

Introduction

THE FUNDAMENTAL TRANSFORMATION OF ILLICIT TRADE

Since ancient times in the Middle East, traders—both licit and illicit—have sold tangible goods. Currencies and contracts developed with commerce, as traders needed to pay for goods.¹ Traders had personal relationships with their fellow merchants. Grave robbers of antiquity knew to whom to take their ill-gotten gains, just as did the thieves who disposed of stolen personal property through fences in ancient Mesopotamia.

Yet after four thousand years, technology changed the fundamentals of trade, in both the legitimate and illegal economies, with the global spread of the internet, cell phones, and the digitization of economies. Most observers focus on the transformation of legal trade as people shop online, pay bills, and use credit cards through their computers and cell phones. This new phenomenon has displaced local markets in many parts of the world. No longer are markets, downtowns, or malls functioning as visible centers of daily life—they are being replaced by the impersonal online marketplaces of the new technology. The impact on the economy, on employment, and on all our lives has been profound. But meanwhile, highly significant changes have come to illicit commerce as well.

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In the last three decades, the most advanced forms of illicit trade have broken with all historical precedents. Old forms of illicit trade persist, but the newest forms of illicit trade, tied to computers and social media, operate as if on steroids. Illicit trade is developing rapidly in all sectors. No area of this trade has diminished in its volume or its geographic reach, because many profit from this dark commerce, not just those associated with traditional crime groups.

In the past, illicit traders produced and benefited from counterfeit currency; now they depend on illicit financial flows, illegally earned or transferred money, and cryptocurrencies, easily acquired through online purchases.²

In this new world of illicit commerce, trade is impersonal and anonymized, and vast profits are made in relatively short periods, with limited accountability to sellers, intermediaries, and purchasers. Billions use the internet and communicate through encrypted software; WhatsApp alone had 1.5 billion active users monthly at the end of 2017.³ New technology, communications, and globalization fuel the exponential growth of many of the most dangerous forms of illegal trade—the massive sales of narcotics and child pornography online, the escalation of sex trafficking through web and social media–based advertisements, and the sale of endangered species, for which revenues now total in the hundreds of millions of dollars.⁴

In the cyberworld—particularly in its most hidden part, the Dark Web (entered only through special anonymizing software such as Tor)—payments are no longer made in state-backed currencies. Instead, customers pay for their purchases in a plethora of new anonymized cryptocurrencies, of which Bitcoin is the best known. Moreover, in this illicit world, the very commodities have changed, and many can no longer be touched or exchanged by human hands. Rather, many of the most pernicious illicit traders buy commodities based only on algorithms, such as malware, Trojans, botnets, ransomware (which denies users access to their data), and spam, marketed by malicious suppliers in both the developing and developed worlds.⁵ Franchises and rentals of these products are also available in the Dark Net, a computer network with restricted access that is used chiefly for illegal peer-to-peer file sharing.⁶

These virtual products have greatly harmed ordinary citizens, stealing their identities, passwords, and money out of their bank accounts. The losses tied to these intangible goods now total vast sums. Estimated losses to ransomware alone were estimated to total \$5 billion in 2017, and \$15.4 billion was lost to identity theft in 2014 as individuals and, especially, businesses and institutions paid large sums to recover access to crippled computer systems in private homes, hospitals, and other critical locales.⁷

The changes in crime wrought by new technology are most evident in the G-7 countries, the largest economies in the world, but they are by no means confined to these seven countries: investigations of computer-facilitated crime have identified their impact in the vast preponderance of the world's countries. In one recent online ransom attack, victims were identified in 189 countries.⁸ The United States has been particularly hard hit as online trade via the new technology has contributed to the exponential growth in opioid-related deaths, the theft of inventions and new products needed to drive economic growth, and the extensive distribution of malware that undermines computer systems.

This transformation in technology was unanticipated. No one predicted the reach of the World Wide Web, the billions of users of social media and encrypted telecommunications, the rise of alternative payment systems, or the massive exploitation of the Dark Web (the part of the World Wide Web that is only accessible by means of special software, allowing users and website operators to remain anonymous or untraceable).

The spread of the internet was originally interpreted almost entirely as a force for good. The assumption that greater connectivity and greater access to information would lead to more prosperity and greater intercultural understanding was rarely questioned and is still implicit in the way we continue to think about digital transformations. Not enough serious attention is given to the dark sides of the globalized digital economy, one part of which is analyzed in this book.

The centrality of the internet to crime commission was not considered nearly two decades ago when the UN General Assembly, in 2000, adopted the United Nations Convention against Transnational

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Organized Crime.⁹ The policymakers did not prepare for the massive changes in illicit activity that would accompany the new technological revolution. Nor did the architects of the framework against global international crime anticipate the increasing power and wealth of nonstate actors, criminals, terrorists, and even multinational technology corporations, all of whom would challenge the power of the states that developed and endorsed this convention.¹⁰ Neither did they foresee the increasing globalization of corruption, facilitated by vast illicit financial flows, offshore owners, and the anonymous shell companies to which illicit trade is intimately tied.¹¹

In just a few years, this threatening new world has grown significantly, and its trajectory is only upward.¹² Since the Dark Web and encryption have increased anonymity and technology companies control access to their own databases, it is hard to identify the malicious actors behind the diverse forms of dark commerce. Perpetrators often operate out of countries, such as Ukraine, that have little law enforcement capability to pursue the online criminals who invade the accounts of individuals around the world and commit financial crime on a global scale.¹³ Multinational law enforcement operations to disrupt these networks often do not successfully remove all the key nodes. A key person in a massive criminal network dubbed “Avalanche” (discussed in chapter 5) was arrested in Poltava, in central Ukraine, but was shortly released from confinement by an official in Ukraine’s highly corrupt legal system and has not been seen since.¹⁴

In this new world of technologically facilitated crime, such cases reflect the hard reality that even lengthy and expensive law enforcement operations often have only short-term success in taking down cybercriminals trading in illicit goods. And when the criminals are removed, the pernicious websites or platforms are shortly replaced by even more powerful criminal networks. The Dark Web site Silk Road (discussed in chapter 3) processed \$1.2 billion in transactions in a little over two years, netting its owner \$80 million.¹⁵ Taken down in 2013 after an intensive US law enforcement effort, it was rapidly supplanted by Silk Road 2.0 and its successors, which have engaged in even larger-scale illegal trade.

The greatest rates of growth in illicit trade, outside of the cyber arena, are in environmental crime.¹⁶ A growing global population is increasingly seeking the world's limited resources. Enhanced demand results in increased prices and shortages, which often contribute to the growth of illegal and black markets that deplete the planet's wildlife, timber, and fish. The illicit rhino trade (discussed in chapter 4) is just one example of an iconic species that is rapidly being driven to extinction through the nefarious human hand. Rhino poaching can be quantified and is highly publicized, but many other species are being exterminated without much notice. In fact, the illicit trade in diverse species is contributing significantly to the world's sixth great extinction. We now face *dysfunctional selection*, a term I coined to explain the non-evolutionary change that results in the survival of the less fit. Instead of the process described by Darwin that has guided the evolution of human life for past six million years, the natural selection of the strongest members of a species, we are seeing the survival of the less robust, like the tuskless elephant. This elephant—an evolutionary response to a species subject to excessive poaching to obtain ivory—is a less desirable mate for female elephants.¹⁷

At present, the global community is regulating the sale not only of flora and fauna but fishing, timber logging, carbon emissions from automobiles, and even carbon markets. Criminals have always profited by getting involved in time-sensitive sectors. The Japanese *Yakuza* controlled ports where fish were unloaded, the Mafia in New York controlled the Fulton Fish Market, and La Cosa Nostra in Italy, like their counterparts in New York, ran garbage collection.¹⁸ These criminal enterprises are able to maximize profits because perishable products need to be transported to market expeditiously and garbage needs to be removed before it smells and rats arrive. But now, with the ever-expanding global population—it has nearly doubled since 1970, to approximately 7.4 billion—we are living on a *time-sensitive planet*.¹⁹ Therefore, trade in the commodities needed for human survival—protected trees, fish, and wildlife—is the fastest-growing form of illicit trade.²⁰

Future generations will live on a planet with not only less biodiversity but also fewer of the protein sources needed for human

life. Moreover, the destruction of once-great rainforests and other protected woodlands has a significant impact on global warming. Therefore, these forms of illicit trade are resulting in a planet that will be less sustainable in the future.

Growing illicit trade is linked to many other elements needed for human survival. The absence of adequate water supplies in many developing countries, particularly in megacities, is leading to the rise of illicit entrepreneurs, known as *water mafias*, who exploit the need for water for survival.²¹ The impacts of illicit trade in water rights can be even more pernicious than water mafias, as happened in Syria before the Arab Spring, discussed in chapter 3. The impact of climate change and extreme drought, exacerbated by the illicit trade in riparian rights, drove a massive rural-to-urban migration. The resulting instability contributed to the Arab Spring. Other regions of the world will face many more *climate refugees* in the future. Therefore, climate change has a domino effect in that it sets off many of the other forms of dark commerce discussed in this book.

Poorly regulated carbon markets, created in Europe to trade carbon emission allowances to encourage countries and companies to limit their carbon dioxide (CO₂) emissions, provided a windfall for a diverse group of illicit perpetrators, including bankers, traders, organized criminals, and terrorists, and led to losses of 5 billion euros for the European Union—the costliest crime its leading members had ever suffered. Consequently, the illicit traders of the world now quickly detect and exploit the constantly shifting financial opportunities arising from our resource-challenged planet, whereas those who are responsible for governance often fail to consider the need to crime-proof the new innovative mechanisms they have designed to counter the threats to the planet created by climate change.²² In some contexts, corrupt officials intentionally fail to regulate the activities of water mafias because they receive payoffs from those providing illegal services.

For the average consumer, it is often difficult to accurately evaluate whether a product has been sourced ethically, as supply chain transparency in many sectors is still lacking. But by prioritizing affordable products that can be delivered in only a few days over

products with known ethical provenance, consumers become willful participants in the most harmful elements of the illicit economy. Ignorance, willful blindness, and/or corruption go far in explaining the current accelerating assault on the environment by illicit actors. Failing to anticipate and counter such threats makes the planet less inhabitable and undermines the future viability of life on earth.

Defining the Problem

What is *illicit trade*? It is a new term that the international community is now trying to define, since not knowing what it is has been exacerbating our efforts to combat the problem.

Illegal trade, which is clearly defined, is not the same as illicit trade, which is broader. Criminal or illegal trade is addressed by the UN Convention against Transnational Organized Crime and refers to criminalized acts, such as drug, human, and arms trafficking. Law enforcement is ready to allocate resources to address these threats to the community, but much less ready to respond to less clearly harmful and legally defined forms of illicit trade. A police commander tasked with investigating human or drug trafficking or combating terrorism is hesitant to allocate resources to proactively seek intelligence about sellers of counterfeit Guccis and Rolexes or cigarette smugglers and bring them to justice. Moreover, policing illicit trade is often more complicated, since its illegal nature is not readily apparent. A recently unearthed and smuggled ancient coin, for instance, is part of illicit trade. But if a similar coin entered the system of international commerce before 1970, then its sale is legal.²³ With such gray areas of commerce, it is hardly surprising that many possible cases of illicit trade are not enforcement priorities, as enforcers and prosecutors far too often see things as being either black or white. The effects of illicit trade—the way in which its tentacles reach throughout society and government, bringing corruption, violence, and exploitation—are often underappreciated or unseen by the very people who are best placed to respond.

Yet the elements of illicit trade are all around us. We encounter them on our computers connected to the internet, or as inhabitants of

rural communities who are offered counterfeits, often harmful ones, at the local markets where we shop. To date there is no commonly accepted definition of the phenomenon, but in international policy circles and in the media the term “illicit trade” is being used with increasing frequency. The *Financial Times* and *The Economist* convened meetings on illicit trade, *The Economist* runs the Illicit Trade Environment Index and the Organization for Economic Cooperation and Development (OECD) has a task force on the topic. Since 2012, the World Customs Organization (WCO) has been publishing its *Illicit Trade Report*, which it describes as a new paradigm, as it never previously publicized its efforts to fight cross-border crime.²⁴

How do we define the phenomenon of illicit trade in a way that adequately explains the diverse trade in many prohibited items in very different environments? Illicit trade was initially, but inadequately, defined almost two decades ago as “a cross-border commercial activity for the provision of goods and services that violates the laws of the exporting and/or importing country.”²⁵ Yet not all illicit trade crosses borders. The United Nations Protocol to Prevent, Suppress, and Punish Trafficking in Persons Especially Women and Children specifically states that individuals do not need to be brought across borders to be victims of this crime. Such a definition is needed because the majority of sexually exploited girls in the United States are American citizens, and the same holds true of trafficking victims in India, the majority of whom are citizens. Apart from its limitations, this dry and restrictive definition does not capture a phenomenon that is having such major impacts across the planet.

Therefore, the OECD in 2016 provided a more ample definition based on the consequences of illicit commerce: “Illicit trade involves goods & services that are deemed illegal as they threaten communities and society as a whole. Illicit trade has a negative impact on economic stability, social welfare, public health, public safety & our environment.”²⁶ Illicit trade can be conducted in the real world, in the virtual world, or in a hybrid of the two where stolen property is marketed on websites such as Amazon and eBay.

Within this very broad framework are diverse categories of trade in goods and services whose sale is often facilitated by corruption.

Corruption is most often associated with the criminalized drug trade, yet corruption is the grease used to make all forms of illicit trade operate smoothly, even in cyberspace, as we will see in chapter 3. Illicit trade could not be carried out without both high-level and lower-level forms of corruption, and transnational corruption has facilitated its global growth.

There are different submarkets of illicit trade, ranging from the most illegal—where states invest most of their law enforcement resources—to the ancient crime of trade in stolen goods, which often commands insufficient attention.²⁷ One researcher suggests that there are two additional marketplaces. One is the “irregular sale of regulated commodities, such as antiquities, or fauna and flora, goods that infringe upon intellectual property rights, and goods that do not conform to applicable local standards.”²⁸ As we discuss in chapters 2 and 3, trade regulation in these goods emerged as a result of scientific evidence and concerns over the survival of cultural heritage and of the planet’s diverse species. This marketplace, in which natural resources such as timber, minerals, and gold are traded illicitly, is very correlated with high-level corruption.

The other marketplace is the one in which states tax items of mass consumption.²⁹ Illicit trade in these consumer items is costly for states, as smugglers’ evasion of local excise taxes costs nations billions in needed tax revenue.³⁰ The smuggling of cigarettes, tobacco, and alcohol has been at the heart of contraband smuggling for several centuries, as we see in chapter 1.

The book discusses all types of illicit marketplaces operating in the real and virtual worlds and expands significantly on the regulated commodities to include the trade in a vast range of products, from counterfeit sneakers to pharmaceuticals and pesticides, that undermines the sustainability of life and the planet and causes much greater harm than just financial losses to the holders of patents or copyrights.³¹

Illicit traders are not specialized; they seize targets of opportunity and use existing trade routes to maximum advantage. Many illicit products go through the same pipelines used for legal products and are sold by the same vendors.³² This is the concept of *convergence*,

and it applies in the virtual world as well as the real one: many Dark Net sites sell drugs, arms, and malware on the same platform.³³ Yet the legal response to illicit traders, who are generalists, is often stove-piped as specialized units assigned to combat them focus only on drugs, people, or wildlife, illustrating how bureaucratic structures can hamper the effective fight against illicit trade.

Illicit commerce often intersects with the licit economy. Counterfeit cds and contraband cigarettes are sold in European open-air markets along with fruits and vegetables. Trafficked and smuggled people, counterfeit electronics, cigarettes, and illicit drugs may all travel the same routes. Coming into Europe from the East, they traverse Dubai, the Black Sea, and the Balkans before arriving in Naples, a port controlled by the Camorra, an important Italian organized crime group.³⁴ Entry of similar commodities into the United States, for instance, often follows trade routes from the South, including those that traverse Central America, Mexico, and the southern US border. The siloed response of many countries and international agencies to each form of illicit trade helps explain the global incapacity to combat illicit trade effectively.

Illicit trade's intersection with the legitimate economy explains why it is not necessarily an element of the *informal economy*. Corporations may be better able to compete in a highly competitive global economy when they engage in or facilitate illicit trade.³⁵ Therefore, manufacturers, extractive industries, maritime, transport, fishing, and timber companies, as well as banks, real estate companies, and financial institutions, have all participated in illicit trade, as subsequent case studies confirm.

The participation of legitimate companies in the illicit economy ensures that much of illicit trade is not confined to black markets. Some of its products, such as smuggled antiquities, are even sold in high-end stores and auction houses. Nor is illicit trade necessarily part of the shadow economy, defined as "the part of an economy involving goods and services which are paid for in cash, and therefore not declared for tax."³⁶ Taxes are paid on some illicit goods, such as purchased antiquities, the profits made by banks from laundering drug profits, and the sale of Volkswagens whose emission

systems have been deliberately rigged to evade detection.³⁷ The illicit economy also is not confined to cash but involves many diverse payment systems, such as wire transfers, cryptocurrencies, and prepaid credit cards. Often it is the commodity, rather than the payment, that is illicit.

Trade abuse can help mask kleptocratic theft. Often no trade occurs, or a minimal trade transaction is disguised as a much larger one, to justify the movement of large funds. This phenomenon is referred to as *trade-based money laundering*.³⁸ The global trading system is often misused to facilitate large-scale corruption as well as criminal misconduct.³⁹

Organization of the Book

Illicit trade is a lucrative business, but few analysts have focused on its dynamics and logic. They may provide statistics that estimate its revenues, but far too few examine the mechanics of this complex commerce. Historians of slavery analyze the business of the slave trade, drug specialists focus primarily on the mechanics of drug trafficking, and tech analysts look at the new enterprises of the masterminds of cybercrime. This book suggests that, because so much illicit trade now converges, there are common business practices and challenges of illicit commerce that distinguish it from its legitimate counterpart, as discussed in chapter 5.

The first part of the book provides the historical context to contemporary illicit trade. Chapter 1 traces the history of illicit commerce from its documented origins in antiquity more than four thousand years ago through the Age of Revolutions in the late eighteenth century. Commerce supported the growth of empires, yet even in ancient times officials expressed concern over the smuggling of goods. Piracy evolved over time, and some pirates worked for themselves as well as the state, presaging the cyber-privateers of the contemporary period.

Chapter 2 examines the emerging complexity and diversity of illicit trade after the age of revolutions and through the end of the Cold War period. The major components of contemporary illegal

trade—drugs, arms, and trafficked people—became significant only in the last two centuries. Before this time, the most valued trade commodity, textiles, was central to illicit trade.

Chapter 3 analyzes illicit trade in the post–Cold War era, when computing and expanded personal telecommunications enabled the paradigm shift in illicit trade. The rise in conflicts during this period has been a major driver of growth as drugs, people, and natural resources are traded for the arms needed to sustain wars.

Chapter 4 provides a case study of the exponential growth of the illicit rhino horn trade. This analysis is included not just because it concerns a charismatic animal, but also because the dynamics of the trade in its horns can be tracked with some precision, which is not possible for almost any other form of illicit trade.

Chapter 5 analyzes evolving business models of illicit trade in response to technological change. Illicit trade, like licit trade, operates with business logic: it seeks targets of opportunity, strategic alliances, and forms of trade with worthwhile profit margins. Historical and cultural traditions shape trade practices in both legal and illegal commodities.

Chapters 6 and 7 reveal that illicit trade has grown because it has many beneficiaries—there are many winners as well as losers. It takes much more than organized crime to do this much harm to the planet and to human life. Behind this dark commerce are states, powerful politicians, businesspeople, and corrupt officials at all levels of government. Many of its facilitators are employed by the legitimate economy as lawyers, accountants, bankers, chemists, and members of the tech community, all of whom help illicit trade operate on a global scale.

The book concludes by looking at the future of illicit trade. This trade exists for diverse reasons, and thus there is no one solution, and a response based exclusively on law enforcement and legal action is not sufficient. Can we change the present trajectory of illicit trade as it targets the very resources that we need to sustain life on the planet? The vast majority of the countries of the planet signed the Paris Climate Agreement, agreeing to controls that would limit carbon emissions and thereby restrict the extent of climate change.

Is the global community also ready to work together to address illicit trade and the factors that are contributing to its growth?

Such change requires more than modifying regulations on trade: we must also control the world's population and the demands that its inhabitants make on the planet. We must rethink the financial system to provide more transparency, restructure the corporate world to focus on accountability, and implement strong anti-corruption measures to combat the facilitators of illicit trade. We need to find ways to control pernicious nonstate actors who have been major beneficiaries of globalized trade. Are there areas of illicit trade that we should either decriminalize or regulate less in order to concentrate on the most severe threats to the global community?

Much of our new technology has been developed, and is owned and maintained, by the private sector. Therefore, the regulation of cyberspace is not exclusively in the hands of government but often requires the cooperation of the private sector, which is inherently more interested in profit than in governance. This conflict of interest makes it more difficult to reduce illicit trade, unless fruitful public-private partnerships prevail and states can regulate the tech giants. The absence of harmonized policies across states, a consequence of divergent political policies, will limit the ability of governments to control the growth of illicit commerce.

The challenges are great and the windows of opportunity to reverse the planet's present dangerous trajectory are closing. We will explore the possibility that useful technical solutions are available; using some of the same technology that is currently fueling the expansion of illicit trade, these technical fixes could help us address many of the problems identified here. It remains to be seen how much they could help. Will we use such solutions to change our current trajectory in time? Or are we seeing another harmful force on the planet that makes Stephen Hawking's prediction ever more likely—that the earth's inhabitants must find other worlds to inhabit in the next one hundred years?⁴⁰