



THE IMPACT OF THE COVID-19 CRISIS ON TRANSNATIONAL ORGANIZED CRIME

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Abstract

This research paper explores how transnational organized crime infiltrated into legal States' economies taking advantage of the COVID-19 crisis. *Pharma crimes* are taken as an illustrative example of this phenomenon, and the scope of the research is limited by the European countries. Based on profit-derived theory, the research is carried out to determine the extent of *pharma* crimes, its *modus operandi*, and what options have the States to fight these crimes. Using this example, trends and implications for wider transnational organized crime activities will be outlined. It is argued that traditional actions against transnational organized crime are obsolete in the post-COVID-19 reality. For this reason, the paper reflects the new challenges that anti-criminal policy must address, enabling factors, and the presence of transnational organized crime in the lawful market.

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1 INTRODUCTION

Indeed, transnational organized crime (in the following TOC) is not a modern phenomenon, and Small and Tylor (2006) acknowledge that during the last decades, the scope, magnitude, and impact of its activities have only risen. The factors that have had an impact on TOC's organization, activities, and territorial development are economic globalization, shifts in social, political, and economic arenas, advances in communication (such as the Internet, technology, or transportation), landmark events, and market changes (Richards, 1999, cited by Hill, 2005, Beare, 2002 and Small & Taylor, 2006).

The COVID-19 crisis is one of the deepest global crises the world has ever faced. Thus, COVID-19 has slowed down the achievement of the United Nations' Sustainable Development Goals¹. For instance, the World Bank (2021)² reports about three to four years of progress being lost towards ending extreme poverty. This new reality has enabled TOC to infiltrate into new sectors and widen their activities (United Nations, 2020a, 2020b).

Although there is scarce academic literature about the phenomenon, international practitioners (such as Interpol, Europol, UNODC, UNICRI, among others) have rather quickly responded to the threat and produced a significant amount of new knowledge. The findings show that TOC needed to innovate its activities during the pandemic in order to protect and accumulate new income (UNODC, 2021b) since the COVID-19 restrictions constrained their regular activities (Global Initiative, 2020a).

Some sectors have suffered more than others during the pandemic. The health sector can be considered one of the most affected ones. For this reason, different circumstantial factors (such as extraordinary demand for medical supplies, the scarcity or shortage in goods, the gap in the provision of certain products, and the disinformation, fear, and anxiety of the citizens) have created new criminal opportunities for TOC on the existing markets (European Commission, 2021; Global Initiative, 2020a; INTERPOL, 2020; Korenblik, 2021). Not only did TOC participate in medical supply chains and the health systems (Global Initiative, 2020a) but also achieved wide infiltration in the public economy and health sector (Korenblik, 2021, UNODC 2021a, 2021b). The European Commission stated that “the economic crisis resulting from the pandemic increases the risks of organized crime activities and that these further infiltrate society

¹ Source: <https://news.un.org/en/story/2021/07/1095362>

² Source: <https://blogs.worldbank.org/developmenttalk/covid-19-leaves-legacy-rising-poverty-and-widening-inequality>

and the economy” (European Commission, 2021, p. 2). Thus, it was reported that TOC has infiltrated into the legal economy through investing in sectors under distress, boosting standing in communities and enhancing control over territories, and providing financial aid packages to strolling businesses and people to increase their influence (UNODC, 2021b).

Summarizing all the ideas using Europol’s words, the following can be said:

“The COVID-19 pandemic has had a significant impact on the serious and organized crime landscape in the EU. Criminals were quick to adapt illegal products, *modi operandi*, and narratives in order to exploit the fear and anxieties of Europeans and to capitalize on the scarcity of some vital goods during the pandemic. While some criminal activities will or have returned to their pre-pandemic state, others will be fundamentally changed by the COVID-19 pandemic.” (Europol, 2021, p. 11).

Considering the aforementioned, this research paper aims to better understand how TOC has capitalized on the pandemic on the example of the most vulnerable sector (health services) to infiltrate into the legal States’ economies. The infiltration of TOC into the health sector has significant consequences such as the distortion of market rules (European Commission, 2021), the undermine or harm to pharmaceutical companies, the reduction of funds for research and innovation about COVID-19 (European Commission, 2021; Europol, 2021), the endanger of the effectiveness of economic recovery actions (European Commission, 2021, UNDOC, 2021b), the detriment of the national public health budget (UNDOC, 2021a), and the compromised the effective response against the pandemic (Global Initiative, 2020a) and social wellbeing (INTERPOL, 2020c).

The research is closely aligned with the Organization for Security and Cooperation in Europe (OSCE) domain. OSCE is concerned about TOC, among other, due to its negative effect on the exploitation of globalized economies (OSCE, 2020a, para. 3). The OSCE Tirana Declaration of 2020 reaffirms that the OSCE’s comprehensive concept of security complements global efforts to counter the complex threat of transnational organized crime. It says that TOC activities negatively affect stability and security in all three dimensions, including the exploitation of globalized economies and open societies, the undermining of democratic values and governance, and the threatening of the safety and security of citizens, directly or indirectly, as well as human rights and fundamental freedoms. For all that, the findings of the research are supposed to help in elaborating more resilient national and international responses to TOC infiltration in times of crisis.

The research goes in line with the United Nations Sustainable Development Goals (SDGs) that were designed to “achieve a better and more sustainable future for all” by 2030. It addresses SDG 3 “Good health and well-being” as it investigates the effects of COVID-19 pandemic on organized crime thereby contributing to the research activities on the health-related issues. SDG 8 “Decent work and economic growth” refers to the promotion of economic growth and stability that is disrupted by organized crime exploiting state weaknesses in times of crises. The research addresses SDG 16 “Peace, justice and strong institutions” and aims to contribute to eliminating all forms of organized crime activities by providing policy recommendations based on the best practices, and SDG 17 “Partnerships for peace” as we are taking a multi-stakeholder approach to achieve sustainable development and prevent and combat organized crime.

2 THEORETICAL FRAMEWORK

One of the biggest concerns, due to the COVID-19 crisis is the world's impoverishment. It is not in vain that Liu Zhenmin (UN Under-Secretary-General) stated: "The pandemic has halted or reversed, years, or even decades of development progress. Global extreme poverty rose for the first time since 1998³". Not only did international agencies worry about the impoverishment but also they have been concerned about the new criminal economic opportunities and the risk of infiltration (in this sense the European Commission, 2021). For this reason, the research is based on the postulates of "profit derived crime theory" and "crisis and TOC considerations" approach.

On one hand, profit-derived crime theory (Naylor, 2003) argues that profit-derived crime should be explained in economic rather than in sociological terms. In his work, the author (2003) distinguishes among three main types of profit crime: a) Predatory crimes⁴ against private citizens, business institutions, and the public sector; b) Market-based offenses⁵; and c) Commercial crime that involves the illegal redistribution of lawfully earned income. The strength of this theory lies in its aim - to explain the "what" and the "how". This approach is useful to explain new crimes (what) and new schemes (how) of TOC. In this research, the analysis of organized crime is based on economic features (not on social or cultural features) as income generation is the main driving force behind TOC, and it directly affects national economies and the welfare of citizens.

On the other hand, the crisis and crime approach defends that the financial crisis presents a new opportunity for criminals to expand into new markets and opportunities for money laundering. Richard Rosenfeld argues that every economic recession since the late 1950s has been linked to an increase in crime and, in particular, property crime and robbery.

From these perspectives, economic crisis provides an opportunity for criminals to develop new activities and infiltrate into the legal economy. For instance, among the enabling factors for pharma crime were the extraordinary demand for medical supplies, the shortage of COVID-19 related personal protective equipment (PPE), and the fear, ignorance, and anxiety of the citizens.

³ Retrieved from: <https://news.un.org/en/story/2021/07/1095362>

⁴ Naylor (2003, p. 84) considers that predatory crimes involve: legally owned wealth from one party to another; bilateral relation between victims and perpetrators, involuntary transfers which generally use force (or its threat), thought guile and deception may suffer; readily identifiable victims; use of a non-business context or an apparent business front concocted purely to mislead; transfer which take place in cash or kind; losses that are simple to determine – the robbed or defrauded person or institution or corporation can point to specific money and property; no notion of fair market value; an unambiguous morality; the need for restitution or compensation to the victim for his/her losses.

⁵ According to Naylor (2003, p. 85): production and or/distribution of new goods and services inherently illegal; multilateral exchanges involving producers, distributors, retailers and money-managers on the supply side and willing consumers on the demand side; an institutional context of underground network, voluntary transfers; difficulty defining a victim; income earned by supplies; transfers which take place mainly in cash or bank instruments; an implicit notion of fair market value; ambiguous morality subjects to sudden and radical change; a need to find means to treat proceeds in the absence of individual victims.

3 RESEARCH DESIGN AND STRATEGY

3.1 OBJECT OF STUDY

This research aims to investigate the shifts in TOC activity and describe the schemes they used to infiltrate into states' legal economies during the COVID-19 pandemic. We decided to focus on *pharma crimes* among other types of crime since its presence was the most observable and widespread during the pandemic. In addition, the healthcare markets became the most attractive to TOC. Keeping in mind time and scope limitations of the research brief format, *pharma crimes* were chosen the central to this work; however, implications for wider TOC activities were identified while using this example. The following section is devoted to describing the concepts and giving the definition of the key terms used in the research.

3.1.1 Conceptualizing TOC

To operationalize TOC in our research we merged the definition of 'organized criminal group' (UNTOC, Art. 2(a)) and 'transnational crime' (UNODC, 2002, p.4). As a result, in this research TOC is understood as a group, of three or more persons, that was not randomly formed, whose inception, perpetration and/or direct or indirect effects involve more than one country. The group must exist for a period of time, and act criminally in concert with the aim of obtaining, directly or indirectly, financial or other benefits.

3.1.2 Delimiting *pharma crimes*

The research considers the concept of *pharma crime* in a broad sense in order to include as much criminal phenomenon as we can. For this reason, the definition offered by Fakeshare.EU (2017, p. 5) has been used: 'Pharmaceutical crime is a major public health concern which jeopardises human lives and causes direct damage to patients and the pharmaceutical supply chain – consisting on manufacturers, distributions, pharmacists, doctors, private organizations and public bodies'.

The Europol (2021) stated *pharma crime* as a post-CODIV-19 new criminal market. With regard to previous research, it is known that some criminal activities performed by TOC during the COVID-19 crisis are: a) Trafficking substances and medical products (Korenblit, 2021; UNDOC, 2021a); b) The falsification of medical products (mainly personal protective equipment) (INTERPOL, 2020a; UNDOC, 2021a); c) Counterfeit, substandard and illegally diverted pharmaceuticals (Europol, 2020; Global Initiative, 2020a), as masks, cleaning products, gloves, etc. (European Commission, 2021); d) Scams about medical supplies, stock investment, and health infrastructure (Europol, 2020; UNDOC, 2020a); e) Illicit online trade of medicines, medical products, PPE, and hygiene products (INTERPOL, 2020c). f) In relation with COVID-19 vaccine, defraud falsification, theft, and illegal advertising (European Commission, 2021; INTERPOL, 2020c, 2021a; UNDOC, 2021a), unofficial vaccine supplies (EUROPOL 2021, UNODC, 2021), and attempts of scams (European Commission, 2021); g) Cyber-attacks through

malicious domains, malware and ransom ware against health infrastructure (Europol, 2020, INTERPOL, 2020a); and h) Acquiring control of legitimate pharmaceuticals (UNDOC, 2021b).

Lastly, *pharma crime* victims can be either private individuals -as citizens, enterprises or businesses – or public organizations – such hospitals, health procurement authorities or States’ recovery plans (European Commission, 2021; Global Initiative, 2020a, INTERPOL, 2020a).

3.1.3 Addressing cybercrime

In third place, as it can be observed, *pharma crimes* involve an unprecedented spark of activity in cyberspace. In fact, Europol (2021) noted that *pharma crime* has shifted from physical to online markets. The reason behind this change in the *modus operandi* is that social distancing measures against COVID-19 have increased the digitalization of all spheres of social life. Under these circumstances, cyberspace appeared to be the most attractive and easy-to-use environment for criminals and they significantly advanced in the use of technology. Thus, criminals exploit encrypted communications to network with each other, use social media and to reach a larger audience, advertise illegal goods, and spread disinformation (EUROPOL, 2021). More examples of cyber criminalization beyond *pharma crimes* are provided by the unclassified UNODC report 2020 identified the increase in business email compromise, targeting senior citizens with the ‘nephew trick’ (EUROPOL, 2020), fishing and cloning websites, selling of non-existing goods, access to users’ private photos of sexual character and subsequent blackmail.

It is observable that TOC has managed to access new sophisticated tools enabling and facilitating criminal activities, lowering the level of expertise previously required to perform specific crimes (EUROPOL, 2021).

3.1.4 The fight against economic infiltration

Finally, the outcome of the criminal activity is the infiltration into State’s legal economy. The research understands “infiltration into legal economies” as a case in which a criminal organization invests financial and/or human resources to participate in the decision-making process of a legitimate business’ (Savona & Berlusconi, 2015, p. 19). TOC can achieve infiltration following different patterns. For instance, through market operations (sales and purchases) in the medical supply chain or the distribution chain involving legitimate companies (UNICRI, 2020), controlling business debt, exchanging money or taking over operations (UNODC, 2021b, UNICRI, 2020), and even their activity can endanger the effectiveness of economic recovery plans.

This research is based on the premise that traditional approaches to combat TOC, both domestic and international, are insufficient to fight *pharma crimes* and subsequent infiltration into the legal economies:

At the national level, there are six types of responses: a) strengthening legislation, b) creating effective law and enforcement institutions, c) actively prosecuting criminals, d) adopting commune-level initiatives, e) assuring the protection of witnesses (Kaough, 2013, p. 2), f) and recovery of assets (Council of Europe, 2014). Other approaches are: a) the reduction of the financial possibilities of TOC (Schneider and Caruso, 2011); b) the use of anticipation strategies

(William & Godson, 2002); c) the minimization of gaps and criminal opportunities (Council of Europe, 2014); or d) the creation of special law or units to combat TOC (Ohr, 1999, pp. 47–57):

A priori, traditional anti-TOC strategies present two main problems to deal with the new challenges. The first one is that these crimes could remain unidentified for both the victim and law enforcement enabling organized criminals to grow and spread even further. For instance, *pharma crime* victims are not aware of being victimized because they do not have enough capability to detect substandard or falsified products (UNODC, 2021a). The second problem is that TOC has achieved infiltration in the legal economies (Korenblik, 2021, UNODC 2021a, 2021b) through its participation in the market chain that is difficult to track, or own/control legal enterprises. The question of how these activities can be effectively detected remains open.

However, despite the obstacles, different actions have been carried out in Europe to combat *pharma crimes*: a) An international operation against online sale of counterfeit and illicit medical products and medical devices, called ‘Operation Pangea’, coordinated by INTERPOL (EUROPOL, 2020; UNDOC, 2021b).; b) The arrest of criminals and seizure of counterfeit medical products by law enforcement authorities, Europol and European Anti-Fraud Office (European Commission, 2021).; c) The EUROPOL has facilitated information exchange and provided analytical support to States (EUROPOL, 2020); d) The involvement of the bank sector to stop economical transactions initiated by scam (INTERPOL, 2020b).; and e) The raise of awareness about the danger of buying unregulated online medical products (INTERPOL, 2020c).

In addition to these actions, international organizations have made some recommendations. For example, the European Commission has suggested maintaining the fight against TOC on a national level, operating domestic authorities on the frontline ground while in the European Union level partnership, cooperation, exchange of information, criminal law framework and effective financial means are boosting. (European Commission, 2021) and also, this organization has urged the ratification of the “MEDICRIME Convention”⁶ by the States that did not accede to do it (European Commission, 2021). The Interpol for its part has warned the States about the threat to COVID-19 vaccines and calls for coordination between law enforcement and health regulatory bodies to ensure safety (INTERPOL, 2020d). It has also advised citizens about the perils of purchasing online medical equipment or medicines as it can involve the purchase of illicit medicines and medical devices or falsified items (INTERPOL, 2020d).

3.2. OBJECTIVES AND RESEARCH QUESTION

The specific objectives of the research are:

- O1. To determine the extent and the schemes of *pharma crimes* committed by TOC in European Countries.
- O2. To understand how TOC can infiltrate into the national economy through *pharma crimes*.
- O3. To clarify whether TOC *pharma crimes* can imperil European States’ economic recovery plans.

⁶ MediCrime Convention can be found at: <https://www.coe.int/en/web/medicrime/the-medicrime-convention>

O4. To suggest actions to combat TOC's infiltration in the economy and assure the implementation of economic recovery plans.

In order to accomplish these objectives, the research poses two questions:

RQ1. How do *pharma crime* schemes committed by TOC penetrate the European State's economy?

RQ2. How should European States respond to prevent the jeopardization of public investment caused by TOC *pharma crimes*?

3.3 METHODOLOGY

The present research uses a qualitative approach to study various aspects related to the impact of the COVID-19 crisis on TOC. The research techniques developed have been case studies and interviews.

3.3.1 Case studies

Case studies is a method “in which the researcher explores in depth a program, an event, an activity, a process, or one or more individuals. The case(s) are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time” (Stake, 1995, cited by Creswell, 2003, p. 15).

This research has used the following cases to dive into its object of study:

1. The supply of substandard ventilators in Bosnia and Herzegovina (UNODC, 2021a).
2. The cyber-attack against Brno University Hospital in the Czech Republic (Cimpanu, 2020).
3. The face masks scam geared towards German health authorities (INTERPOL, 2020b).
4. Italian Mafia's activity in the healthcare system and welfare provision (Global Initiative, 2020a, 2020b, UNODC, 2021b).
5. The falsification of medical face masks in Spain (UNODC, 2021b).

3.3.2 In-depth semi-structured interviews

The second research method used is semi-structured interviews with experts and key informants. According to Bryman's development (2012, p. 471), in semi-structured interviews

“The researcher has a list of questions or fairly specific topics to be covered, often referred to as an interview guide, but the interviewee has a great deal of leeway in how to reply. Questions may not follow on exactly in the way outlined on the schedule. Questions that are not included in the guide may be asked as the interviewer picks up on things said by interviewees. But, by and large, all the questions will be asked and a similar wording will be used from interviewee to interviewee”.

Interviews were conducted in person, via teleconference, and in written form. They were recorded, transcribed, and analyzed (when the interviewee gives his/her permission after having informed consent).

Following the Tirana Declaration recognizing TOC's differential impact on groups and society, the research covers interviews with different stakeholders, organizations as OSCE, UNODC, UNICRI, Global Initiative against TOC, representatives of NGOs, governmental authorities, and even a criminal.

To build up the sample snowball sampling was used: we made initial contact with experts in the research topic and then we used them to establish new contacts with others (Bryman, 2012). As a result, the sampling of individuals is not random⁷.

3.4 ANALYSIS STRATEGY

3.4.1 Case studies

The analysis of case studies comprehends several aspects: a) the COVID-19 incidence in the State; b) Pre-COVID-19 TOCs' characteristics, activities, and fight; c) New criminal opportunities raised by COVID-19; d) The actual *pharma crime* suffered by the country; and e) the new measures implemented by the Country after the victimization and its nature.

3.4.2 In-depth semi-structured interviews

After the interview, it has been transcribed and the transcription has been coded (Bryman, 2012). The categories used have been: "new activities", "dangerousness of the activities" (in terms of economic stability), "infiltration of TOC in States' economies during COVID-19", "the actual imperil t economic recovery plans", "actions to prevent infiltration", "actions to assure the effectiveness of the recovery plans".

4 RESULTS

4.1 CASE STUDIES

This section presents the summary of the case studies' takeaways while Appendix I gives a detailed overview of each case. In the following, Table 1 summarizes and compares the results of the study cases.

The case studies covered 5 countries with a different range of COVID-19 incidence. Thus, Italy and Spain were the most affected while the Czech Republic and Germany showed moderate indicators, and Bosnia and Herzegovina was the least affected from the list. The reason for this choice was to verify whether TOC infiltrated the same in the countries with different pre-COVID-realities and differential post-COVID incidence. Regardless of the incidence and

⁷ Therefore, the research follows a non-probability sampling, which means the sample is not conducted according to the canons of probability sampling (Bryman, 2012). The limitation of this method is the impossibility to generalize the findings because of a lack of representativeness (Bryman, 2012).

criminal indexes, the COVID-19 pandemic created opportunities for criminals to infiltrate and capitalize in each of the countries.

In Bosnia and Herzegovina, corrupted government officials ordered overpriced substandard ventilators; in the Czech Republic, it was a profit-oriented cyber-attack on a hospital victimizing vulnerable groups; in Germany, the government was scammed trying to purchase face masks; in Italy, Mafia targeted disadvantaged people and weak businesses; and in Spain, health services were compromised with the influx of fraudulent masks. While in some countries like Italy and Spain the criminals unfolded their activities on a large scale, in the rest of the countries they used unsystematic targeted campaigns.

In all five countries, some constant elements, such as the participation of Mafia or Mafia-style organized groups (e.g. clans) were identified, as well as the strong presence of economically profitable crimes (diverse kinds of trafficking or smuggling). In addition, the *modus operandi* of these crimes increasingly moved to cyberspace that can be explained by the mobility restrictions and border closing. The case of Germany shows the lack of transparency in the long supply chains making it difficult to identify at what point and by whom the country was scammed. Finally, in the case of Bosnia Herzegovina, the government authorities seem to be directly related to TOC activity through the mechanisms of high-level corruption.

Countries were not prepared to effectively prevent and counter the described types of crime. The reasons include the shift in *modus operandi* (need of specific knowledge to counter cybercrime, criminals' technical advancement), the infiltration of criminals into the new market (medical supply is not a usual object in the criminal market) and subsequent lack of preventive measures. Consequently, each State has responded to the crime in its way. Mostly, they have taken reactive measures, to neutralize the imminent damage, like Germany, which managed to cancel the economic transaction. However, some countries took action to prevent such crime in the future. For instance, the Czech Republic strengthened the cyber security system of the healthcare sector, and Spain conducted awareness-raising activities for its population.

Table 1. *Study case summary*

	Bosnia and Herzegovina	Czech Republic	Germany	Italy	Spain
COVID-19 incidence	Low	Moderate-Low	Moderate-High	High	High
Pre Covid-19 TOC characteristics	Transit and destination Recruitment of vulnerable young people Profit-oriented criminal activity	Transit location Foreigners actors	Foreigner Mafia and clans	Destination country Mafia activity (mainly Italian but also foreigner)	Destination country Foreigner Mafia groups Spanish mafia-style groups
Pre Covid-19 TOC activity	drug trafficking, illegal migration, counterfeiting, human trafficking, and terrorism	Victimization of: women (forced prostitution), migrant smuggling and vulnerable groups (human trafficking) Arms trade	Drug, property crime, people smuggling and economic crimes. Money laundry schemes	Human trafficking; drug market	human trafficking; cocaine trade (transit and consume); fauna and flora criminal market
Pre Covid-19 TOC fight	Early stage Insufficiency of cooperation and limited intelligence exchange	Anti-corruption and anti-immigrant stance; specialized law enforcement agencies; international engagement; protection to victims	International cooperation Police force Legislation Specialized agencies	Anti-mafia statements (legislative and specialized law agencies); international engagement and cooperation	National strategy against Organised and Serious Crime; international engagement; legislative responses
New criminal opportunities	Economy & public corruption	Victimization of vulnerable groups and economic profit-oriented; cybercrimes	Economy and private consumption	Poverty and public health services	Economy
Analyzed crime	Substandard ventilators (in cooperation with the Prime Minister)	Cyberattack to a Hospital	Mask scam	The Mafia in pharma crimes and private frauds	Falsified masks deposits
Measures	Arrests Criminal investigation	Reactive measures, Strengthen healthcare security system	Reactive measure: Freezing the operation with the involvement of Europol, Interpol and international banks	Anticipation of Mafia activity; protection to the public economy	Policing, cooperation among police bodies, macro operations; social awareness; analyze medical supply
Nature of the new measures	Law enforcement	Technical protection	Reactive and economic	Reactive, cooperation between national agencies; anticipation	Law enforcement; public campaign; medical prevention

Own elaboration

4.2 IN-DEPTH SEMI-STRUCTURED INTERVIEWS

This section provides a summary and analysis of 7 interviews conducted among representatives of international organizations, NGOs, governmental authorities, academia, and a criminal. Appendix II provides a more detailed content description of the interviews.

The interviews have confirmed that the TOC activity is determined to make an economic profit. Thus, during the COVID-19 pandemic, organized criminals stayed focused on financial benefits and the market. The interviewees explained how TOC has capitalized on the new needs raised by COVID-19. In the first place, Interviewees 1 and 3 narrated that TOC took advantage of the extraordinary market demand for medical products and PPE, given its global shortage. In the second place, TOC exploited fear of the unknown among the population (Interviewee 1) and new/existing economic, social, and institutional vulnerabilities (Interviewee 5) as enabling for criminal activity factors.

Interviewees 1, 3, 4 and 7 manifested that the criminal schemes during the pandemic have not been significantly changed. They were just modified to meet new needs and utilize new vulnerabilities. For instance, cybercrime used the same tactics but reoriented on medical-related products (PPE, vaccines) or enjoyed the advantages of global digitalization (“nephew trick”, fishing, blackmail). In Russia, the market of falsified medical certificates adapted to the demand for vaccination certificates. In Italy, criminals took advantage of weakened by the economic crisis enterprises to acquire them and use them for criminal purposes. TOC activity was neither new nor exclusive during the pandemic but widely facilitated by the COVID-19 created realm.

However, the dangerousness of TOC activity had an impact on two domains: the economy in general and the efficiency of recovery plans, and the people’s health.

Regarding the infiltration of TOC into the legal State economy, the following patterns were used:

- Infiltration into the lawful medical supply chain (Interviewee 1 and 3).
- Infiltration into the unlawful medical supply chain (Interviewee 1, 2, and 3).
- Application for governmental financial assistance through legitimate companies (Interviewee 3) and receiving public recovery funds (Interviewee 5).
- Enterprise and business control (directly and indirectly) and subsequent money laundering (Interviewee 4).
- Participation in purchase contracts with the State and national authorities through the corruption mechanisms (Interviewee 6).

The main consequence of TOC infiltration into national economies is the threat to the effectiveness of economic recovery plans (Interviewee 1) by participating in the medical economic market (Interviewee 1), acting as a supplier of goods and services to disadvantaged communities (Interviewee 3, 6), and demanding funds from recovery economy plans (Interviewee 4, 5).

The perils of this reality include strengthening criminal groups’ position in legal supply chains (Interviewee 1), the building of financial reserves for the future (Interviewee 3), obtaining social

influence (Interviewee 4 and 6), weakening state institutions, and undermining economic development (Interviewee 5).

Moreover, people's health was put at risk. Interviewee 2 explains how during the unlawful transportation of vaccines the temperature requirements were not met so the safety of the product cannot be guaranteed. In addition, Interviewee 1 fairly notes that it is impossible to predict how dangerous are the contents of the vaccines obtained online. The falsification of the vaccination certificates in Russia as well represents a serious threat to public health (Interviewee 7).

Among the obstacles that challenge the effectiveness of the measures against TOC were mentioned:

- Corruption on both household and higher levels (Interviewee 1, and 7)
- Law enforcement's lack of information impeded seeing the full picture and the real scale of TOC activity (Interviewee 1, 3 and 4).
- Lack of transparency in both consumers' and suppliers' decision-making process (Interviewee 2 and 3).
- Inability to track the full criminal chain and spot the area of criminal infiltration (Interviewee 2 and 3).
- Multidisciplinary of TOC, their quick adaptability and creativeness (Interviewee 4).

The following actions were recommended to prevent TOC activity and its infiltration into economies:

- Filling the 'gaps' or 'vacuum' that create opportunities for TOC (Interviewee 1 and 3), strengthening policies, legislation, infrastructure (Interviewee 1).
- Better control system for recovery funds (Interviewee 6).
- Establishing strong anticorruption mechanisms and effective financial intelligence unites (Interviewee 6).
- Better cooperation and information exchange among actors at all possible levels (Interviewee 4)
- The POISE model (IPO UK) enabling to track the whole life cycle of counterfeit and pirated products (Interviewee 3)
- The concept of *levels of separation* (IPO UK) explaining the gap between a member of the public to organized crime (Interviewee 3)
- Adherence to the holistic approach in preventing and combatting TOC (Interviewee 3)

Although the research is devoted to *pharma crimes*, during the interviews some other important implications were identified:

- The transversal presence of public corruption and its link to TOC (Interviewee 1).
- The cybercrime activity has saved the *modus operandi* but just adjusted it to the COVID-19 crisis (Interviewee 3).

- Recruiting of young people for TOC activity as they are more vulnerable to the consequences of economic crisis (Interviewee 2 and 5) or unemployed people with valuable skills and insights (Interviewee 6).
- Pandemic has halted the years of development enabling criminals to accumulate significant assets for the future (Interviewee 1)
- Money laundering was an accompanying activity on each stage of the crime cycle (Interviewee 3)
- Brand-new activities emerged: forgery of vaccination certificates in Russia (Interviewee 7).

5 DISCUSSION

The discussion is based on the three main pillars of our research: literature review, case studies and interviews. While previous literature provided a strong foundation for our research, case studies and interviews served as a primary data and evidence base for our findings. Comparing *pharma crimes* committed in the selected countries, the research aimed to identify trends and differences in countries' responses to TOC and its effectiveness. Through interviewing experts and key informants we sought to gain primary knowledge and professional insights into TOCs' activities, challenges and responses.

In the following, we will discuss the results of our research addressing each objective raised:

5.1 PHARMA CRIMES IN EUROPEAN COUNTRIES

The first objective of the research was 'to determine the extent of *pharma crimes* committed by TOC crime in European Countries and its schemes'. The conducted literature review shows that TOC has innovated its activity to meet new market needs derived from the COVID-19 crisis. Particularly, more criminal opportunities have emerged in the health market. However, our interviews highlighted that even though there are new opportunities, the schemes of the activities carried out by TOC stayed the same but with the adjustments to the COVID-19 new reality and market needs.

Pharma crimes related to COVID-19 identified in our research have been trafficking or illegal trade substances and medical products, the falsification of medical products, counterfeit, substandard and illegally diverted pharmaceuticals, defraud, theft, illegal advertising of COVID-19 vaccines, cyber-attacks and, taken away from our interviews, forgery of medical certificates (Interviewee 7). According to the profit-derived theory and confirmed by our interviews, these crimes are *predatory* and *market-based* offenses.

The most salient among the criminal schemes used was the infiltration into supply chains of medical products, but also the control of weakened enterprises and businesses. Another important modality is that TOC significantly transferred its activities into cyberspace (the Czech Republic and Germany cases and the insights from Interviewees 1,3,4, and 7). Cybercrime does not necessarily involve sophisticated techniques (cloned website in the Germany case, business email compromise, 'nephew trick', fishing and selling of non-existing goods) but sometimes

utilizes encrypted communications and ransomware (crypto virus Defray in the Czech Republic case). From the interviews, we know that TOC uses the advantage of rising unemployment and economic discontent among the population to recruit individuals with special skills and knowledge to perpetrate sophisticated crimes (Interviewee 6), especially young people (Interviewee 5). The last but not least scheme is driven by corruption and entails the participation of public national authorities in criminal activities (Bosnia and Herzegovina and Russia cases). These are the activities and schemes TOC utilized to capitalize on the pandemic and jeopardize national legal economies.

5.2 THE INFILTRATION TO LEGAL ECONOMY

The second and the third objectives of the research were ‘to understand how TOC can infiltrate in the national economy through *pharma crimes*’ and ‘clarify whether organized crime activities can imperil European States’ economic recovery plans’.

Following the ‘profit derived crime theory’, we analysed TOC from the economic angle. According to the literature review, case studies and interviews, the aim of TOC during the COVID-19 crisis was to infiltrate into national economies and generate economic profit. Moreover, the pandemic has halted the years of economic development and enabled criminals to accumulate a significant financial base for the future (Interviewee 1).

All *pharma crimes* addressed in the research contain the infiltration element. For instance, the falsified masks in the Spain case is an example of unlawful participation in the medical supply chain; the cyber-attack in the Czech hospital or the distribution of economic aid packs among disadvantaged communities by mafia are the examples of illegal redistribution of lawfully earned income; Bosnia and Herzegovina case shows how national authorities let TOC participate in a sales contract; Mafia in Italy is taking control of legal businesses. Moreover, these examples of infiltration have been corroborated with the expertise and knowledge of our interviewees (see Interviewee’s 4 “cocaine case” in Annex II). In addition, every stage of criminal cycle involved money laundering that is a direct infiltration into state’s economy (Interviewee 3).

The ultimate consequence of the infiltration was undermining the effectiveness of economic recovery plans. According to our interviews, TOC managed to have access to public funds through unlawful means (as crimes) but also through making binding contracts with public authorities simulating a lawful economic deal. What is more, TOC can divert the funds through extorting individual citizens or enterprises without track (Interviewee 4). Additionally, simplified due to the pandemic procedures of granting the recovery funds increased the cases of misuse (Interviewee 5).

5 CONCLUSION AND LIMITATIONS

The COVID-19 crisis has changed the world economy, communication attitudes, social and political relations; it significantly transformed the world’s logistics and market structure. Likewise, the COVID-19 crisis did not leave aside TOC. These changes and emerged vulnerabilities gave

TOC new opportunities to spread, grow, infiltrate. Interestingly, TOC has not fundamentally changed its *modus operandi* but just adapted it to meet new demands and exploit the vacuum. The implications from this finding tell us that no matter from which sector the future crisis will come -TOC will adjust and capitalize.

Since the healthcare market has obviously become the most critical and the most vulnerable during the pandemic, the biggest spark in TOC activity happened there. The research uses *pharma crimes* as an illustrative example. It has been said that *pharma crimes* existed long before the COVID-19 pandemic but only now became prevalent. The reasons behind that are the extraordinary demand for unusual objects (masks, gloves, hydrogel, cleaning products, etc.), scarcity of such products in the legal market, as well as social anxiety and fear, and lack of adequate well-established response to these crimes. The most salient shift in TOC attitude was the increased use of cyberspace, while unlawful and lawful infiltration into supply chains, the control over legal enterprises or businesses and corruption remained the same.

Using the example of *pharma crimes* the research identified, in the first place, the profit orientation of these criminal activities, and in the second place, the risk of infiltration into legal economies of the States with the subsequent imperil of economic recovery plans.

Thus, *pharma crimes* are categorized as predatory crimes and market-based offenses. Linking this finding with the COVID-19 crisis, it is worth saying that regardless of the COVID-19 incidence in the investigated States, *pharma crime* was a present phenomenon in each of them. Thus, it is not the incidence that fuels criminal activity but the pandemic itself. Moreover, pre-COVID-19 TOC characteristics in our States were not related to *pharma crimes*; however, the versatility and creativity of TOC enabled them to adjust very quickly. Another point to mention is that already well-organized criminal structures in such countries as Italy managed to use the pandemic to significantly increase their influence, while in the countries with a lower criminal index like Germany criminals used single targeted attacks. It is important to mention, that the problem was identified in the lack of ability to look at what is hidden behind these single targeted attacks and to track the whole criminal chain.

Regarding the second point, the profit-oriented character of *pharma crimes* makes criminals seek opportunities to infiltrate into the legal economy to maximize their income. The consequences of the infiltration are not only a negative impact on the economy, market, enterprises, people's health, and the health sector but also imperil the effectiveness of the economic recovery. TOC can capitalize on public funds by obtaining them using criminal activities or asking simulating a lawful situation or manipulating enterprises, individual citizens or public agencies (such as hospitals or market operations).

Finally, the research has two main limitations: the first one is the constraints to generalize the results due to the lack of representativeness of the sample, and the second one is the lack of open-sourced information about a wider amount of crimes. In fact, the greater part of TOC activity still remains unknown (dark figure) and underinvestigated.

6 CRIMINAL POLICY PROPOSALS

The fourth objective of the research was ‘to suggest actions to combat organized crime’s infiltration in the economy and assure the implementation of economic recovery plans’. While conducting the research, two ideas came up repetitively: the serious consequences of TOC infiltration and the ineffectiveness of the traditional strategies to deal with TOC.

The case studies showed some measures that States undertook to combat *pharma crimes*, like making arrests, carrying criminal investigations, collaborating with different actors and agencies, anticipating and modeling TOC activity, rising social awareness, and intervening in medical supply with quality checks. From the interviews, the actions proposed were the elimination of criminal opportunities by strengthening policy, legislation, and infrastructure of law enforcement, developing models to track the whole TOC cycle (like POISE model), the better control of recovery plans funds, establishing anti-corruption mechanisms with financial intelligence and following the holistic approach in preventing and combatting TOC.

The research outlines a range of limitations to effectively respond to TOC such as the unawareness of the victim of the crime about its victimization, the opacity of TOC operations in the market, the multidisciplinary and creativeness of TOC, and the links between TOC and corrupted public authorities.

Our recommendations go in line with the UN SDGs 3, 8, 16 and 17, and aimed at strengthening health capacities of all countries; increasing financial well-being by fighting infiltration; reducing illicit financial flows and corruption, develop effective and transparent institutions; and strengthening partnerships for sustainable development and combatting TOC

From the lessons learned, the following measures can be recommended. In the first place, to **combat TOC** activity:

1. Carry out undercover operations coordinated at both national and international level to oversee the multidisciplinary of criminal networks.
2. Strengthen information exchange mechanisms among States, National Agencies and International Agencies.
3. Increase budget of private and public entities on cyber-security, strengthen cyber security capacities of staff by providing specialized trainings.
4. Provide capacity-building activities focused on pharma crime for law enforcement.

In second place, to **prevent economic infiltration**:

5. Tighten cooperation with banks and money transferring platforms for prevention, detection and response to economical activities operated by TOC.
6. Better analyze medical and pharmaceutical products to prevent falsificated or substandard products entering to legal supply chain (create quality commissions, better checks).

7. Once the infiltration has been achieved, create reactive measures to push out TOC scheme from lawful economic structure (cancel operations, asset forfeiture, freezing transactions, etc.).
8. Seize illegal money flows coming from criminal activities and direct them for building more effective anti-corruption and anti-money-laundering structures.
9. Build better control mechanisms for emergency and recovery funds.
10. Increase transparency of procurement processes.

In the third place, to **be better prepared for future crises**:

11. Raise awareness of population about potential victimization and the danger of using illegal or substandard products.
12. Analyze from which sector shortages can come in the future and model a crisis-response scenario.
13. Do continuous multi-stakeholder TOC research and TOC trends analysis.
14. Set basic standard policy recommendations regarding *pharma crime* for all states.
15. Create TOC analytical models highlighting patterns in TOC activity and helping to better anticipate TOC actions in the future.

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Appendix I: Detailed results from study cases

AI.1 PRESENTATION

In order to facilitate the comprehension and the analysis of our study cases, in the first place, we present them focusing on three main areas: a) the situation of COVID-19 in each country; b) the transnational/organized crime held in the country before COVID-19 crisis; and c) the actual crime suffered by transnational/organized crime motivated by COVID-19 situation.

Bosnia and Herzegovina

Bosnia and Herzegovina is one of the countries with the highest death rate from COVID-19. From 3 January 2020 to 22 October 2021, there were 247,182 confirmed cases of coronavirus⁸.

Bosnia and Herzegovina is situated in a transit and destination region for a wide range of crimes, including drug trafficking, illegal migration, counterfeiting and human trafficking. Factors such as shared regional history, family ties, language and visa-free border regime make Bosnia and Herzegovina and the surrounding regions attractive to Balkan organized crime groups, where they recruit vulnerable young people into organized crime and terrorism. Such profit-oriented criminal activity has devastating economic, social and security consequences for society⁹.

The European Commission's report 2020 on Bosnia and Herzegovina says: "Bosnia and Herzegovina is at an early stage/has some level of preparation in the prevention and fight against corruption and organized crime. No progress was made in addressing the key priorities and 2019 recommendations in this area, as well as issues identified in the Expert Report on Rule of Law. Corruption remains widespread and is a serious concern, with all levels of government showing signs of political capture directly affecting the daily life of citizens. There are systemic shortcomings in the operational cooperation of law enforcement agencies and very limited exchange of intelligence. The police are vulnerable to political interference. Financial investigations and asset seizures are largely ineffective. The contact point for cooperation with Europol is not yet operational. No steps were taken to establish cooperation with Eurojust. The country needs to improve its capacity and continue its efforts in the fight against terrorism and drug trafficking"¹⁰.

During the COVID-19 crisis, Bosnia and Herzegovina obtained a supply of substandard ventilators¹¹. In March-April 2020, in response to increased demand for ventilators, Beijing Aerospace Changfeng Co. issued a series of announcements that the ACM812A has limited capabilities and it had "only basic breathing support functions". In the years leading up to the

⁸ Source: <https://covid19.who.int/region/euro/country/ba>

⁹ Source: <https://www.interpol.int/es/Quienes-somos/Paises-miembros/Europa/BOSNIA-HERZEGOVINA>

¹⁰ Source: https://ec.europa.eu/commission/presscorner/detail/en/COUNTRY_20_1793

¹¹ Source: <https://balkaninsight.com/2021/10/18/in-bosnia-ventilator-scandal-manufacturers-warnings-unheard-or-unheeded/>. See also: https://www.unodc.org/documents/data-and-analysis/covid/RB_COVID_organized_crime_july13_web.pdf

pandemic, the usual price of an ACM812A was around €6,600. However, in 2020, when Prime Minister Fadil Novalic's Federation government decided to purchase these machines for the purpose of treating COVID-19 patients for €37,000 each.

In December 2020, the Bosnian Public Prosecutor's Office charged Novalic and three others with "receiving an illegal material benefit" from the purchase of overpriced ventilators unsuitable for the authorities' stated purpose of combating the COVID-19 pandemic, as the unsuitability of the machines was public knowledge three weeks before Novalic's government purchased them and almost a month before he received them¹².

Czech Republic

As an overview of the COVID-19 crisis¹³, it can be said there are 1,730,000 cases and 30,625 deaths. Compared globally and with European countries, the infection in Czechia is low, the same for the deaths. Because of the impact of the pandemic on the economy, this country has struggled particularly in economic and social terms. For this reason, public and even private investment (from private donors and NGOs) have played a key role in the subsistence of vulnerable populations¹⁴.

The previous COVID-19 situation of TOC in that country is the trafficking market of vulnerable groups (to different aims) to English-speaking European countries, domestically and to a lesser extent to Asia and other European countries. While women are forced into prostitution and advantageous marriages, migrants are victims of smuggling to Western Europe. Other criminal markets are the trade of arms and weapons, logging (to a little extent) and oil smuggling and oil-related fraud.

Apparently, the criminal actors are foreigners, principally Vietnamese criminal groups, but also criminal groups from Russia, Kosovo, Albania, Italy and Armenia. To combat criminal activity, the Government has built an anti-corruption and anti-immigrant stance with specialized police (as the Anti-corruption unit and anti-corruption committee or specialized groups in migration). Moreover, the country participates in international treaties and conventions, and it has an adequate legislative framework. About victims (trafficking, migrants and drug users) and witness-support, the country has developed measures provided by state institutions and NGOs.

Because of the COVID-19 emergency, on 13 March Brno University Hospital– the second-largest hospital that is one of the COVID-19 testing centers - had suffered a cyberattack. It seems there was a security breach (Cimpanu, 2020) and the target system was "Microsoft windows-based systems". As a result, habitual hospital activity was postponed, the IT network was closed, and testing activity ceased (Cimpanu, 2020).

¹² More information about the corruption scheme in:

<https://europeanwesternbalkans.com/2020/06/05/ventilators-affair-in-bih-fight-against-corruption-or-another-political-quarrel/>

¹³ Information from <https://ourworldindata.org/coronavirus-data> and <https://github.com/CSSEGISandData/COVID-19>.

¹⁴ A description of the impact of COVID-19 in Czech Republic in: <https://www.borgenmagazine.com/covid-19-in-the-czech-republic/>

In order to recover from the attack, the Czech National Cyber Security Center (NCSC), Czech police (NCOZ) and the hospital's IT staff worked together (Cimpanu, 2020). Even the attackers remain unknown - there is speculation about foreigner attackers such as Russia and China (Sybera, 2020) -, the purpose of the attack was likely gaining financial profit (Botek, 2020) - force the institution to pay for the attacker to unblock the attacked parts of the system¹⁵.

This cyberattack was a threat to the coronavirus fight, for this reason, Czech National Cyber and Information Security Agency set reactive measures to be implemented by healthcare providers subject to the Cyber Security Act (Botek, 2020) and upgrading its cyber defense (Sybera, 2020). Moreover, it seems that large-scale staff training in digital hygiene should complement these technical solutions (Sybera, 2020).

After this attack, there was a statement about another imminent cyberattack on Czech digital infrastructures, including healthcare providers (Botek, 2020).

The Czech Republic population has been victimized by phishing attacks under the guise of information and health advice emails to spread malware, get access to sensitive information (Porter, 2020). And previously, attempted cyberattacks had been performed against Czech medical facilities (Sybera, 2020).

Germany

According to WHO, the COVID-19 pandemic in Germany has risen to 4,506,415 cases and has left 95,359 deaths from January 2020 to October 2021. The early response to the pandemic resulted in one of the lowest mortality rates in Europe. However, in economic terms, from January to March, the crisis has shrunk Gross Domestic Product more than expected (Federal Statistics Office). Consequently, private consumption is the most damaged economic sector (Deutsche Welle). According to the IMF assessment, priority should be placed on minimizing labor market scarring, protecting vulnerable people, and ensuring that viable firms remain in business.

Germany is ranked 15th of 44 European countries by criminality score (Global Organized Crime Index). According to INTERPOL, a number of global organized crime groups operate in Germany, engaging in a wide range of crimes such as drug trafficking, property crime, people smuggling and crime associated with the business world, tax and customs offenses. Associated crime includes extortion and money laundering. Criminal activities are carried out mostly by mafia or clans including Arab Al-Zein, Miri, Abou Chaker, Italian 'Ndrangheta, Camorra, Cosa Nostra, Balkan, Albanian, Russian crime groups, etc. Organized crime exists and expands in the country through tax dodges from German millionaires and the involvement of respectable top bankers in money laundering schemes. Germany fights organized crime through international cooperation, police forces and relevant legislation. The Federal Criminal Office ,Bundeskriminalamt' (BKA) serves as Germany's INTERPOL National Central Bureau (NCB) and a focal point for investigations requiring global input. Two additional agencies operate at the

¹⁵ <https://zpravy.aktualne.cz/domaci/na-nemocnici-v-brne-zautocil-vyderacky-virus-spital-povolal/r~ff91a02c6aa011eab1110cc47ab5f122/>

federal level: the ‘Bundespolizei’ (Federal Police) and ‘Polizei beim Deutschen Bundestag’ (German Parliament Police).

Reduced border traffic, shipping, lockdowns presented challenges for mafias’ smuggling operations pushing criminals to move into more legitimate businesses — investing their money in nominally legal assets and enterprises. “The socio-economic effects of COVID-19, as well as an economic downturn, presents a number of criminal opportunities for organized crime structures, such as the theft or black-market trade of goods that are in short supply, or fraud schemes”, - the BKA said. Organized criminal groups are buying the vulnerable gastronomy sector on a large scale to turn it into straw companies or simply leave the same managers under the mafia control.

Another spike of activity was identified in cybercrime - fraudsters used sham email addresses, fake and cloned websites to rob the German government for 2.4 million euros (OCCRP). One of the most illustrative cases was an attempt to enmesh German health authorities in a sophisticated scam worth 15 million euros. German authorities had recruited two private companies, based in Zurich and Hamburg, to procure medical masks. The companies – which were legitimate – initially contacted a website registered in Spain and ordered 10 million masks. When the delivery failed to come through, the website referred the companies to a dealer in The Netherlands. The Dutch company demanded an emergency money transfer to secure the shipment but its site had been cloned by the scammers. Europol and Interpol coordinated with banks in Ireland, the UK and The Netherlands to freeze the transactions and managed to return the money¹⁶.

Italy¹⁷

Italy presents 4,281,214 COVID-19 cases and 127,851 deaths. It is one of the most affected countries by the COVID-19 crisis because of the previous weak economic conditions and the cuts to public health services. For these reasons, the public investment has addressed mostly health care services but also credit support for families and companies.

About the general situation of TOC¹⁸, on one hand, Italy is an important destination of human trafficking for sexual and forced/exploitation labor purposes, and on the other hand, it is a transit destination country in the transnational human-smuggling market. In Italy, there is the phenomenon of “ecomafias” which involves non-renewable-resources crimes. The country plays a role in the drug market, especially with cocaine (the most profitable) but also with others like cannabis, hashish, synthetic drugs, etc. National Italian Mafia-style groups are the most prevalent criminal actors scattered by region. However, there are Albanian and Nigerian mafia, as well as organized criminals’ groups like South and South-eastern Europe, Russia, China and South America. The relation between them is tolerant and based on utilitarian collaboration. The national response is strong against mafia and organized crime groups, for instance, the legislative response, but there are two obstacles: the lack of long-term consequences of the responses and

¹⁶ Source: <https://www.degruyter.com/document/doi/10.14361/transcript.9783839424957.285/html>, <https://www.dw.com/en/italian-mafia-sees-german-justice-system-as-a-joke/a-55285412>, and <https://www.occrp.org/en/daily/12123-germany-s-million-mask-scam-foiled-as-organized-crime-goes-online>

¹⁷ Information from Barra (2020), Lowen (2020), Re (2021), Roberts (2021).

¹⁸ Information retrieved from Global Organized Crime Index: <https://ocindex.net/country/italy>

the integration and corruption in the state apparatus. Italy has developed anti-corruption legislation. The international engagement includes cooperation (cross-border judicial and law enforcement cooperation).

During the COVID-19 crisis, some locations in Italy have been hit by Mafia activity in the healthcare system and welfare provision (Global Initiative, 2020a, 2020b, UNODC, 2021b).

UNODC (2021b) advises: “Although it is too soon to have robust evidence on the appropriation of public funds by organized criminal groups, information from previous crises suggests that these groups will target such funds. Aid destined for distressed companies, medical and pharmaceutical goods, public works such as improvements to hospitals, and waste disposal services will be particularly at risk”.

According to UNODC (2021b) the traditional Italian Mafia (Sicilian Cosa Nostra, the Calabrian ‘Ndrangheta’, and the Neapolitan Camorra) operates by “governance-type” model, which means that organized criminal groups who aspire to exercise security governance in areas they control by managing criminality, protect business paying protection fees and getting the favor of people. This model is reflected in the criminal activity in which Mafia is involved in *pharma crimes*:

- The Mafia is controlling the debts and resources of hospitals that lead to closing hospitals, cuts beds and staff, or takeover of the facility by mafia
- The Mafia is diverting vaccines.
- Mafia affiliates use fake charities to deliver aid packages and other necessities to vulnerable groups in order to control the territories to operate (UNDOC, 2021b).
- The economic investment of enterprises linked to the Mafia in the “health cycle”. In other words, to the production of medical goods, distribution of pharmaceutical products, environmental disinfection, waste disposal management, and mortuaries. They try to put in the market their goods and services competing with legal enterprises.
- Control of legal enterprises through loans.
- Mafia tries to get public funding and money that comes from recovery plans through their ‘legal’ entities.

Besides regular actions against Mafia carried out by specialized bodies (Parliament’s anti-mafia commission, Police and Prosecutor antimafia) and the Ministry of Interior, national authorities tend to anticipate mafia activity and compare the reaction and activity of Mafia from Napoli’s earthquake situation, in order to avoid let emerge the same opportunity to infiltration to into the economy.

Spain¹⁹

In Spain, there have been 4,100,222 COVID-19 cases and 81,096 COVID-19 deaths. Because of the COVID-19 crisis, Spain is suffering the deepest economic recession in 80 years - one of the

¹⁹ Information recovered from Euronews (2021), Martín-Arroyo (2021), Puglisi (2020) and Viñas (2021).

reasons is the closure of tourism-related economy activity, bars and restaurants-. Accordingly, the unemployment rate is high.

In general terms²⁰, the two salient spheres of organized crime in Spain are human trafficking and the cocaine trade. Regarding human trafficking, Spain is a destination country of this market (the most widespread is sex trafficking but also contributes to the migrant smuggling market), while the cocaine trade is the largest organized crime threat in the country. Spain serves as a transit country and as a consumer base. Spain is also an important route to the criminal market for fauna and flora, acting as an entry point.

Criminal actors of organized crime in Spain are foreign mafia-style groups, from Italy, Russia, Nigeria, Albania, Colombia, Georgia, Turkey, Armenia, Serbia, Mexico, the Netherlands and China, but also from Spanish mafia-style groups (the most salient are from Galicia).

The Spanish response has been adopting a National Strategy against Organized and Serious Crime. Moreover, the country has ratified international treaties on organized crime and has adopted legislative responses to responses to this kind of criminality.

The most salient strategy Spain conduces to combat transnational organized criminality is the involvement of the police. Among the bodies involved are the National Police and the Civil Guard police. To this date, they have run multiple operations to intercept falsified masks deposits.

Concerning the production of these goods, after a careful investigation, police discovered that falsified masks can come from the source in Spain with a transcriminal network behind, or falsified masks imported to Spain made somewhere else. Both situations involve falsification of documents, in order to put falsified masks in the market, the provision of special material (fabrics, labels, etc.), and the use of machines, like printers to include the logotype 'CE'.

The response to this phenomenon is creating macro operations, involving, mainly National Police body and Civil Guard body, but also, some operations required the collaboration of Tax Agency, the Foreigners Division, and local police stations.

In these operations millions of falsified masks have been intercepted. For instance, in the year 2020 13,000 in Madrid's Airport, 150,000 in a factory and 2021 4 million FFP2 fraudulent masks on a floor and the warehouse of a Hotel in Leganés (Madrid), 6 million FFP2 fraudulent masks in a store in Fuenlabrada (Madrid).

Besides the security police force interventions, Spain has carried out different campaigns targeting citizens to avoid the purchase of falsified masks. They include the acknowledgment of the risks of the use of fraudulent masks and the transmission of technical knowledge to be able to recognize a falsified item.

Finally, the Spanish Government has made an effort to reinforce the work of the "National Center of Means of Production". In this center, different professionals, like physics, engineers, chemistries and pharmaceuticals, are analyzing medical supplies (masks, clothes, globes, etc.)

²⁰ Information retrieved from Global Organized Crime Index: <https://ocindex.net/country/spain>

imported to professional health care in order to detect falsified, irregular or under standard medical products.

Appendix II: Detailed contents of the interviews

INTERVIEWEE 1, the Cybercrime and Anti-Money Laundering Section, UNODC

Crime is based on money and making a profit and all organized crime will fill the vacuum when it is a lack of policy, lack of legislation, lack of law, lack of infrastructure to counter the crime. For example, on the Darknet, criminals who were never involved in cybercrime were asking how they can make the most money out of the pandemic – and they were told to make PPE (personal protective equipment) – so this was the moment when one should predict the infiltration of criminals into the supply chains of products the world most needed: PPE, medicine, vaccines. People with no easy access to health care are emotionally paying money to feel safe. In the best-case scenario, criminals sell non-existing products, in the worst – something dangerous. Criminals infiltrate and exploit those vacuums and when the economy recovers they are already too strong and they already spread their activities, and losses that we achieve in a couple of days or weeks will take years to recover. Ensuring that recovery funds will finally find the beneficiaries is difficult due to corruption. One of the problems is that law enforcement knows only about what they can see and cannot fully access the whole picture of what is going on.

INTERVIEWEE 2, Illegal Vaccine Transportation, Latvia, 25 y.o

In spring 2021, Maxim's friend also from Latvia saw an advertisement that a Latvian company is hiring drivers for transportation of medical products from Belgian company Soncotra to other European countries. Having concluded official transport contracts with the Latvian company, they were supposed to deliver vaccines Johnson&Johnson to approximately 10 countries within the EU including France, Germany, Finland, etc. The vehicles were equipped with refrigerators and the temperature was controlled within the change of 4-5 degrees. At unloading, the temperature conditions were not always met; at the bases, especially in Eastern Europe, workers could leave boxes with vaccines in the sun for two hours. In France, they loaded a shipment of Pfizer vaccines as well.

INTERVIEWEE 3, IPO UK

When the pandemic started we had a high demand on PPE and items for the hospital. The high demand created new economic opportunities for criminals such as scams, non-compliant goods, fraudulent cases. OCs also applied for governmental financial assistance through legitimate companies. OCs started to act as community protectors supplying goods and services to disadvantaged communities in place of government inaction (Mexico, Italy, Afghanistan). Cybercrime saved the same structure and same process but just adjusted for COVID. Panic served as an enabling factor turning people to react differently than they usually would. Lack of transparency of processes and both consumers' and suppliers' decision-making is the problem that should be addressed. We cannot know how much criminals undermined the economy but it was a golden opportunity for criminals to build financial reserves for the future.

To ensure that enforcement strategies and tactics encompass all important elements IPO UK have developed a model called POISE that requires to look closely at the organized crime, the commodities, intermediaries facilitators and enablers involved and develop a problem-solving approach to deal with them. It breaks down the life cycle of counterfeit and pirated products into 9 various stages, from ordering, manufacture, distribution through to retail and is valid in both physical goods and digital content environments. Money laundering features at each stage. Understanding of the crime cycle can help to increase transparency.

The infographic is how the UK IPO have strategically assessed the *levels of separation* from a member of the public to organized crime connected to IP. The demand for pandemic related goods is high which in turn generates a threat to the legitimate supplier who could unknowingly purchase substandard or illicit goods. Criminal activities get lost in long supply chains and usually we do not see the whole picture.

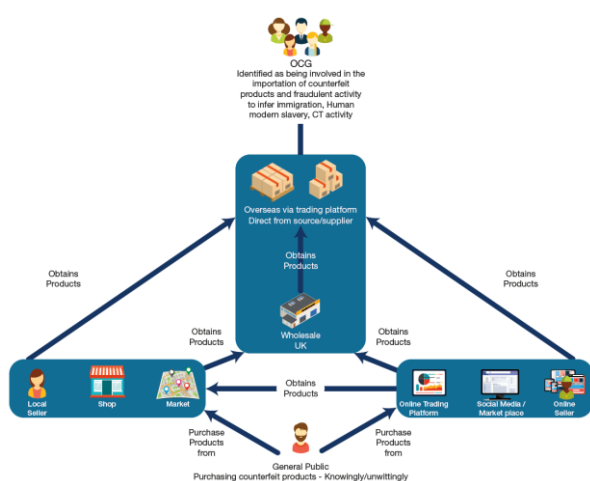


Figure 1- Levels of Separation (Source: IPO UK)

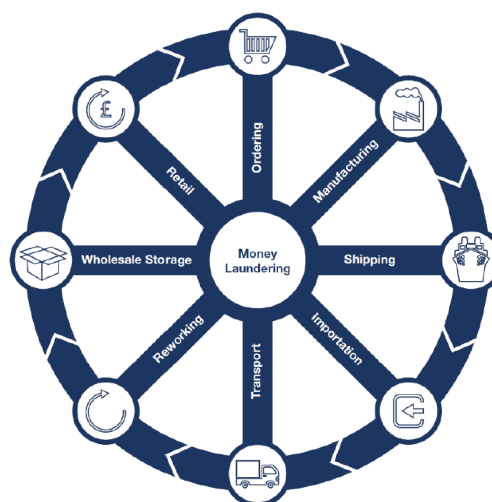


Figure 2 - POISE (Source: IPO UK)

INTERVIEWEE 4, UNICRI

During the pandemic, organized criminals are taking hold of enterprises and various economic activities which are at the backbone of the economy of every country. They control these enterprises directly or indirectly that enables them to implement other crimes. Organized crime is multidisciplinary – they are doing many things at the same time. If they offer a debt they will make sure that one will never be able to repay it until they will just purchase the company. They can leave a person in place like a manager and it will be even easier for money laundering. If you own a legal enterprise it is easier to infiltrate illegal products into the supply chain, make money and facilitate other crimes. Having taken over an enterprise, criminals can hire people to work

and expand their influence and control over territories. For example, criminals were even controlling private hospitals as they grant many opportunities for illegal channeling. The infiltration in the early-pandemic time was so unexpected and so underscored due to the shortage circumstances that governments were purchasing falsified products without realizing that.

Example of criminals' creativity:

During the lockdown trade between countries was stopped apart from the healthcare products and food supply. This fact significantly limited the capabilities of a criminal group trafficking drugs from North Africa to Spain. So they basically purchased a tomato canning company in the north of Morocco with subsidiaries in Spain. They bought the warehouses and started putting cocaine into tomato cans.

COVID simply facilitated the performance of already existing settings – schemes are not new. The only way to counter it is to follow the holistic approach and have law enforcement trying to connect all the dots, track the criminal chain and understand what is behind that. The next crisis can come from food shortages, and it will be very difficult to track at what point criminals infiltrated the production chain. Who will provide food components if, for example, farmers cannot do them? Criminals will take over this opportunity. We should look not only at the health sector but at the areas where shortages could happen. Criminals are very quick to shift from one sector to another. It is important to create a system of dialogue between governments, law enforcement, academics, investigators to share thoughts and experiences and to help each other see a broader picture.

INTERVIEWEE 5, OSCE

During the pandemic, organized criminals have taken advantage of economic, social and institutional vulnerabilities not only to create new profits but to systematically weaken state institutions and undermine economic development. Criminals also target public recovery funds as the procedures of receiving them have been simplified thereby undermining economic recovery. Infiltration of criminals into legal businesses and corruption enable them to grow. Organized criminals are becoming more active in recruiting young people as they are more vulnerable to the consequences of economic crisis and seek easy money.

INTERVIEWEE 6, Global Initiative on Transnational Organized Crime

The most dangerous activity is how criminal groups use a crisis like this to strengthen their influence within communities and either take advantage of links to the state (for example through procurement contracts for anti-COVID-related goods and services) or exploit discontent to attract more recruits. States should also watch out for how criminal groups will take advantage of people who become unemployed – whether it be IT experts, port workers, or public officials – who will be able to provide criminals with valuable skills and insights. States should also

implement a better control system for recovery funds as criminal groups or corrupt people seek to gain an advantage in, for example, large contracts for infrastructure, health care, or energy contracts. To do that, better anti-corruption mechanisms and effective financial intelligence units should be in place. The key aspect of the recovery plan should be transparency of procurement processes, greater accountability, and more effective communication.

INTERVIEWEE 7, the Russian governmental apparatus

The main new criminal activity in Russia during the pandemic became the forgery of medical certificates related to COVID-19. The market of fake medical certificates in Russia has always been quite big and underinvestigated; however, the COVID-19 pandemic added another more dangerous to public dimension in such crime. Since the start of 2021, the Russian authorities have opened dozens of criminal cases over the falsification of vaccination certificates, medical disqualification certificates, PCR test results, and even QR-codes. People can get this certificated through the darknet, in telegram channels, social media or directly from doctors. The biggest problem is the spread of corruption in Russia, especially well-established mechanisms of household corruption that were adapted by criminals for COVID-related purposes. The profits from this market are huge since the demand is extraordinary. From November, 8 the Russian Ministry of Health recognized the certificate of vaccination as an official document that means that the maximum punishment for the forgery can be up to 2 years.

IMPACT OF THE COVID-19 CRISIS ON TRANSNATIONAL ORGANIZED CRIME

POLICY RECOMMENDATIONS

To combat TOC:

- Carry out undercover operations at national/international level to oversee the multidisciplinary of criminal networks;
- Strengthen information exchange mechanisms among States, National Agencies and International Agencies;
- Increase budget of private and public entities on cyber-security, strengthen cyber security capacities of staff by providing specialized trainings;
- Provide capacity-building activities focused on pharma crime for law enforcement.

To prevent economic infiltration:

- Tighten cooperation with banks and money transferring platforms for prevention, detection and response to economical activities operated by TOC;
- Better analyze medical and pharmaceutical products to prevent falsified or substandard products entering to legal supply chain (create quality commissions, better checks);
- Once the infiltration has been achieved, create reactive measures to push out TOC scheme from lawful economic structure (cancel operations, asset forfeiture, freezing transactions, etc.);
- Seize illegal money flows coming from criminal activities and direct them for building more effective anti-corruption and anti-money-laundering structures;
- Build better control mechanisms for emergency and recovery funds;
- Increase transparency of procurement processes.

The COVID-19 crisis has changed the world economy, communication attitudes, social and political relations; it significantly transformed the world's logistics and market structure. Likewise, the COVID-19 crisis did not leave aside TOC. These changes and emerged vulnerabilities gave TOC new opportunities to spread, grow, infiltrate. On the example of *pharma crimes*, this brief explains how TOC exploited the COVID-19 pandemic to capitalize and infiltrate into legal states' economies.

The policy recommendations focus on a way of preventing and combatting *pharma crimes*, addressing infiltration and increasing preparedness for future crises.

Our recommendations go in line with the UN SDGs 3, 8, 16 and 17, and aimed at strengthening health capacities of all countries; increasing financial well-being by fighting infiltration; reducing illicit financial flows and corruption, develop effective and transparent institutions; and strengthening partnerships for sustainable development and combatting TOC.



Executive Summary

Since the healthcare market has obviously become the most critical and the most vulnerable during the pandemic, the biggest spark of TOC activity happened there. The research uses *pharma crimes* as an illustrative example. *Pharma crimes* existed long before the COVID-19 pandemic but only now became prevalent. The reasons behind that are the extraordinary demand for unusual objects (masks, gloves, hydrogel, cleaning products, etc.), scarcity of such products in the legal market, as well as social anxiety and fear, and lack of adequate well-established response to these crimes.

To be better prepared for future crises:

- Raise awareness of population about potential victimization and the danger of using illegal or substandard products.
- Analyze from which sector shortages can come in the future and model a crisis-response scenario.
- Do continuous multi-stakeholder TOC research and TOC trends analysis.
- Set basic standard policy recommendations regarding pharma crime for all states.
- Create TOC analytical models highlighting patterns in TOC activity and helping to better anticipate TOC actions in the future.

Main infiltration schemes identified:

- Unlawful participation in legal supply chain
- Lawful participation in legal supply chain
- Cybercrime
- Control over legal enterprises and businesses
- Abuse of recovery funds
- Money laundering

Enabling factors: pandemic, corruption, institutional weaknesses, lack of transparency of procurement processes, creativeness and multidisciplinary of TOC, lack of the information about full scale of TOC activities (criminal cycle), fear, digitalization.

Pharma crimes include trafficking or illegal trade substances and medical products, the falsification of medical products, counterfeit, substandard and illegally diverted pharmaceuticals, defraud, theft, illegal advertising of COVID-19 vaccines, cyber-attacks and, forgery of medical certificates

Case studies used:

- Bosnia and Herzegovina (substandard ventilators supply)
- The Czech Republic (cyber attack against the hospital)
- Germany (face masks scam against government)
- Italy (Mafia in the healthcare system)
- Spain (falsification of medical masks)

The research found that during the COVID-19 pandemic, TOC has not fundamentally changed its modus operandi but just adapted it to meet new demands and exploit the vacuum. The implications from this finding tell us that no matter from which sector the future crisis will come –TOC will adjust and capitalize. The most visible shift in TOC modus operandi is a full or partial relocation of its activities into cyberspace due to worldwide digitalization facilitated by the pandemic, while such schemes as unlawful and lawful infiltration into supply chains, the control over legal enterprises or businesses and corruption remained the same.

The research identified the profit-oriented character of *pharma crimes*. This means that criminals will seek to maximize their profit, for instance, through infiltration into legal state economies. The dangerousness of TOC activity had an impact on two domains: the economy in general and the efficiency of recovery plans, and the people's health.

The most salient among the criminal schemes used was the infiltration into supply chains of medical products, but also the control of weakened enterprises and businesses. Cybercrime mostly used unsophisticated techniques (cloned website, business email compromise, 'nephew trick', fishing and selling of non-existing goods) but sometimes utilized encrypted communications and ransomware. It was found that TOC uses the advantage of rising unemployment and economic discontent among the population to recruit individuals, especially young people, with special skills and knowledge to perpetrate sophisticated crimes. The last but not least scheme is driven by corruption and entails the participation of public national authorities in criminal activities. Money laundering is present at each stage of the criminal cycle.

The ultimate consequence of the infiltration was undermining the effectiveness of economic recovery plans. TOC managed to have access to public funds through unlawful means (as crimes) but also through making binding contracts with public authorities simulating a lawful economic deal. What is more, TOC can divert the funds through extorting individual citizens or enterprises without track. Additionally, simplified due to the pandemic procedures of granting the recovery funds increased the cases of misuse.

Globally, the infiltration of TOC into the health sector has significant consequences such as the distortion of market rules, the undermine or harm to pharmaceutical companies, the reduction of funds for research and innovation about COVID-19, the endanger of the effectiveness of economic recovery actions, the detriment of the national public health budget, and the compromised the effective response against the pandemic and social wellbeing.

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