production of substandard goods, all acts which can occur at multiple points along a supply chain. It is initiated, enabled, and protected by a wide range of actors, from unethical corporations and corrupt officials at all levels of government to armed violent groups in conflict zones and organized crime networks operating locally and transnationally.

As global trade routes increasingly encompass developing economies—as a source, transit, and market for consumer goods—they present unique challenges to creating effective national and, by implication, regional and global regimes against illicit trade. For many states around the world, and especially in the Global South, these challenges threaten to destabilize social, economic, and political structures. These states are the world's **"states on the cusp."**

The term illicit trade, for the purpose of this report, refers to illegal production, movement, or sale of normally legal goods. Such illegal movement is often carried out to derive profit by avoiding costs such as those imposed by taxes or customs duties. There is a particularly strong incentive for illicit trade in cases where goods are subject to high duties, or where goods are subsidized to be cheaper in one jurisdiction (food, sugar, and flour are examples) but not in another, providing incentives for illegal cross-border trade. The phrase "licit goods traded illicitly" captures this phenomenon neatly. Importantly, however, this definition also includes some goods that are counterfeited to pass off as being licit, and then traded either illicitly (avoiding scrutiny) or, on occasion, in legal markets.

The trade in counterfeit goods alone has been estimated to be worth between 3 and 7 percent of global GDP. Many forms of illicit trade, including counterfeit medicines, substandard goods, and the falsification or adulteration of food and agricultural commodities, medical equipment, and consumer and industrial goods have serious public health and safety implications. Other forms of illicit trade have huge environmental, social, and economic impacts, not least of which is reduced revenue collection which weakens state institutions, creating a downward spiral of higher illicit trade intertwined with weaker state capacity.

Reversing this trend, therefore, must be a global public good.

This complex mix of products and commodities being traded illegally raises the important question of whether advances in technology can assist in more effective regulation. At the core of these efforts is ensuring that commodities are both produced and traded legally to protect consumers from harm. Here, "harm" refers to harms to the public (arising from poor quality or counterfeit products) and to the state (such products harms the state's ability to collect essential revenues and to control markets in accordance with democratic processes).

Global economic trends in international trade and ever more complex supply chains are, however, reducing the role that governments can play in monitoring and regulating trade, creating both greater vulnerabilities and increasing the importance of the private sector as a critical actor. This poses significant new challenges. With an estimated 80 percent of global trade travelling by sea, the trend toward the privatization of ports and other critical infrastructure and the proliferation of free trade zones have created a growing blind spot for governments seeking to understand and regulate supply chains and illicit trade. For some forms of illicit trade, the role of small air shipments through private carriers has had a similar effect, eroding law enforcement's ability to monitor, predict, and interdict where and how illicitly traded goods will reach the hands of their consumers. Online marketplaces and small package shipping are replacing the physical spaces where illicit transactions used to take place; their market size and reach are expanding while at the same time reducing the stigma of illegality.

In short, the scope for illegality is growing, just as the capacity for states to respond is weakening. Can advances in technology fill the gap?

Sophisticated and rapidly evolving technologies are bringing new ways to track, trace, monitor, and maintain records with integrity. They are steadily reinforcing law enforcement's capacity to identify criminality in the vastness of the surface and dark web. Despite the promise that technology has to offer, some longstanding stumbling blocks need to be overcome. Some of these are particularly acute in developing economies. At the most basic level, for example, no system can provide quality control over data entry when those responsible for entering the primary data are either willfully or through lack of capacity corrupting that content.

More generally, the lack of global standards and effective and consistent legal frameworks, and, increasingly, questions about jurisdiction caused by cyber-enabled trade and global supply chains, may limit the impact of purely national regimes of oversight and enforcement regimes.

Lack of capacity, insecurity, and multiple forms and levels of corruption are pertinent features of developing economies that

compound the inherent challenges of responding to illicit trade. Evidence from case studies around the world, as well as two commissioned for this report—examining the political economy of illicit tobacco in Southern Africa and of counterfeit medicines in Central America—reveal that political actors and state institutions are complicit in enabling, promoting, and protecting illicit trade at the very highest levels of the state. They also show that it is often the most vulnerable and underserved in society who rely on illicit markets to meet basic needs.

While there are clear distinctions by commodity and context, the perpetuation of illicit markets and trade within developing economies often can be exacerbated by systematic and serious failures in governance and political will, rather than technical shortcomings that can easily be overcome. Technical solutions also may have unintended consequences for governance and the poor. That does not mean that they should not be used, rather that a better understanding of the economic, political, and social context in which they are implemented is desirable. Implemented effectively, they hold great promise in taking forward steps to undercut illicit markets and improve citizens' well-being.

However, the changing landscape for infrastructure, investment, and development assistance also has reduced the leverage of more traditional multilateral institutions to insist upon the governance and policy reforms that would address these issues. These changes have had contradictory outcomes: increasing trade on the one hand but weakening regulatory systems and conditionalities (that had been a growing part of traditional multilateral development bank practices) on the other. Requirements for transparency, broad-based development benefits for the citizenry, or democratic governance have been weakened, although not removed, in the new financing landscape.

Against this backdrop, private sector innovation for providing technology-based tools to enhance regulatory capacity combined with citizen empowerment is key. Such innovations, however, should be grounded in an understanding of the context into which they are introduced and be governed by effective oversight systems, including effective and transparent public-private partnerships.

How to address illicit trade in developing economies, therefore, remains unsurprisingly complex. Wins often will be incremental and setbacks frequent. The overall goal simply may be to constrain the enabling environment for illicit trade rather than allowing it to endlessly expand, to target efforts where they have the greatest chance of sustained success, and to prioritize those commodities where the harmful implications are the greatest.

This is a volatile time in global history, marked by rapid technological and political changes plus a global COVID-19

pandemic. We must develop a better understanding of the political economy of illicit trade and craft an active monitoring capacity for intervenening. In this report, we put forward a commodity- and context-specific political economy approach to achieve this and conclude with some guidance for policy makers from any sector, public or private, to assess when and how to respond to illicit trade, and to work in and with developing economies.

This study offers five key principles in conclusion:

1 BE COMMODITY SPECIFIC AT THE GLOBAL LEVEL

As the nature of illicit trade differs according to commodity, its industry, and the interests of key stakeholders, the solutions required to combat it differ. Some commodities are more suited to coordinated efforts, including those with a humanitarian or moral imperative (the greater the harm, the greater the imperative to act).

Yet there is considerable divergence on what goods should be prohibited, pronounced differences in quality standards, and issues of property rights and penalties, often occurring as fault lines between developing and developed economies. The harmonization of laws and the coordination of enforcement efforts benefit from a global approach. Segmented approaches do not consider the problem's interconnectedness nor points of convergence.

2 BE CONTEXT SPECIFIC AT THE LOCAL LEVEL

The illicit economy reality from one locality to another can differ sharply. Knowing the local context and finding solutions and innovations that are tailored to that local context and that account for the perceptions, attitudes, and impacts on the local population is important. A clear understanding of the underlying causes, political dimensions, and network structures of illicit trade, as well as the links between national and local power holders, will support the design of effective strategies and programs to counter illicit trade. Citizens' views on acceptable and intolerable practices matter and must be considered, and perhaps moderated, if interventions are to be achieved.

In many developing economies, the state is unlikely to be a trusted interlocutor. Criminal groups providing the commodities may have a higher degree of legitimacy in some localities than the state. Civil society may be a better spokesperson and communicator than the state.

3 CONSIDER THE OPERATIONAL IMPLICATIONS

Developing countries have operational challenges, which may undermine illicit trade solutions, ranging from inability to bear financial costs to poor connectivity and infrastructure, and low staff skill sets (e.g., technology familiarity). Poorly designed or overly complex solutions may hinder progress. For example, many systems are not set up for consumers and end users, require specialized technology, or produce data that users cannot process in a meaningful way. Although officials can face an overwhelming number of different systems, integrated systems can offer unified platforms for interoperability across scanners, handheld devices, and information systems. Overlapping jurisdictions offer a fundamental challenge: disentangling, simplifying, and coordinating agencies' use of solutions ought to be prioritized.

4 PLAN FOR INDEPENDENT OVERSIGHT

Governments need to plan for independent oversight. Although there are several options, effective oversight mechanisms generally need three things:

- Independence: The ability to operate free from the influence of the parties they are monitoring, as well as from political interference;
- Resources: The financial and human resources to properly perform their function—to visit sites, to investigate, and to issue public reports;
- **Power:** Some capacity for enforcement, including

publication of credible reports to leverage public opinion, plus the support of a criminal justice or financial penalty process to sanction contravention.

5 TARGET COMPREHENSIVE REFORM, NOT QUICK FIXES

Broad and holistic strategies are required to respond to what is often a global challenge, not just a regional or national one. Solutions are unlikely to be successful in isolation, and fragmented approaches are more easily undermined. Ideally, interventions (including technological interventions) are combined with other economic, social, governmental, and enforcement activities.

Responses need to address: corruption fueled by illicit trade, underworld links between industry and individuals, the broader costs to the state due to illicit practices, and stopping misinformation about illicit trade.

Policy makers' agenda should be about coalition-building: step-by-step approaches to overcome one vested interest at a time. Doing so might enable a "state on the cusp" to avoid one possible outcome of big bang comprehensive reform efforts, which is the potential for powerful opponents to coalesce quickly against an overt and aggressive agenda, thereby killing it.

1 introduction

he illegal production, movement, or sale of normally legal goods is a serious and growing threat to society and the global economy. These activities encompass several crimes, including smuggling (the illegal movement of legal goods), trafficking (the illegal movement of illegal goods such as counterfeits), and counterfeiting (the illegal copying or falsifying of legal goods, often at a lower standard, so that they appear to be licit goods). The ramifications of this enormous category of global illicit trade are enormous, ranging from the expansion of organized crime and the financing of terrorist groups to rising corruption to endangered public health and welfare to increased state fragility. Meeting the challenge will require a coordinated and transnational response, with emphasis placed on how lower-capacity jurisdictions in the Global South that are on the front lines of this global trade-"states on the cusp"—can overcome this problem.

This report provides an analytical framework for understanding this form of illicit trade in order to provide a means for raising this issue up the policy priority chain and thereby to promote more effective solutions. Those solutions must include coordinated policy responses across different levels of governance in cooperation with civil society and those actors within the private sector who both possess levers for countering such trade and who want to diminish the illicit economy. (As this report outlines, it is not a given that all private sector actors are interested in shrinking this form of the global illicit economy; on the contrary, some private sector companies participate in and profit from it.) Moreover, in a technological age, the application of technologybased solutions must be a part of the solution set, although here too there are complex contexts in which such solutions must be applied.

This report is the result of nearly two years' worth of research. During its final production stages in the summer of 2020, the coronavirus pandemic was reshaping the global economy, its politics, and its societies. The pandemic throws this document's central theses and recommendations into stark relief, making its arguments more urgent rather than less. Perhaps most significantly, the pandemic may strengthen transnational organized criminal groups. Such groups may target the health sector, taking advantage of desperation and disinformation to peddle counterfeit, stolen, or adulterated pharmaceuticals, including via online platforms. Such activity likely will worsen an existing challenge for governments the world over (and most especially states on the cusp), which is an already low trust in institutions and governance. Governments will not only have to find ways to counter a tide of disinformation about the pandemic, they will be forced to reckon with a quite possible loss of public confidence in themselves given the pandemic's health and economic impacts and the thus far limited capacity of governments to cope successfully with either.¹

The coronavirus pandemic, therefore, might have an enormous negative impact, increasing illicit trade insecurities that are the subject of this report. Security will be undermined if, during and after this pandemic, criminal groups find that they can engage in more illicit exchange through more pathways. There is considerable risk that states on the cusp will be more compromised owing to either increased official corruption or a distracted state regulatory and enforcement environment, or both.

However, at the same time there is some prospect that the pandemic will result in more positive outcomes. One of these is the possibility that, given the pandemic's fiscal impacts, governments will be looking for new and increased sources of revenue. As per this report's findings, improved collection of taxes on trade in oft illicitly traded goods (known colloquially as "sin taxes" on cigarettes and other products), if properly designed and utilizing technology appropriately, can be an important source of revenue for the state and powerful disincentives to this trade.

There is **no single, universally accepted definition of illicit trade**. Some organizations have used the term almost synonymously with that of organized crime (another term similarly difficult to define).² For example, the Economist Intelligence Unit (EIU) has included drug trafficking and human trafficking in its definition of illicit trade.³ INTERPOL has used a narrower definition, focusing on fake and pirated goods in its illicit trade program.⁴ And the World Health Organization (WHO) has defined illicit trade as "any practice or conduct prohibited by law and which relates to production, shipment, receipt, possession, distribution, sale or purchase [of product], including any practice or conduct intended to facilitate such activity."⁵

This report's purpose, however, is not to examine what might be termed "underworld" or "dark" markets such as the trade in illicit drugs or trafficking in human organs, although these markets have crossovers with the licit economy. Rather, its focus is on legitimate goods that governments regulate for safety, copyright protection purposes, or for collecting customs revenues. What is common across these categories is that these goods are illegally traded across national borders. For the most part—with the notable exception of counterfeit goods which are produced illegally, and thus trafficked—the illicit trade discussed in this report concerns goods that are otherwise legal.

This document maintains that one of the central challenges of our time, one that is growing year on year, is how to manage normally **legal goods, traded illegally** across national boundaries. As noted, for our purposes this includes goods which may be passed off as legal, even though they are counterfeited, and hence are being traded illegally even if they are placed in legitimate supply chains.

Through smuggling, counterfeiting, and tax evasion, governments are losing billions in tax revenues, legitimate businesses and economies are being undermined, and consumers and society are being exposed to poorly made, fraudulent, and unregulated products. With almost every product in the commercial spectrum being included-everything from medicines, household goods, food, tobacco, alcohol, cosmetics, toys, electronics, mechanical and agricultural equipment to luxury goods-the scope of this problem is vast and underappreciated. Despite being estimated as the single most lucrative form of transnational organized crime, the illicit trade in otherwise licit goods is often overlooked, underreported, or even dismissed as being a largely victimless crime. This trade, therefore, is viewed differently than narcotics trafficking, sex trafficking, or crimes against the environment like poaching, logging, and illicit fishing. Countering illicit trade in licit goods is often a low priority for governments and those responsible for law or trade enforcement.

This characterization of the problem is gravely misleading and even dangerous. Illicit trade is not just a bureaucratic regulatory challenge. It is not just a matter for customs, excise, and borders. And it certainly is not, as some have argued, a Robin Hood-esque global redistribution mechanism that provides a means for those less wealthy to access goods that are priced out of their reach. Rather, this trade causes serious erosion of public well-being and public trust ininstitutions. It impacts quality of life, governance, and the environment.

Ironically, illicit trade may be the result of government policies, if established for good reasons: most notably the subsidization of the domestic price of basic commodities (such as oil, flour, and sugar) creating the incentives for large-scale smuggling economies. One consequence is the corruption of officials along borders as smugglers seek to facilitate the movement of commodities. Examples include the smuggling of sugar between Kenya and Somalia, and the smuggling of fuel and flour from Libya to its neighboring states.

While the causes of individual smuggling markets may differ, illicit trade is a serious development threat.⁶ As with many transnational threats, illicit trade's impacts are most severe in

developing economies and on vulnerable populations. Trade flows (both licit and illicit) are increasingly crossing countries and communities where the capacity for regulation and intervention is low, but the risks to people are high. These jurisdictions make responses exponentially more challenging as they undermine many solutions usually applied to supply chain regulation.

1.1 ILLICIT TRADE AS A GLOBAL CHALLENGE

1.1.1 What are the estimates of the scale of illicit trade globally?

Illicitly traded goods can be found in almost every country in the world, and in virtually all sectors of the global economy. Estimates of the scale of illicit trade, while never an exact science, using different calculation methods and covering different commodities and geographies, are all nonetheless consistently vast. For example, a 2019 Organisation for Economic Co-operation and Development (OECD)-European Union Intellectual Property Office (EUIPO) report estimated the worth of counterfeit and pirated goods alone at \$509 billion or 3.3 percent of total world trade—a more than 10 percent increase over an estimate done only three years prior.⁷

The International Chamber of Commerce (ICC) attempted to factor in domestically consumed and traded goods, as well as pirated digital products, resulting in an estimate around \$1.3 trillion in 2015.⁸ Counterfeiting could be worth as much as 7 percent of global trade. The problem is accelerating at a faster rate than the global economy itself.

It is interesting, therefore, that while the global fight on the war on drugs generates investment by the international community in excess of \$100 billion a year, the level of commitment to ending illicit trade is negligible, and there is no whisper of a global war on international property theft.⁹

1.1.2 Why is it important?

These dollar values do not speak to the indirect impacts of these vast illicit flows. For example, illicit trade includes counterfeit medicines, which as a criminal market is estimated to be worth \$30 billion (one third of the value of counterfeited goods).¹⁰ The WHO estimates that counterfeit medicines could be responsible for more than one million deaths a year. Perhaps as much as one in 10 of all medical products used in low- and middle-income countries fail due to fake, substandard, or fraudulent medications, or due to criminal actions.¹¹

Counterfeiting for foodstuffs and drinks also occurs at a vast and underestimated scale. A 2006 study in the United Kingdom, a country that claims to "benefit from some of the safest and most authentic food and drink in the world,"¹² reported that some 10 percent of UK food could be contaminated.¹³ Subsequent reports suggest that this is a phenomenon that has been accelerating.¹⁴ Nor is the UK unusual. In early 2019, 100 people in India died after consuming illicit, adulterated alcohol.¹⁵ Similarly, another 100 people died in Indonesia in 2018 after consuming illicitly produced alcohol.¹⁶

Health, personal care products, and consumer electronics also carry health and safety risks. US law enforcement have seized counterfeit equivalents of contact lenses, prophylactics, and various creams, all of which could be dangerous for skin or eyes. Some electronic goods, with substandard batteries or flawed wiring, bring heightened risks of causing fire or burns.¹⁷

Illicit trade damages the legitimate economy as well. By circumventing the rules and regulations that apply in the marketplace, and by enabling unfair competition on price and quality, illicit trade undermines legitimate firms. As consumption moves to the illegitimate economy, production and employment within the legitimate economy are harmed, with secondary impacts on supply chains, while generating a lack of respect for the rule of law. One study estimated that approximately 2.5 million jobs may have been lost due to counterfeiting and piracy.¹⁸

Furthermore, the profits from illicit trade flow toward unscrupulous companies and organized crime groups amplifies the negative externalities. There are thus connections between illicit trade and other forms of organized crime and even terrorism.

1.1.3 Methodology and objectives

This report's conclusions are drawn from contemporary field research for two case studies—on tobacco in Southern Africa and counterfeit pharmaceuticals in Central America—as well as 20 key informant interviews with leading thinkers and policy makers analyzing or working on countering illicit trade. Interviewees included representatives from law enforcement, relevant international community organizations, the private sector, and academia. Information gathered during the field research and interview process was supplemented by desk research.

Typically, policy makers' approach to the illicit economy is to assess the problem's scale and to work out how to interdict or stop it. These methodologies rely heavily on discerning patterns from records of seizures of illicit products.

Simple summaries of seizure data, however, such as how the total number, or weight, of seizures changes over time or differs between countries, do not provide an accurate description of the illicit trade. Seizures do not represent a random sample of illicit transactions. Instead, they represent the dysfunctional part of the trade and are an intervention in the trafficking process. Seizures of illegal goods may lead to traffickers changing their storage locations, networks, trade routes, and methods of concealment and transportation.

By contrast, the intention of this study is to propose a development-centric means by which to understand illicit trade and the impact that it is having by mapping and analyzing the vested interests of the stakeholders in each illicit market and their interrelationships with each other and the illicit market itself.¹⁹

Four key stakeholders are identified here: corporations, governments, consumers, and organized crime. This report examines the roles and responsibilities each stakeholder group has, and the interests and obstacles they may have to prevent (or not) illicit trade. The report also takes a disaggregated approach to the different forms of illicit trade commodities, assuming and understanding that these have different characteristics which cause them to interact differently with their enabling environment. This required taking a typology of the most common illicitly traded commodities.

The report finally proposes a set of recommendations that are calibrated to the level of capacity and development of the states in question, including how technology might contribute to the solution set.

1.2 WHY FOCUS ON DEVELOPING ECONOMIES?

In the future, developing countries might both enjoy high economic growth rates while also experiencing the distorting effects of increased illicit trade. Developing and middle-income economies are increasingly important players in the market for illicitly traded goods. Growth in their illicit economies make them vulnerable to corruption, damages their development trajectories, and ultimately increases the fragility of both state and society. That makes these economies—the states on the cusp—a critical focus for interventions that seek to regulate illicit markets.

Analyzing the extent of "development" in any economy is based on an assessment of where the state is positioned to achieve broad-based development gains.²⁰ Developing economies largely fall short. For the international trade community, which tends to assume that a drive toward trade and concomitant economic growth are necessarily and causally a positive development phenomenon, this is an important message.²¹ The past two decades have shown that greater economic integration, trade, and the infrastructure investments that have underpinned this growth and brought new countries into the global economy have often come with a dangerous and damaging undercurrent.

Global transport networks provide a case in point. The containerized shipping industry is unquestionably a major

driving factor in global trade, but the sheer volume of this industry presents organized crime with an ideal opportunity. Similarly, steady advances in the commercial passenger and cargo aviation sector have contributed to an industry that recorded more than 39 million flights in 2018 and has a worldwide fleet estimated to be in excess of 25,000 aircraft. More than four billion passengers flew in 2018. Industry analysts estimate that this number will likely double by 2037.²²

While standards for both the marine and aviation transportation sectors have increased substantially since the turn of the millennium, there are large areas of vulnerability and inconsistent application. Organized crime continues to exploit these sectors and expand operations to take full advantage.²³

A subset of the states on the cusp are those states that are both important sources of highly sought after global trade resources, and in situations of acute, protracted conflict. These countries are sometimes referred to as "fragile" states in the policy literature.

Several such states constitute hubs of the global illicit economy, characterized by weak governance or with a strong presence of organized crime.²⁴ Here, "institutions are weak, social capital is low, the economy is informal, crime and corruption are high and the capacity to absorb external aid is severely constrained."²⁵ These states also suffer from a lack of leadership and political will to address the illicitly traded goods challenge, lower capacity to discourage the supply and demand of such goods, and reduced ability to effectively control their borders and to put in place enabling frameworks.²⁶

Corruption runs rampant in fragile states. Corruption structures are often vertically integrated, where institutional distortions travel in both directions: payments at the street level can lead to the highest echelons of the state, either because government positions are purchased or because a proportion of bribes is consistently paid to superiors up the chain of command. Kleptocratic regimes can poison all aspects of society, blurring lines between politics, crime, and business, and perverting the functions of state institutions, or deliberately weakening them to ensure that they will not pose a threat. This is often targeted at law enforcement and regulatory bodies, the latter because they offer the ability to allow the state to control revenue flows.²⁷

Fragile states also struggle with capacity for effective regulation and oversight because of their large informal economies. Developing economies account for the overwhelming majority (93 percent) of informal employment, reaching 86 percent of all labor in Africa and 68 percent in Asia-Pacific and the Arab states.²⁸ Without effective tax collection systems, or the capacity to regulate trade and economic activity across borders, the scope for illicit trade expands and responses are undermined. Such states attract a large share of the world's illicit trade. As an example, a flagship publication by INTERPOL, RHIPTO, and the Global Initiative Against Transnational Organized Crime (GI-TOC) found that more than one thousand smuggling routes for illicitly traded goods intersected with conflict zones, and in those zones, the extraction of environmental resources (including hydrocarbons, minerals, metals, and other nonrenewable resources, flora, fauna, and fish) was the single leading source of conflict financing, worth in the region of \$22.8 billion to \$34 billion.²⁹

1.3 TRENDS IN GLOBAL ILLICIT TRADE

Illicit trade supply chains, just like their legitimate equivalents, span the globe and have multiple interconnections to licit and other illicit markets. Illicit trade arises in any context and on any commodity where there are profits to be made or costs to be saved by acting illegally, where demand exceeds supply or there is no licit supply at all, and where the expected returns are greater than the risks or penalties involved.

National-level data and analysis, based largely on seizures and investigations into illicit trade, reveal three key weaknesses in the global capacity to regulate and control supply chains.

1.3.1 Online sales

First, online markets for the sale of a wide variety of products connect vendors to consumers in a direct, discreet, and often anonymous fashion, boosting trade in small quantities. These markets negate much of global trade's regulatory capacity, which is mostly targeted at large-scale infrastructure trade nodes.³⁰

Growing Internet connectivity rates are fundamentally changing the nature of consumer behavior. In 2016, 58.3 percent of global Internet users had made a purchase online; in 2019, this is expected to reach 63 percent.³¹ Worldwide e-commerce sales are expected to reach over \$4 trillion in 2020.32 Illicitly sourced, counterfeit, and otherwise licit goods traded illicitly can be found on large, web-based retail platforms and on independently hosted sites. Social media plus interpersonal encrypted messenger apps also have become new platforms on which such types of illicit trade are facilitated and transacted.³³ The US Government Accountability Office (GAO) found an extraordinary prevalence of counterfeit goods online: 43 percent of the items purchased by the GAO in a random sample test of third-party sellers were counterfeit.34 (Recall that although counterfeit goods are illicit goods, by definition counterfeits are designed to closely resemble licit goods so as to fool the consumer.)

Illicit trade also takes place via the dark web, though at a much smaller scale. According to an analysis of dark net markets



Aerial view of the Colon Free Trade Zone, Panama, one of thousands of such zones worldwide. FTZs typically have more lenient regulatory and enforcement mechanisms, making it easier to engage in illicit trading practices. Source: Wikimedia Commons

done between 2013 and 2015, illicit trade in prescription drugs represented around \$5 million, and some luxury goods (presumed to be counterfeit) represented less than \$1 million.³⁵ However, more recent studies have shown that illicit markets on the dark web are growing. While drugs remain the primary product sold on the dark web, it is assumed that all markets are growing similarly.³⁶

1.3.2 Shifts to small-scale distribution

Second, the increasing rates of e-commerce, both on the surface and the dark web, have led to a massive acceleration in the small-parcel delivery sector: parcel shipping volumes have grown by 48 percent across thirteen major global markets between 2014 and 2016, and further growth between 17 percent and 28 percent is projected for 2020.³⁷ This is one of the most prevalent of the emerging trends in the counterfeiting space, and across all forms of illicit markets.³⁸

A joint operation between INTERPOL and the World Customs Organization (WCO), Operation Pangea XI, a 2018 global effort to target counterfeit medicines online, inspected more than one million packages in just one week, resulting in the seizure of more than 500 tons of illicit pharmaceuticals. Notably, the global policing body observed a distinct shift in modus operandi from the previous ten such operations: packages had become smaller, with less pills and tablets, in order to avoid detection.³⁹

A University of Oxford study of drug markets on the dark web suggests that online platforms enter only at the last stage of the supply chain process, not at the point of sourcing or production, but closest to where the consumers are.⁴⁰ Without relevant research, we cannot know if this holds true for surface market e-commerce platforms or for other types of illicit trade commodity. However, it suggests that most goods are still being moved via traditional methods along their supply chains, and it is only at the point of sale and interaction with the consumer that online markets come into play.

If the above point is true, then there are still significant returns to be had targeting interdiction efforts to earlier points along the supply chain. A major problem is at the goods production site: if products are under-declared, improperly declared, or counterfeited, then downstream facilitators such as smallscale distribution becomes far more relevant. If, however, distribution is based on legitimate production (including appropriate taxes paid), then the incentives that online and small-scale distribution provide (low price, for example) are reduced. Therefore, interdicting along the entire supply chain from production to consumption is crucial.

1.3.3 Free trade zones

Third, regarding the traditional trade and trafficking routes, free trade zones (FTZs) have emerged as one of the greatest challenges to the enforcement of illicit trade. In 2010, the Financial Action Task Force (FATF) found that there were approximately three thousand FTZs in 135 countries around the world, with a total turnover of billions of dollars.⁴¹ Run both by governments and the private sector, FTZs are more lenient regarding tariffs, financing, ownership, taxes, transparency requirements, and other regulatory measures. In some cases, particularly in developing economies in Asia and the Middle East, FTZs also include manufacturing hubs that employ millions of workers in secondary and tertiary production, from high-tech sectors, automotive assembly, chemical processing, and the garment industry. But this reduction in oversight also enables criminality.42 An OECD/ EUIPO study found that each additional FTZ within an economy results in an associated 5.9 percent increase in the value of "problematic exports," as well as a clear correlation between the value of fake goods exported and the number of firms operating in FTZs.43

In the OECD/EUIPO report mapping the routes of fake goods, in all ten markets studied, China was the primary originating country for that illicit trade.⁴⁴ FTZs have played a particular and important role in the growth of Asian economies, with China in turn playing an important role in their spread across the continent.

China's Belt and Road Initiative (BRI) is a generational investment into infrastructure by the Chinese government. Overall, the BRI has made more than 1,700 investments in the development of port and land infrastructure, including trains and roads, in Asia, Africa, Central Asia, and in the Americas. The BRI has some 113 different forms of free trade agreements, including export processing zones, free ports, and FTZs placed across the world. These allow China to both promote trade with key partners and under preferential conditions, and also to "anticipate and participate in the formulation of rule and standards on trade and tariff conditions."45 One possible consequence is an enormous rise in illicit trade: key BRI corridors include, for example, the China-Pakistan corridor, or the Bangladesh-China-India-Myanmar corridors, which increase connectivity and reduce monitoring capacity along some of the most critical hubs of the illicit economy.

FTZs also provide a crucial gateway to move potentially counterfeit products from the developing world into their typical final marketplace. There are more than fifty such FTZs in Europe alone, both in European Union (EU) member states and in their contiguous neighbors, and more than a hundred in the continental United States. These are a clear soft spot for the entry and storage of illicit commodities.⁴⁶

There are multilateral initiatives spearheaded by the international community's technical bodies [e.g., the WCO, the World Trade Organization (WTO), the International Chamber of Commerce (ICC), and INTERPOL], that are underway to improve regulation in FTZs and to find means by which to compel individual nations to strengthen their oversight and enforcement in these zones. However, the relatively low rate of signature to the Revised Kyoto Convention Annex D, which provides a standard set of regulations for FTZs, is more indicative of political will to effectively address the problem.

2 political economy of illicit trade

This section examines four main stakeholders in illicit trade:

- i. Governments: Governments have full responsibility for setting the framework for trade and its legitimacy. They decide what falls within, and outside, the boundaries of the economy; which practices are legal and which illegal; and which commodities are licit and which illicit. They use the instruments of trade and regulatory policy to demarcate those boundaries, to shape markets, and to promote or suppress actors within those markets. Regulatory bodies, the criminal justice system, the tax authority, and law enforcement are implementation arms of their regimes.
- ii. Corporations: The private sector and individual businesses, both as the intellectual property (IP) holders of commodity license, as well as often being the conduits by which the movement of goods is controlled and the entry of product is overseen, have the primary responsibility for ensuring the verifiability of their supply chains and compliance with national and international regulations.
- iii. **Consumers:** Consumers are a pivotal actor in illicit markets. Whether they are witting or unwitting consumers of illicit commodities, the level of awareness, tolerance, and reporting of those who purchase counterfeit goods and engage in illicit markets can have dramatic impacts on whether the market will thrive or subside.
- iv. Organized crime groups: These are actors with no legitimate businesses and who operate entirely illegally with the intention of maximizing profits. Clearly, there are many points in the supply chains of legitimate industries where organized crime groups can become involved in illicit trade, as well as coordinating their own end-to-end criminal enterprises.

These four stakeholder groups are not entirely distinct from one another. The groups span legitimate society and the criminal underworld, as well as many shades of gray in between, and interact at multiple points along supply chains.⁴⁷ In some cases, actors fall into multiple categories: politicians and civil servants can own companies, and use their official positions to promote the interests of those companies; both businessmen and political actors skirt the law, but also ally with criminal groups to find violent means to influence market dynamics, or to access funds or markets that would not have been available to them otherwise. The nexus between business, politics, and crime is a feature of the geopolitical landscape that has been accelerating over the past two decades. $^{\rm 48}$

The impetus for controlling illicit trade can come from any one of the legitimate stakeholders in this analysis (excluding organized crime). It can come from governments, which set binding goals and regulations that industries must follow, enforcing them with compliance and verification schemes as necessary. Industry bodies and individual corporations can design their own integrity schemes and cooperatives to attempt to strengthen industry regulations. And consumers can demand higher levels of integrity and consumer confidence in the supply chains, voting with their wallets, and through the bully pulpit of public opinion via civil society activism, the news media, and social media.

2.1 GOVERNMENTS

The numerous branches of government and the state have active and important roles to play in the fight against illicit trade. However, these roles are not always aligned, let alone properly executed. There are sometimes inherent institutional contradictions between, say, those in public health who may prioritize reducing demand for harmful commodities, to the treasury and customs and excise divisions of the state seeking to maximize revenue from that trade. There may also be ideological differences within and among government ministries.

Leadership, which should have been derived from a free, fair, and inclusive democratic process, should provide a consistent and coherent vision for the country, its policy and legislative framework, and its budget allocations, aligned to the best interests of its citizens. However, the reality in many developing economies is that the quality of democracy and democratic participation falls short, leadership shows limited interest in achieving inclusive development, and the frameworks of governance, integrity and the capacity of state institutions are too limited to fulfil the functions for which they were designed.

2.1.1 Political will

Stark evidence of illicit trade practices, where certain groups profit from the neglect of the broader population, often means that governments "actively neglect illicit practices in order to continue reaping the economic benefits."⁴⁹

The establishment of FTZs, tax havens, or other underregulated jurisdictions are active strategies deployed by governments to attract trade, investors, and revenue. Yet FTZs also facilitate illegal and criminal activities, such as trade in counterfeit and pirated products,⁵⁰ and they reduce the role of the government in the governance of trade, customs, and excise.

2.1.2 Legal regulation

Penalties and sanctions are key deterrents for illicit actors.

Illicit trade in licit goods often falls within the framework of civil sanctions regimes rather than criminal law, leading to lower penalties and reducing the law's deterrent potential. There are merits to both civil and criminal laws used as policy instruments in the fight against illicit trade as civil administration typically requires a lower burden of proof that can be carried out quicker and at lower cost than criminal cases. But while civil cases allow the possibility for restitution to the victims of illicit trade infringement, they do not open the door for wider investigation of criminality or prosecution for other crimes such as money laundering.⁵¹

The United Nations Transnational Organized Crime Convention (UNTOC) is the overarching international legal framework for responding to organized crime. Despite being one of the most highly ratified international instruments, with 190 states parties and 147 signatories at the time of writing,⁵² the convention has several well-documented challenges. The most pertinent is the lack of a review mechanism to monitor implementation-the extent to which the convention's provisions are being translated into national law and are facilitating international cooperation against transnational organized crime. While a review mechanism was approved at the last UNTOC Conference of the Parties, its absence for more than two decades has left a gap in knowledge regarding the convention's implementation.⁵³ In relation to developing economies, UNTOC as an effective legal instrument is weak. A review of African legislation for compliance with UNTOC provisions found that while laws proliferated, most fell short of meeting UNTOC criteria.54

There are other commodity-specific frameworks to counter illicit trade, for example, the WHO Framework Convention on Tobacco Control (FCTC), the WTO Agreement on Trade-Related Aspects of International Property Rights (TRIPS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Regional bodies such as the European Union (EU) further add sets of legal conventions in certain areas. For example, the Council of Europe has promulgated the MEDICRIME Convention to combat the counterfeiting of medical products.⁵⁵ None of these measures consider the synergies across different illicit markets and the infrastructure that enable them. Over the past decade, this framework has grown significantly more complex and comprehensive, now covering aspects of supply chain regulation, money laundering, bribery and corruption, and criminal financing. This includes some pieces of national legislation that have had far-reaching transnational implications, including most notably the United States' 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act, which presented new restrictions on financial institutions and requirements on ethical supply chain sourcing. While legislative instruments can prevent corporate crime, when industries are victims of crime rather than the perpetrators, the legal frameworks for things like intellectual property theft or copyright infringement fall short.⁵⁶

The WTO Trade Facilitation Agreement (WTO TFA), ratified in 2017 after almost two decades of drafting and negotiations, has been a landmark in supply chain legislation. The agreement aspires to boost global trade by \$1 trillion a year through standardizing supply chain procedures on a global scale and streamlining customs procedures.⁵⁷ The overall goal is a reduction in physical inspections of goods along borders.

The WTO TFA includes an "agreement facility" that was designed to provide financial and technical assistance to lesser developed countries for implementation. Three years after its ratification, the WTO TFA is offering promising initial results, but underfunding is preventing more widespread implementation. According to the Global Alliance for Trade Facilitation's *2018 Annual Report*, the implementation facility has received only \$14.04 million in investment for trade facilitation, plus a further \$3.88 million in in-kind contributions from the private sector.⁵⁸

Despite this growth in legislation, there is little evidence of their effectiveness as regulatory frameworks. A 2016 EUROPOL study estimated that the rate of criminal asset recovery globally was a mere 1.1 percent of total criminal profits.⁵⁹ This despite weighty and expensive regulatory bodies being in place to prevent illicit financial flows, for instance the FATF.⁶⁰

In general, stricter regulations drive illicit practices deeper into the underground, paradoxically making it harder for states to enforce.⁶¹ (This observation is empirical and should not be interpreted as an endorsement of lax regulatory, oversight, and enforcement environments.)

2.1.3 Law enforcement

Countering illicit trade presents several law enforcement challenges. Accelerating technological innovation, faster transactions, and globalization all have increased the number and speed of global flows of everything: physical cargo, capital, labor, people, goods, services, ideas, images, and data. Moreover, these flows are frequently directed by actors that fall outside of traditional national frameworks, working transnationally via multinational corporations, media companies and social media platforms, as well as criminal organizations.⁶² There is a growing tension between the increasingly transnational nature of flows and the quintessentially national nature of policing.

Fundamentally, the nationally bounded framework of law enforcement struggles to build linkages to address transnational threats. Police cooperation frameworks such as INTERPOL or the regional policing bodies exist to facilitate this. A lack of trust can undermine the required intelligencesharing and cooperation. The problem is particularly acute between developed and developing economies.⁶³ There is a clear disconnect between legal frameworks and the capacity of law enforcement. A critical analysis of the relevance of UNTOC for law enforcement acerbically observed that it "is far from evident that police forces around the world see UNTOC as a useful tool or are even aware of its existence."⁶⁴

Illicit trade is often a low priority for law enforcement organizations—in some cases it is seen as an essentially victimless crime. It falls behind priorities such as responding to terrorism or other active threats to public safety and security. This reinforces the perception that illicit trade activities are a low-risk, high-reward opportunity for organized crime.

The blur between state and corporate responsibilities and the growth of secrecy jurisdictions and FTZs compromise the ability of national governments to use their law enforcement capacities in a proactive and effective way.

The uneven and confusing legislative landscape exacerbates jurisdictional challenges; online markets and ineffective cyber legislation make these even more acute.⁶⁵ Even the most advanced economies struggle to deal with sophisticated online and Internet-enabled crime,⁶⁶ or with constant operational innovations by criminal groups.

Enforcement needs to happen not just at national boundaries as goods enter, but where illicit commodities begin their journeys.⁶⁷ This increases the emphasis on effectively engaging developing economies, particularly the BRICS (Brazil, Russia, India, China, and South Africa) countries, given the pivotal role that they play in global illicit trade flows (as discussed in Section 1.2). If the fight against illicit trade is to be effective, then developing economies must play an equally important role in enforcement and in developing governance strategies to counter illicit trade.

To achieve this, countries are increasingly focusing security capacity both upstream and downstream along their major trade and supply flows. Policing liaisons, placed in embassies around the world, blur the line between diplomacy, trade and security, foreign affairs, and domestic affairs.⁶⁸

2.1.4 Financial regulation through tax policy

Fiscal policy is a major lever used by governments to address policy challenges. "Sin taxes," often placed on liquor and tobacco, increase product prices so as to reduce demand for products that damage health. Some countries have also embraced sin taxes as an attractive revenue source, occasionally linking them directly to spending on public health programs.⁶⁹ Specific to tobacco, for example, there exists a proposed sevenfold excise tax increase on tobacco in order to meet the WHO Framework Convention on Tobacco Control and Sustainable Development Goal (SDG) targets of reducing tobacco use prevalence by 30 percent by 2025.⁷⁰

However, sin taxes imposed without effective enforcement and controls also increase criminals' profit potential. The demand for criminal-traded products to circumvent taxes and ensure lower-priced products, whether stolen, counterfeited, or substandard, rises. As an example, in the early 1990s, the Canadian government imposed a massive tax increase on cigarettes. Within a year, between 30 and 60 percent of all cigarettes smoked in Canada were estimated to be smuggled in by criminal groups.⁷¹

One of the challenges, as noted by the Drug Policy Alliance, is calculating the appropriate rate of the sin tax and the time period for imposition.⁷² There can be unexpected side effects. Prohibitive regulation of alcohol in Indonesia prompted a surge not only in the black market for alcohol, but also in overall consumption rates of cheap, poor quality alcohol. Indonesians drank five times more illicit alcohol than legally purchased alcohol, with the death rate from alcohol consumption rising threefold after the 2015 ban due to the poor quality and wide availability of illegally produced alcohol.⁷³ Low capacity for regulation and oversight created additional vulnerabilities rather than addressing the intended threat.

Sin taxes imposed outside an effective framework, therefore, may create strong incentives for smuggling and the use of cheaper, poor quality products. Effective regulation can provide strong counter disincentives for use, but needs strong state support and capacity to impose and enforce it, supported by taxes.

2.2 CORPORATIONS

The role of corporations is critical in understanding why illicit trade exists and how it functions. The primary onus for responding to illicit trade typically rests with the industries involved.

The private sector is not a homogenous collective of likeminded entities with the same interests and motivations. Quite the opposite. Private sector companies are independent, competitive entities, and despite the presence of industry associations, chambers of commerce, and other bodies intended to provide collective positions, tools, and standards, they often operate with minimal trust and in a zero-sum environment. Threats to the industry must be truly compelling and universally experienced if they are to prompt a collective solution.

Understanding the distinction between private sector actors that are producers and those that are conduits is important. Each have different roles to play, and face different challenges, though legislative and policy frameworks often fall short of achieving such nuance.⁷⁴

The producer category includes companies and industries whose products and supply chains are compromised by illicit trade. These encompass a range of businesses, from those that use primary products that might have been sourced illicitly to those whose products are regularly counterfeited, or those which have failed to provide the proper regulation to prevent substandard goods either being produced in their own production lines or diverted along their supply chains. Some producers may concern themselves only with maximization of production, taking little interest in the subsequent routes of those products to consumers. Some may even actively seek to under or mis-declare production so as to avoid paying taxes.

Conduit businesses are those that in some way facilitate illicit trade. Some support the physical movement of illicit commodities (e.g., shipping companies or "express carrier" shipping services). Others facilitate the individual payments and the laundering of the proceeds of illicit trade. Still others provide logistic capacity and communication systems or (frequently online) marketplaces and platforms through which consumers procure counterfeit goods.

The conduit business category includes firms that finance, own, and manage key points of critical infrastructure. There is a rapid growth of privatization of the infrastructure assets of trade, transport, and utilities production and distribution. Those that control them have the capacity to enhance or reduce the capacity for effective regulation of supply chains and, overall, for keeping those assets secure. Such assets are vulnerable to physical and virtual targeting.⁷⁵

The private sector has much it can contribute to countering illicit trade. Corporations are uniquely well placed for "natural surveillance" either because of their own supply chain management or monitoring activities or because they provide the physical security and surveillance over key infrastructure points. Typically, corporations possess significant funding, and the revenue loss from the ongoing crime may be multiple times more than the cost of proactive engagement around prevention, oversight, and mitigation.

Surprisingly, there are few examples of successful public-

private partnerships against illicit trade.⁷⁶ Where corporations engage, it is typically limited to their own supply chains and short-term profits rather than a broader strategy.⁷⁷ Indeed, in developing economies, there is considerable evidence of multilateral corporations lobbying hard to weaken the regulatory framework rather than bolstering it. One example revealed that a tobacco company had spent \$24 million on opposing the introduction of health warnings on cigarette packets in Africa.⁷⁸

The question, therefore, becomes how to make the private sector a more responsible partner in this fight or, if this cannot be done, how to ensure it acts legitimately. There are some sectors where there is a closer natural alignment between corporations and their regulators-for example, in preventing counterfeit or substandard medicines. Brand holders want to protect their brand and profit margin from counterfeits, substitutes, theft, or diversion; governments have a strong interest in actively preventing the risks to public health. Regarding pharmaceuticals, consumers likewise want to ensure the efficacy of potentially lifesaving medicines. (The question of licit or illicit pharmaceuticals is dependent at least in part on national context as cheaper pharmaceuticals are sometimes produced and sold within countries that do not abide by pharmaceutical companies' patent claims.) By contrast, the tobacco industry struggles with finding the same concordance: cigarettes are subject to regulation, sin taxes, public health warnings, and efforts to reduce demand for their product.

Public strategies intended to address illicit trade and ensure compliance can, if they are not well designed, distort the market in favor of illicit actors. The cost of complying with regulations, or the application of taxation policies that penalize certain goods for their harmful properties—for example, sin taxes, but also taxes on industries that create potential environmental hazards—will fall heavily on compliant organizations, whereas criminal ones benefit from using noncompliance as part of their competitive strategy.⁷⁹

The penalties for violations of trade regulations, particularly on intellectual property, tend to be quite limited, are difficult to enforce, and have not generally served as an effective deterrent. Prosecution depends on political will and state capacity, and for states on the cusp the limitations are considerable. Most intellectual property prosecutions come through the EU and the United States with the coordination of INTERPOL or EUROPOL. These are targeted at their priority issues, not the poor or the vulnerable in developing economies who bear the bulk of harm. In the pharmaceutical case per the above, international patent law is not applied equally everywhere, which in turn means that there are ongoing disputes about who is legally allowed to produce and sell pharmaceuticals; these disputes can be between major multinational pharmaceutical firms and lower-cost producers located in the Global South.

Given the challenges of building robust supply chain controls to prevent illicit trade, in the past decade there has been a growing emphasis on how to address demand-side interventions. There are several key questions involving consumers in markets for illicitly traded goods, and the extent to which they are willing or knowing actors in illicit markets. Responses try to address these gaps and to build up consumers' capacity to accurately assess the potential legal, health, safety, and downstream risks.

2.2.1 Lack of awareness

The first set of responses is targeted at those illicit markets where consumers may be unaware that what they are buying is not genuine. In many cases, fake products infiltrate legitimate supply chains and are vended alongside genuine products by verified suppliers.

The rise of Internet marketplaces has increased this risk, as it facilitates counterfeiters who deliver their products on highly accepted and legitimate e-commerce sites. These platforms have taken the shadiness, or the sense of the criminal, out of shopping for counterfeit or illicitly traded goods, which makes people less sensitive to the signs of such goods and reduce the cues present in traditional, in-person vendors.⁸⁰ It is much harder to identify a fake handbag when one buys it online from a third-party reseller, particularly when it might be commingled with legitimate products, than purchasing it cheap in a small alley shop or market rather than an authorized, brand name shop. Social media has further worsened this problem. An investigation by the Washington Post found that popular social media channels are infested with bots promoting counterfeit brands, with about 20 percent of online items tagged as luxury goods being fakes.⁸¹ Larger brands may have the capacity to police the Internet to scan for counterfeits-Apple, for example, has a team of specialists who investigate points of sale globally to address counterfeits-but the vast majority of smaller brands do not have this capacity.82

Internet-enabled sales and social media remain a predominantly developed economy concern, given the low Internet prevalence in Asia and sub-Saharan Africa. Yet the McKinsey Global Institute projects that by 2025, Internet penetration will rise to 50 percent in Africa (from its current level of approximately 12 percent) and smartphone ownership will increase sixfold.⁸³ Our research into counterfeit medicines in Central America, however, shows that Internet sales are already a feature of the illicit trade landscape.

Even setting online sales aside, there are serious reasons to be concerned about consumer awareness in developing economies. At least for some products, the rate of counterfeit products in developing markets is far more prevalent than in developed economies, given the lower levels of regulation. In the counterfeit medicines field, some countries have a compliance failure rate of up to 80 percent for certain drugs like antimalarials.⁸⁴ And this data shows up in public health outcomes. For example, 80 percent of premature deaths from tobacco-related causes occur in developing economies, arguably owing at least in part to lower consumer awareness of risks.⁸⁵

If consumers are unable to distinguish between real and fake, or are unaware of the risks, they cannot protect themselves. Many demand-side interventions are thus targeted at:

- expanding awareness of available counterfeit or substandard goods, and accordingly the risks;
- improving consumers' ability to recognize real from fake goods; and
- distinguishing real sellers from those that should be suspected of supplying fakes.

Increasingly, having a verified buyer or seller profile and customer reviews has become the means by which norms on the Internet are reinforced. However, an estimated one billion people globally, including around 500 million in Africa alone, have no official way to prove their identity,⁸⁶ let alone create a verifiable identity online. This increases the chances of identity fraud, with illegal suppliers assuming false identities, and reduces the capacity of many technology-related techniques from being applicable in developing economies.

2.2.2 Aspirational, stigmatized, or illicit commodity

There are many reasons why a consumer might turn to purchasing goods from illicit markets, including price, shortness of supply, and status of the illicitly traded goods.⁸⁷ For example, a thriving cross-border trade in stolen fuel exists in many developing countries because of price and subsidy differentials and poverty. Illicit fuel is sold by crime syndicates, petty traders, and smugglers into communities which openly know its illegitimate sourcing.⁸⁸ An estimated 3.65 billion liters of oil are smuggled out of Iran every year, driven by significant government subsidies making it much cheaper than fuel in neighboring countries. As the richest 10 percent of the Iranian population benefits from the subsidy far more than the poorest 10 percent, the poor have incentives to facilitate illicit activity as a means of redistributing wealth.⁸⁹

Consumers of luxury goods are seeking goods that they cannot afford, but from which they derive a social value that outweighs the illicit risks. Increasingly, that cost-benefit analysis is tipping in favor of illicit traders as people perceive little harm emanates from buying counterfeit luxury goods and the capacity for enforcement is so minimal.⁹⁰ Online marketplaces have pushed this calculation further, reducing the risk of enforcement and violence, and offering a means to build up reputability for both consumers and vendors.⁹¹

A question, therefore, is how to address consumers who choose to be part of an illicit marketplace. The answer lies in increasing consumers' understanding of the harms and finding ways to empower and encourage them to report illicit trade. An obvious corrective is to increase the use of consumerbased technologies such as anti-fraud/anti-counterfeiting smartphone apps, which can empower consumers to anonymously report illicit trade, tag suspect goods, and geolocate places selling such goods. This problem, however, is most challenging in environments where the perception is that those who profit from licit trade do so illegitimately. Where elites operate with impunity, or marginalized populations feel that they are excluded from wealth, this perception can act as a self-justifier for consumers who knowingly buy from black markets to redress the balance toward the "have nots."

Illicit trade also exists in basic commodities, for example, lifesaving drugs, foodstuffs, and household goods. In the Central America case study (see below), the demand for affordable medicines drives a criminal market to provide counterfeit, substandard, and diverted drugs to typically poor and marginalized communities that are falling out of the social safety net.⁹² Here, the failure of the state to provide and promote poverty reduction policies will also need to be part of the solution. Illicit trade in addictive commodities, such as tobacco, alcohol, and certain prescription drugs, also requires addressing the sources of addiction.

2.3 ORGANIZED CRIME

Much as we have seen in the other three stakeholder groups, organized crime is equally diverse in its manifestations, motivations, and modus operandi. Organized crime is a concept that increasingly defies definition, though there have been a remarkable number of attempts—one researcher who keeps a running tally now includes more than two hundred distinct efforts to define it.⁹³ Organized crime groups are equally difficult to define. (UNTOC rather broadly defines an organized crime group as "a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this [United Nations Convention against Transnational Organized Crime], in order to obtain, directly or indirectly, a financial or other material benefit.")⁹⁴

Organized crime groups range from sophisticated white-collar criminals with advanced qualifications and skills to transport companies that moonlight in smuggling to rudimentary armed groups in violent borderlands extorting local businesses and taxing illicit trade. Such groups are flexible and able to build alliances and networks to find profitable opportunities. In 2015, EUROPOL predicted that the landscape of organized crime globally would be "increasingly dominated by loose, undefined and flexible networks."⁹⁵ Yet what may appear

undefined at a global scale can have great local legitimacy where these networks operate.

Criminal organizations play a major role in facilitating illicit trade, exploiting supply chain vulnerabilities, regulatory and legislative processes, and governance and market failures, regardless of harm, exploitation, or abuse. To quote the OECD/EUIPO study, "they have effectively transformed counterfeiting into a veritable illicit mass production and distribution enterprise involving extremely complex distribution networks."⁹⁶ Illicit trade is particularly attractive as a criminal enterprise because of its comparatively low risk and significant profits.

Organized crime groups are often noted for their versatility, creativity, and ability to adapt quickly to changing circumstances. This flexibility allows them to profit from the sale of illegal goods wherever there is demand.⁹⁷ However, like all markets, illicit markets have barriers to entry and competition. A street gang that has been active in tobacco smuggling may not have the knowledge, contacts, or inclination to shift to certain categories such as counterfeit medicine production or distribution. There can be challenges for organized crime groups to establish operations in new territories.⁹⁸

It equally may not be permitted for groups to enter new markets—in the Guatemala counterfeit medicines case study (below), for example, our investigation found no evidence that the groups involved in the production and sale of illicit pharmaceutical goods were also involved in drug trafficking, or vice versa, despite the fact that it may seem like a natural product extension.⁹⁹

2.3.1 Corporate crime

It is important not only to think of the thugs, gangsters, and militias that are typically associated with the term organized crime, but to broaden our understanding of the term. Those corporations that systematically act without ethics to evade regulations and taxation to build their business and grow their market share and that use corruption as a systematic practice to influence market decisions should also be considered organized crime. Distinguished criminologist Nikos Passas, whose work has focused on corporate crime and who was interviewed for this study, has concluded that "analytically, the corrupt activities of ordinary businesses and criminal businesses are indistinguishable."¹⁰⁰

There are important overlaps between corporate crime and organized crime, as well as state-corporate and state-organized crime. Relationships between the state, corporations, and criminal groups, via elites, are complicit in circumventing or distorting state resources for private gain.¹⁰¹ Corruption at all levels has been shown to be a substantial barrier to achieving effective responses to prevent illicit trade.¹⁰²

State-corporate crime acknowledges that the very nature of what is deemed legal or illegal, and, therefore, what behavior is deemed criminal, is often established around the priorities and desires of elites who turn the system to their benefit. Elites establish the rules of behavior, legality, and enforcement to ensure that their behavior can be made exempt from the law.

2.4 TYPOLOGY OF COMMODITIES (SPECTRUM)

The nature of the commodities also drives the political economy around illicit trade. Different commodities have different suppliers and follow different trade routes and destination markets. The OECD and EUIPO report showed that while China is a primary producer, different commodities often travel along different routes.¹⁰³ For example, counterfeit or adulterated foodstuffs, which the OECD in 2013 estimated at \$1.01 billion, appear to be predominantly produced in Asia, and are primarily exported directly to the United States and the EU. India and China also are leading producers of counterfeit pharmaceuticals for export.¹⁰⁴

It is worth highlighting four types of commodity groups and their characteristics: necessities, aspirational commodities, addictive commodities, and input commodities.

2.4.1 Necessities

Necessary commodities are essential for people's livelihood, safety, and well-being. Goods such as medicines, food, fuel, or international humanitarian assistance are examples. Where people are unable to access these necessities through legitimate means, they will do so through illegitimate means, with organized crime groups providing them.¹⁰⁵

Developing economies often fall short in meeting basic governance and service delivery. Any effort to address illicit trade will need to examine how to address shortcomings in the government's legitimate capacity to provide basic services and high-quality governance.

Depriving people of necessary commodities will drive them toward illicit sources, quite likely at higher cost and in more dangerous circumstances. Classic investments in regulatory control or enforcement where the government is perceived as illegitimate—due to its involvement in illicit trade, persecution of segments of society, failure to provide basic services or livelihoods, or because organized crime has exercised more compelling forms of governance with local communities—will struggle to gain traction.¹⁰⁶

2.4.2 Aspirational commodities

Aspirational commodities are those goods that are unavailable and desirable. Global communications are increasingly highlighting the difference between the "haves and the havenots," with the media portraying and marketing status symbols of all kinds. This means that aspirational markets are constantly expanding, driven by peoples' innate desire for status.¹⁰⁷

Many consumers of aspirational goods do not perceive buying counterfeits or illicit products as a necessarily criminal activity. For example, according to research by Euromonitor International in Latin America, there is no stigma associated with buying smuggled or fake products, because they are easy to find and the retail channels blur. In fact, it is just perceived as getting a good deal.¹⁰⁸

2.4.3 Addictive commodities

Addictive goods have inherent addictive properties, for example, tobacco, alcohol, and certain off-prescription drugs. These goods build and create their own market share once consumers become hooked. Companies selling addictive products have enormous incentives to use illicit means to break into new markets.

An investigation of cigarettes exported from Switzerland, for example, found that those being sold in Africa were of a higher level of addictiveness and toxicity than would be permitted under global health standards.¹⁰⁹ The growing opioid epidemic was built upon the unethical promotion of highly addictive prescription painkillers, using bribes and aggressive lobbying to medical professionals and regulators.¹¹⁰

Addictive illicit markets require responses that will strengthen the capacity of the state to regulate those industries. The power of the corporation to determine the regulatory environment or to self-regulate or self-police must be minimized, and the actions of the state must be held to the highest standards of transparency.^{III} It also requires monitoring and responses that prevent and then address the underlying additions.

2.4.4 Input commodities

Input commodities are those commodities that do not reach the consumer in their final form but are inputs into the supply chain of a consumer or industrial product. Examples include the minerals and metals that are sourced for the electronics industry, but also primary flora and fauna that are illicitly harvested or poached for commercial purposes.

Here, the vested stakeholders are the corporations that can access natural resources in ways that circumvent regulations, taxation, and other barriers to sourcing. Government failure to effectively regulate the sector is also of concern. In the former case, the traditional framework of responses to strengthen supply chain controls may be of some use; in the latter, they will be rendered ineffective by the same levels of complicity and state protection that enabled illicit trade in the first place. Downstream consumer awareness of the harm being caused upstream (e.g., environmental damage) may prompt some consumer pressure on the firms to address supply chain vulnerabilities.



The border area between Brazil, Argentina, and Paraguay is a well known frontier for smuggling of goods and contraband across international boundaries. This "triple frontier" is just one of many such hot spots around the world. Source: Andrew, flickr.

2.5 MARKET CONDITIONS

There are two main factors to consider across these typologies.

The first factor is the state of demand for the commodity. It is much easier to institute effective policy responses to markets that are stable: where demand has probably plateaued; where suppliers, routes, and destination markets are relatively fixed; and where prices have stabilized. In markets that are still evolving, understanding the causal relationships is harder. As a result, trying to design strategies in such markets is far harder. The second factor is where in the supply chain the developing economies sit: does illicit activity take place at source, is it in transit, or is the developing economy the destination market for the good? Recognizing that contemporary supply chains are complex, it may be that illicit activities occur in all three, exacerbating vulnerabilities.

Disparities across neighboring countries will create a conducive environment for illicit activities. Where there is a disparity in enforcement, excise tax rates, prices, or penalties across neighboring countries, predatory companies or criminal groups can take advantage of a more favorable environment, porous borders, and a permissive regulatory environment.¹¹²

3 case studies of illicit trade in developing economies

B ackground research for this report included two regional studies, the first on illicit tobacco in Southern Africa, specifically focusing on Zimbabwe and South Africa, and the second on counterfeit medicines in Central America, specifically focusing on Guatemala and Costa Rica. (These studies resulted in two lengthy working papers published in 2019 by the Atlantic Council; selected passages from these studies are excerpted here.)¹¹³

These investigations highlighted similar themes, as well as important contrasting dynamics. Global solutions and responses are required to have a serious impact on the overall controls on specific commodities being traded illicitly. But the case studies also highlighted the importance of looking at the realities each individual country faces, and examining illicit trade in a holistic national context, rather than assuming similar dynamics across a sub-region.

3.1 ILLICIT TOBACCO IN SOUTHERN AFRICA

3.1.1 Introduction

Globally, illicit trade in tobacco is extensive—estimates suggest that one in every ten cigarettes and tobacco products consumed globally is illicit.¹¹⁴ There are several factors that contribute to the widespread pervasiveness of this trade: large price differences and the application of sin taxes create financial incentives for groups to smuggle cigarettes across borders; in addition, ineffective administration, poor customs and excise control, abuse of free trade zones, and weak enforcement and regulatory frameworks all contribute to the problem.¹¹⁵

This case study, initially published in March 2019 as an Atlantic Council working paper,¹¹⁶ maps the key dimensions of the illicit cigarette trade in Zimbabwe and South Africa, including the key actors, the pathways of trade, and the accompanying "modalities" of criminality. It then identifies "good-faith actors," primarily in South Africa, whose positions could be strengthened by policy and technical interventions, explores opportunities for such interventions, and assesses the practical solutions that can be applied to combat illicit trade and tax evasion in the tobacco industry.

In this investigation, the smuggling of cigarettes was classified in two distinct ways: internal smuggling and cross-border smuggling. Internal smuggling, which as the name implies is directed at a domestic cigarette market, includes practices like under-declaring, round-tripping, and ghost exports. Under declaring cigarette production to the revenue service is the most simple and effective practice, as under-declared cigarettes are sold on the black market. Round-tripping allows companies to avoid excise taxes, while ghost exports claim stock has been exported when it really has been sold in the domestic market. Cross-border smuggling includes cigarettes that have crossed the border from Zimbabwe, Namibia, Botswana, and Mozambique into South Africa, the region's largest consumer market by far. Counterfeiting, which is independent of these two forms of smuggling (counterfeited cigarettes are wrapped in similar packaging to popular brands and sold on the black market), has declined to low levels since the 1990s. Counterfeit cigarettes are also regularly smuggled across borders.

3.1.2 Zimbabwe

Major brands such as British American Tobacco (BAT), Savanna Tobacco, and Gold Leaf have factories in Zimbabwe that are dedicated to producing cigarettes for the domestic market, where the tax rate is lower than in neighboring South Africa, creating a flourishing market for cross-border smuggling. While the exact scale and proportion of Zimbabwean-manufactured cigarettes smuggled abroad is unknown, the research done for the case study indicated that it was sizable.

The actors involved in the smuggling of cigarettes from Zimbabwe to South Africa can be divided into two groups: organized low-level smuggling operations run by individual entrepreneurs or groups of entrepreneurs, and the untouchables. The untouchables are organized smuggling cartels with political protection who smuggle the largest loads of illicit cigarettes into South Africa, with smuggling schemes from Harare to Durban. Huge trucks smuggle cigarettes from their loading points in Harare through formal border crossing points to their destinations. These trucks are not stopped or searched on the Zimbabwean side of the border, either due to the general permeability of the long land border or because of corruption of local customs and border officials. The South African side was seen as more vigilant and challenging, with law enforcement officials generally perceived to operate with a higher degree of integrity. The small-scale smugglers use a network of small trucks and minibuses that bring cigarettes to various informal crossing points along the Limpopo River to meet with "runners," avoiding any checkpoints and possible fines. Some people in the cross-border transportation business, known as Malaityas, argue that the use of scanners and other smuggling countermeasures increase the popularity of the model for small-scale smugglers.

Police activities were scuppered by constant interference and stonewalling of investigations by superiors if their investigations touched on politically connected people. Junior officers also would be sanctioned for refusing bribes that were intended to filter upwards. Interviews suggested that officials



Loose cigarettes being sold outside a spaza shop, Johannesburg, South Africa, September 11, 2018. The sale of loose cigarettes comprises one small part of the illicit trade nexus in tobacco in South Africa and elsewhere. Source: Vladan Radulovic (RSA), Getty Images.

within enforcement agencies know which individuals run the major cigarette smuggling cartels but could not act against them because of their political protection.

It is likely that Zimbabwean President Emmerson Mnangagwa's ongoing anti-corruption drive will target the allies of his predecessor, Robert Mugabe, and other political rivals, as already seems to be the case. If this takes the same form as other bad-faith, illicit-economy corruption crackdowns in the region, it will either aim to put prominent traffickers out of business, in order to allow for new entrants in the illicit market or the expansion of existing interests, or will lever their patronage toward the new regime.

3.1.3 South Africa

The actors in South Africa can be divided, like in the case of Zimbabwe, into two different groups operating in the cigarette market, with allegations of impropriety and illegality attached to them. The first are the multinational companies, which are represented by the Tobacco Institute of Southern Africa (TISA). Independent tobacco producers have criticized TISA as representing multinationals' interests, especially those of BAT, which enjoys a dominant market share.¹¹⁷ The second group, known as Fair Trade Independent Tobacco Association (FITA), was created to protect the interests of small tobacco companies. FITA has been accused of being a vehicle through which members can lobby governments and spread questionable reporting about illicit trade. (Both TISA and FITA deny any illegal activity by their members and have pledged to act against any member found in violation of the law.)¹¹⁸

Tobacco companies' political connections have been influential in allowing illicit trade to flourish. Independent companies have been accused of making political donations and involving influential political figures in their business in exchange for helping to resolve their legal problems. According to published media reports out of South Africa, BAT allegedly sought to maintain its share of the market in South Africa through anti-competitive practices and corrupt relationships with the state.¹¹⁹ Shortly before an elite investigations unit in the South African Revenue Services (SARS) was shut down (in a move that was seen as motivated to protect corruption networks around the former president), it had launched numerous investigations and court cases against both multinationals and independent companies for customs and tax violations. $^{\ensuremath{^{120}}}$

Early in 2018, South African President Cyril Ramaphosa ordered a Commission of Inquiry, headed by retired Judge Robert Nugent (the Nugent Inquiry), to look into tax administration and governance at the SARS. In its report, the Nugent Inquiry concluded that under the previous administration the SARS organizational structure had been remodeled to "the benefit of delinguent taxpayers and the disadvantage of major taxpayers who try to comply."121 These findings support the analysis that political influence in the SARS and law enforcement services played a crucial role in preventing investigations into illicit trade. The SARS staff testified that once the service focused on curbing the illicit cigarette trade, the collection of excise on tobacco rose, and once its investigative unit was disbanded this progress was lost and the trend reversed.¹²² Beyond revenue loss, there has been a lack of prosecution of actors who have been publicly linked, through press exposés, to criminal activity and corruption.

The lack of SARS enforcement and investigative capacity led to increased competition between companies, which led to violence, and within the Western Cape province turned into arrangements with the underworld. Cheap illicit stock from Zimbabwe flooded Cape Town neighborhoods and helped destabilize the underworld as rival gangs competed to control the trade. The illicit cigarette trade has also been loosely linked to an increase in truck hijackings.

Apart from the underworld, the illicit cigarette trade has affected revenue and public health. Some semi-reliable estimates from TISA suggest that \$2.2 billion was lost in unpaid excise tax between 2010 and 2016 alone. The revenue loss deprives the state of funds geared toward treating citizens with smokingrelated diseases. The low cost of cigarettes is believed to be a major driver of continued smoking, which is currently at 20 percent of the population aged 15 or older.¹²³

3.1.4 Implications

The bulk of reform efforts need to be focused on South Africa, because without the South African market, the incentives for illicit cigarette production and smuggling in the region fall drastically. The National Treasury and the SARS are crucial actors which must dedicate skills and resources to improve the integrity of the customs system and investigate underreporting and tax evasion linked to the production of excisable products. An independent inquiry is now investigating a wide range of governance issues at the SARS, in what is seen as a step toward repairing it. Multinational tobacco companies need to be treated with the same scrutiny as smaller players who have been more tainted by scandals that occurred during former South African President Jacob Zuma's administration. Worryingly, the tobacco industry still appears to exert a substantial influence on the South African state as exemplified by TISA's prominent role in the parliamentary hearings on illicit tobacco.

Actors outside the state-academia, the health department and public health advocates, and industry platforms with an interest in limiting the illicit economy-also have important roles to play. The Department of Health has set up a Tobacco Task Team including representatives from education, labor organizations, and civil society associations which advocate around smoking-linked health problems such as cancer, heart disease, and diabetes. Academic institutions can provide an objective and independent view of what is happening in the market and introduce perspectives that may be neglected by government or commercial actors, such as how tax or price changes impact the poor at the household level, or scientific evidence of the links between proposed or actual policy changes and behavior change. Advocacy groups like the National Council Against Smoking also try to raise the profile of the public health harm caused by tobacco in the debate.

Lastly, the actions taken by neighboring countries remain important. Zimbabwe will remain the best location for illicit production, due to the proximity to tobacco supply chains and because the major players in the illicit cigarette trade are already embedded there, within existing political connections and logistical systems.

The WHO outlines several tax administration measures that can be implemented to better monitor and ensure compliance with tax law in the tobacco industry. The use of licenses, for example, is already required in South Africa, but the license system's effectiveness appears to rest on vetting integrity and whether licenses are awarded and withdrawn impartially. The same can be said for physical controls inside factories. It is already the SARS' practice to visit factories and to physically check for compliance.

Measures for mitigation notwithstanding (such as frequent rotation and surprise visits), the degree of contact between officials and business owners gives rise to opportunities for fraud and corruption and requires a robust solution. The SARS has units to pursue noncompliant taxpayers through audits and other measures, as well as public commitments to address the growth of the illicit economy through its tax and customs mandate. These tools are effective when pursued rigorously and independently.

More sophisticated stamping technologies could be used, accompanied by monitoring technology, such as banderolbased stamps, at production facilities. Such stamps carry multilevel security features as a protection against counterfeiting and unique codes to enable traceability. There is evidence that track-and-trace systems have been effective in curbing illicit tobacco trade in other countries, including in Africa. Likewise, the restitution of the SARS is implicit in the success of any track-and-trace system. Hiring new tax officials and strengthening the capacity and ethics inside the SARS are important administrative measures. In the same vein, highlevel political support for cigarette manufacturers will also need to be withdrawn. To combat corruption and ensure the separation of personal interests from the exercise of public office, the Financial Intelligence Centre, the Public Protector's Office, and the use of the Public Financial Management Act must be strengthened.

Both state and non-state actors in South Africa can contribute to the solution. A democratic framework can hold people committing criminal acts to account, while there are key policy and technological interventions which could reduce detection and monitoring problems. The key ingredient will be the political will to prioritize this issue and enact a full and impartial response. The political arena, unfortunately, also is where prospects for success may sour.

3.2 ILLICIT MEDICINES IN CENTRAL AMERICA

Counterfeit, substandard, and illicitly diverted pharmaceuticals are possibly the most pressing illicit trade problem. While "illicit pharma" is a lucrative criminal industry, estimated at as much as \$431 billion annually,¹²⁴ it is more importantly a massive and serious public health threat, which disproportionately targets the most vulnerable—the sick and the poor—with manifold consequences. Substandard and ineffective drugs can worsen the condition of sick individuals, hinder accurate diagnoses, accelerate the spread of communicable diseases, increase drug resistance, reduce the confidence that people have in their health institutions, and ultimately kill people.

This case study, published as an Atlantic Council working paper in 2019, was based on more than forty interviews in Costa Rica and Guatemala with government officials, law enforcement representatives, healthcare providers, private sector actors, consumers of pharmaceuticals, as well as actors directly involved in the sale of black-market pharmaceuticals.¹²⁵ The key findings are summarized here.

3.2.1 Introduction

As with other trafficked goods, the production, transport, and sale of both counterfeit and contraband pharmaceuticals mirrors the global economy, with technological innovation and increased connectivity enabling complex global supply chains.

In response to the recognition that global supply chains require global monitoring systems to alert to the risks of counterfeit and contraband pharmaceuticals, in 2013, the WHO created the Global Surveillance and Monitoring System (GSMS) for illicitly traded medicines, vaccines, and diagnostic tests. Several other international and regional organizations play an increasingly important role in tackling the problem of counterfeit and contraband pharmaceuticals.

Global Internet penetration, a proliferation in social media and messaging apps, combined with the emergence and mainstreaming of the dark web and cryptocurrencies, has further empowered consumers and vendors in this trade. In 2008, INTERPOL, in partnership with the Permanent Forum on International Pharmaceutical Crime (PFIPC), launched Operation Pangea, which directly targets the online sale of counterfeit and illicit medicines. Pangea has gradually added more actors (including nontraditional ones like Facebook) to its operations as the need for international collaboration across multiple organizations and sectors has intensified.

While the GSMS and Pangea are promising initiatives born out of a global recognition that counterfeit and contraband pharmaceuticals represent a growing problem, experts concede that their successes to date are almost certainly outpaced by the exponential growth of illicit pharmaceutical sales.

Central America is one region where per capita expenditures on health products and counterfeit and contraband pharmaceutical trade both are increasing. In 2017, Central American countries imported \$3.171 billion worth of pharmaceutical products, with Costa Rica (\$789 million) and Guatemala (\$615 million) being the top two importers.

Central America is situated between two states, Colombia and Mexico, where organized crime syndicates are becoming increasingly involved in trafficking counterfeit and contraband pharmaceuticals. Across the region, states, including Guatemala, Costa Rica, Panama, Honduras, El Salvador, and Nicaragua, are all dealing with the infiltration of illicit pharmaceuticals.

3.2.2 Costa Rica

Costa Rica stands in sharp contrast to the rest of Central America in that the scope of its counterfeit medicine problem is limited. The national regulatory framework is effective, and most of the population can access safe, verified medical supplies. Having largely been spared the civil wars and military rule that have dogged much of Central America, Costa Rica has lower levels of corruption, higher levels of income, and established and effective state institutions that have the trust of the population.

Regrettably, recent years have seen a surge in contraband pharmaceuticals, with government officials in 2014 stating that the problem of contraband (including non-pharmaceutical consumer goods) is bigger than the problem of drug trafficking, costing the country up to \$100 million every year in lost tax revenue. Nonetheless, counterfeit medicine continues to be viewed by national authorities as less of a threat than the trafficking of illicit drugs because the opportunities for counterfeit pharmaceuticals to enter the broader market are limited by the fact that the market for pharmaceuticals in Costa Rica is highly regulated.

Approximately 40 percent of medicines in Costa Rica are supplied through the state-run Costa Rican Social Security Fund (CCSS), which is responsible for overseeing the public health sector nationwide. The CCSS limits the national market for counterfeit or illicit pharmaceuticals. However, higher pharmaceutical costs in Costa Rica compared with other countries in the region, combined with considerably tighter controls and enforcement of the import and sale of pharmaceuticals and precursors, enable criminal entrepreneurs to profit from price discrepancies by moving pharmaceuticals sourced abroad into Costa Rica.

Costa Ricans who seek pharmaceuticals on the black market do so largely because of price. Relatively stable institutions and lower levels of corruption, plus comparatively higher levels of income, mean that Costa Ricans are inclined to trust formal institutions when purchasing pharmaceutical products. Another reason for the low prioritization of the counterfeit medicine challenge in Costa Rica is that there is little evidence that those engaged in the sale of pharmaceuticals on the black market are linked to other illicit activities.

Brand falsification is one potential growth opportunity for criminal entrepreneurs. It is in part driven by the fact that generic drugs from India and China are becoming more prevalent. As a result, counterfeiters and smugglers may seek to repackage generics in order to sell them on the black market under their "brand name" equivalent.

Porous borders and the limited number of official border crossings also provide an opportunity for smuggling into the country. A trend, according to security analysts interviewed, is that smuggling routes from Nicaragua into Costa Rica are on the rise. This might be occurring because more Nicaraguans are seeking refuge in Costa Rica and the Nicaraguan police and military are growing more preoccupied with the political crisis, turning their attention away from criminal activity. Criminal networks may seek to profit in several ways, including moving pharmaceutical smuggling away from an "artisanal" activity toward a more "sophisticated industry" operated by organized crime.

Although there are no clearly defined networks, there are two main points of sale—public parks and online—that are useful starting points for understanding how illicit pharmaceuticals are sold in Costa Rica. Cybermarkets are a growing market, particularly in cases where people are seeking medicine for chronic or life-threatening conditions and who cannot afford treatment through formal channels. People in this situation are turning to numerous professional-looking websites—the majority of which are US-based—that offer affordable prices and reliable delivery, though there is no guarantee of their veracity. Social media is increasingly used to advertise contraband pharmaceuticals at rates cheaper than available through formal hospitals and pharmacies.

Further, the dark web is another burgeoning point of sale. In Costa Rica, the dark web has reached a level where "it works just like Amazon," with sellers receiving ratings and reviews and products being delivered to people's doorsteps in a matter of days. While Facebook pages and other forms of social media tend to be run by local actors catering to local markets, websites operating on the dark web are believed to be more global in scope, and allow for drugs sourced in places such as China, India, or Brazil to be shipped via mail directly to Costa Rica.

Thus far, the Costa Rican government has responded proactively to regulate the medicine industry and to crack down on cases of counterfeiting. In addition to law enforcement measures carried out in the form of raids, and participation in Operation Pangea in conjunction with INTERPOL, the government established the Comisión Nacional contra Productos llícitos Falsificados (CoNaPif). CoNaPif is a working group that brings in relevant actors from throughout the government, including, but not limited to, the Ministry of Health, law enforcement, intelligence officials, INTERPOL, CCSS, etc., to better tackle the problem of contraband and counterfeit products, including medicine.

Costa Rica has clear policies focused on this complex of issues, and any entity that wishes to sell pharmaceuticals must have operating permits and agree to regular oversight. This policy mix has succeeded in ensuring that the CCSS supply chain has not been compromised. Costa Rica's existing procedures and institutions, combined with its cooperation with international institutions and the private sector, have mitigated the risks. Government officials also said that CoNaPif has enabled them to reach inter-institutional coordination that did not exist before, and to help sensitize relevant actors to the nature of the problem.

3.2.3 Guatemala

In contrast to Costa Rica, the expanding market for illicit pharmaceuticals in Guatemala reflects the huge challenges the country faces in terms of ensuring Guatemalans' right to high-quality, universal healthcare. The poor health indicators of poor and indigenous Guatemalans, the chronic shortage of healthcare practitioners and medication, the concentration of medical resources in urban areas, and the underfunding for public hospitals, compounded by corruption, support the illicit pharmaceutical trade.

The criminal market for illicit pharmaceuticals in Guatemala can be divided into two main categories.

First, contraband medicines sourced internationally or domestically, for sale in black and gray markets; and second, counterfeit pharmaceuticals produced illegally in registered laboratories and clandestine laboratories in Guatemala. Medicines smuggled into the country from abroad are often brought into Guatemala from neighboring Mexico and El Salvador. Although these medicines are not counterfeit, they are not legally registered with the Guatemalan Ministry of Health (*registro sanitario*) and those bringing them into the country have not paid import duties. Their target clients are small pharmacies in poor neighborhoods in Guatemala City and in rural areas, as well as markets such as La Terminal, El Guarda, and La Florida, small markets in rural towns (*mercados cantonales*), and small grocery stores (*tiendas de barrio*).

Regarding domestically-sourced medicines, these are prescribed to patients from the Social Security Institute (known by its Spanish acronym IGSS), and then sold on the black market. Prescription medicine procured in this way has been found in small pharmacies in poor neighborhoods in Guatemala City and small grocery stores or used clothes stores known as *pacas*. This medication is clearly marked as "government property" and, therefore, not placed on shelves but sold directly to customers that request it (*venta por encargo*). Another form of domestically-sourced illicit pharmaceuticals is medication stolen from public hospitals.

In recent years, Guatemala identified several "legal" laboratories that were producing products for which they did not have proper authorization, as well as illegal clandestine laboratories. According to one drug company executive, criminal organizations prefer to produce counterfeit versions of popular, widely-purchased consumer products rather than specialty medicines. There have been no recorded cases of their sale in large, chainoperated pharmacies such as Batres, Galeno, Cruz Verde, and Meykos.

Contraband and counterfeit pharmaceuticals are usually purchased by low-income individuals in poor neighborhoods in Guatemala City or in rural areas who are desperate to obtain low-cost medication. According to interviewees, people who purchase such pharmaceuticals often have little awareness of the health risks. Whereas Guatemala's criminal organizations "are among the most sophisticated and dangerous in Central America,"¹²⁶ with entrenched, widespread collusion and coordination with government authorities, there is limited evidence that state actors or sophisticated drug trafficking groups are heavily involved in the procurement, production, and sale of contraband and counterfeit pharmaceuticals in Guatemala. Government officials said that those arrested for offenses related to illicit pharma are typically individuals without criminal records. To the extent that these individuals were part of a criminal organization, their groups were usually small (less than ten people) and often consisting of family members. While barriers to entry into the illicit pharma market are relatively low, the market may not as yet be lucrative enough to attract organized crime syndicates.

In 2011, the Guatemalan Congress approved a bill that establishes prison sentences of up to ten years for the production, storage, and sale of contraband or counterfeit medicine. Under this law, establishments caught selling contraband or counterfeit pharmaceuticals lose their license, and penalties are harsher for public officials and medical professionals. Prosecutors say that the approval of this law has been useful for prosecuting the production and sale of counterfeit pharmaceuticals.

The largest challenge in combating such trade, therefore, is not the current legal and regulatory framework so much as resources and implementation. The public prosecutor's office only investigates the production and sale of counterfeit pharmaceuticals when a legal complaint is filed. As a result, files and knowledge are scattered across the institution, with limited communication between prosecutors.

To crack down on contraband, the Guatemalan government created an inter-institutional task force which has had a negligible impact on contraband pharmaceutical flows, as most products seized in 2017 were dairy products, vegetable oil, cigarettes, beverages, liquor, and poultry products. That public officials said they were too afraid to investigate the alleged existence of clandestine laboratories in La Terminal illustrates the weakness of Guatemalan law enforcement bodies. There also have been limited efforts to work with other countries in the region to tackle the problem, despite acknowledgement of a regional problem.

3.2.4 Implications

As these case studies highlight, the criminal markets for counterfeit and contraband pharmaceuticals in both Costa Rica and Guatemala are shaped by trends at the local, regional, and global levels. Tackling the problem requires responses and implementing systems that can provide solutions at each level. There is clearly a need to develop information-sharing and reporting procedures that would allow for systematic data collection to better understand the scope and scale of the illicit pharmaceutical market as well as the modus operandi of the actors involved. Investing in such data collection and investigative capacities would also enhance authorities' ability to identify and anticipate future trends.

Similarly, improved coordination among actors, building off CoNaPif, should be made a priority. Information campaigns and inclusion of Nicaraguans in the medical system should also be pursued.

In Guatemala, addressing the challenge of combating counterfeit and contraband pharmaceuticals is as much about improving the overall healthcare system and state capacity across sectors as it is about tackling the specific problems of illicit medicines. The fact that there are certain areas where the state is unable or unwilling to intervene, for example, is indicative of general governance problems.

To address the underlying conditions that allow the illicit pharmaceutical market to expand and flourish in Guatemala, the government should redouble its efforts to improve overall access to healthcare, especially for the rural poor. Similarly, the government should also invest more resources into the Ministry of Health so that it can fulfil its mandate to provide proper oversight of pharmacies, distributors, and pharmaceutical laboratories. Guatemalan authorities, along with civil society and the private sector, should develop public awareness campaigns in order to better inform consumers of the risks and dangers of contraband and counterfeit pharmaceuticals. The government should also develop culturally appropriate information campaigns in the country's Mayan languages, as well as in Spanish, with an emphasis on the municipalities in border areas where contraband pharmaceuticals are most prevalent. Lastly, the Guatemalan government should build off the inter-institutional collaboration and communication to develop an interagency approach to combating illicit pharmaceuticals specifically.

There is an urgent need for investments in mechanisms and methodologies that would allow for better data collection. At the regional level, the governments of Central America should examine region-wide market demands and price discrepancies in order to better understand the black-market and smuggling networks they incentivize. Better data collection and information sharing at the regional level would help in understanding the scope and scale of the problem, crafting policies to combat it, and developing predictive capacities to anticipate future trends.

Many of these regional recommendations also apply to the global level. A recent Organisation for Economic Co-operation and Development (OECD) report notes that while evidence suggests that "counterfeit pharmaceuticals are increasingly prevalent and increasingly profitable," a great deal remains "unknown and unmeasurable."¹²⁷

4 engaging states on the cusp in the fight against illicit trade

eak, fragile, and conflict states have long played pivotal roles in the global economy, often as a significant source of primary commodities required for global supply chains. As such, ensuring the active engagement of the states on the cusp in global governance strategies to counter illicit trade is essential. Their engagement is needed not only because the world needs to combat this problem effectively but also because, without it, their development will remain undermined by corruption, reducing the life chances for ordinary citizens.¹²⁸

4.1 INCENTIVES FOR COOPERATION

Recognizing that developing countries have several internal and external challenges to address, and often work from a baseline of weak capacity and insufficient resources, a key question remains how to encourage them to prioritize the fight against illicit trade.

States sit in very different positions along a spectrum of capacity and political will to address commodity-specific challenges of illicit trade (see Figure 1). Illicit trade sits on a hierarchy of state priorities. The question is how to effectively achieve better cooperation against illicit trade in developing economies.





As shown in Figure 1, the state capacity/political will relationship is nonlinear. It may seem intuitive to think that as states increase their capacity, their political will to fight illicit trade will increase in equal measure. But the tobacco and pharmaceuticals case studies show that a linear relationship between state capacity and political will is not the case. In the Guatemalan and Costa Rican pharmaceuticals cases, the research suggests that although officials in both countries might have roughly an equal amount of political will to tackle this trade, officials in only one country (Costa Rica) have been in a position that has enabled them to increase state capacity. The illicit tobacco trade in South Africa also clearly demonstrates that this relationship is nonlinear: despite being one of the highest-functioning states on the African continent, South Africa's political leadership has been complicit in the illicit cigarette trade, and parts of state institutions have become beholden to the tobacco industry. Therefore, in Figure 1, South Africa would be on the downward trajectory (right-hand side) of the curve.

Shortcomings in party-political financing regulations and transparency may in fact create a dynamic where illicit trade and the profits from illicit trade reinforce a regime and elected officials with the unstated goal or primary interests of allowing illicit trade to continue. Understanding the implications of corruption on vested interests and alignment will, therefore, be a critical part of the answer.¹²⁹

Therefore, weak and fragile states, including states where there is ongoing active conflict, present one end of the spectrum in Figure 1 (the lower left-hand corner). In such states, instability, political competition, and low regulatory capacity provide opportunities for unethical corporations and organized crime, as we have seen in the case of post-transition Zimbabwe. Corporations can buy access, political protection, and future concessions because the political system is still competitive and hungry for resources. However, at the same time these states present an unstable environment for doing business as no state or non-state actor has full territorial, political, or economic control,¹³⁰ and competition over access to resources and key nodes of infrastructure become a point around which instability becomes focused and perpetuated.¹³¹ In these contexts, there is highly limited capacity to work with state authorities, if they exist, and any efforts to address illicit markets will necessitate the ability to secure the supply chain from interference.

As you move up the state capacity spectrum, the scope for engagement increases. Whether the government prioritizes illicit trade over other competing priorities will depend in part on its basic ideological orientation. Presumably, democratic governments that have a pro-development outlook will prioritize the regulation of those commodities that might harm their citizens and thus might impact the electorate, for example, commodities that are necessities and those that may cause substantial harm to public health and welfare. However, in these systems, there still remains considerable risk that governments will fall short. The political will to address such problems may be present but the state might struggle to find the resources and capacity to build functional systems, partnerships, and coalitions. This is the example we saw in the pharmaceuticals case study in Guatemala.

By contrast, a more authoritarian regime, where elites hold both power and resources for their own gain, may seek interventions that will reinforce their capacity for control or further enrich them personally, such as investments in border security and public messaging. Elites in these systems might be willing to support investments against illicit trade, but potentially without achieving the objective for which they were made, or with other negative consequences for citizens' security and well-being. This is not to say that regulation of illicit markets in such systems is impossible, but only recognizes the considerable contextual challenges that are present.

There is a tendency to assume that a mature multiparty democracy is the strongest form of governance. But in terms of control over borders and capacity for regulation and oversight, in some ways more authoritarian regimes can be better placed to achieve results, assuming they choose to do so. (To be clear, authoritarian systems are not preferable to democratic ones, given the significant trade-off in human rights adherence, legitimacy of governance, and economic and social equity.)

This observation explains the downturn of the curve at the upper right of Figure 1. Mature multiparty democracies have several vulnerabilities. One weakness involves the costs of electoral politics, which are massive and appear to be continually rising. For example, India's election in 2014 has been estimated to have cost \$5 billion—and the most recent one just completed in 2019 cost in the region of \$7 billion.¹³² The most recent Kenyan election was the most expensive in Africa, coming in at some \$500 million.¹³³ The costs of local elections are often similarly expensive. Much electoral funding is opaque, even in the strongest democracies, with support generated by candidates themselves to cover the costs of their own campaigns, from sponsors, corporations, or private donors. With the extensive network of financial structures in place to move funds and blur their provenance, it is difficult to know who is financing candidates or lobbying for the agendas that set electoral priorities.

A more benign weakness of the democratic electoral system is the fact that, correctly, democratic governments are beholden to their electorate. The relatively short electoral cycles and limited terms that are considered hallmarks of healthy democracies, intended to keep public officials engaged with their electorate, regrettably also tend to compromise longterm planning and investments whose returns may not be immediately visible. This reduces the incentive to engage in countering illicit trade where capacity is yet to exist.

4.1.1 Increasing tax revenue and economic stimulus The desire to increase tax revenue from illicitly traded commodities is one of the dominant arguments for imposing better controls over this trade.

The argument that better regulatory frameworks over illicit trade will increase government revenue is a potent one. Typically, taxation on goods and services is the largest source of revenue for many governments, especially in developing countries, often significantly outstripping taxes on income and profits.¹³⁴ Yet there is a tension between companies seeking to reduce their tax burden (and criminal groups trying to circumvent it altogether) and the governments whose border control efforts are intended to maximize their corporate and customs and excise taxes.

One critical stumbling block here is in situations where state officials or even entities personally profit from illicit trade, and thus where greater control over those commodity markets and greater transparency would transfer profits from their own pockets into the coffers of the state. Understanding the extent of this phenomenon is a key part of understanding how receptive a government, or a specific department, might be to such overtures. Factors include the level of corruption or capture in an industry and the extent of the practice (i.e., does just one key official profit, or is corruption a systemic part of how the government/department runs?).

A second obstacle is where states have already ceded much of the potential for tax revenue generation through FTZs. The OECD noted that the introduction and proliferation of FTZs is particularly damaging in countries with weak governance. It notes: "gaps in governance, especially high levels of corruption and gaps in intellectual property rights enforcement, are the crucial factor for trade in fakes, multiplying the effects of FTZs."¹³⁵

Employment is another issue. For corporations, achieving safety and integrity in the operating environment may be the deciding factor between whether to invest in supply chains in one economy over another. Governments understand job creation as a reason to invest in creating a secure business environment. However, in cases of high informal or illicit tradedriven employment, government officials will be more likely to invest in the legitimate economy if doing so will sustain such employment.



Sukhumvits night market, Bangkok, Thailand. Markets such as this one in Bangkok and in many other cities around the world are well known for selling all manner of legally and illegally sourced and traded goods. Source: tbradford, Getty Images

In some cases, illicit trade is a key part of a community's ecosystem. Breaking it down by strengthening legitimate supply chains, without enough anticipation and planning to mitigate the impact, would cause widespread and considerable damage to local communities, livelihoods, and the social fabric. As with the privatization argument, increased government oversight may concentrate or change the community stakeholders who can access resources or benefit from trade, increase prices for local consumers, and reduce a large number of jobs available in the informal sector whilst creating a smaller number with a higher requisite skill set that provides a barrier to entry to artisanal or informal sector actors.¹³⁶ This is a calculation that governments should bear in mind. Corporations seeking partnership around illicit trade control may, therefore, want to highlight this factor, emphasizing the promotion of broad-based development goals.

4.1.2 Public good/harm

Illicit trade, particularly when discussing counterfeit consumer goods, is often portrayed as a victimless crime. Consumers of these products often feel they are barely committing a crime, viewing their purchases as undercutting a wealthy corporation's profits. Many experts and much of the literature, therefore, want to bring the question of harm and the negative impacts of the crime to the fore, to raise it up the priority list of national concern.

A key recommendation for inducing cooperation with developing countries is to reconceptualize this discussion as more than just a financial one. The typical argument around illicit trade is that the lost government revenue from customs and excise taxes is a potential development dollar diverted. Emphasizing the wide range of social, environmental, and economic harms that can result from the illicit trade in necessities, or even in aspirational commodities for which there is a high degree of local demand, can be attractive to national governments.¹³⁷

Medicines provide one of the clearest examples, where both consumers and governments can see the mortality risks of counterfeit or substandard medication being allowed to proliferate, undermining public health and confidence in the government. Unlike other threats that require an enforcement or regulatory response from governments, illicit trade so often does not appear to carry the moral imperative that other security risks might (terrorism, for example) even though they may be related. Further, financial arguments to act on this trade rarely have the same capacity to mobilize momentum as do security arguments about, again, say, terrorism.¹³⁸ But numerous forms of illicit trade can compromise development, including by increasing environmental degradation and compromising ecosystem sustainability; putting people at risk of human trafficking, human rights abuses, and other forms of exploitation; financing conflict and violence; and undermining efforts toward poverty reduction.¹³⁹ If the linkages between different illicit commodity markets and their negative externalities and harms can be more clearly illustrated for the benefit of governments and consumers in developing economies, then there is scope for a moral imperative to be drawn.

4.1.3 Addressing border control priorities

Border control serves at least two major objectives: to control trade and enhance national security in the face of diverse threats.

While a corporation that is keen to protect its intellectual property rights, or the international community urging adherence to environmental standards, may place the capacity to control illicit trade through national borders at the top of its priority list, the government's priority may be to address other national security threats.¹⁴⁰

There are a wide range of domestic security concerns that a border is meant to screen for and prevent: terrorists, illegal immigrants, explosives and toxic materials, or illicit narcotics and weapons.¹⁴¹ A triaging of border control priorities is common, and these security threats will typically dominate the need to counter illicit trade. Hence, the capacity of border officials to physically screen people and cargo for commercial fraud will be secondary to identifying violent threats.

However, these two priorities are by no means mutually exclusive, and a more efficient and effective border control is likely to serve both ends. An overall strengthening of border control capacity may also have dividends for illicit trade, and states are generally open to a dialogue on enhancement in this area.¹⁴²

Two pertinent dynamics need to be considered. First, the primary consequence of border control priorities oriented toward domestic security measures has been a rise in the number of trusted trader programs. Whilst generally being mutually beneficial for both corporate and government customs interests, such programs can turn border control into an administrative function that can take place far from the importing country's physical borders. (Trusted trader programs expedite customs and border control functions by declaring some low-risk firms to be "trusted" entities, thereby expediting their customs processes and enabling authorities to focus resources elsewhere.) There is a resulting rise in certification and chain-of-custody schemes, audits, and other measures that put the compliance onus on businesses and third-party monitoring entities (independent auditors and regulators), thereby reducing a nation's own oversight. Those who are privileged to sit within a trusted trader program can become the target of organized crime precisely because they are subject to less oversight.143

Second, more customs unions and FTZs also exacerbate the distance between the physical border of a country and the trade border at which customs and excise authority can be exercised. Countries in trade and customs unions will obviously have far less autonomy and authority to enter into bilateral agreements to counter illicit trade. Those agreements that are made will be substantially less effective if a country cannot regulate what enters and exits from its own borders. (Countries that join trade and customs unions might do so in expectation that the union will assist with illicit trade challenges.) This point again emphasizes the need for responses that are wider in geopolitical scope (beyond the national context) in order to be effective. Moreover, it indicates that sizable trading blocs, like the EU, are formidable influencers in the regulatory environment and must be part of the regulatory and enforcement solution.

All these trends suggest that the return on investment in physical border control equipment and technology will be limited unless it is complemented by intelligence-led assessments of illicit trade risks. This is the model, for example, that the United Nations Office on Drugs and Crime (UNODC)-WCO Container Control Programme follows. Rather than investing in extensive screening and scanning equipment at points of entry, it instead promotes building a culture and capacity of assessing upstream risks before they reach national shores. It aims to promote cooperation among state agencies and the private sector, enhance security capacities at port and air cargo terminals, and otherwise promote interdiction.¹⁴⁴

That said, however, an investment in physical border control equipment may serve as an effective entry point for introducing complimentary capacity for intelligence, surveillance, and management that would ameliorate the fight against illicit trade.

4.2 ASSESSING STATE CAPACITY

There are a range of indicators that can be used in combination to assess the intention, interest, and capacity of a state to engage in genuine efforts to combat illicit trade. This section lays out some of these indicators.

4.2.1 Political will

Political will, defined as the extent to which there is leadership commitment to achieving the stated objective,¹⁴⁵ is a highly intangible concept, but unmissable when present. An assessment of political will should include a consideration of:

- Integrity of message: Do different branches of government speak consistently about state priorities, the importance of fighting illicit trade, political, financial, and resource support, and do they have the capacity to act? Where governments are genuinely committed to addressing an issue, that message will permeate through the system, from political leaders, through the civil service, to frontline officers.
- **Seizures:** While seizures are often used as a proxy indicator that a trade problem is increasing or decreasing in importance, in fact it is more reliably an indicator of how seriously and effectively a government is addressing the issue. Seizure records are usually either made through self-reporting or media reports (though these again often rely on an original state or law enforcement announcement of a seizure). Countries have different motivations for making public or suppressing a report of a seizure. On the one hand, countries may be keen to be perceived as tackling the issue of illicit trade in this commodity, so they make sure that all seizures are reported and recorded somewhere that makes it publicly available. On the other hand, a country may not be willing to report some seizures owing to their sensitive nature or they do not want to be seen as a country having a problem with illicit trade in that product.146
- Participation in joint operations: Action taken at the national level to combat illicit trade may be politically motivated—using the instruments of the state to target opposition or to consolidate control over illicit industries, as the South African tobacco example showed. It is much harder to politicize enforcement efforts when the state is working in cooperation with other states or multilateral institutions. Effective and proactive international cooperation, therefore, can be taken as an indicator of genuine political will—or at least that there is some distance between political leadership and illicit trade.
- Existence of and willingness to accept transparency measures: Independent anti-corruption commissions, the existence of e-governance and payment systems, and the publishing of procurement contracts, budgets, and other financial information are all indications that a government is committed to operating transparently and within the rule of law. Negotiations around trade deals, and whether the state is open to including

independent oversight mechanisms, including civilian oversight, can also provide an indication of the extent of commitment to doing business ethically.

4.2.2 Integrity or impunity

The level of corruption that is present in society will have manifold impacts on the effectiveness of any regulation or enforcement regime. Corruption impacts officials who authorize and champion a new illicit trade response all the way down to individual agents whose job it is to follow protocols. Corruption will even impact supposedly impartial or independent monitoring and oversight bodies by potentially introducing new actors into the supply chain who can influence and distort them.

In a previous Atlantic Council report on downstream oil theft, a notable conclusion across ten case studies was the extent to which those responsible for control, enforcement, and monitoring were often the very agents who perpetuated or exacerbated the theft or diversion.¹⁴⁷ One striking example from the oil sector showed how technologically sophisticated regimes can be undone by corruption: in Uganda, the regulatory authority has been known to systematically steal 22 liters of oil from each truck crossing the border under the guise of testing for the presence of a molecular marker that can identify legitimate, illegitimate, or adulterated fuels. A sample size of no more than 500 milliliters per truck is all that is necessary, but the regulatory officials who engage in this operation manage to steal roughly 1.2 million liters of fuel per year per crossing.¹⁴⁸

The South Africa tobacco case study highlighted several examples where legislators and policy makers intentionally crafted or blocked legislation and policy to create an institutional framework that would create opportunities for them to profit from illicit trade. This included examples of how initiatives set up to counter illicit trade were then used to consolidate the position of bad corporate actors by targeting only their competitors.¹⁴⁹

The extent of a state's integrity should not just be measured by laws on the books, but by the extent to which it is using its legislative and judicial capacity to counter illicit trade, and whether the judiciary is viewed as both independent and effective. While many developing economy states will put in place exhaustive national legislation and ratify every international convention, implementation is often weaker. The Organized Crime Index for Africa, for example, found noticeably higher average scores on political rhetoric, policies, and laws than on those indicators used to measure their implementation.¹⁵⁰

To assess the rule of law and the criminal justice system, analysts should look for evidence of active, state-led prosecutions of key criminal and corporate figures involved in the organization and enablement of illicit trade, underpinned by investigations into criminal structures. Just identifying and arresting low-level operatives—for example, local market vendors or individual transporters—might appear as if a country is taking the fight against illicit trade seriously, whilst at the same time having little to no impact on the enabling environment. Furthermore, to be effective, cases need to move through the entire criminal justice system, from investigation, prosecution, and sentencing to the full serving of sentences. Where there is impunity or corruption, cases can be declared a mistrial, dismissed, or indefinitely postponed; criminal penalties can be commuted to barely punitive fines; and jail terms dismissed or excused at the eleventh hour, once the gaze of critics and the media has moved on.¹⁵¹

4.2.3 Operational capacity

In developing economies, the levels of basic operational capacity to implement effective policy, support economic growth, and underpin systems of regulation and enforcement may be limited. For that reason, many solutions to illicit trade, no matter how sophisticated or comprehensive, may fail simply due to the weaknesses of local capacity. Low levels of basic literacy, and unfamiliarity with information technology (IT) systems, can mean data is incorrectly or insufficiently recorded. Soft skills (e.g., problem-solving, communication, and effectiveness in teamwork) have also been noted as lacking in developing economies, undermining productivity and efficacy of management and operations.¹⁵²

While the deployment of a new regulatory initiative may come with considerable investment into building the requisite staff capacity, fragile states and developing economies where people live with a high degree of uncertainty may translate into higher than anticipated turnover rates.¹⁵³ This means an initial investment in capacity building may be watered down over time, leading to reduced operational capacity or data quality in the long term. This lack of capacity can prevent developing economies from realizing the full benefit of new technologies.¹⁵⁴ Although international bodies might be able to fill this capacity gap through financing and/or conducting training, it is by no means certain that their efforts would be more effective.

Bureaucratic and rule-of-law obstacles, such as ineffective financial systems, extensive informal economies, and poorly secured and maintained land-use or corporate registers, can compromise or create vulnerabilities in corporate frameworks. Weak legal registers, dispute resolution mechanisms, or pervasive customary law or competing legal frameworks will hamper the ability to guarantee transactions and underpin regulatory efforts.

Many of these themes are captured in the World Bank's Ease of Doing Business Index and its accompanying Doing

Business portal, which includes qualitative assessments, analytics, and research to complement the numerical index. In its *Doing Business 2020* report, the World Bank noted that the BRIC economies introduced a significant portion of reforms to improve the business environment, most of which were efforts to widen and stabilize the electricity grid, and to promote trading across borders.¹⁵⁵ Understanding the political economy of those investments will, however, be critical to knowing whether they will genuinely ameliorate the business environment, rather than introduce new complexities and vested interests into the local political economy.

4.3 CIRCUMVENTING THE STATE

The state will always be the lynchpin of any meaningful long-term strategy to prevent illicit trade. However, in circumstances where the state is unable or unwilling to be an active partner, there are strategies for inducing cooperation or mitigating the scale and harm of illicit trade.

Fundamentally though, it is only in very rare cases that the full state system will, from top to bottom, have interests in enabling and protecting illicit trade activities, and be unwilling to respond. There will always be individuals or groups who have integrity and are in a position to promote change even when the prevailing tide is one of corruption, clientelism, or even of violence.

As discussed at length in the South Africa case study on the illicit tobacco trade, where the apparent complicity of the president himself in tobacco smuggling made it difficult to establish institutional reforms, there were good-faith pockets of actors within different branches of government and institutions. The case study noted the actions taken by the health minister and the prominent role of investigative journalists and civil society in repeatedly calling for action.¹⁵⁶

Identifying, reinforcing, and protecting good-faith actors is one way of incrementally creating a culture of integrity and change. These actors could sit in the state, in certain departments, or within civil society. Consistently seeking out the "virtuous actors"—those committed to working with integrity and effecting change—and investing political and financial capital in them can be the basis for effective change.

4.3.1 Working with non-state actors

Civil society is often a source of resilience in environments vulnerable to criminal influence or capture, or where states' institutions are predatory. Civil society can be the means by which affected communities organize themselves to mitigate the most deleterious impacts of illicit trade. Community groups, religious groups, women's collectives, and other groups may be grappling with the implications of illicit trade on the environment, for local employment and livelihoods, or where the profits of illicit industries fund local crime groups or violent actors.

The campaigning and scrutiny conducted by civil society can exert pressure for accountability and transparency plus supply chain integrity. Civil society can provide a form of civilian oversight and clarify the priorities of local communities in the political economy of global value chains.

Civil society may be well positioned to support behavioral change for demand-side interventions. Civic groups, but also academic and educational institutions, are excellent places for awareness raising and behavioral and attitudinal change campaigns, which are often the cornerstone of demandside supply chain interventions. Technology is increasingly turning consumers and vendors in key markets into sources of intelligence, regulation, and supply chain control. Trackand-trace solutions (as discussed below) may provide the opportunity for consumer monitoring and reporting. A growing number of initiatives seek to crowdsource information about illicit or deviant activity. Websites such as www.ipaidabribe.com reach directly to consumer groups or affected communities to have them report directly on their experiences and provide real-time monitoring.

However, organized crime may hold a high degree of legitimacy with local populations. In an environment where

states are perceived to be the obstacle to populations achieving fair access to resources or development opportunities, communities may put up significant resistance to illicit means of access being broken down. It is essential to ensure consumers that, rather than reducing access, a solution puts verification into their hands and thus gives them confidence in the products they consume.¹⁵⁷

4.3.2 Taking advantage of political and market disruption

No situation remains static and inert indefinitely. There are always periods of change, transition, and disruption which will impact the status quo for the national political economy. During or immediately after a regime change, whether legitimate or illegitimate, there is likely to be a window for changing the approach and new opportunities to engage with key state actors.

While long-term, sustainable strategies for countering illicit trade may not mesh well with democracy's short electoral cycles, they do serve as entry points for engagement. Campaigning politicians may be looking for issues that they can champion to earn themselves electoral support. Some may be prepared to translate campaign support and financing into lobbying the incoming administration. There are, therefore, advantages to continuing to stay engaged in states even when the prevailing governing framework appears to offer little traction for intervention.
5 role of technology

he pace of technological and digital innovation is so rapid that it has been dubbed the "Fourth Industrial Revolution." By 2022, a mere two years from now, more than 60 percent of global GDP will be digitized, and an estimated 70 percent of new value created in the economy will be based on digitally enabled platforms.¹⁵⁸ Technology brings opportunities but also risks to the global efforts to control illicit trade, and it is often through global value chains that technologies are made available and effective in developing economies.¹⁵⁹

Technological advances have changed the criminal landscape and will continue doing so. Organized crime has exploited advances in connectivity, communication and information exchange, encryption and privacy, and means of production and distribution. This exploitation has enhanced its capacity to produce, move, and vend illicit commodities, and to disguise its actions and profits while doing so.

Technology may offer a similar boon to those seeking to prevent and respond to criminal behavior. Technology solutions can be used to increase transparency whilst at the same time protecting privacy and ownership of information; they can be used for surveillance, monitoring and broadcasting, offering security, and building trust.

Several new advanced technology solutions are being developed and applied to support the private sector and public authorities along the supply chain to better track, trace, and authenticate products. These range from combined digital and material technologies to support the veracity of products, blockchain to underpin and monitor transactions, data collection and analysis to pinpoint risk points, customs control solutions to ensure the integrity in destination markets, and point-of-sale consumer applications. These have the potential to greatly support the fight against illicit trade. As lan Neill, former head of strategy at the UK's Border Force, explained in an interview with the authors, "if you don't have the technology, then you're going to lose the ability to look upstream and understand what's coming."¹⁶⁰

At the same time, however, the presence of technology by no means guarantees that it will be effectively, appropriately, and honestly used. As an example, the Port of Mombasa in Kenya is the largest and busiest seaport in East and Central Africa. It manages throughput traffic of a million containers per year from a combined regional population of some 200 million people. Allegations of corruption suggest that even when scanning technology is present at the port, the system is easily subverted (port officials claim universal scanning of goods, but evidence suggests this is not true) and the equipment sits almost entirely unused. Regardless of reason, the point is that the technology is not put to its full and appropriate use.¹⁶¹

In a slightly different vein, blockchain is being put forward as a technology that has the potential to "revolutionize international trade," which could be used to implement the WTO TFA and to facilitate processes both between governments, the public and private sectors, and businesses within the private sector.¹⁶² The Estonian government, for example, has secured numerous official registries since 2012, ranging from healthcare to property registries, using blockchain.¹⁶³ The technology is developing fast and is being piloted to control and track the provenance of commodities from medicines to diamonds. Scalability is crucial to broad application.¹⁶⁴

Finally, a fundamental weakness that undermines many technological solutions in developing economies is the almost universal reliance on Internet-based communications. Data must be collected and shared if the supply chain regulation and capacity for certification are to be effective. While China might be leapfrogging OECD states in their investment and use of 5G technology, many developing countries have limited, weak, and expensive Internet accessibility.¹⁶⁵ What this means is that working with real-time data may not be available to all and that there will remain a need for backup systems (including offline systems), in addition to the obvious need for ever-better cybersecurity systems.

Introducing a technological solution, however perfect it may be, is not always a solution on its own. No technology can function in a system where the leadership or agents and officials are corrupt, or where the quality of technological use or data entered cannot be verified. Bureaucrats who have long profited from illicit trade may object to new recordkeeping or transparency systems that reduce their power, status, and privileges. If those in office or elites have little to gain and much to lose, they may thus filibuster, compromise, or bury the results of those systems. If well-designed, however, technology can put in place oversight mechanisms and other checks and balances that make corruption much more difficult.

5.1 DETECTION

Sophisticated analytics are used in market research to understand consumer behavior for legitimate trade: innumerable consumer attitude surveys, focus groups, and polls are used to guide pricing strategies, product placement, branding, and marketing strategies. These same techniques (not always technologies) can be applied similarly to illicit trade, to understand consumers' relationship to counterfeit goods, their brand confidence where smuggling or substandard produce is commonplace, and to understand how to engage them in an active response to illicit trade.

Technology solutions are effectively being used by tax authorities to address trade mis-invoicing and electronic sales suppression, tax evasion, and tax fraud. These require creating real-time records that are shared with the tax authority at the time of production or enhancing the integrity of the original records with encrypted protection and security devices.¹⁶⁶ The introduction of electronic record keeping has proven to have additional gains, reducing the barriers to entry for informal enterprises to move into the formal sector, and increasing government revenue.¹⁶⁷

Big data and artificial intelligence (AI) can be used to improve understanding and analysis around legitimate and illicit markets. The ability of AI applications to work with data sets that were too large for manual handling is making it possible to reveal or even to predict how and where corruption, fraud, or trade breaches will occur.¹⁶⁸

Machine learning (AI) is now being applied to uncover and detect fraud and criminality in markets, including in credit card theft. Studies using big data on consumer spending patterns show that fraudulent transactions have a distinctly different signature from legitimate consumers. Al is now being applied to the monitoring of transactions that not only allows fraud to be detected, but to identify patterns that could potentially allow fraud to be predicted.¹⁶⁹ In the same way, machine learning of spending patterns could be used to have a better idea of the scope, scale, and shape of the illicit economy, and to measure the efficacy of responses intended to reduce demand or supply of illicitly traded goods.

At the same time, the scope for Al in developing economies is relatively limited. An analyst at the Atlantic Council estimated that only four countries in Africa (Kenya, South Africa, Nigeria, and Ghana) would have the digital capacity needed to deploy Al applications on a broader scale. For the rest of the continent, serious progress needs to be made in a range of legislative, infrastructure, and governance areas in order to get the best benefit from the new tools.¹⁷⁰

Given how much online commercial activity is illicit, finding answers to online illicit trade is arguably as or more important than such trade in physical markets.¹⁷¹ But law enforcement and regulators are poorly positioned to respond to cyberenabled theft, fraud, and other illicit activity.¹⁷² Cyberspace remains a place where national law enforcement has minimal jurisdiction and where regulation often lies in the hands of private corporations.

E-commerce platforms need to assist in the detection of illicit product transactions,¹⁷³ but both law and ethics are ambiguous and contested regarding whether platforms such as Amazon, eBay, or Alibaba bear responsibility for preventing vendors from selling counterfeit goods on their sites. For the past two decades, governments have engaged in minimal oversight, and as the platforms profited from both licit and illicit commerce, there was little incentive for them to do so on their own initiative.

Increasingly, however, there is pressure on online vendors to proactively remove counterfeit goods, block vendors, and prevent criminal or fraudulent sales. For example, Amazon has introduced "the Transparency program" that provides unique serial numbers (assigned via a QR-style code) for consumers to use to verify the integrity of products. Uptake has been relatively limited: 4,000 brands have used the Transparency program, with no evidence of counterfeit items getting past this program.¹⁷⁴ While there is still a considerable way to go (there are 2.5 million vendors registered on the Amazon platform), the program is an example of how online vendors can contribute to fighting the online problem.

Continuing to build partnerships among law enforcement, working with Internet service providers (ISPs) to close independent sites hosting illicit products, and developing agreements with e-commerce platform operators are important tools, but the rapid evolution of e-commerce necessitates a more systematic approach to tackling online illicit trade that is focused on ways to stop it at the source.¹⁷⁵

One such area is finding how information gleaned by the platforms can be shared with law enforcement and criminal justice systems in a systematic way.

Efficacy in closing online platforms may work well to reduce the trade in counterfeit goods such as luxury handbags and other aspirational markets. But for goods such as medicines (a necessity) and illicit wildlife commodities (driven by scarcity of supply), the risk to closing surface web markets is that these commodities are pushed further underground to the dark web, or back on the streets where consumers have a much closer degree of contact with criminal groups.¹⁷⁶

Since the take down of the Silk Road in 2013, the dark web is inherently less stable than it was previously, with dark web markets opening and closing at a far faster rate, and with greater suspicion being demonstrated between vendors and consumers.¹⁷⁷ Successful interventions on the dark web



Sapelli tree being cut near Lieki, Democratic Republic of Congo. Identifying and stopping illegally harvested forest products is among the most difficult illicit trade challenges. Source: Axel Fassio/Center for International Forestry Research (CIFOR), flickr.

require precise targeting of underlying consumer psychology and the social processes that allow them to flourish. $^{\rm 178}$

5.2 SURVEILLANCE

Technology is offering unprecedented ways to improve surveillance at all points along the supply chain. Surveillance technology has become critical to the management of critical private infrastructure.

Surveillance equipment, cameras, tracking and recording devices, and other forms of monitoring have grown more sophisticated, cheaper, and more ubiquitous. Along with the improvements in communication technology, they allow companies to watch goods containers being unloaded, processed, and moved onwards in real time.

Some experimentation has been done with technologies that can provide surveillance of illicit or unethical sourcing, though this has mostly been by independent civil society actors. For example, reporters from the Associated Press have used satellite Global Positioning Systems (GPS) to track boats and shipments to investigate and reveal ships engaged in illicit fishing. They continued to use satellite surveillance to watch the catch being offloaded, trucked, stored, and processed. They then used financial data to track those catches all the way to their final commercial destination, where, via consumer campaigns, they were able to pressure suppliers and retailers to demand higher integrity in their downstream supply chains.¹⁷⁹ To be truly effective, surveillance of this kind needs to be systematic and routine, rather than occasional or ad hoc, where gaps in oversight will be large. The financial implications of this may make using the technology solution prohibitive for many companies.

Similarly, Geographic Information Systems (GIS) are being utilized to assist with oversight of natural resource extraction, in particular illicit logging. While they do not provide the benefit of on-the-ground monitoring and data entry, they can be used effectively to cross-reference corporate or national data being produced with some quantifiable indicators. In the case of the logging industry, remote GIS data can assist with assessment of deforestation locations and rates, illegal timber harvesting, timber volume extraction estimates, and other applications.¹⁸⁰

Finally, investments in technology have improved the capacity for surveillance at sourcing sites, including in previously hard to access areas like conflict zones. The Better Sourcing Program, for example, has developed a smartphone application that allows for the collection and sharing of production and trade data from the point of extraction at the mine site to the smelter.¹⁸¹ These can be used both by employees in the supply chain, as well as by community members for civilian oversight.

5.3 SUPPLY CHAIN CONTROL

Technology solutions can have significant impacts on supply chain control.

5.3.1 Certification schemes

Certification schemes, put in place to verify products at source, can have considerable impact, particularly for those natural products that are improperly harvested—illicitly mined minerals, illicit logging or fishing, and poaching or trapping of flora or fauna. There are several clear prerequisites needed to make certification schemes effective.

First, it requires a standard, accepted, and clearly defined agreement around what the certification will apply to. Political contestation can place obstacles even at this first point, in deciding what should be "certified" as developing economies may perceive this as an attempt to place barriers on their bringing exports to market, and creating prohibitive regulatory requirements.

Second, there needs to be a controlled production area that can be kept "clean." It is essential that commodities sourced outside of the certification scheme cannot enter and be integrated into the supply chain. This is largely what is undermining certification schemes for multiple products in central Africa¹⁸² and large parts of Asia, where insecurity, large-scale artisanal activities, corruption, lack of political will, and porous borders compromise the capacity to control the area. If the source site cannot be verifiably secured, then there is no way to confidently assure that the commodities are all legitimate. The certification scheme in these contexts becomes a means by which to launder illicitly sourced products, although such schemes are highly context specific and apply better to some products and sectors than others.

Certification schemes need reliable databases for better statistics plus official commodity trade data exchanges. To ensure confidence in the quality of data being entered into a database, local agents need to be trusted or steps need to be taken to either automate or provide oversight and verification of data entry downstream, at the first point of supply. Digital authentication and electronic signatures can assist here through enabling a transaction (in this case, data entry at the first point of supply) to be personalized, verified, and encrypted. In a scenario where such reliable first-pointof-supply data exists, trade and excise data can become a means of verifying production numbers.

Finally, there must be an effective enforcement capability and credible sanctions for noncompliance, involving real penalties, otherwise few will have enough incentive to obey the law.¹⁸³

5.3.2 Track and trace

There now exist sophisticated technologies that help trace the origin and complete supply chains of goods. Known as track-and-trace solutions, their primary function is to provide means of verifying proof of origin (often associated with a certification regime) and supply chain integrity—they assist wholesalers, retailers, government officials, and consumers



Figure 2: Schematic For a Track-and-Trace System

verify the proof of origin and authenticity of products. A range of companies, using different mechanisms to provide unique identifiers to physical components, total products, and financial transactions, now provide such technologies.

Increasingly, regulatory bodies are mandating by law the use of track-and-trace technologies. New regulations such as the Drug Supply Chain Security Act in the United States or the Falsified Medicines Directive in the EU require pharmaceutical producers and suppliers to apply track-and-trace technology throughout their supply chains to guard against counterfeit medicines.¹⁸⁴ The WHO FCTC also has mandated the implementation of track-and-trace for tobacco products. Unlike the medicines legislation, the FCTC requires signatory governments to implement track-and-trace systems and to cooperate at the international level. These systems must be independent from the producers and suppliers.

Track-and-trace options are expanding. There is a substantial body of literature that examines and advocates for their use in the context of different commodities. New technology has transformed product labelling, allowing it to be used in an increasing number of sectors and with greater versatility in supply chains, including imprinting microscopic electronic devices into consumer goods, using genetic DNA markers for agricultural or natural products, exploiting "fingerprinting" technologies to differentiate between Items, generating codes that link to information, and communication systems that reveal the provenance and veracity of goods.

Technology can help reduce the burden on law enforcement, particularly those products that allow the provenance and integrity of commodities to be verified in real time along the supply chain. Recognizing that countering illicit trade will always be lower on a list of policing priorities than other more urgent and visible security threats, track-and-trace and other verification systems mean that everyone, not just criminal justice authorities, can police and work to disrupt illicit trade.¹⁸⁵

5.3.3. Genetic identifiers

Genetic tools constitute an advanced field of illicit trade countermeasures. This refers to the tracking of goods using genetically-based forms of identification, in essence tracking a good's characteristics via its DNA signature or fingerprint. For obvious reasons, these technologies are particularly useful for tracking trade in natural products that, owing to their biology, have unique DNA signatures, though new technologies are now offering means to synthetically generate genetic fingerprints that could operate similarly.

The illicit timber trade provides a good example. The enormous scale of illicit logging, with its huge environmental and livelihood implications, places the timber trade at the forefront of technological solutions to supply chain control for biological products. The goal of timber tracking is to collect timely and accurate information on timber and timber products throughout the supply chain, including when the primary commodity is processed into other products, and into more complex supply chains. This information can be linked either to a batch of products (typically for commercial roundwood), or for individual lumber (in the case of higher-value species such as mahoganies). Means of tracking timber can range from electronic, semi-electronic, through to molecular markerbased methods.¹⁸⁶

Genetic identifiers, which have been used for a decade in efforts to control illicit timber trafficking, are effective at ensuring integrity in timber supply chains and origin verification. Improvements in genetic technology, including the capacity to screen DNA sequences en masse, have made this approach more cost effective, timely, and scalable. There are four basic techniques:

- DNA barcoding for species identification;
- Digital fingerprinting for tracking of individual logs or timber products;
- Phylogeography for verification of source, which can be specific enough to track the location down to the individual logging concession zones; and
- Population genetic assessment to distinguish whether individual specimens come from the same population.¹⁸⁷

The fourth method can be beneficial for applying controls where there is known comingling of licit and illicitly sourced timber, as in central Africa, where logs are illicitly harvested and then laundered cross-border into legitimate exports in neighboring countries.¹⁸⁸

Underpinning DNA barcoding, however, is the need for universal standards plus a central database that contains complete DNA sequence data. For example, the National Centre for Biotechnology Information, a US-based independent research institution, maintains the "GenBank" as an openly held public sequence database.¹⁸⁹ As with all central records and databases, all stakeholders need to trust, invest in, and maintain just one source. Disputes about who should gather and hold the data can undermine the effectiveness of these approaches, which is of particular concern to developing economies, which may resent US and European involvement in such efforts.

More recent technological advances include inks that allow products to be tagged with plant DNA.¹⁹⁰

5.3.4 Molecular markers

These special chemicals are added "in-product" and can address problems like fuel theft, which is one of the leading and most lucrative forms of illicit trade. Unlike prior efforts to reduce fuel theft, which included adding colored dye to the fuels to give them a distinctive color, and which could be washed out, adding invisible molecular markers allows end-to-end identification of fuel from source to destination, as well as providing evidence of adulteration.¹⁹¹

A molecular marking system for the fuel industry that allows end-to-end tracking and the detection of adulterated fuel is currently in use in some countries. A unique chemical marker is added to petroleum products which allows fuel batches or categories to be identified and any adulteration or comingling to be detected. This can guard against numerous forms of illicit activity, from tax evasion, where the markers can be used to identify if subsidized or tax-exempt fuel is illegally resold or passed off as higher-price or taxed fuel, to ensuring proper use of subsidies and that tax revenues have been paid. The marker can be added in a fully automated way, which circumvents the possibility of distortions caused by poor handling or corruption. The best systems provide in-the-field real-time detection capability giving evidential level proofs that facilitate enforcement. The approach can be combined with other government and corporate systems, as well as GPS locators and wireless reporting capacity, providing a comprehensive solution.¹⁹²

5.3.5 Blockchain's potential to build

trust in supply chains

Blockchain records transactions in encrypted, verifiable, and unchangeable ledgers. It also provides an optional platform that allows those ledgers to be placed in the public domain— "permissioned"—where they can be publicly accessed, or an alternative that allows them to be held privately between a set of trusted participants. It is, in short, "a tamper-proof, decentralised and distributed digital record of transactions that creates trust and is said to be highly resilient."¹⁹³ The *Economist* has described blockchain as the "trust machine" because of the way it allows all different entities involved in a transaction to share the same set of records.¹⁹⁴

Blockchain is increasingly a standard or supporting tool to building supply chain integrity. Like all new standards or platforms, it requires that all parties reach key agreements on how that platform works, including how the system is built, how data formats work, who controls the data, and what happens if one partner wants to be removed. These are the same sets of issues that would challenge the authorization and implementation of any potential IT or shared system.

Furthermore, trust and truth are not equivalent. Many products already have certificates of authenticity that offer exhaustive guarantees. The assurance that blockchain offers all parties to a transaction is that records have not been tampered with. It does not guarantee the authenticity of the transaction—if one parties lies, then blockchain will record the lie for posterity. Correctly used, blockchain is a game changer for ensuring supply chain integrity; incorrectly used, it is not. So it needs to be associated with securing the integrity of the process on the blockchain.

Few industries have expressed more enthusiasm for the promise of blockchain technology than the pharmaceutical industry, which is keen to improve supply chain integrity out of necessity. A September 2018 survey by the NGO Pistoia Alliance found that 60 percent of professionals working in pharmaceuticals and life sciences were experimenting with blockchain technology, compared to just 22 percent surveyed just one year prior.¹⁹⁵ However, there are good reasons to temper expectations. For example, given that a blockchain ledger cannot show whether someone entered fraudulent or mistaken data about a given item, a pharmaceutical package might be seamlessly tracked even though its content has been tampered with.

The pharmaceutical example illustrates how blockchain is one piece of a larger supply chain puzzle. Safeguarding security and ensuring product integrity will require that any technology or set of technologies, blockchain included, deliver consistent results.

6 conclusion and recommendations

rends and shifts in geopolitics and globalization mean that the framework by which we understand financial power and control over trade and commerce needs to change.

Sovereign states and state institutions have ceded their control over their own economic frameworks and the sites of production, manufacturing, and distribution to corporations and the parastatals of other nations, whilst nominally taking an exclusively regulatory role. Yet, at the same time, in the interest of facilitating and increasing the speed and intensity of trade, states have further reduced their capacity for regulation by veiling manufacturing and import/export within FTZs.

A differentiation is required between those states where conditions favor making progress and those where it does not given a range of factors, including the lack of political will (when, for instance, political elites are themselves beneficiaries of illicit trade). Indeed, in countries where the perception is that elites, especially elites connected to the state, profit from illicit trade, this challenge is especially difficult. The elite-corruption nexus may be most pronounced in authoritarian states, but as this report has shown, it can exist in democratic states as well. For those interested in overcoming the illicit trade problem, a key will be to identify those states where real progress is possible versus those where it may be too difficult given lack of real political will.

This challenge is captured by one of the foremost thinkers on organized crime, Louise Shelley, who writes: "Countering illicit trade requires the input of crime specialists, but it also requires action and involvement from a much broader community. ... [It] demands a rethink on the financial system to provide more transparency, strong anti-corruption measures, and the targeting of the diverse facilitation that perpetuate illicit commerce. Furthermore, it requires a corporate culture, especially in the rapidly evolving tech world, more committed to curbing trade in outlawed commodities and ensuring the transparency of supply chains."¹⁹⁶

Corporations, indeed, now have an outsized role in shaping the way economies, markets, and supply chains function. They have ever more latitude to partner with states whose elites have positioned themselves to profit personally rather than promote broad-based development gains. Keeping global trade honest and closing the loopholes for illicit trade will be a quest that motivated, ethical corporations will need to lead.

The policy prescriptions long put forth by multilateral institutions typically emphasize the need for developing countries to upgrade their workforce skill base, improve their

business environment, and enhance their infrastructure if they are going to maximize the potential of trade and globalization as a driver for development. But this is a circular argument: to achieve development they need to trade globally; to trade globally they need development.¹⁹⁷

The rise of southern development banks and bilateral donors has shifted the emphasis of foreign direct investment away from conditionality-based governance and development principles to ensuring a greater proportion of the value chain is realized in the states themselves. The interests of local powerbrokers and elites, both in government and external to it, are now stakeholders who can play either a constructive or a spoiler role in achieving legitimate trade or perpetuating illicit economies.

Technology and digitization are unquestionably core pillars of the global economy, and their availability and application may kick start a virtuous process. But alone they are not the panacea. All technology solutions to illicit trade are fundamentally socio-technical systems, which means that they cannot work independent of the political economy around them, and will fully function as promised only if the stakeholders concerned are fully engaged and support their implementation. The main objective of this report has been to review the contemporary evidence basis on illicit trade and the efforts made to counter it, and to understand how the political economy of developing countries impacts them. That does not imply that there are no opportunities for making a difference, but only that they need to be carefully selected with a full understanding of the context in which implementation will occur.

While much more granular research work and consensus building will need to be done when implementing specific initiatives to counter illicit trade, based on this comprehensive review, there are five guiding principles to be drawn.

6.1 BE COMMODITY SPECIFIC AT THE GLOBAL LEVEL

First, the nature of illicit trade differs according to commodity, its industry, and the interests of the key stakeholders involved. The solutions required to combat that trade thus also differ. It is, therefore, challenging to talk about generic solutions to illicit trade though there are some solutions and approaches that could be of general benefit.

Creating international frameworks, conventions, and international or regional strategies can be a long-term endeavor, but they remain a positive enabler for long-term and sustainable global approaches. Conventions indicate a common consensus around a global priority, they set out basic principles, legal requirements, policy and procedural frameworks for responses, and in some cases economic and social norms that will be required for an effective and comprehensive response. But the creation of an international strategic approach can often be a ponderous and processheavy endeavor, which may take decades to achieve consensus, be brought into force, and to see its implementation framework translated into national laws and policies.¹⁹⁸

Certain commodities also lend themselves far more naturally to coordinated efforts: those that have a humanitarian or moral imperative behind them. Protecting the integrity of medication or other lifesaving necessities usually offers a powerful rallying cry for governments, corporations, consumers, and the general public to commit behind. In short, the greater the harm, the greater the imperative to act.

An unfortunate reality in the case of most forms of illicit trade is that despite international conventions that harmonize laws, or framework agreements that try to establish norms and standards, there is still considerable divergence on what goods should be prohibited, pronounced differences in quality standards, and issues of property rights and penalties. These divergences often occur as fault lines between developing and developed economies, where the perception by the former is that efforts to control illicit trade are a new form of protectionism, intended to lock them out of the global economy. These political obstacles fundamentally undermine efforts to regulate and reduce illicit trade.¹⁹⁹

In particular, the harmonization of laws and the coordination of enforcement efforts can benefit from a global approach. Harmonization requires that compatible sets of rules and penalties are applied, firstly to prevent the creation of inequities which criminal groups will use to arbitrage between different jurisdictions, but also because it ensures that law enforcement agencies and businesses can be confident about what is legal across jurisdictions. The gray space where some practices are legal and others illegal has been shown as both a major enabler of illicit trade, as well as a serious barrier to effective enforcement.²⁰⁰

If the necessary global policy regulatory environment is weak, the consensus and coordination lacking, and the evidence basis poor, then expecting to achieve results in developing economies is unrealistic. However, there are a number of commodities where there is a broad-based global consensus or a working convention that has already been negotiated. Working under these umbrellas is a stronger place to start than trying to navigate piecemeal between individual companies or partner institutions.

The WTO TFA, the Medicrime Convention, and other instruments for specific commodities are often already in place

but lack momentum or practical application. While the WTO is discussing a more comprehensive illicit trade framework that would be commodity blind and provide a means of bringing together the otherwise fragmented landscape of responses to illicit trade, there are serious structural issues that will need to be overcome.²⁰¹

While each form of illicit trade has its own characteristics, there are patterns across criminal groups, trafficking routes, means of transport, and concealment methods. Segmented approaches do not consider the problem's interconnectedness, nor do they enable points of convergence. Holistic analysis may, however, help to identify nodes in the illicit trade economy where upstream or downstream interventions may have broader effects. For example, regulatory or technology solutions in one country, particularly those which constitute hubs for regional trade, can have wider impacts by ensuring "pools of integrity" with wider implications for reducing illicit trade beyond the benefits inside the country's sovereign territory.

6.2 BE CONTEXT SPECIFIC AT THE LOCAL LEVEL

Second, the initial diagnostic, not only of the realities of the supply chain and local business practices, but also of the prevailing environment and the local political economy, is critically important. As the accompanying case studies of this report demonstrated, the reality of illicit trade for communities is very complex, it often mirrors licit trade in its modus operandi,²⁰² and those that get caught in illicit markets are not always as criminal as they are made out to be, while those assumed to be the bulwarks against criminality are often its protectors and enablers. As a rule, illicit economies are perpetuated by the powerful and exploit the weak and most vulnerable in society. The reality from one locality to another can differ sharply, with different groups, entities, and individuals playing key roles.

Proper due diligence and risk assessments, including a baseline study and ongoing monitoring of the political economy, will be required. Awareness and understanding of illicit trade plus the modus operandi of criminal, corporate, and state actors is limited; the study of consumers' attitudes, perceptions, preferences, and behaviors is typically constrained only to legitimate behavior. Without an evidence-based underpinning to strategy development, it is impossible to fully understand the market and stakeholder dynamics, or to understand the impact of interventions. A prerequisite for the design of any counter-illicit trade initiative should be a proper, multi-sectoral political economy study, an analysis of the typology of the commodity, and a market assessment. A clear understanding of the underlying causes, political dimensions, and network structures of illicit trade, as well as the links between national and local power holders, will support the design of effective strategies and programs to counter illicit trade. Finally, citizens' views on acceptable and intolerable practices matter. Their beliefs, values, and needs must be considered, and perhaps moderated, if the intervention and improvements are to be achieved.

Behavioral change initiatives will require this in-depth analysis in order to design targeted communication strategies. The kinds of sophisticated market research that are used in the private sector to target consumers can be reoriented to understand attitudes and behaviors in the licit and illicit economies. It can then be used to build strategies that raise awareness about the wider implications, and to share information about risks and mitigation strategies.

One thing to bear in mind, however, is that information-sharing and awareness-raising strategies need to be designed and delivered by an entity that is perceived to be trustworthy. Even though it may appear logical that it should be state institutions that deliver public service announcements, in developing economies, and in those states where the authorities are perceived to act with impunity or have deep vested interest in the trade, the state is unlikely to be that trusted interlocutor. Criminal groups providing the commodities may have a higher degree of legitimacy in these localities than a state that is seen as predatory or ineffectual. In these cases, civil society, whether it be an independent media, local advocacy groups, or service providers, or even community or religious leaders may be a better spokesperson and communicator. Thinking through who delivers a message is as important as the message itself.

Overall, this principle is about knowing the local context, finding solutions and innovations that are tailored to that local context, and that account for the perceptions, attitudes, and impacts on the local population. Cross-country comparable analysis and a holistic view of the supply chain from both demand and supply sides helps to allow nuanced local solutions to fit into a broader transnational strategy.²⁰³

6.3 CONSIDER THE OPERATIONAL IMPLICATIONS

Third, developing countries come with a raft of operational challenges to implementation that will need to be overcome, and which may undermine the rollout and sustainability of illicit trade solutions. These operational challenges are manifold, and addressing them may be costly and difficult.

Overcoming the requirements and costs of energy, connectivity, and infrastructure need to be part of the solution. Agents will need reliable access to automobiles and fuel, and need to be supported by superiors to prioritize those tasks. Basic skills in staffing—literacy, numeracy, technology familiarity—will all need to be considered.

Developing new systems will need to be aligned to the interests and existing processes of the workers, companies, and partners active in the sector. Poorly designed or overly complex tracking systems, which may appear logical and optimized, may in fact hinder work by operators, for example, by providing a confusing interface or building a tracking model that poorly represents the reality on the ground. Many systems are not set up for involving consumers and end users, require specialized technology, or produce data that users cannot process in a meaningful way. Effective systems that increase in utility over the long run nonetheless may not provide immediate returns, hence might be discarded.²⁰⁴

Consideration also must be given to coherence-when multiple systems are grafted unilaterally or in a fragmented manner onto the core institutions of the state, they can overwhelm what capacity they have. Multiple systems are commodity-specific, requiring unique chipping, scanners, and information systems. For customs and security officials, one result can be an overwhelming number of different handheld devices, operators, technology, and reports. However, attempts to implement integrated systems, such as track-and-trace solutions, can offer unified multiproduct platforms with the capability of interacting within a multiagency approach in order to facilitate the work of customs and security officials. Such technologies make it increasingly possible for scanners, handheld devices, and information systems to become interoperable. Further proposed solutions include the use of DNA profiling, but few customs offices have access to a lab, and DNA kits are far from being a widespread resource or a realistic reality.²⁰⁵ Beyond the technologies themselves, a fundamental challenge is the number of government agencies involved: disentangling, simplifying, and coordinating governments' use of these technologies and processes ought to be a priority.

Safety is a serious concern. Agents working in countering illicit industries, who are being asked to resist corruption, will become the targets of unscrupulous and potentially violent actors, as will their families. Keeping them safe in environments where local law enforcement is weak or compromised is a challenge. The technology or investments themselves risk becoming a new asset in a volatile political economy, and a focal or flash point for competition or control, presenting risks of hijacking, protection, or extortion. Technology, however, can also be a protector by eliminating direct human contact with the system and external actors.

6.4 PLAN FOR INDEPENDENT OVERSIGHT

Fourth, any new initiative will have to integrate its own oversight mechanisms within states that have limited capacity and/or have privatized key assets or established zones where they have restricted their oversight. Contracting independent third-party firms is typically the model—the big international accounting and management consulting firms have played this role in a number of cases but a number of high-profile cases have shown there is a risk to a private firm or its agents being co-opted to turn a blind eye to continuing illicit trade practices.²⁰⁶ Whether this happens at the scale of grand corruption, or at a working level where independent monitors are induced to distort their findings, the impact can be to undermine a regulatory effort. Obviously, the choice of partners that governments should engage is key.

An alternative is the idea of "co-regulation" to establish meaningful partnerships between states and the private sector, to create appropriate standards and ensure their compliance. Co-regulation involves creating a broader set of key stakeholders and generally emphasizes stakeholder consultation in the regulatory inception and conceptualization phase, then establishing clear objectives and measurable baselines for implementation and monitoring, all of which can then be implemented by a more focused operational arm. All good-faith actors should be enabled to share information and bring their relevant capacity and expertise to the table. In a co-regulation framework, the role of the partners is to ensure that where breaches are found, they can be properly and effectively prosecuted through an agreedupon mechanism.²⁰⁷ Obviously, this mechanism requires not only that a government have an interest in creating such a stakeholder-intensive model, not only that it has the capacity to build and then monitor its effectiveness, but also that it enjoys the trust of good-faith non-state actors. (A key point is that this model only works to the extent that a regulated industry can demonstrate its good faith on an ongoing basis; it will not work when the regulated industry acts contrary to the model's intent.)

Another option is to establish civilian oversight systems. These models typically provide oversight over policing, but are growing in prevalence for other government functions as well. Civil society and nongovernmental organizations have proven effective partners in fighting different forms of criminality, for example in raising awareness of human trafficking, advocating for the rights of communities affected by wildlife trafficking, and providing aid to victims of crime, trafficking, and criminal violence.

In the right context, civil society is well placed to provide civilian oversight and to hold both states and corporations to account for maintaining commitments made, as well as supporting efforts to build consumer awareness. For those forms of illicit trade where consumers are able to offer surveillance over the marketplace, or where key areas of vulnerability in supply chains occur in areas with local populations, civilian oversight mechanisms can be effective. However, and while dependent on product, they require that local communities see some dividend and result from their participation. The CITES convention, for example, acknowledges the developmental concerns of residents and developing economy custodians in establishing listings of species and appropriate levels of usage. In the area of Kruger National Park in South Africa and neighboring countries, there are conservation organizations that have paired community members with rangers, or have created alliances in which local communities both oversee and profit from hunting and local tourism.²⁰⁸

If oversight mechanisms are to be effective, they will need three things:

- **Independence:** The ability to operate free from the influence of the parties they are monitoring, as well as from political interference.
- Resources: Oversight mechanisms will need the financial and human resources to properly perform their function—to visit sites, to investigate, and to issue public reports.
- **Power:** The findings and outcomes of the oversight must have some capacity for enforcement behind it. At the very least, the publication of credible and evidenced reports have the capacity to leverage public opinion, but the support of a criminal justice or financial penalty process to sanction contravention has greater potency. Where technological solutions have been implemented, they may also be crucial to producing evidence on which prosecutions can be based.

In cases where direct and dedicated oversight mechanisms are not possible to put in place, then more general support to building up civil society capacity is of value. This can include sponsoring independent data collection, analysis, and publication of evidence through local think tanks, academic institutions, and observatories who are leading and sharing relevant research. In an age of growing strategic disinformation, even straightforward measures like funding to local media houses and independent investigative journalists can enhance the capacity for transparency, oversight, and whistleblowing. Also important is ensuring the integrity of the news media, advocating for a free press, and lobbying governments to establish legislation that would expose sponsored content in publications and advertising. These are necessary to ensure that the fight against illicit trade is not captured by private or malign interests.209

6.5 TARGET COMPREHENSIVE REFORM, NOT QUICK FIXES

Fifth, broad and holistic strategies to respond to what is often a global challenge, not just a regional or national one, are required. No solution to address illicit trade is likely to be successful in isolation, and fragmented approaches are more easily undermined. Illicit actors can find ways to overcome the friction introduced by a singular initiative, such as new packaging, stamping, or border control. But a holistic, end-toend strategy creates a far harder regime to overcome.

Ideally, interventions (including technological interventions) are combined with other economic, social, governmental, and enforcement activities to inhibit illicit trade.²¹⁰ Recognizing and leveraging these interdependencies is crucial to ensuring that interventions are maximally effective at reducing space for criminal actors to operate while avoiding negative consequences to communities, societies, and consumers.

As the Southern Africa tobacco case study highlighted (see Section 3.1), responses to illicit trade will need to address the corruption that allows and is fueled by illicit trade, the underworld links between industry and individuals suspected of running extortion rackets or trafficking in narcotics, and the broader range of costs to the state due to illicit practices, instead of solely loss of excise tax to the state because of under-declaration. An additional discrete objective could be stopping misinformation about illicit trade.

Successfully combatting illicit trade must consider implementation in practice and criminals' responses to legal and policy changes. Not doing so could leave legitimate efforts susceptible to being hijacked by the corrupt or the criminal interests in the enabling environment or the sector. Organized crime groups are adept at reading the market and identifying opportunities and loopholes to maximize their profit or capture of market share. The goal, therefore, is to squeeze their capacity to operate by raising risk and reducing the reward.

Sin taxes are often used as a deterrent for commodities that are addictive or damaging for public health. If the introduction of a sin tax is not well conceived and planned, as earlier discussed, it can be an incentive for criminal groups to provide the same product at a lower price. Lessons learned from experimentation with taxes on tobacco, for example, seek to identify the pricing "sweet spot" break point that does not create such a high profit margin to incentivize organized crime groups to smuggle, whilst at the same time ensuring that the margin is enough to continue to deter consumers. Effective systems of control may shift the "sweet spot." It should also be noted that sin taxes often have multiple policy objectives, for example, reducing commodity use while increasing funds to the state. So, there are multiple measures of success.

When calibrating their own tobacco tax, Canadian policy makers, for example, focused in particular on the youth market, given the addictive properties of tobacco, to ensure that it was priced out of their average purchasing power range, whilst at the same time investing in the capacities for border control and law enforcement to investigate groups involved in smuggling and to track the laundering of profits. These investments in the enforcement and investigation infrastructure paid dividends in controlling other forms of illicit trade.²¹¹

Policy makers should be attentive to the gains to be made through those interventions which could tilt the balance in favor of comprehensive reform. The agenda should be about coalition building: construction of step-by-step approaches to overcome one vested interest at a time to build a proreform coalition. Doing so might enable a state on the cusp to avoid one possible outcome of big bang comprehensive reform efforts, which is the potential for powerful opponents to coalesce quickly against an overt and aggressive agenda, thereby killing it. In the technological space, for example, states on the cusp might experiment with pilot projects, conducting trial and errors with the long-term goal being to adopt technologies that are leaner, more agile, corruptionresistant, and efficient, all of which are implemented with the backing of a strong pro-reform coalition.

The recommendations, therefore, emphasize thinking broadly, but identifying discrete aspects of the fight against illicit trade where interests might align, in order to open space to build trust and for further and deeper cooperation, and to generate positive externalities.

endnotes

- 1 For background, see *Crime and Contagion: The Impact of a Pandemic on Organized Crime*, Global Initiative Against Transnational Organized Crime, March 2020, https://globalinitiative.net/wp-content/uploads/2020/03/GI-TOC-Crime-and-Contagion-The-impact-of-a-pandemic-on-organized-crime-1.pdf.
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acronyms

ACRONYM	EXTENSION
AI	Artificial Intelligence
BAT	British American Tobacco
CCSS	Costa Rican Social Security Fund
CoNaPif	Comisión Nacional contra Productos Ilícitos Falsificados (Costa Rica)
EUIPO	European Union Intellectual Property Office
FCTC	Framework Convention on Tobacco Control
FITA	Trade Independent Tobacco Association (South Africa)
FTZ	Free trade zone
GAO	U.S. Government Accountability Office
GIS	Geographic Information Systems
GI-TOC	Global Initiative Against Transnational Organized Crime
GPS	Global Positioning System
IT	Information Technology
OECD	Organisation for Economic Co-operation and Development
SARS	South African Revenue Services
TISA	Tobacco Institute of South Africa
TRIPS	WTO Agreement on Trade-Related Aspects of International Property Rights
WCO	World Customs Organization
WHO	World Health Organization
WTO TFA	World Health Organization Trade Facilitation Agreement
UN	United Nations
UNODC	United Nations Office on Drugs and Crime
UNTOC	UN Transnational Organized crime Convention

about the authors



Mark Shaw is the Director of the Global Initiative Against Transnational Organized Crime. He was previously a Professor at the University of Cape Town where he held the National Research Foundation chair for Justice and Security. Prior to that, he was a senior official at the UN Office on Drugs and Crime, where he served for more than 10 years. Before joining the UN, Mark held a number of positions in the South African government and in civil society, where he worked on issues of public safety and urban violence in the post-apartheid transition. Mark is a well-recognized expert in transnational crime, security and justice issues, with an extensive publication record.



Tuesday Reitano is the Deputy Director of the Global Initiative Against Transnational Organized Crime. Prior to the Global Initiative, Tuesday held a number of senior policy and advisory positions, including to the Institute for Security Studies, Pretoria, and the European Commission's program on counter-terrorism. She worked for 12 years in the UN System, including with the UN Development Programme, the UN Development Group and the UN Office on Drugs and Crime, where she focused on crisis and post-conflict states, developing programs at the nexus between security and development. Tuesday has authored numerous policy-oriented and academic publications and reports with leading global institutions.



Simone Haysom is a Senior Analyst with the Global Initiative with expertise in corruption and organised crime, and over a decade of experience conducting qualitative fieldwork in challenging environments. Simone has been closely involved with GITOC's pioneering work on heroin markets in Southern and East Africa, including leading multi-country studies on the development of illicit urban markets across the region. She is the author of "The illicit tobacco trade in Zimbabwe and South Africa" (Atlantic Council, 2019).



Peter Tinti is a Senior Research Fellow at the Global Initiative Against Transnational Organized Crime and independent journalist, focusing on conflict, human rights and organized crime. As part of his work for the Global Initiative, Tinti has written and contributed to several reports on illicit economies in Africa and Latin America, with a particular emphasis on narcotics trafficking in the Sahel, and migrant smuggling networks in Africa, Asia, and Europe. He is the author of "Dark pharma: Counterfeit and contraband pharmaceuticals in Central America" (Atlantic Council, 2019).

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