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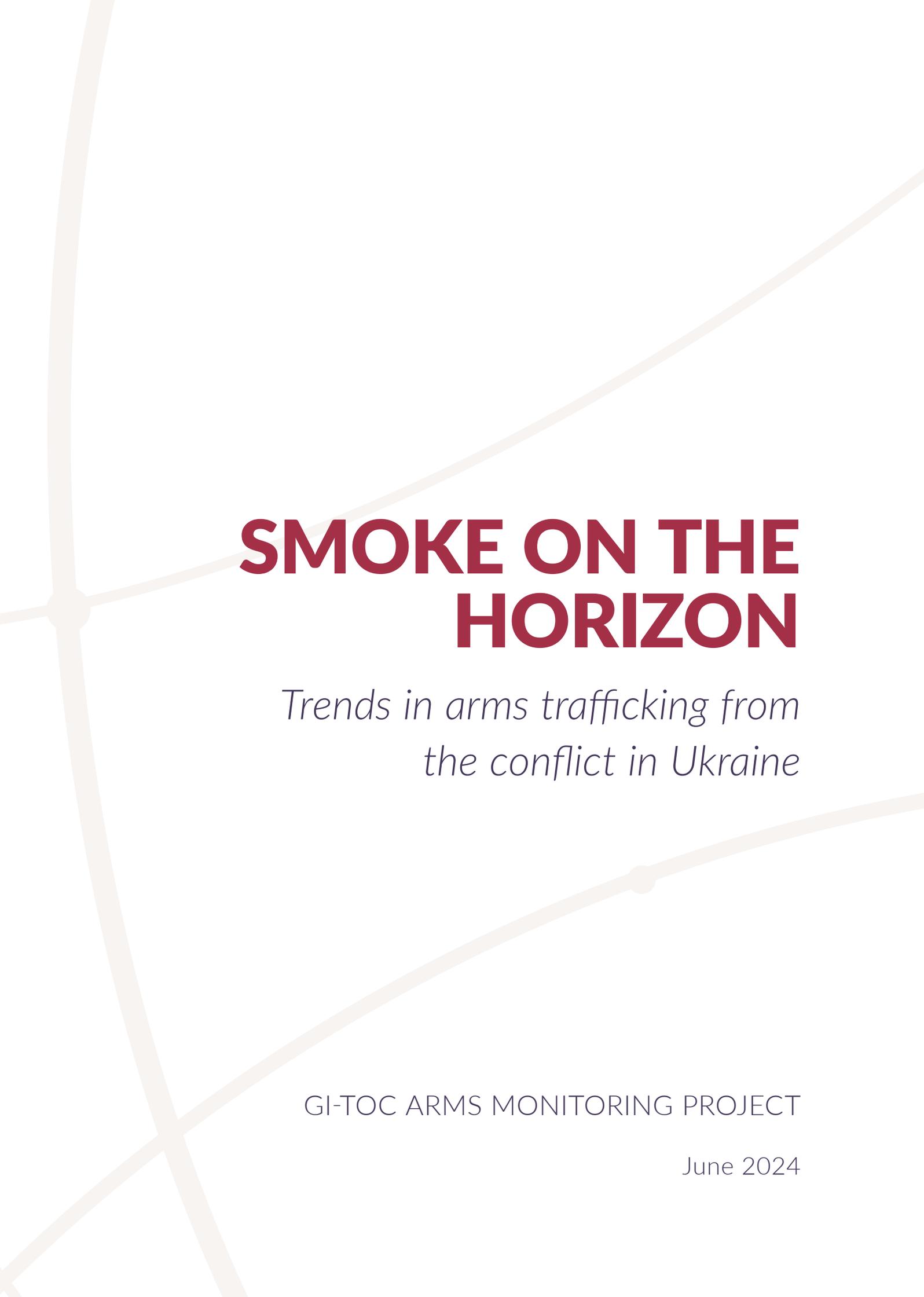
AGAINST TRANSNATIONAL
ORGANIZED CRIME

SMOKE ON THE HORIZON

Trends in arms trafficking from
the conflict in Ukraine

GI-TOC ARMS MONITORING PROJECT

JUNE 2024



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CONTENTS

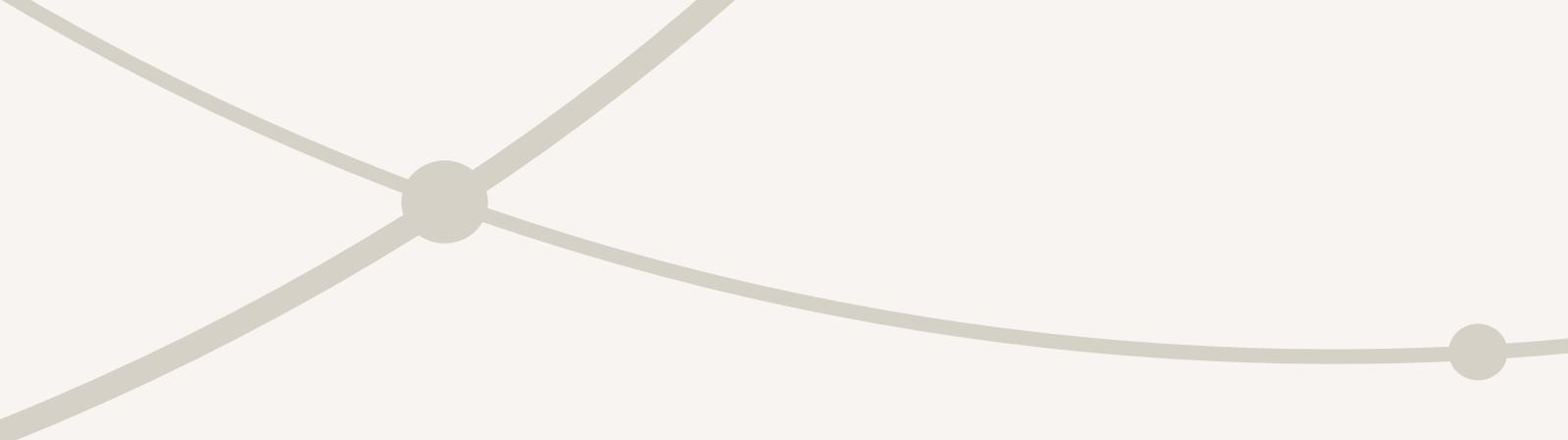
Executive summary	4
Key findings	7
Recommendations	11
Methodology	12
Origin: Ukraine	14
Sources of weapons	20
Movement	24
Customers	26
Trends: more weapons, more risk	29
Transit zones and the Western Balkans	30
A 'Swiss cheese' border	32
Little local demand for guns	35
Western Balkans: the go-to option – for now	37
Trends: connecting to the pipeline?	41
Customers: Western Europe	42
France, Belgium and the Netherlands	44
Sweden	46
Trends: a matter of time?	47
The dark web	48
The structure of the dark web: drugs, scams – and regulation	50
Weapons from the conflict: a scammer's market	54
Trends: a limited market	55
Conclusion	56
Annex: Prices of illegal weapons in Ukraine	58
Notes	61



EXECUTIVE SUMMARY

An unused rocket launcher left behind after fighting in the Luhansk region, May 2022.

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Arms trafficking is a loaded term. It conjures images of containers full of AK-47s, gangsters toting grenade launchers or fierce shootouts between rival gangs. And there is some truth to this in many parts of the world, from shiploads of assault rifles sent by Iran to the Houthis, Mexican cartels downing helicopters and the street violence of the drug market in the US.

Europe is different. The use of weapons by organized criminals, terrorists and other actors has, in comparison to some places, been relatively limited, making the rare instances even more shocking. Charlie Hebdo and Bataclan have become the shorthand for two incidents of extreme violence in 2015 in Paris that brought the issue of arms trafficking into sharp focus. Guns, not bombs, had become the primary weapons of terrorists in Europe – and criminals were supplying them.¹

Of course, criminals were not only selling. Guns, though not a lucrative criminal commodity in their own right, are necessary tools of the trade for a range of illicit activities, especially armed robbery, extortion and drug sales. For decades, military stocks left over from the Yugoslav Wars and looted Albanian armouries provided the majority of the serious fire-power in Europe, including explosives, but over the years the supply has diversified. Licitly obtained weapons have been used in several mass shootings, such as in Prague in 2023 and Erfurt in Germany in 2002. Criminals in Europe were quick to spot legal loopholes that enabled them to acquire decommissioned and gas or blank guns from Eastern Europe and Turkey that could be converted into live-firing weapons. Low-velocity Flobert guns, for instance, designed for recreation target practice, could be modified and brought into lethal service.²

In this context, many have looked at the influx of weapons to Ukraine after Russia's full-scale invasion in February 2022 with a wary eye. The reservoir of weapons in the country – already large, especially since the outbreak of the conflict in 2014 – was expanding, right on the eastern borders of Europe. How long would it be before these weapons found themselves in the hands of criminals further west? What would be the effect on organized crime and its operations? Might the streets of Europe begin to see grenade launchers, Javelins and a profusion of handguns and automatic rifles?

This fear – linked as it was to Western military support for Ukraine – inevitably became a proxy battleground of misinformation. Numerous claims of weapons diversion have been made and amplified on social media, only to be subsequently debunked as Russian propaganda, either at arms-length or from prominent officials.³ At a UN Security Council meeting, Russia claimed that up to 20% of military weapons to Ukraine ended up on the grey and black markets.⁴ Russian President Vladimir Putin himself stoked the flames, saying ‘I have no doubt that there is a leak of weapons from Ukraine [...] The black market is developing in such a way that there are many who want to buy, and in Ukraine there are many who want to sell.’⁵

Both Ukraine and Ukraine's Western partners have been aware of the political and criminal risks of arms diversion, and have put in place strict oversight mechanisms to track the delivery of weapons. According to Vadym Dzyubynskyi, head of criminal investigation at the Ukrainian National Police:

All lost and stolen weapons, which currently number 593 000, are all accounted for, numbered, and our European partners know about these weapons. If such a weapon emerges in any country in Europe or the world, we will immediately understand that it is a drop-in and a fake, that it is the work of Russian special services for disinformation and narratives about Ukraine.⁶

Ukrainian soldiers interviewed in February 2024 all spoke of strict standards over weapons, both during and at the end of their service.⁷ But in this nervous climate, any official shortcomings have been heavily scrutinized.⁸ And although not directly connected to weapons diversion, corruption scandals over military procurement in Ukraine have fed into concerns over the accountability of materiel in the war.⁹ Parsing the true risk has become essential to deepen the discussion beyond the headlines.

In order to provide insight into this issue, in 2023 the GI-TOC established an arms monitoring programme (‘the Monitor’) to track the flows of weapons out of Ukraine and into Europe. At the heart of the project was the collection of black market prices for weapons both in Ukraine and in Europe, on the assumption that a comparison of prices in different countries, and an analysis of changes in those prices, would help shed light on the nature of supply and demand at the national and transnational level. This data has been sourced from underworld contacts and law enforcement in various countries. Qualitative interviews with underworld sources, law enforcement, journalists, activists and others have helped flesh out the data picture with regard to demand for weapons among criminals, appetite for risk and potential drivers and barriers. In addition, the Monitor collected information on seizures and official reports on firearms, and commissioned a survey of dark web marketplaces.

This report summarizes the first year of the Monitor's work, covering 2023 and early 2024. Its core finding is that the profusion of illegal weapons has thus far been limited to Ukraine, and that there has been no verified incident of organized arms trafficking from Ukraine to EU countries.¹⁰ Importantly, the weapons seen being seized and sold on the black market in Ukraine are overwhelmingly Soviet- or Russian-type trophy weapons captured on the battlefield or taken from weapons dumps, although there have been isolated attempts to steal Western weapons. In June 2022, for instance, the Security Service of Ukraine (SBU – romanized as Sluzhba bezpeky Ukrainy) broke up a criminal gang that fraudulently procured a grenade launcher and machine gun, which according to the context of the US Defense Department report that detailed the case, were likely to be Western-supplied.¹¹

In part, the highly active nature of the war in 2023 meant it acted as a 'sponge' for weapons, soaking up flows of authorized lethal aid deliveries as soon as they arrived. Yet other factors have played a part, including the nature of arms trafficking in Ukraine; the role of the Western Balkans; converted gas or blank guns and other types of weapons supplying the European market; the role of the dark web; and the evolving nature of the illicit markets these guns serve. These are described in full in the report and in summary in the Key Findings section below.

This is of course a very dynamic state of affairs, with new developments almost every week, and future trends will be shaped by the progress of the war. The success of Ukrainian operations in the Black Sea, for instance, has de facto lifted the Russian naval blockade on Odesa, with export volumes returning to pre-invasion levels in January 2024.¹² The importance of this corridor cannot be overestimated: Odesa was formerly a hub for arms trafficking – the volume of weapons exported through the port can be much higher than a couple of Kalashnikovs smuggled to France by car, and the end customers are likely to be in conflict zones, with the weapons potentially enflaming the violence. The Monitor will continue to track this space, producing timely updates together with comprehensive annual assessments. Ultimately, the lack of current activity does not imply an absence of risk. A years-long perspective is required, and the Monitor remains an important early-warning capacity that can flag incipient trends and risks as they emerge. Given the highly dynamic nature of the conflict, the situation and risk calculus may change very rapidly.

Finally, it is clear that although the conflict in Ukraine represents a serious arms trafficking risk facing Europe, it is by no means the only one. As the Flemish Peace Institute observed, 'There is no such thing as *the* illicit firearms market in the EU. It is clear that the EU has many different illicit firearms markets, each with its own specific characteristics and dynamics.'¹³ From a criminal's perspective, cost and ease of access and use will be guiding factors. Guns from the Western Balkans or elsewhere, reactivated and converted guns, 3D-printed weapons, those assembled from parts purchased on the dark net,¹⁴ stolen legal weapons – there is no shortage of choice. The war will play one factor in this calculation, but EU and member state legislation, technology and criminal ingenuity will also play their part.

Key findings

Arms trafficking in Ukraine: organic, not organized

The Soviet Union had the dubious distinction of producing two of the most notorious arms traffickers of the late 20th and early 21st centuries: Viktor Bout and Leonid Minin. But those looking for similar kingpins in Ukraine today will be disappointed. Rather, as our research has shown, arms trafficking in Ukraine is for the most part a bottom-up, opportunistic phenomenon, with trophy weapons collected on the battlefield and sold on. Most instances involve only individual or small groups of weapons, explosives or ammunition (although the GI-TOC did hear two reports of security personnel close to the front line offering batches of 10 or more trophy weapons at a wholesale price).¹⁵

Prices are low, especially close to the front line, and the risks high, with Ukraine having made weapons control a top political priority. Compared to drugs, arms trafficking is an unenticing prospect. It is difficult to make significant money selling weapons unless the volumes are much larger – i.e. containers or at least trucks full of weapons¹⁶ – and Ukraine's criminal export potential is also limited because, low as they are, prices for illegal weapons in Ukraine are still in general higher than in the Western Balkans. From a business standpoint, a kilogram of cocaine will bring far better returns, at a fraction of the risk and effort.

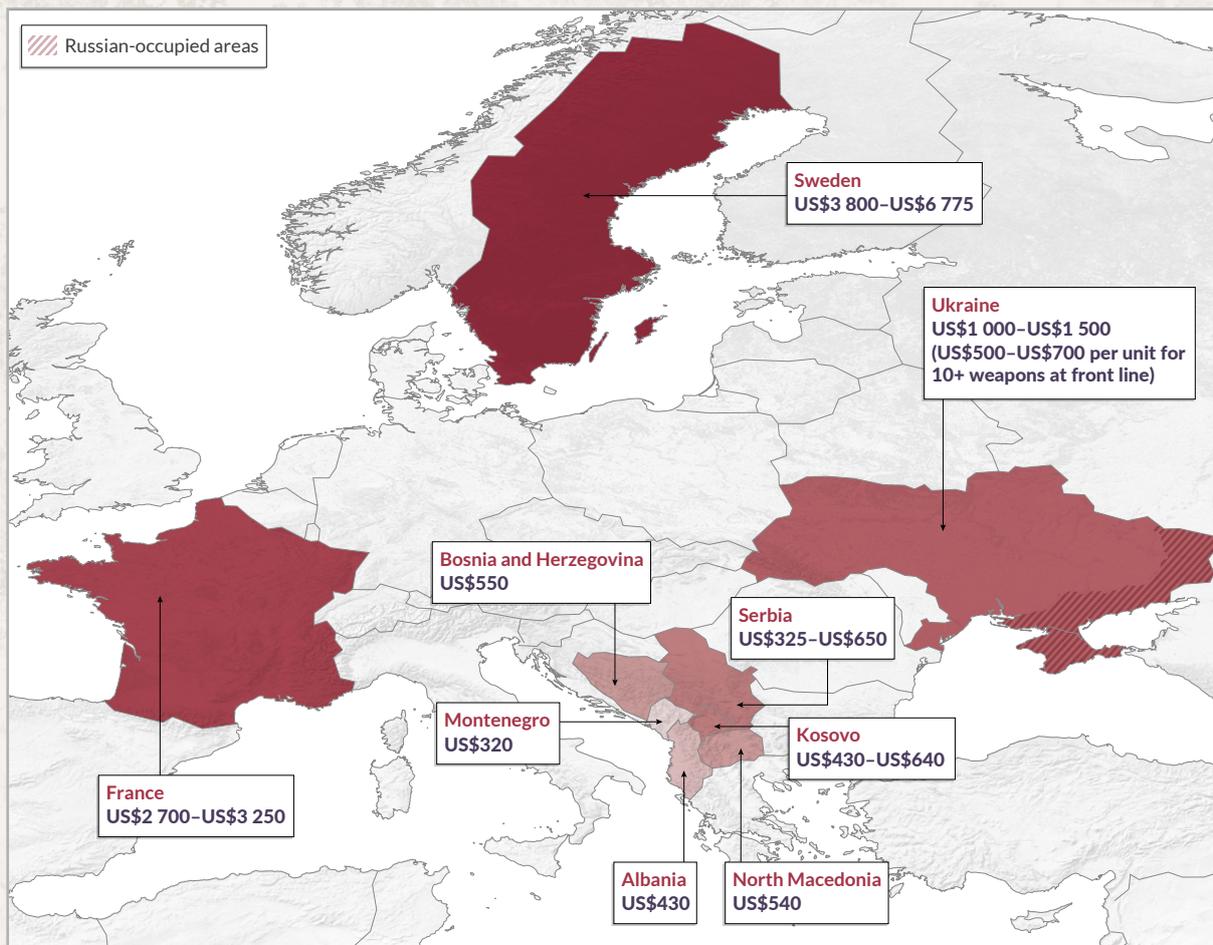


FIGURE 1 Approximate AK-47 price ranges in Europe, per unit, collected by the Monitor in 2023 and 2024.

NOTE: The higher end of the price range usually applies to weapons sold with ammunition, typically two magazines. Prices have been standardized to US dollars for ease of comparison (as prices for AKs in Ukraine are often given in dollars). The AK-47 is a useful indicator of market dynamics: widespread availability, ease of use and plentiful supply of ammunition have made it a dependable tool in criminal arsenals across the continent.

The country has clearly seen a boom in supply. The number of weapons is enormous and growing, with more than 200 000 lost and stolen weapons added to Ukraine’s official tally since the Russian invasion. Demand, however, is variable. Organized crime is already well provided for, although will in all likelihood seek to enhance its arsenals. Instead, weapons are likely to diffuse even further through Ukrainian society, among civilians worried about the threat of Russia and through ex-soldiers bringing back trophy weapons. This poses great risk to Ukrainian society, particularly in a population with a high number of traumatized ex-military personnel. The threshold for lethal violence may be lowered, as has already been seen in several troubling instances throughout the year. There is also the risk that in future these trickles of weapons will become streams when collected by coordinators, such as gunsmiths, to sell in larger volumes.

The dark web shot to prominence in the early days of the invasion as a supposed shop window for stolen Western weapons. This has since been discredited as Russian disinformation, and our own investigation into the dark web similarly revealed a lack of any significant activity. The market for weapons on the dark web (as it is structured in Europe) is almost entirely a scammer's market, or a stalking ground for law enforcement. Scam marketplaces offering weapons generally provide a huge range of choice, able to be shipped anywhere in the world, but, crucially, they operate outside the network of trust that has developed to guarantee the (very real) trade in drugs and fraud. The dark web market for weapons in the post-Soviet sphere, by contrast, does have genuine offerings, but these are very limited and tightly geographically confined. In all likelihood, the bulk of the illegal weapons trade conducted online is done through messaging platforms such as Telegram, although using closed messaging rather than open channels, as in the drug trade. More research is required to understand the extent and operations of this business.

Western Balkans and gas guns: the criminal's choice

For decades, the cheap and plentiful weapons left over from the Balkan conflicts, together with those looted from Albanian arsenals in 1997, have been the go-to option for criminals in Europe. Our research found that prices remain extremely low, undercutting those in Ukraine, although it must be noted that the weapons are now older and in some cases less desirable. Converted gas and blank-firing guns have also become a staple of organized crime in the same period, offering a very cheap means of obtaining either a replica for intimidation, or, with the help of a gunsmith, a lethal weapon. The fact that they can be transported as legal weapons then converted close to the end user also makes effective interdiction more difficult.

These twin supplies have undergone changes. Prices in several countries in the Western Balkans have risen slightly since the invasion, potentially due to inflation, shortages of local supply and domestic political tensions; the Russian invasion of Ukraine also contributed to a sense of instability in the region and an increased desire for self-protection, which also raised prices. One interviewee close to the underworld in France also reported that it was difficult to source weapons from the Western Balkans due to a shortage, while the price

of an Uzi, for example, has fallen dramatically in recent years due to the amount of time the gun has been in operation. This suggests that weapons in Ukraine could be seen as a means of replenishing failing stocks in the Western Balkans, although as above, at present the price differential means that this will not be a straightforward substitution. Prices in Ukraine are higher and the distance to market further, suggesting that such weapons will be more expensive in Europe than their Western Balkan counterparts. If too expensive, criminals may seek cheaper alternatives, or simply whatever is at hand. As the French interviewee said, 'In the end, the gangsters pick [from] what's available.'¹⁷

Gas and similar weapons have come under heavy scrutiny in recent years. On the macro scale, Article 10a of EU Directive 2017/835 attempted to close the gas gun loophole, stipulating that member states should ensure that blank and similar cannot be converted into live-firing weapons, and also that blanks and similar were to be classified as firearms.¹⁸ Interpretation among EU member states remains uneven, but some have taken action that has had real results. Legislative changes in Slovakia ensured that decommissioned and low-velocity Flobert weapons, for example, were classed as firearms, anonymous ownership was removed and reactivation made more difficult. Before tighter laws were imposed, the risk levels and profit margins on Flobert weapons were relatively good. According to the Slovak police, a legally produced, unconverted weapon could be bought for up to €500. The buyer might then sell this weapon abroad to a criminal group, which would convert it and sell it for between €1 800 and €3 500, with the higher prices in Western Europe.¹⁹



Gas guns have become popular with criminals over the past three decades. Cheap and easy to convert into lethal weapons, they also convincingly pass as live firearms. This Glock replica is available for US\$260 in Denmark – and prices are even cheaper in Eastern Europe. Photo: Rodes.dk

Turkey was for a long time a major supplier of gas and blank guns to Europe via Bulgaria, but changes to legislation in 2019 have reduced this flow. (According to a senior figure in Dutch law enforcement, gas guns continue to be made and exported from Turkey, although these are of lower quality, suggesting illegal manufacture.)²⁰ Large stocks of these weapons still remain in Europe, however, and there are still flows. Indeed, Romania intercepted more than 2 700 gas and similar weapons in 2023 in two separate seizures – one involving weapons coming from Bulgaria, the other from Ukraine – hinting at a high level of organization.

Who wants what, and why?

As one senior Dutch law enforcement officer phrased it, criminals have a desk with three drawers. In the left drawer is a firearm, in the right, an explosive. In the middle draw – the largest – is money. If they cannot achieve their ends through money, they will resort to the other two drawers.²¹ This metaphor explains why criminal environments that are unstable or competitive are more violent than those where an understanding has been reached and money can solve most issues, although in an unregulated economy many disputes will inevitably turn violent. In the Monitor's work, the relatively settled underworlds in the countries bordering Ukraine stood in stark contrast to the high levels of firearm violence in Western Europe born out of the lucrative cocaine market. Between 2016 and 2021, for example, four out of five assassinations in the Netherlands were related to the cocaine trade.²²

The question remains as to what type of weaponry criminals will choose to achieve their ends. Will the military hardware available in Ukraine be attractive to organized crime? Here, cost and ease of use will be decisive factors. As one Dutch explosives expert argued, citing a high number of attacks on homes using flash powder from fireworks, criminals seek the greatest effect at the lowest cost.²³ An NLAW or Javelin may on the face of it seem an impressive tool, argued the expert, but it is heavy, expensive and requires training to use properly; a 'dumb' RPG-22 or RPG-7, or even a grenade, will have a similar effect at a cheaper cost.²⁴ A similar point

applies with ammunition: Western weapons may appeal due to their sophistication, but ammunition for AK-type weapons is much cheaper and more readily available.²⁵ As the gas gun trend shows, intimidation sometimes trumps lethal power. On this basis, grenades are a type of weapon that may see more uptick. Cheap, easy to hide and dramatic, grenades offer bang for the criminal buck. They are also the one lethal product where Ukraine has a slight price advantage compared to the Western Balkans: we found prices as low as US\$4 for a grenade in eastern Ukraine, compared to €10 in the Western Balkans, although the route to the European market is much less problematic, and more established, from the Western Balkans than from Ukraine.

This report has touched upon criminal customers for weapons in France, Belgium, the Netherlands and Sweden – high-income Western European countries that are host to lucrative and violent drug markets – but of course there is a market for weapons in many other European countries. The organized crime groups in Italy are major customers for weapons, mostly from the Western Balkans and Austria.²⁶ Spain was another country frequently cited, and more research is required into Germany, Croatia and Austria. The Monitor will expand its scope to include these countries in future phases of work.

It is also important to acknowledge that there are other customers for illegal weapons besides criminals and civilians. Terrorists, survivalists, collectors and anarchists, among others, all have their own reasons for acquiring weapons, which differ from those in organized crime. For a terrorist, guns are not a means of protecting business interests and asserting power in the face of competition, but a tool to conduct a short-term campaign of lethal violence that will usually end in the perpetrator's death. Maximum firepower will be the priority. That terrorists generally acquire their weapons through criminal channels complicates this risk equation – they may not always be able to obtain the weaponry they want, if criminals are reluctant to handle serious equipment – but then again, the maxim 'the customer is king' may equally apply.

Recommendations

Drain the sponge

Tackling the flow of weapons at source will be a far more effective approach than attempting to interdict guns in the black market, in Ukraine and beyond. Here, the efforts of the Ukrainian authorities to prioritize weapons control must be acknowledged. Soldiers we spoke to emphasized the severity with which loss of weapons was treated, to the point where it would be impossible to demobilize without your weapon: 'If you don't give it back, you don't get through, you don't get a signature on the bypass sheet, and you're stuck ... it's a criminal offence if you don't find your Kalash.'²⁷ The launch of the Unified Gun Registry, mandatory registration of trophy weapons and the monitoring of all lost and stolen weapons in Ukraine also speaks to the state's drive to bring more transparency and oversight.²⁸ Gun buy-back programmes and amnesties may also be a solution to reducing the number of illegal or unregistered weapons and explosives in civilian hands (many of which were obtained before the full-scale invasion), particularly if the prices offered compare favourably with the black market price, with none of risk.

But many will be reluctant to hand back or register their illegal guns. As the war enters its 10th year, the threat to civilians is arguably greater than at any time since the early months of the full-scale invasion. Russia's ability to prosecute a major offensive in Avdiivka despite enormous losses also paints a worrying picture of Russia's force regeneration potential and the brutal efficiency of its war economy. In this situation, few will voluntarily be without a means of self-defence. And, all the while, more weapons will continue to enter the conflict zone.

Realistically, it seems that maintaining and supporting the current political emphasis in Ukraine and the West on supplying weapons will in itself be a success, given the slew of other competing priorities. Offering people a no-punishment (and even small incentive) route by which they can register weapons in their possession may in the meantime help capture information about some illegal weapons, although of course those people who are of most concern will not use this option. Increasing checks and intelligence gathering around front line areas to intercept the movement of trophy weapons will also be valuable.

To fight arms trafficking, fight crime

The Western Balkans has frequently been cited as an example of the risks faced by Ukraine in a post-conflict environment. There are, however, many differences between the two contexts, not least in the nature of the respective conflicts and role played (or not) by organized crime in the actual fighting. In the Western Balkans, for example, criminals and hooligans formed militias and arms traffickers enabled Bosnian forces to acquire weapons in spite of international sanctions.²⁹ After the conflict, many criminals who had proved themselves useful became part of the political architecture, embedding corruption and criminal control. Organized crime itself also exploded after the war in the region, driving demand for weapons. In Ukraine, criminals have minimal impact on the prosecution of the war and are highly unlikely to translate front line service into political power (although corruption remains another story).

That said, there are also troubling similarities, and some of the risks are even more serious on the Ukrainian side. Access to weapons may have been high in both conflicts, but far more weapons and explosives – and a far greater variety and quality – have been used in the conflict in Ukraine. Similarly, the number of military personnel in Ukraine who have experienced active service is much higher than those who fought in the Balkans. While organized crime in Ukraine may not be playing an active role in the fighting in any significant sense, it has been evolving during the conflict to take advantage of new opportunities, and is by no means a diminished force in Ukrainian society. The uncertain future of the conflict also means that there are unknown risks and variables still in play, the true nature of which will only become evident in years to come.

Reading across, it is crucial to ensure that the opportunity for arms trafficking remains low and that organized crime does not shift to a more violent way of working. To achieve this, crime must remain a priority for the state alongside the war effort. Increasing resilience to and the disruption of organized crime will remove the oxygen needed for a flourishing arms trafficking business.

Unify resilience and legislation in Europe

That Europe has thus far been spared flows of illegal arms from Ukraine presents a valuable window of opportunity to set its house in order.

At present, two connected issues stand out: resilience and legislation. We found that resilience – including border controls, awareness of the risks of firearms trafficking and political will – was patchy in the countries bordering Ukraine. While Moldova may have become a flagship for international efforts, the borders of Romania, Hungary and Slovakia are highly porous and represent no real barrier to arms trafficking; Instead, low profit margins and high prison sentences are the main deterrents. Testing and strengthening the line of checks along Ukraine's western borders is essential, as once weapons couriers have entered the Schengen Zone, there are no other hindrances to their movement within Europe. Bilateral efforts in partnership with Ukrainian agencies, which on current evidence have been effective, should be supported and deepened, along with investment in

both traditional and non-traditional capabilities at the border, from scanners to drones.³⁰

The legislative challenge speaks to the broader set of issues surrounding gun control in Europe. Although there are various pieces of EU guidance, gun control differs between member states, particularly in regard to ammunition and the emphasis (or otherwise) put on tackling gas and blank guns. A consistent continental framework regarding the legal ownership and registration of weapons, enshrined in national law across member states, is overly aspirational, but in the absence of any consistency, criminals will be able to continue shopping around Schengen jurisdictions for ammunition and parts (which can be supplemented by 3D printing). There is, however, always the risk of policy blowback. In the Netherlands, a crackdown on grenades led criminals to resort to fireworks for explosive charges; cracking down on fireworks might then lead them back to grenades.³¹ A similar situation could theoretically apply to gas and blank guns – if these become too expensive and/or difficult to convert, criminals may turn back to 'traditional' weapons.

Methodology

In order to monitor potential flows of illicit guns stemming from the conflict in Ukraine, the GI-TOC has created a hybrid methodology that combines quantitative data and qualitative analysis. It is broadly based on methodology developed by its work compiling the Global Organized Crime Index, which points up five broad areas of research for studying the illicit arms trade: i) research based on seizure data; ii) research focusing on illicit market prices and supply and demand factors; iii) detailed studies on routes and methods of trafficking; iv) qualitative fieldwork to systematically collect the perceptions and perspectives of different categories of actors; and v) attempts at calculating volumes of the illicit trade in small arms and light weapons.

Given the nature of its brief, the Monitor also took a more selective definition of arms trafficking than the comprehensive definition proposed by Small Arms Survey of 'weapons that are produced, transferred, held, or used in violation of national or international law'.³² Although this report considers the impact of other forms of arms trafficking, particularly those concerning the production of illegal weapons (such as the conversion of gas, alarm or blank-firing guns), its primary focus is on the movement (or transfer) of weapons from the conflict into the criminal sphere.

Price

At the heart of the Monitor is the regular collection of data on black market prices and availability of a variety of weapons and explosives in Ukraine and across Europe. The Monitor was set up to test the hypothesis that price may play a role in both driving and reflecting the nature of illicit arms flows connected to the conflict. For example, if prices for weapons are higher outside Ukraine than within it, then this may provide an incentive for traffickers to move weapons out of the country. Alternatively, a sudden fall in prices in a country (compared to pre-2022 levels) may indicate a sharp increase in supply due to a new flow of weapons arriving in the country, which may be connected to the war in Ukraine.

The Monitor has gathered prices from various sources: interviews with law enforcement, academics, journalists and members of the criminal milieu, as well as from official reports of police seizures and media articles. In Ukraine – where price dynamics were most nuanced – we conducted regular rounds of price collection across a wide geographic area. The metadata was as important as the price data: an attempt by a civilian to sell a trophy weapon (as was recorded in several police sting operations) is only a crude guide to black market prices,

given the seller is operating in isolation and generally has little knowledge of the market – they may choose to sell high to maximize profit, or low to be rid of the weapon quickly. That these sales were to undercover law enforcement further complicates the matter: these sales were not completed, so the price can only be read as a guide. Still, it is worth capturing this information (which is qualified in the Annex), as it also highlights how variable the black market is in Ukraine. In general, greater confidence was possible when multiple rounds of collection generated a narrow price range (for example, US\$50 for grenades), although again, this does not necessarily imply a 'true' price. The number of intermediaries involved in moving the weapons is an inflating factor, so price is dependent on where in the supply chain the measurement is taken. A grenade in Odesa could be bought for as little as US\$7.50, and sold for as much as US\$150. To adapt an old adage, a black market weapon is worth as much as someone will pay for it.

This complexity and lack of consistency speak to the essentially opaque nature of the black market. While prices are usually easy to collect for standardized goods, this is not typically the case for weapons, as there are a large number of unobserved variables that make straightforward comparisons highly challenging (such as the age and condition of the weapon, or whether it has been used to commit a murder). In addition, external factors can also influence price – as outlined below, prices have risen in some Western Balkan countries due to inflation and local political tensions. Because of these difficulties in collecting prices, along with detailed characteristics, it is not the intention of the Monitor to create a systematic database of prices for weapons. Rather, the prices will serve as a means of 'taking the temperature' of the illicit arms market in specific countries.

Geography

The end purpose of the Monitor is to provide a warning for nascent trends in arms trafficking from the conflict in Ukraine. Sudden fluctuations in black market prices, spikes in gun violence or use of explosives, or evidence of networks involved in transnational weapons smuggling will be investigated and triangulated to discern how the arms trafficking landscape is evolving.

In this initial phase of work, the Monitor focused on four geographical areas. The dynamics within Ukraine are essential to understanding not only the prevalence of weapons in the country, but also how, why and where these weapons are moving. Poland, Moldova, Hungary, Slovakia and Romania collectively constitute the transit zone for overland illicit flows heading west from Ukraine, through which weapons are most likely to pass and which therefore represent the best opportunity to interdict weapons before they reach Europe. We also assessed arms trafficking trends in the Western Balkans – which for decades has been the main source of weapons for Europe's criminals – to understand the current market in terms of price and routes. Finally, we assessed organized crime dynamics in Sweden, the Netherlands, Belgium and France, all countries where the lucrative and violent market for drugs acts as a draw for illegal weapons. The GI-TOC also commissioned an investigation from Chris Monteiro, an independent dark web and cybercrime researcher, and an anonymous cybersecurity specialist who had formerly worked at INTERPOL to conduct research into the potential markets for illegal weapons on the dark web, which had frequently been cited as a potential vector for arms trafficking from the conflict in Ukraine.

To complement this quantitative work on price, GI-TOC researchers are conducting regular fieldwork in the areas under consideration, meeting with organized crime informants, NGOs, investigative journalists, law enforcement and civil society organizations, alongside monitoring developments on the surface and dark webs, to build a qualitative picture of the drivers and barriers to arms trafficking from the conflict in Ukraine into Europe.

In future, the Monitor will continue to collect price information in the countries discussed in this report, with the intention of expanding its work to other countries. One area of future focus will be flows of weapons from the conflict into and through Russia and the surrounding region. Already several regions of Russia adjoining the occupied territory in Ukraine have seen significant spikes in gun violence since the full-scale invasion, and it is likely that weapons from the conflict will have deep and lasting effects on organized crime in Russia and beyond.³³



ORIGIN: UKRAINE

A serviceman of the Ukraine National Guard undergoing firearms training in Kharkiv.

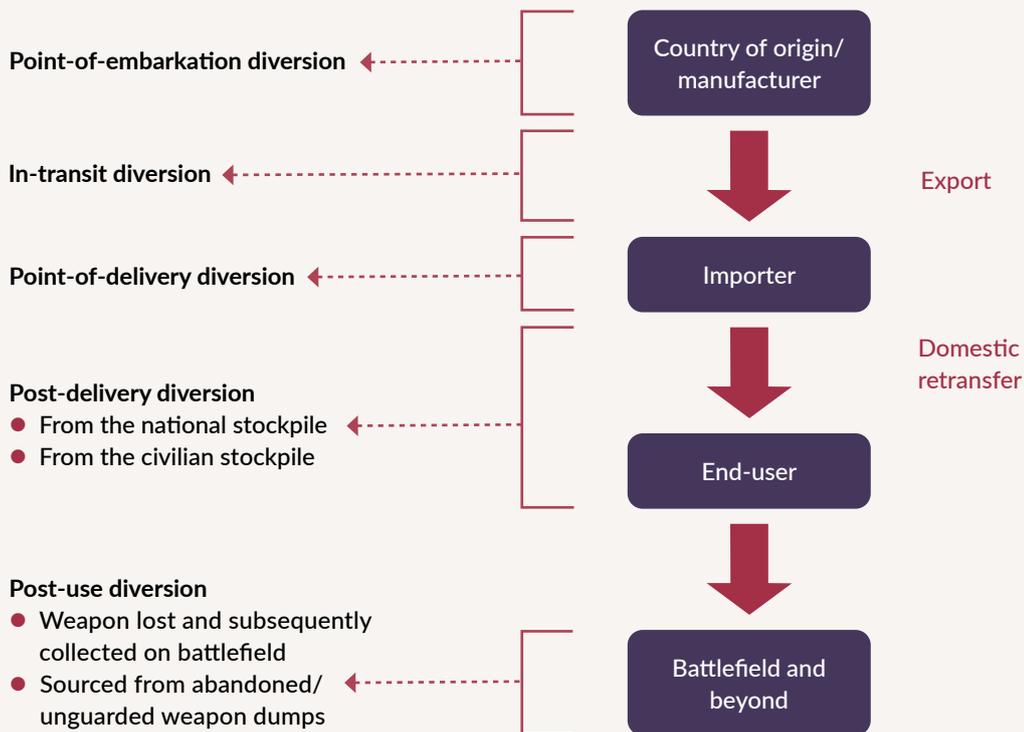
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Arms trafficking is not currently big business in Ukraine: the movement and sale of illegal weapons are for the most part organic rather than organized. The country has seen a rise in the circulation of illegal weapons since the Russian invasion, but according to official sources and GI-TOC fieldwork, it has not experienced a surge in systemic arms trafficking, and there has been no large-scale movement of weapons out of Ukraine.³⁴ While the US admitted it had failed to track more than US\$1 billion of weapons in the period to June 2023, it also said there had been 'no credible evidence of illicit diversion of US-provided advanced conventional weapons from Ukraine'.³⁵ In the early months of the invasion, weapons were sent close to the Polish border with Ukraine for speed, but since April 2022 military aid has been coordinated through the International Donor Coordination Centre, near Wiesbaden in Germany, before reportedly passing through Poland, Slovakia and Romania to Ukraine.³⁶

Rather, the trade in illegal weapons in Ukraine is largely restricted to the post-delivery diversion phase, in small part due to soldiers misappropriating weapons, but mostly drawn from the massive quantities of weapons discarded on the battlefield or hidden in ammunition dumps. These weapons are targeted by a range of opportunists, from civilians to gunsmiths and even priests, who sell them for a few thousand euros or keep them for their own use. Importantly, there are no indication that the stolen weapons are Western-made; instead, Russian and Soviet-type weapons predominate.³⁷

But given the sheer number of weapons available, why has arms trafficking not become a systematic criminal enterprise in which organized crime is taking active interest?



Ukraine and its international partners have made concerted efforts to reduce diversion at the various points of the transfer chain, but once the weapons enter the battle space, controls become more challenging.

FIGURE 2 Stages of potential diversion in the transfer of weapons.

SOURCE: Adapted from Small Arms Survey, *Understanding the trade in Small Arms, Key concepts*, p 50, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-HB-06-Weapons-ID-ch2.pdf>

The answer lies in economics and risk. The real money in arms in Ukraine has traditionally been in the large movement of weapons by container through the port of Odesa, often through legal channels (although to dubious customers),³⁸ but for most of 2022 and 2023, the commercial port (as opposed to the grain corridor) was effectively closed, removing the mass market model. The domestic market for illegal weapons must also contend with the fact that weapons are relatively easy to acquire legally in Ukraine.

Today, it is difficult to make serious money selling small numbers of weapons within Ukraine (see Box: Guns for sale), and the risks are very high. Aware that wandering weapons could damage donor goodwill, Ukraine has made tackling arms trafficking a high political priority, instituting several mechanisms with international partners.³⁹ The SBU in particular has been keen to publicize

its seizures of illegal weapons, which has arguably raised the risk for would-be traffickers, as well as signalling to political actors that law enforcement is active on the issue. Sometimes law enforcement is arguably too keen to show results. According to a law enforcement source interviewed in Uzhhorod in western Ukraine in October 2023, law enforcement must be seen to be active in order to prove its success: if the situation in your area is stable, then no one will say that you are doing a good job. Police officers are given quotas. Some months it may be for drugs, other months it will be weapons. To meet these quotas, the law enforcement source in Uzhhorod claimed that officers would fake seizures to bump up the statistics, for example by giving a gun to a homeless person and then arresting them.⁴⁰ As such, seizures can also be a reflection of institutional priorities, not facts on the ground.

On a more pragmatic level, dealing in weapons can attract a prison sentence of up to seven years, and the large number of checkpoints in the country make moving weapons challenging, especially in areas close to the front line where weapons are in more plentiful supply. While it is possible to smuggle a rifle in a car or send a grenade in the post, moving large quantities of weapons around the country remains a risky endeavour. Drug trafficking, by contrast, is far more profitable, far lower risk and also – critically – much easier to obtain official protection for than arms trafficking.

The relatively high price of weapons in Ukraine compared to the Western Balkans also mitigates against Ukraine’s export potential. Assault rifles in the Western Balkans, for example, retail for between €150 and €300 – far less expensive than in Ukraine, where even an AK-47 costs at least US\$800. Arms traffickers from the Western Balkans also have the benefit of established networks, routes and connections through Europe, especially through arms traffickers in Croatia and Slovenia.⁴¹

As such, those looking for a new Viktor Bout or Leonid Minin may be frustrated. Arms trafficking in Ukraine is currently not a top-down, organized market, but a

bottom-up, organic process, where opportunism and quick profit are the order of the day (although as highlighted below, these minor tributaries of weapons may pool into larger streams over time). Yet the consequences of these informal arms trafficking flows in Ukraine may arguably outstrip more organized forms of trafficking, representing a shallow flood that will distribute a huge number of weapons across Ukrainian society. Alongside the traditional customers of firearms among the criminal milieu – drug traffickers, hitmen, robbers and extortionists – there will be many civilians who feel they need a weapon for protection, and many ex-military personnel whose traumatic experiences may make them more liable to use them. And certain categories of weapons – such as grenade launchers and explosives – can wreak huge damage even in isolated use. Indeed, the war has resulted in an exponential increase in the number of people able to operate weapons. Drones, and drone operators, meanwhile, add a new dimension.

This section will outline where illegal weapons are sourced in Ukraine, and to what extent they are moving through the country. It will also consider the range of buyers for these weapons, and how these factors may shape arms trafficking trends in the future.

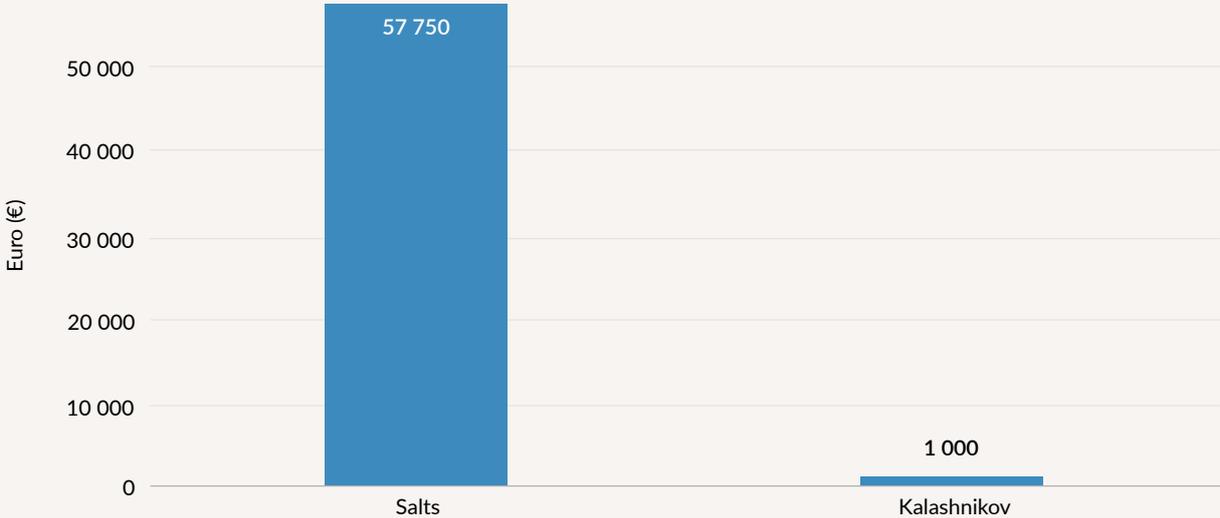


FIGURE 3 Comparison of sale price for an AK rifle vs the equivalent weight of the synthetic drugs ‘salts’.

NOTE: This graph shows how the bulkiness of weapons is married to a low profit margin. Added to this, it is very difficult to obtain protection for selling weapons, and such activities may attract the attention of the national security apparatus, which typically has more resources at its disposal than law enforcement operations targeting drugs. The calculation was made as follows: in Ukraine, salts generally retail for €15 per gram, on average, giving a value per kilogram of €15 000. A loaded Kalashnikov weighs 3.85 kilograms and costs approximately €1 000 in Odesa.



FIGURE 4 Black market price ranges for selected weapons and explosives in key regions of Ukraine, collected by the Monitor in 2023 and 2024.

NOTE: This graphic is indicative only: see Annex for details on date, type of weapon or explosive (e.g. F1 or RDG-5 grenade), specific prices and other weapons. Prices are given in US\$ for ease of comparison (prices in Ukraine were generally given in hryvnia or dollars). The higher end of the price spectrum usually includes newer weapons, weapons sold with ammunition, or both.

SOURCE: GI-TOC data gathered in Ukraine from various sources. Two prices from open source: price of grenade launcher in Kharkiv, and price of an AK-12 in Dnipro, both from an SBU operation. See СБУ блокувала два канали підпільного продажу зброї, через які російські автомати та вибухівка потрапляли до рук криміналітету, Telegram, 7 September 2023, <https://t.me/SBUkr/9571>.

Although collecting prices from the black market is a complicated endeavour, one notable, though unsurprising, aspect recurs: weapons tend to be cheaper in areas closer to the front line, or areas that had seen concentrated military activity. We found that an AK, for example, was US\$200 more expensive in Odesa than Mykolaiv. Similarly, an AK-12 in Dnipro was US\$500 cheaper than in Kyiv. In other words, the further away a weapon moves from the source, the more expensive it is. This pattern was also observable in the post-2014 period, when weapons from eastern Ukraine leaked to the rest of the country.⁴²

In part, this reflects the costs of transport, including bribes, but it will also reflect the number of intermediaries involved, each of whom will take a cut. According to a senior police source in Odesa, the cost of a grenade could triple depending on the number of intermediaries involved (from US\$50 to US\$150).⁴³ (Kyiv is a special case – although on the front line in February 2022 and with a ready supply of weapons available, weapons sold in the capital attract a premium price, indicating its role as major retail hub and a lucrative market in itself.)

The different prices suggest one potential way of understanding weapons trafficking, both in Ukraine and further afield. In this model, arms trafficking may become more organized as the gun passes through different hands: a local may pick up a gun and sell it to a gunsmith for a few hundred euros; the gunsmith may in turn sell it to a criminal, who may add the gun to a small stash, transport the weapons further afield and sell them to a more organized gang in a major urban centre who need guns for their business, such as drugs – who may in turn sell them on.⁴⁴ In another stream, weapons may be sold by returning soldiers bringing their own or other weapons back from the front line. One source in Dnipro confirmed that most sellers were military or their relatives.⁴⁵

Ultimately, organized criminals may prefer guns to come to them than set up complex and risky cross-country smuggling operations. As an underworld source in Odesa reflected, 'There's no point in getting weapons from the front line – [it's] too worrisome. We can get everything here.'⁴⁶ As such, the majority of arms trafficking in Ukraine will be done at the individual level – by 'ants' – passing from hand to hand and through less organized channels. Some of these sales may be to end users, but others will feed into aggregating tributaries of supply. At present, however, civilians keeping weapons for their own use or selling to other civilians is the largest market for illegal weapons.





FIGURE 5 Locations of weapons stashes in Ukraine (shown in red).

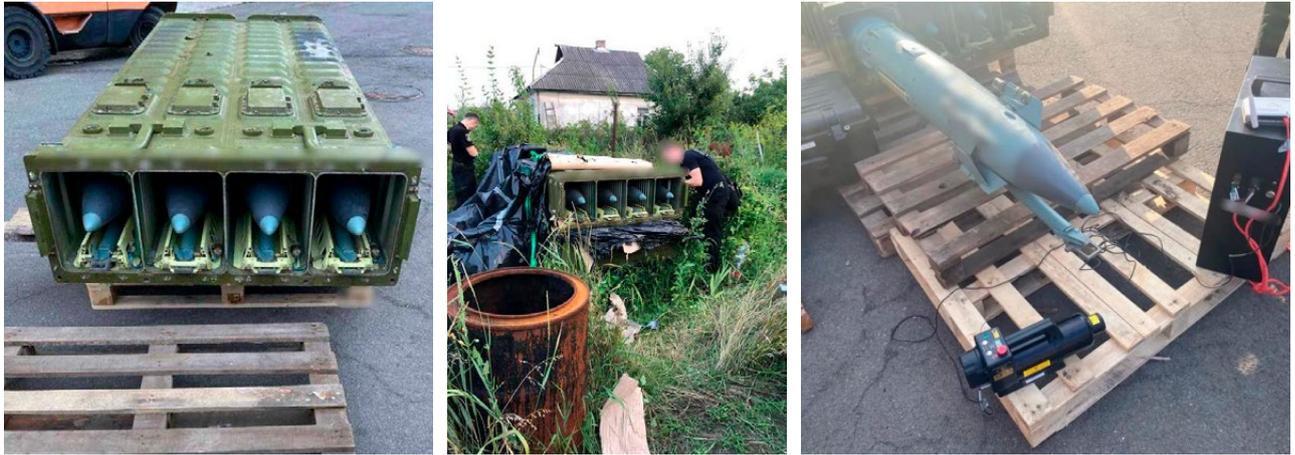
SOURCE: National Police of Ukraine presentation

Sources of weapons

The rolling nature of the war after Russia's invasion in February 2022 has shaped the geography for illegal weapons, creating areas that became magnets for materiel and providing opportunities for those seeking them. In February 2022, Kyiv, Chernihiv, Sumy region, Kharkiv and Mykolaiv were all at the front lines of the fighting. Stashes of weapons appeared across the country, but were concentrated in the capital – the primary target for the Kremlin (See Figure 5). One journalist in Odesa mentioned that stashes had been prepared by the SBU, police and military intelligence for a Ukrainian guerrilla resistance in the event that Kyiv fell – information that was later corroborated by a law enforcement source in Kyiv.⁴⁷

After several heavy setbacks, the Russians retreated from these areas, abandoning some equipment, but still held more territory in the east and south of the country than they had before February 2022. Then in August and September 2022, a Ukrainian counter-attack pushed the Russians away from Kharkiv and eventually out of Kherson, in the south, with the Russians abandoning large amounts of equipment, either on the battlefield or in stashes (some of which are still coming to light over a year later).⁴⁸ As a result, Russia inadvertently became, for a moment, the main provider of military equipment to Ukraine.⁴⁹

This geography is reflected in the official statistics of seizures of arms and explosives in Ukraine (See Figure 6). As with many statistics, the line between civilian and military is not distinct, but the overall association of front line regions with high levels of weapons and explosive seizures holds true.



Missiles for a Russian Tor surface-to-air system seized in Kyiv in September 2023. Photos: Kyiv regional police, <https://t.me/policekyivregion/6112>

Those at work scouring the battlefield or ammo dumps have often found rich pickings. Alongside Kalashnikovs, grenades and ammunition, reported seizures have also included anti-tank missile systems and grenade launchers.⁵⁰ A Russian anti-aircraft missile system (Tor) was even discovered in September 2023 under a tarpaulin in a residential garden just outside Kyiv (it had originally been captured in Chernihiv region).⁵¹ But again, this appeared to be a case of opportunism – indeed, the special knowledge required to operate such a weapon would rule out the vast majority of buyers, unless they partnered with military professionals.

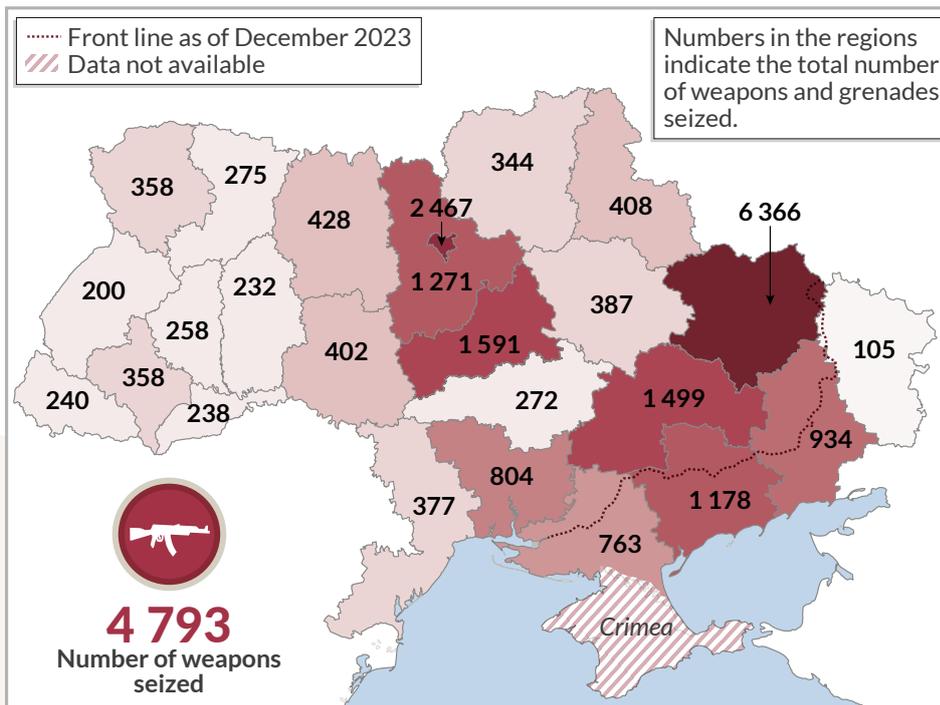


FIGURE 6 Seizures of weapons and explosives in Ukraine in 2023.

NOTE: There were particular spikes in Kyiv (city and region), Cherkasy, Kharkiv, Dnipropetrovsk and Zaporizhzhia regions. In Kyiv's case, this also reflects the capital's role as a major hub. In the far west of the country, the number of seizures was markedly lower. The low figure for the Luhansk region, in the far east, reflects the paucity of data, as the region is largely under Russian control. Data for Kherson, Zaporizhzhia and Donetsk is also not comprehensive as parts of the regions are under Russian control – data for occupied areas of the regions was not available.

SOURCE: National Police of Ukraine presentation



An arsenal discovered in a Dnipro garage, December 2023. Photos: National Police of Ukraine, https://t.me/UA_National_Police/16526

There was at least one instance that appeared to point to something much more organized. In December 2023, law enforcement entered a garage in Dnipro and discovered a huge arsenal of weapons, including 14 rifles, seven submachine guns, a shotgun, 21 pistols, grenades and 36 grenade launchers, along with almost US\$6 million in dollar bills. Three people were arrested on arms trafficking charges.⁵² At first glance, the size and sophistication of the arsenal and the money appeared to indicate either highly organized arms trafficking or a diversion of materiel by military personnel. However, according to a GI-TOC interview, the weapons were in fact a special forces stash that had been prepared for guerrilla warfare if the territory was occupied by the Russians.⁵³

That said, the risks of diversion by military personnel still exist, although the GI-TOC's fieldwork indicates that such diversion is usually confined to specific units, with the International Legion in particular coming under suspicion.⁵⁴ There are, however, worrying signs. According to law enforcement sources, personnel from two state actors – the National Guard (which is under the police), and the Territorial Defence (under the military) – are under suspicion of trying to sell trophy weapons wholesale in Kharkiv, which is close to the front line. Wholesale prices for AK-47s (involving 10 or more weapons) are between US\$500 and US\$700, depending on their condition; newer AK models retail for US\$1 000.

It is also important to recognize that this form of arms diversion does not need to happen near the front line: according an underworld source interviewed in May 2023, two battalions had been caught by the SBU trying to sell weapons in Bessarabia, Odesa region, which borders Moldova and Romania.⁵⁵ Similarly, a volunteer unit building of the territorial community of Kyiv was found to illegally contain 60 unregistered Kalashnikov rifles.⁵⁶

Estimating the scale of such diversion is complicated. Officially, there were 250 cases of illicit diversion of weapons by military personnel in 2022, up from 191 in 2021 – a significant increase certainly, but arguably not commensurate with the exponential increase

in opportunities for theft as Ukraine mobilized for war.⁵⁷ For example, many of the tens of thousands of weapons that were distributed to citizens in Kyiv and Dnipro in the first days of the invasion have allegedly not been returned: according to a law enforcement source, only 30–40% of weapons were returned in Kyiv, and even fewer in Dnipro.⁵⁸

Overall, the official number of lost and stolen weapons in Ukraine was estimated at 593 000 in November 2023 – a much more concerning figure that speaks to a much broader phenomenon of wandering weapons among the military.⁵⁹ (The total number of lost and stolen weapons before the invasion was nearly 400 000.⁶⁰) As tracked by one website using Ministry of Internal Affairs data,⁶¹ the majority of such weapons went missing in the east of the country – an understandable trend given the battlefield geography. Interestingly, there has been a significant reduction in the ratio of stolen weapons to lost weapons since the invasion; according to figures, stolen weapons have made up only 2.6% of all missing weapons since the Russian invasion, compared to almost 19% in the period 1991–2023.⁶² This probably reflects the fact that far more weapons will be lost during times of intense conflict, although may also reflect reporting practices – some weapons may be lost, others 'lost'. In addition, it is unlikely that the official figures comprehensively account for all the weapons in circulation – many may have not reported missing weapons at all. As such, the above tally is likely to be the minimum for the number of lost and stolen weapons, though the degree of error is of course impossible to determine at present.

The invasion may also provide more opportunities for criminals to access weapons they have formerly found difficult to acquire, especially handguns, which are restricted to law enforcement. (The Glock 17 has been favoured in the past by criminals in Ukraine).⁶³ Handguns can be sourced from the battlefield and military stashes, but another source may be weapons awarded to law enforcement and other officials in recognition of service, with past cases of award weapons ending up in underworld hands.⁶⁴ In theory the award is limited to single weapons, usually hand guns, but in practice officials can acquire multiple weapons that are sometimes much more powerful; former prime minister Arseniy Yatsenyuk was even presented with a Maxim machine gun in 2015.⁶⁵

There is no legal requirement to keep ownership information on award weapons,⁶⁶ and the Ministry of Internal Affairs does not keep information on award weapons.⁶⁷ Given the lack of official data, it is difficult to create an accurate picture of the number of award weapons. In response to an freedom of information request by a Ukrainian lawyer, the Ministry of Internal Affairs said that 627 weapons had been awarded in 2022 – double the previous year but only a little above most years post-2014, and understandable given the nature of the award (which was revised in 2022 to include only military and police personnel).⁶⁸ But according to a source in the police, between 10 000 and 15 000 weapons were awarded between February and December 2022 – including 1 250 weapons on a single day in August (Independence Day).⁶⁹

This lack of information was further compounded at the end of August 2023, when an explosive device detonated at the State Scientific and Research Expert Forensic Centre of the Ministry of Internal Affairs in Kyiv.⁷⁰ The centre was responsible for ballistic research of firearms, ammunition and gunshot marks (including weapons involved in serious crimes), and the study of weapons of war (explosives, grenade launchers, artillery and missiles).⁷¹ According to GI-TOC sources, the database for award weapons for 2014–2017 and part of 2018 has been lost.⁷² An official investigation has been launched into the incident, the findings of which had not been made public at the time of writing.

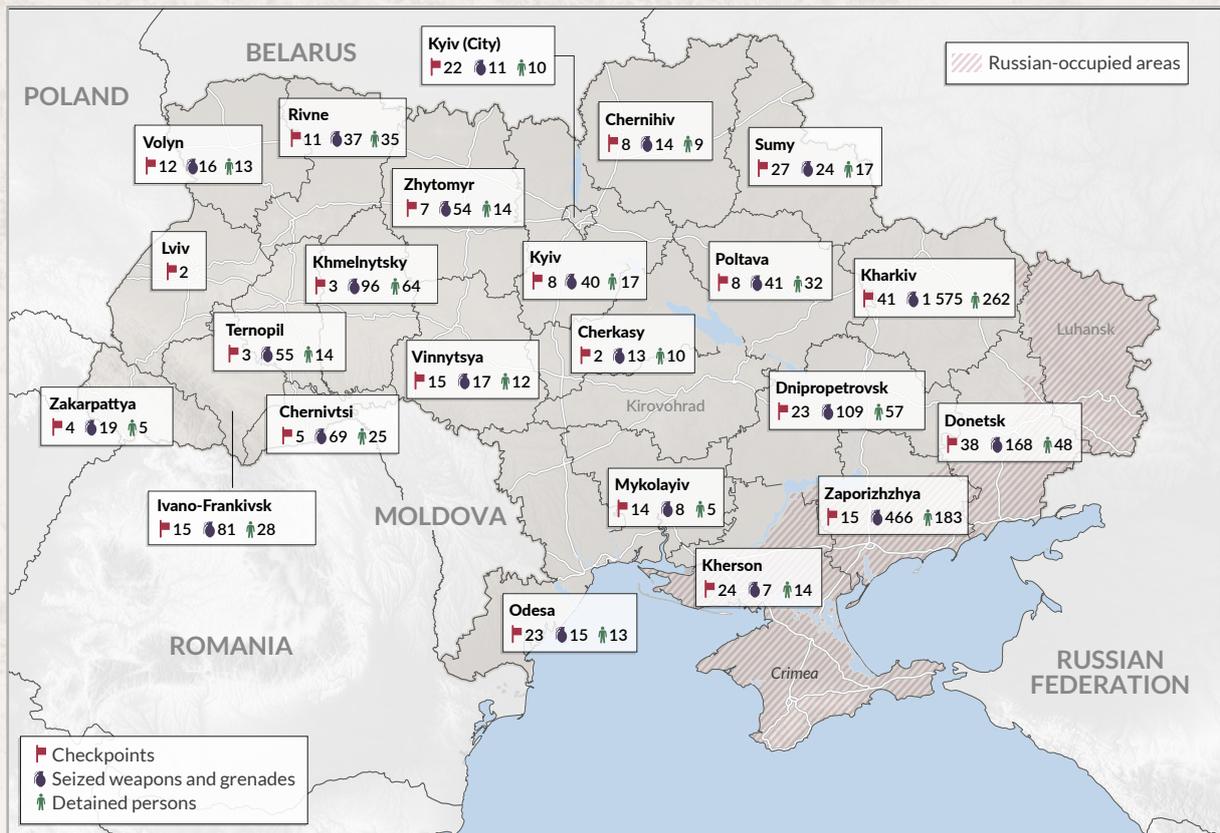


FIGURE 7 Seizures of weapons and explosives at checkpoints, January to November 2023.

NOTE: Only 374 weapons of various types were seized – almost the same number as there are checkpoints – although more than 2 500 grenades and 985 other types of explosives were seized.

SOURCE: National Police of Ukraine

Movement

Wartime Ukraine is a land of checkpoints. As you approach the front line, the density of military and police checkpoints increases, to intervals of only a few kilometres.

The data from these checkpoints reflects the role the front line plays as a source of weapons. Seizures are heavily concentrated in the eastern regions, with the centre and west seeing far fewer incidents. A significant number of people – 887 – were identified trying to smuggle weapons from one territory to another in 2023, with 374 weapons, approximately 25 000 grenades and almost 200 000 shells seized.⁷³

But these numbers should not be taken to mean that the checkpoints are stymieing all movement of weapons (or indeed other illicit goods, especially drugs) in and from eastern and southern Ukraine.⁷⁴ Bribery or using concealment cavities in vehicles are tried and trusted techniques, while using low-profile couriers also reduces the risk of detection. Locals and taxi drivers who may pass through checkpoints several times a day are rarely checked, making them an ideal means of smuggling goods. Military personnel are also less likely to be scrutinized, enabling them to bring their weapons (and others) back when they return to their homes across Ukraine. (As an activist in Odesa remarked, ‘Volunteers won’t come back home empty handed.’)⁷⁵

It is possible to avoid the roads altogether using the postal system, where packages containing grenades have been intercepted.⁷⁶ The internet also appears to be enabling the movement of weapons internally: a gunsmith in Vinnytsia (120 kilometres from the Moldovan border) reportedly bought damaged trophy weapons on the internet, repaired them and then attempted to sell them, including a Russian AK-12 and a Dragunov sniper rifle for almost 300 000 Ukrainian hryvnia (UAH) (€7 200).⁷⁷

As such, it is best to treat with caution the claim made by one source in Chernivtsi, western Ukraine, in October 2023 that 'weapons wouldn't get here ... we're 800 kilometres from the front line and there are too many checkpoints'. Front line weapons can reach the western regions, as evidenced by seizures in the Rivne and Ivano-Frankivsk regions, both of which are located within 150 kilometres of Ukraine's EU borders.⁷⁸ But overall, the flows appear to be very small, and there appears to be little appetite for exploiting Ukraine's highly porous western border and selling weapons to European customers. According to an official, there have been only isolated seizures of weapons at the border, with the weapons described as not of a military nature (i.e. weapons intended for personal protection).⁷⁹

Once again, the criminal calculus appears to be influenced by the high level of attention on firearms. While tobacco, alcohol and contraband – the mainstay illicit economies of western Ukraine – have remained strong and even increased since the invasion, weapons are another matter. As one source in Lviv reflected, 'If you have money, the border

is porous but not for weapons – it's too risky.'⁸⁰ A law enforcement source in Uzhhorod confirmed in October 2023: 'Here [there are] no weapons ... We are not seeing an increase during street arrests, nor an increase in usage of weapons.'⁸¹ Interestingly, there was an instance of air rifles and knives being smuggled into Ukraine, from Poland by a bus driver, though the nature of the weapons suggests that these were perhaps intended for the self-defence market, rather than criminal use.⁸²

For pure profit, the smuggling of conscript-age men is the better option. According to sources in Chernivtsi, this illicit market had become the main business in the region since the invasion. For packages that included bribes for border guards and timed passage across the border, conscripts paid US\$10 000; less organized attempts (where conscripts are dropped at the border) cost between US\$3 000 and US\$5 000.⁸³ The risk for smugglers in Chernivtsi is low – the GI-TOC was shown analysis of court decisions that revealed that convicted smugglers had paid a fine instead of serving prison time, and were able to keep their vehicles.⁸⁴ As such, the necessary routes and capability exist, but the cost-benefit calculation is currently against weapons smuggling. One exception to this – outlined in the next section – was an attempt to smuggle over 1 500 gas guns in 2023 from Ukraine to Romania. Little information about the case was available given that it was being actively investigated in Romania at the time of writing, but the scale of the attempt suggests a sophisticated operation, not just an opportunistic individual.⁸⁵

Ukrainian soldiers man a checkpoint at a front line village in the Hulyaipole district in Zaporizhia, 27 April 2022. © Chris McGrath via Getty Images



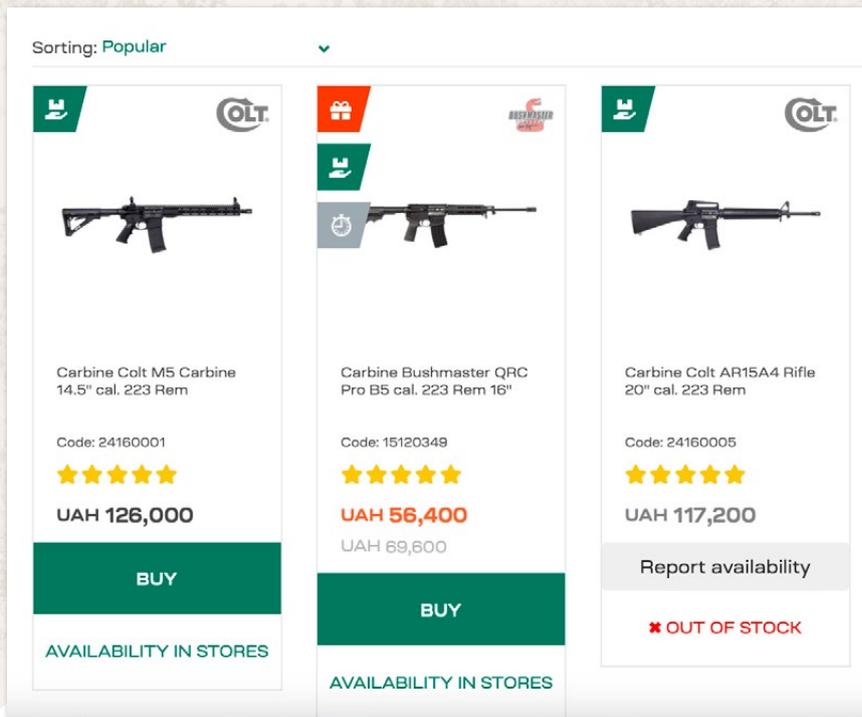


FIGURE 8 Prices for Western-designed semi-automatics at Ibis, a Ukrainian gun retailer, January 2024.

SOURCE: Ibis, <https://ibis.net.ua>

Yet there will always be those who take a chance. In November 2023, the SBU apprehended a man in Odesa who was attempting to smuggle out aircraft components (including a radar unit for MiG-29 fighter jets) in his car through the Russian-controlled pseudo-state of Transnistria, with the object of sending them to East Asia.⁸⁶ In this instance, the potential profit margin may have been a deciding factor, with such components being much more lucrative than, say, a handful

of AK-47s. Another notable case saw 14 kilograms of C4 explosives seized in Georgia, which were alleged to have originated in Odesa, before passing into Georgia via Romania, Bulgaria and Turkey, eventually destined for Russia. Importantly, these explosives did not pass through maritime channels, but were smuggled out in a minivan.⁸⁷ Given the intended destination of the explosives, it is possible that this may have been a covert military operation, rather than a criminal one.

Customers

If the weapons are not going abroad, where are they going? What demand is there for weapons in Ukraine, and among what sectors?

In some ways, the massive influx of weapons into Ukraine since February 2022 will not have changed the market in an existential way, but may heighten and exacerbate pre-existing trends. Ukraine has struggled with controls over weapons since its independence in 1991, when Soviet stockpiles became vulnerable to misappropriation. The outbreak of the war with Russia in the Donbas in 2014 also saw widescale looting of state armouries, theft and concealment of weapons by

pro-Ukrainian volunteers and rebel fighters, and a surge in arms trafficking.⁸⁸

It is also possible to legally buy a semi-automatic rifle or machine gun for hunting or sporting purposes if you have documentation proving your mental health and that you have no criminal convictions.⁸⁹ And even these limitations are only patchily applied. It is, for instance, easy to buy fake documents to buy a gun. Buying an automatic gun – which is prohibited – also poses little difficulty. During GI-TOC visits to gun shops in Kyiv in mid-2023, we found it was possible to buy Ruger and Mosberg automatic rifles as sports weapons, along with

Lugers, Glocks, Berettas and Kalashnikovs. Prices were relatively low: the most popular weapons are Turkish-made because they are cheap, starting from UAH20 000 (approximately US\$500); European and US-made weapons start at UAH70 000, roughly US\$1 780. (Of course, such guns also come with clear disincentives for criminals, given that they must be registered and can therefore be easily traced.)

These twin supply streams meant there was no shortage of weapons in Ukraine before the conflict. Rough estimates put the number at illegal weapons at up to 3–5 million, alongside another 1.3 million registered weapons.⁹⁰

In some sense, this situation means the influx of weapons into Ukraine is unlikely to have the profoundly transformative effect it would have in a jurisdiction where access to firearms is heavily controlled, such as the UK. Anyone who urgently wanted a weapon in Ukraine before the invasion could have acquired one (legally or otherwise) without too much difficulty, and a gun is a prerequisite for forms of organized crime such as drug trafficking and extortion. When asked if criminals would seek to acquire post-invasion weapons, two sources in Odesa (one underworld and one journalist with deep knowledge of the underworld) demurred, both stating that criminals already had all the weapons they needed.⁹¹ This saturation therefore may also increase the risk that weapons may bleed out of Ukraine after the conflict.

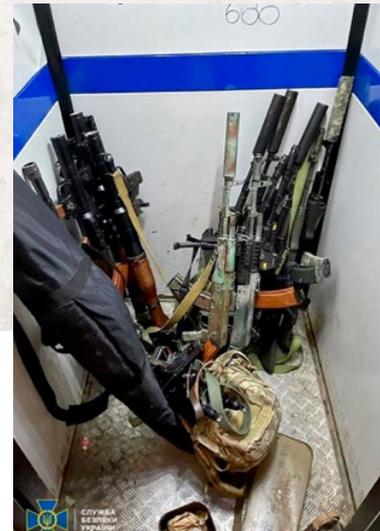
All the same, the sheer scale, variety and quality of weapons and ammunition (especially Western-made) now present in Ukraine will have a bearing on demand patterns. Like new iPhone models, criminals may want an upgrade, both for the improved performance and for the higher status/intimidation factor of such weapons. A Soviet-era AK-47 and the new Russian AK-19 (or US-made M4) all kill, but the modern equipment is far more capable. One drug bust in Kyiv in January 2024 highlighted the quality of weaponry now being toted by drug traffickers.⁹²

One innovation may be the increasing use of drones by organized crime. Already drones have been used in western Ukraine to smuggle drugs and cigarettes,⁹³ but their potential uses are broad, including as offensive weapons – as seen with first person view (FPV) drones such as Pegasus, Bucephal, Bat and Vampire used on the front line, which deliver an explosive charge to the target, as well as longer-range kamikaze drones such as the Beaver and Rubaka.⁹⁴ Ukraine has massively ramped up production of drones since the invasion, and President Zelensky has set a target for the production of a million FPV drones in 2024.⁹⁵ Ukraine's highly experienced drone operators may also be in high demand among criminal groups, potentially able to fill the role of hitman, smuggler or surveillance.



A drone carrying 22 kilograms of hashish intercepted by law enforcement in the Volyn region, 11 February 2024.

Photo: Security Service of Ukraine, <https://t.me/DPSUkr/18191>



The arsenal of a gang of armed robbers in Kharkiv, apprehended by the Security Service of Ukraine in September 2022. The presence of rocket-propelled grenade launchers is particularly striking, given the criminals' targets – robbing people's homes. Photos: SBU Telegram post, 21 September 2022, <https://t.me/SBUkr/5141>

Weapons of war – such as grenade launchers – will pose a conundrum for criminals. While attractive for their intimidation factor and firepower – as attested by the arrest of a gang of house robbers in Kharkiv who had a rocket-propelled grenade (RPG) in their arsenal⁹⁶ – large weapons are difficult to hide and, if used, will attract instant law enforcement action. Grenades, on the other hand, are much more versatile, being cheap, small and highly effective, both when used and when shown as a deterrent. During fieldwork in Chernivtsi, the GI-TOC interviewed an investor who had discovered a grenade outside his house. It had reportedly been left by a local crime boss, to stop the investor pursuing his case against a construction magnate.⁹⁷

The real growth in demand for weapons, legal or otherwise, may be in the civilian sphere. While Ukrainian citizens have been increasingly looking for weapons since the conflict began in 2014,⁹⁸ the Russian invasion of 2022 has brought a huge increase in demand. Although Ukraine passed a law in the early days of the invasion authorizing civilians to use their weapons against the Russians, for many this did not go far enough,⁹⁹ and the proportion of Ukrainians who believe that citizens should have the right to bear arms has grown from 10% in 2015 to 59% in mid-2022.¹⁰⁰ In the six months between the launch of the Unified Weapons Register in June 2023 and the year's end, Ukrainians submitted more than 175 000 applications for weapon permits – of which more than 164 000 were granted.¹⁰¹

One tragic corollary of this may be to make everyday life more violent. Accidents can happen, as in the case of an aide to the commander-in-chief of the army who was killed after a grenade sent to him for his birthday exploded after his child pulled the pin.¹⁰² Situations that formerly would have been a matter of angry words or a scuffle may escalate into lethal confrontations. There have been many such examples of this in Ukraine in 2023 and early 2024, including a father who threatened his son by pulling the pin from a grenade, or a deputy detonating several grenades during a council meeting in Transcarpathia, killing one person and wounding 26.¹⁰³ Another came in January 2024, when an unknown person fired an RPG at an apartment block in Kryvi Rih – perhaps surprisingly, the prosecution was brought on charges of hooliganism, rather than attempted murder, suggesting the spread of more chaotic and random acts of armed violence to civilian areas.¹⁰⁴

In this context, the tens of thousands of traumatized soldiers in Ukraine carry an enormous risk. As highlighted in both a previous GI-TOC report on Odesa and a forthcoming report on disarmament demobilization and reintegration, there is widespread concern that the combination of readily available weapons and soldiers with post-traumatic stress disorder will lead to unpredictable patterns of violence in Ukraine in the future.¹⁰⁵ Trends in official statistics (for example, homicides committed with firearms) are difficult to parse due to disruption in data collection in 2022 and the inclusion of war-related offences in the statistics, plus the imposition of martial law, which will have had a suppressing effect on criminal shootings. But individual episodes stand as warning signs, such as an incident in November 2023, when a grenade exploded in an apartment in Kyiv, killing a soldier and his wife and injuring another man.¹⁰⁶ At other times the violence may turn inwards, as in the case of one traumatized soldier who committed suicide in July 2023 using a grenade. The soldier had reportedly been drinking heavily and was haunted by visions of Russian soldiers coming after him.¹⁰⁷

Here, the spectre of the effects of the Afghan war on Russian society looms large, when large numbers

of ex-soldiers fell into substance abuse and/or crime. Already the similarities are evident – the GI-TOC has already documented the incidence of drug use among Ukrainian soldiers on the front line, and similar dynamics apply on the Russian side as well – but the crucial difference between the wars will be scale.¹⁰⁸ As of December 2023, Ukraine had approximately half a million military personnel, of whom 200 000 were on active combat duty.¹⁰⁹ That same month, the Ukrainian government submitted a draft mobilization bill that made provision for up to half a million more Ukrainians to be called up to the armed forces. The Russian numbers are similar, with half a million personnel, military and civilian, having served in Ukraine already.¹¹⁰ In December 2023, Russia also announced plans to expand its military by a further half million to approximately 1.5 million.¹¹¹

If only a fraction of this number falls into crime, with weapons and the ability to use them, the impact on Ukrainian and Russian society and organized crime will be immense. Already in January 2023, the GI-TOC was told by sources close to law enforcement of a heavily armed gang in Dnipro comprising ex-military men who intended to take turf belonging to gangsters who had left Ukraine.¹¹²

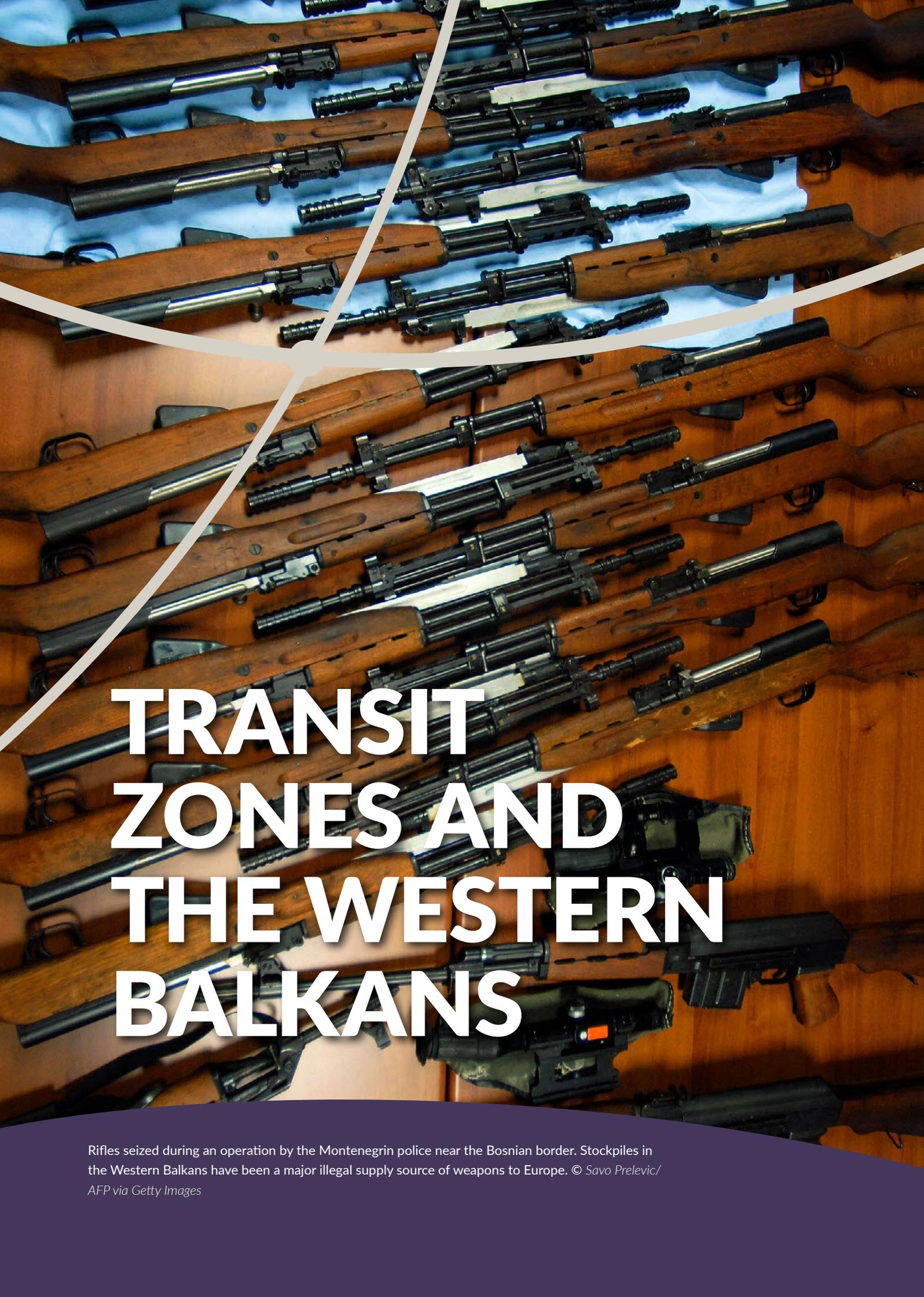
Trends: more weapons, more risk

Arms trafficking in Ukraine is a crime of opportunity. Although weapons are getting through checkpoints, the high priority placed on this issue – and low financial reward – appears to be having a deterrent effect on the emergence of systemic trafficking.

The current period therefore represents the ideal window to strengthen Ukraine's legal framework around firearms, and firearms trafficking in particular. The use of firearms, for example, is still largely governed by an order of the Ministry of Internal Affairs, not a dedicated law. Registering and tracking weapons remains a formidable challenge too. The launch of a National Register in July 2023 was positive step forward in this regard, but more can be done – including synchronizing the register with international databases.¹¹³ As was generally agreed at an EU Advisory Mission conference in November 2023, a dedicated law dealing with firearms trafficking would help improve the legal framework to tackle the issue.¹¹⁴ A law on gun ownership is also required, albeit one that pragmatically acknowledges the current challenges.

It is also crucial to realize that, as with the war itself, the governing conditions of illegal weapons may quickly change. Should the intensity of the conflict diminish in 2024, as some commentators expect, then the hunger for weapons at the front may ease, which may in turn create more amenable conditions for traffickers to divert weapons and exploit their stockpiles. The end of the war, or freezing of the conflict, will bring the biggest shift in criminal thinking, likely affecting the price of weapons, attention on arms trafficking and avenues for exporting at scale. As of January 2024, export volumes through Odesa – an important conduit for weapons before the invasion – had returned to pre-invasion levels. Foreign fighters leaving Ukraine with their weapons (and perhaps more besides) may also help lay the groundwork for new transnational channels.

For the time being, the uneasy status quo will continue, in which more weapons are brought into the conflict arena, driving the illicit collection and stockpiling of weapons. Some of these guns will in turn slowly percolate back through Ukraine, into the hands of civilians and criminals alike.



TRANSIT ZONES AND THE WESTERN BALKANS

Rifles seized during an operation by the Montenegrin police near the Bosnian border. Stockpiles in the Western Balkans have been a major illegal supply source of weapons to Europe. © Savo Prelevic/
AFP via Getty Images



The first ring of countries bordering the west of Ukraine – Poland, Slovakia, Hungary, Romania and Moldova – are the immediate transit zone for illicit flows into Europe. This borderlands region has long been a hotspot for smuggling of various stripes, especially fuel, cigarettes, alcohol and people. Weapons and ammunition are also traded across these borders in both directions.¹¹⁵

Yet the quantities of weapons and ammunition smuggled from Ukraine into Europe before the Russian invasion were very small in comparison with the abundant supply on the other side of the border in Ukraine; it was instead the Western Balkans that was Europe's preferred weapon source.¹¹⁶ According to a 2021 report by Small Arms Survey, weapons were seen as high risk and low profit, meaning that traffickers preferred to deal in other forms of contraband (such as cigarettes and alcohol), where the remuneration was much greater and fines, not prison sentences, were the cost of doing business.¹¹⁷

Might the escalation of the 2014 conflict into a full-scale war change this dynamic? According to fieldwork and research conducted by the Arms Monitor, the answer is currently no – if anything, the flow has diminished further.¹¹⁸ While Ukraine's western borders are still extremely porous, and smuggling of various commodities is rife, weapons were still seen as an unenticing prospect among criminals, for the same reasons cited above. There is also little local demand among organized criminals in Eastern Europe for 'traditional' weapons, both due to the low level of violent competition in the underworld and the preference for gas guns (non-lethal weapons designed for self-protection, sporting or other purposes that can be converted into lethal firearms). These are cheap and easy to acquire, and in their unconverted form can still be used for intimidation.¹¹⁹



FIGURE 9 Potential westward routes for weapons flows from Ukraine.

NOTE: Poland, Slovakia, Hungary, Romania and Moldova will be the likely transit zones for overland weapons flows heading westwards from Ukraine. Flows may also enter Romania or Bulgaria via the Black Sea from Odesa's port.

The Western Balkans are still the main source of illegal weapons in Europe. At present, weapons in the Western Balkans are still cheap and plentiful, and regional stockpiles have been augmented by inward flows from Turkey via Bulgaria, especially of gas/blank guns. There have been signs of price increases of weapons in several countries, but these do not appear to be linked to increasing demand from organized crime; rather, a lack of availability (due to civilians retaining their weapons) and inflation were cited as the principal factors. One source however stated that the current stockpiles in Montenegro of weapons from the conflict are decreasing. More research is required to see to what extent this applies regionally,

especially as current estimates put the weapons in circulation at over 3 million. But if many remain in civilian hands, and age begins to catch up with weapons from the 1990s, then it is possible that traffickers will seek new sources of fresh, better-quality stock, which Ukraine could provide. In this scenario, the trafficking infrastructure that has bedded in over the past three decades could be used for weapons from the conflict in Ukraine to reach Western Europe and Scandinavia. But for that to happen, either a fundamental shift would have to take place in the cost-benefit calculus of organized crime in the transit zones, or new routes to market would have to emerge.

A 'Swiss cheese' border

The border between western Ukraine and the countries to the west – Poland, Hungary, Slovakia, Romania and Moldova – has long been porous to a variety of illicit flows, especially cigarettes, alcohol and other forms of contraband. Bribery, a lack of capacity and the sheer length of the border (which is wooded or mountainous for large stretches) all make smuggling an easy and highly profitable endeavour. Hungary in particular was highlighted as a good crossing point because it had a good connection with the autobahn in Austria, compared

with Slovakia, where cross-country travel is slow.¹²⁰ A former SBU officer also noted that Hungary was where convoys carrying illegal cigarettes would split to their respective destinations, naming Germany, Italy and the UK.¹²¹ Hungary, Poland and Slovakia also have the advantage of being within the free-movement Schengen Zone, while Romania is not.

'Small-scale' smuggling across this border is still a highly organized affair involving large groups of people (up to

40) carrying thousands of cigarettes, people swimming across rivers in scuba diving suits, and drones. But large-scale smuggling is where the real profit lies. 'Most of the business is done in trucks,' said one former member of the council in the Suceava region, Romania, 'because there's no real control and you can easily pay a bribe on the Ukrainian border.'¹²² One former smuggler in Romania commented that Ukrainian border guards had got 'tougher' since the invasion, although this was more to do with politics and corruption than fighting crime: the smuggler said, 'There is a scam among the Ukrainian border police ... for their statistics: they pay some smugglers to arrest them.'¹²³ The cost of a bribe at the border apparently increased from €400 to €700 after the invasion, leading to a strike by minibus drivers (who often smuggle taxable goods across the border, which are then distributed through local chains and shops in Transcarpathia).¹²⁴

Yet weapons are a different story. As mentioned in the previous section, the official protection that is normally required for criminal activity in Ukraine is not available for weapons smuggling, given the high political attention being paid to the issue. And as on the Ukraine side, the low profit margin and high risk of arms trafficking are not enticing compared to other illicit opportunities on offer. As a former smuggler in Suceava commented, 'There were rumours of weapons smuggling even before the war, but it's small stuff, nobody wants to do that here. Risks are way

higher than for cigarettes.'¹²⁵ This was echoed by a former member of the council in the Suceava region, who said, 'I would be very surprised if someone is trafficking firearms in the region. It's way too risky and less profitable than tobacco.'¹²⁶ This was corroborated by a source in Chernivtsi, Ukraine, who said that a cigarette smuggler can quadruple their money by moving a carton of cigarettes from Ukraine to Romania.¹²⁷ It is also true that in many European countries arms trafficking is the remit of national security agencies, who to combat the risk of terrorism can call upon greater resources and capabilities than law enforcement investigating drug cases.

This rationale may explain why there was very little confirmed cross-border arms trafficking along the borders of western Ukraine in 2023. According to the Slovak police, there was only one interception in 2022 in the border region, involving a few pieces of ammunition, although the Slovak police expect an increase after the conflict ends.¹²⁸ A similar story applies in Romania, where, since the invasion, the GI-TOC has found no reported instances of lethal weapons crossing the border from Ukraine.¹²⁹ One US volunteer was apprehended at the Isaccea border crossing point in February 2023 with magazines and optics, but the man claimed that he had borrowed the equipment from an acquaintance in the Czech Republic (as he was not adequately equipped by the Ukrainian army) and was returning them.¹³⁰



The porous border between Romania and Ukraine. *Photo: Supplied*

The same cannot be said for gas guns, however. There were two incidents involving Ukrainians in which large numbers of gas guns were intercepted crossing into Romania in 2023. The first involved 1 200 Stalker pistols seized at the Bulgaria–Romania border that had originated in Turkey and were being transported by a Ukrainian on behalf of a Ukrainian company; after an investigation, the pistols were handed back and the case closed.¹³¹ The second case saw 1 520 non-lethal pistols seized at the Isaccea border crossing with Ukraine in September; this case was on-going at the time of writing and further details were not available.¹³² The volume of weapons in both these seizures points to a large demand base in the region – and it is unlikely that all customers are merely seeking them for their original purpose.

Increasing but uneven resilience

Another factor that has potentially affected the cost–benefit calculus for traffickers has been the increased international attention paid to Moldova, which in the past has been a hub for weapons,¹³³ along with the self-declared pseudo-state of Transnistria.¹³⁴ Moldova has long been the recipient of Western assistance aimed at countering arms trafficking,¹³⁵ and this support has ratcheted up since the Russian invasion. The US, INTERPOL, the EU and Frontex have all sought to bolster the country’s resilience through a range of initiatives.¹³⁶ On the surface, we found that resilience had increased significantly: the street trade in drugs, for instance, appears to have become much more discrete, while nothing was said to pass through Transnistria any more, in part due to the heavy Ukrainian military presence on the Transnistrian–Ukrainian border. Approximately 2 500 weapons were seized in Moldova in 2023, although only 57 of these were held illegally.¹³⁷ According to an investigative journalist, it would be very difficult, if not impossible, to obtain weapons in Moldova without very strong underworld connections, and arms trafficking, when it does happen, would only involve one or two weapons smuggled across the border by an individual.¹³⁸

That said, smuggling – when done effectively and with official sanction – is virtually untraceable. According to a senior Ukrainian border guard, everyone is preparing for the reopening of smuggling routes through Transnistria; the only sticking point is striking a deal with the Moldovan side.¹³⁹ And resilience elsewhere is lower. According to an active Romanian smuggler, the border ‘is not completely wild anymore’¹⁴⁰ – but the border remains highly porous and awareness of the dangers of arms trafficking low. According to a Romanian investigative journalist, the issue of arms trafficking from the conflict in Ukraine does not feature largely in the Romanian media,¹⁴¹ and there are few signs of concrete plans by the state or law enforcement to prepare for such an eventuality.

Surveillance capacity at the Romanian borders is also weak. Since 2016, Romania has only had one functional scanner at its entry points, at the port of Constanta Sud, which is nearing the end of its functional life (2028).¹⁴² The first two scanners of an order of 26, purchased in December 2023, arrived in February 2024, to be installed at the Giurgiulești customs office in Galați county and Albița customs in Vaslui county (through which Ukrainian cereals enter Romania), although it may be some time before they are functional.¹⁴³ High-level corruption also remains pervasive, especially at the port of Constanta, whose former mayor was sentenced to almost 10 years for corruption in 2019.¹⁴⁴ As such, border capacity is constrained by internal interests as much as external factors. As one Romanian investigative journalist remarked, ‘All of our borders are problematic – and it’s not in their interests to improve them.’¹⁴⁵

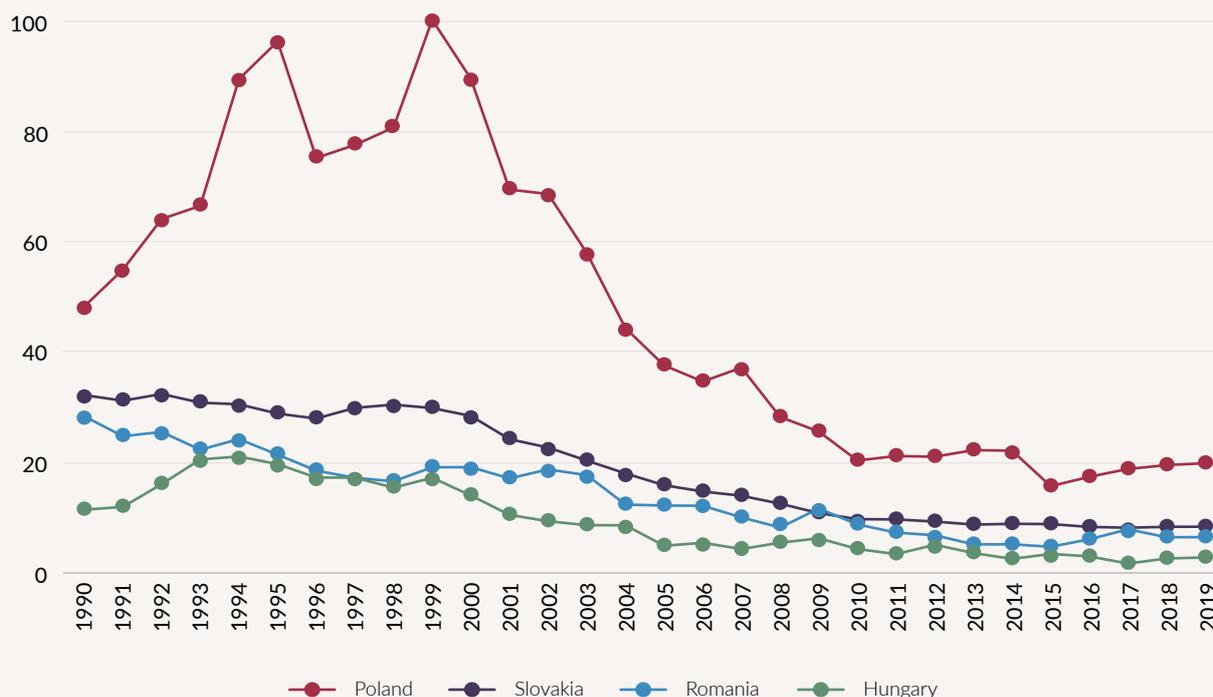


FIGURE 10 Number of firearms-induced deaths in Poland, Romania, Hungary and Slovakia, 1990 to 2019.

NOTE: This data excludes suicides but does include non-organized-crime-related killings, including domestic murders and manslaughter. Still, the overall trend is consistent with fewer firearm-related deaths among men of this age bracket – the most likely age range to be involved in organized crime.

SOURCE: Institute for Health Metrics and Evaluation, Global burden of disease (GBD) comparison, <http://vizhub.healthdata.org/gbd-compare>.

Little local demand for guns

One of the reasons for the lack of interest in arms trafficking in the first ring is the relative lack of domestic appetite for weapons. The evolution of organized crime since the 1990s in Poland and Romania has seen a shift towards a quieter, less violent way of working. Organized crime in Romania perceives guns as a big risk.¹⁴⁶ As one source said, ‘Arms are so sensitive [an area], organized crime will avoid it.’¹⁴⁷ There are fewer than 10 gun-related homicides per year in Romania, and most of these actually refer to misuse of firearms during hunting.¹⁴⁸ In Hungary, too, sources reported that organized crime (which has decreased since its 1990s heyday) also prefers to maintain a low profile, and stressed that no large-scale trafficking of weapons would be possible without the prior approval of members of law enforcement.¹⁴⁹ Demand for firearms has also fallen in Slovakia. According to a law enforcement source, criminal groups in the south-west

of the country (who were the main domestic users of weapons) have largely been eliminated due to law enforcement pressure.¹⁵⁰ That said, the assassination of journalist Ján Kuciak (who was investigating high-level corruption) and his fiancée in 2018 revealed that firearms remain a tool for Slovak criminals and the corrupt.¹⁵¹

Weapons attract heavy sentences in all potential transit zone countries. In Poland, criminals who use weapons in commission of a crime can be sentenced to up to eight years in prison.¹⁵² Firearms trafficking also carries a maximum eight-year term in both Hungary and Slovakia, and up to six years in Moldova.¹⁵³ Possession or circulation of a prohibited firearm or ammunition in Romania is punishable by up to six and a half years in prison, while the illegal repair of a lethal firearms can draw a five-year sentence.¹⁵⁴

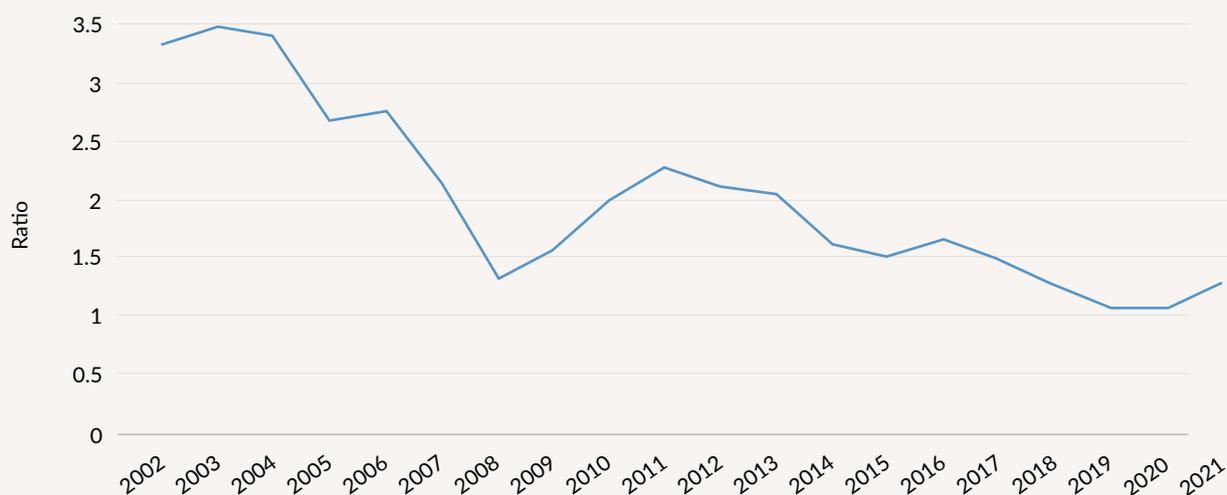


FIGURE 11 Ratio of firearms to gas guns used in criminal offences in Poland, 2002–2021.

SOURCE: GI-TOC analysis of Polish police statistics. Statystyka policja, *Przestępstwa przy użyciu broni*, <https://statystyka.policja.pl/st/wybrane-statystyki/bron/186393,Przestepstwa-przy-uzyciu-broni.html>

But heavy sentences are only part of the explanation. As in many other regions, converted guns (such as gas and pneumatic guns) have become increasingly popular among criminals. Cheap, easy to acquire and easy to convert, these guns offer most of the benefits of traditional weapons with a fraction of the risk. As highlighted in Figure 11, the ratio of firearms to gas guns used in criminal offences has dropped almost to parity, but seizures better reflect the true scale of the shift. In a major joint operation between Romania and Bulgaria in April 2023, almost 12 times as many gas guns were seized as traditional weapons.¹⁵⁵ That said, the landscape around these weapons is changing. In 2019, Turkey – formerly a major exporter of such guns to Europe via Bulgaria – introduced legislation to control the production and onward movement of blank guns, although some gas guns are still moving along this route.¹⁵⁶ Slovakia has also sought to crack down on Flobert¹⁵⁷ and decommissioned guns,¹⁵⁸ introducing a new amendment in February 2022 that required a permit for such weapons. According to Slovak law enforcement, this shift has drastically decreased demand.¹⁵⁹

There have been instances of weapons seized in Romania that appear to suggest more concerted attempts at arms trafficking, but closer inspection suggests that these weapons may not be destined for organized crime. On the face of it, the September 2023 joint investigation

into a Romanian arms trafficking group suspected of smuggling firearms from Spain and other EU countries into Romania may suggest a booming organized crime market.¹⁶⁰ Yet according to a local journalist, the primary purpose of these weapons was for poaching, which is an active pursuit among businesspeople and gangsters in the region.¹⁶¹ Hunting is a popular pastime among gangsters, who combine business with pleasure by striking deals during trips, where there is no phone signal and their location purportedly cannot be traced.¹⁶² Other transnational actors in Romania linked to arms trafficking include the Hell’s Angels, specifically in a 2020 case in which the vice president of the Romanian chapter provided details and prices for AK-47 rifles, M26 grenades, Zastava pistols and Zastava rifles and negotiated the purchase of grenades and AK-47s as part of a plan to traffic 400 kilograms of cocaine to New Zealand and assassinate rivals.¹⁶³

However, it is worth noting that while most of these countries do not exhibit high levels of gun violence, Bulgaria is a stark outlier, with a firearms homicide rate of 1.47 per 100 000 for men aged 15–49 in 2019, compared, for instance, to Romania (0.14), Hungary (0.12), Slovakia (0.61) and Poland (0.21).¹⁶⁴ Indeed, Bulgaria’s firearms homicide rate falls between these countries and its neighbours in the Western Balkans.¹⁶⁵ Over the course of 2024, the Monitor will be conducting

fieldwork in Bulgaria to ascertain what role this country might play in future illegal arms flows from the conflict in Ukraine, particularly through the port of Varna. There have already been attempts to smuggle military supplies, including scopes and optical devices, out of Bulgaria to supply Russian mercenaries in Ukraine, including the Wagner Group, in contravention of international sanctions.¹⁶⁶ As such, the connections, logistics and routes are already in place for weapons flows to and from the conflict zone. The massive boom in domestic production of legal weapons in Bulgaria, destined eventually for Ukraine's armed forces, will also be an area of future research, especially since in the past Bulgarian arms have ended up in many conflict zones.¹⁶⁷

Organized crime may be neither a big customer for weapons in these border countries or particularly interested in trafficking weapons, but given the small-scale nature of most arms trafficking to Western Europe, arms trafficking networks need not be complex or especially numerous. One or two or three people may be all that is needed to move a few weapons and explosives. This especially applies to criminals from other countries who come to the transit countries with a view to collecting weapons and taking them back. This only requires either

a contact in Ukraine, or a local who is willing to store a few guns.

These small-scale arrangements could potentially also feed the growing market of civilians interested in owning a gun. Gun ownership rates in Poland are currently low – in early 2022 there were only 2.5 firearms per 100 inhabitants. But since Russia's invasion of Ukraine, demand has soared, with 37 000 people acquiring a firearms permit in 2022 – representing an additional 98 permit holders per 100 000 of the population.¹⁶⁸ The number of weapons in legal hands has also risen by 15%, from 660 000 in 2021 to more than 760 000 in 2022.¹⁶⁹ There have also been calls to simplify the process of obtaining a weapon.¹⁷⁰

Many citizens will use legal channels to acquire weapons, but others, especially those without a clean criminal record (required in Poland to obtain a permit) may turn to illegal weapons. This civilian market may also include collectors of military kit who are more interested in history or the technical aspects of weaponry than using them as lethal weapons. According a Western diplomat, most of the 599 firearms seized in Poland in 2022 were intended for the collector's market.¹⁷¹ Hunters could also see the opportunity to obtain accessories such as scopes for a bargain price.

Western Balkans: the go-to option – for now

For decades the Western Balkans has been the main source of illegal weapons in Europe, as well as constituting a strong market for weapons in its own right. The Balkan Wars in the 1990s were the root cause of this phenomenon, not only vastly increasing the number of weapons in the country,¹⁷² but also transforming arms trafficking into an established, and indeed encouraged, criminal activity: weapons were sanctioned during the conflict, which led the Bosnians to rely heavily on weapons smuggling to counterbalance the armament disparity with the Serbian forces. As has also been widely discussed, particularly in Misha Glenny's *McMafia*, the Balkan Wars also led to the expansion of organized crime, at the street and penetrating into politics, before going transnational.¹⁷³ This drove demand for weapons among criminals in the Western Balkans.

Weapons from the Yugoslav conflicts are still available on the black market in the Western Balkans today. The most smuggled firearms are pistols and revolvers, primarily manufactured by Zastava Arms in Serbia before and during the conflicts in the former Yugoslavia. The

widespread civil unrest in Albania in 1997 also contributed significantly to the proliferation of illegal weapons in the region through the looting of military depots, with around 60% of the stolen weapons still in the hands of the civilian population.¹⁷⁴

The past decade has also seen an increase in gas and alarm guns in the region. Until Turkey changed its legislation in 2019,¹⁷⁵ these could be purchased legally in Turkey and brought into the Western Balkans via Greece or Bulgaria (among other places) before being converted into lethal weapons in locations close to the intended buyers.¹⁷⁶ In contrast to the small quantities of conflict weapons that are traded, gas guns are bought, moved and sold in bulk. They are also highly profitable, with criminal sellers sometimes charging up to 10 times the original price. That said, the illegal market for blank pistols in Serbia, Kosovo and North Macedonia has decreased following an information exchange agreement between law enforcement agencies, including between Serbia and Turkey. In Albania, Bosnia and Herzegovina and Montenegro, the market is not seen as significant.

One final source is branded replicas of weapons produced in the factories of the former Yugoslavian industries. These weapons were produced outside of today's so-called WB6 region in illegal factories in Croatia.¹⁷⁷ During the Balkan Wars in the 1990s, Croatian manufacturers produced several brands that imitated the Uzi, Smith and Wesson, among others. These weapons were then sold on the black market by criminals from the former Yugoslavia to countries in Western Europe, such as Germany, the Netherlands, Belgium, Austria and France.

As with Ukraine, for the most part there is no dedicated, organized market for arms trafficking (with the possible exception of gas guns) due to the lower profits and higher risks; instead, the sale of weapons is a more entrepreneurial affair. According to Eugen Beci, former prosecutor in Albania, 'There are no specific groups exclusively dedicated to the arms trade, but rather certain individuals who supply groups with weapons.'¹⁷⁸ Weapons may also be bought and sold by organized crime groups alongside other illicit endeavours.¹⁷⁹ Most organized criminal groups in Bosnia and Herzegovina, for example, engage in multiple criminal activities at the same time, mostly drug and firearms smuggling, and in some cases human trafficking and smuggling of migrants. One exception to this may be Kosovo, where, according to an expert on arms trafficking, there are one or two groups involved in arms trafficking in each of Kosovo's seven regions.¹⁸⁰

Routes

There are three long-established firearms smuggling routes from the Western Balkans to other European countries: firstly, the land route via Serbia, Croatia, Slovenia, Austria, Hungary and Slovakia¹⁸¹ towards Western Europe; secondly, the sea route from Croatia, Montenegro and Albania to Italy; and, thirdly, the hybrid land/sea route via Albania or North Macedonia from and to Greece.¹⁸²



FIGURE 12 A simplified map of illegal weapons flows into and out of the Western Balkans, concentrating on flows heading into Europe.

NOTE: For clarity, internal circulation of weapons within the Western Balkans is not shown. This map is intended for illustrative purposes to show the general directions of travel, and does not denote key hubs or specific routes.



Weapons found by police during an operation in Skopje, North Macedonia, December 2023, including an automatic rifle. Photo: <https://mvr.gov.mk/vest/29635>

The arms trade from Turkey to Europe also intersects with the Western Balkans, with Bulgaria being the main entry point for weapons passing through to North Macedonia, Serbia, Kosovo and Albania. (Bulgaria has been a focus country for international efforts for many years, notably through the EMPACT Firearms Operational Action Plan 2015, which targeted illegal imports of gas and alarm pistols of Turkish manufacture.) There are also flows into the Western Balkans from Europe. Some organized crime groups in Serbia, for example, have been known to use weapons produced in the Czech Republic (Česká Zbrojovka), Germany (Heckler & Koch) and Austria (Steyr Arms).

Flows within the region are also complex, and fluctuate with changing levels of local demand. Serbia is a

key transit hub, receiving weapons from Bosnia and Herzegovina, Kosovo and Montenegro and sending them on to Western Europe. Source countries such as Bosnia and Herzegovina, Kosovo and North Macedonia face more significant issues with illegal firearms than Serbia.¹⁸³

Prices

Weapons are in general cheaper in the Western Balkans than in Ukraine, with the notable exception of hand grenades. This low purchase price can translate to high profits if the weapon is moved and sold to Western Europe or Scandinavia, although the small-scale nature of arms trafficking, with weapons mainly being moved by car or bus, limits the scalability of this venture.¹⁸⁴

TYPE OF FIREARM	PRICE (€)
Semi-automatic rifle	250-300
Automatic rifle	250-700
Pistol	150-500
Sniper rifle	200-2 000
Gas gun	50-200
Hand grenade	10-50
C4 plastic explosive (per kg)	1 500-4 000

FIGURE 13 Estimated prices of illegal firearms in the WB6 region, 2023-2024.

SOURCE: The data is drawn from nearly two months of fieldwork in the Western Balkans (December 2023-January 2024), with information sourced from reports of seizures by regional police, interviews with underworld sources and interviews with journalists, academia and law enforcement, among others. For more information and context, see the sources listed in the notes.¹⁸⁵

Yet this is a dynamic market, and there have been interesting shifts in price over the past year that may reflect broader trends, although again, the story is different from country to country. The prices of weapons and ammunition in Bosnia and Herzegovina, for example, have risen recently due to the tense domestic political situation that has seen calls for secession from politicians from the Republic of Srpska. This has spurred retention of weapons among the civilian population, which resulted in a shortage of supply on the black market and a consequent increase in prices.¹⁸⁶ On average, the prices of weapons increased by around €50, while the price of plastic explosives has remained stable (€1 500 to €4 000 per kilogram), although they are rarely available for sale. Smaller calibre pistols such as 7.65 mm could be obtained two years ago from €175, while today older models of the same pistol retail for a minimum of €200.

COUNTRY	PRICE OF AN AK-47 (€)
Albania	400
Serbia	300-600
North Macedonia	500
Montenegro	250-300
Kosovo	400-600

FIGURE 14 Comparative prices of AK-47s in the Balkans.

NOTE: There are important differences in the prices within the Western Balkans; AK-47s in Albania have historically been cheaper than in other Western Balkan countries.¹⁸⁷

SOURCE: The data on firearms prices is drawn from nearly two months of fieldwork in the Western Balkans (December 2023–January 2024), with information sourced from reports of seizures by regional police, interviews with underworld sources and interviews with journalists, academia and law enforcement, among others.

This dearth of supply has also seen a reverse flow reemerge. Previously, illicit firearms were smuggled mainly from Bosnia and Herzegovina to Montenegro and Croatia, but now smuggling is carried out in both directions.¹⁸⁸ Due to the high demand for weapons, converted gas guns have also become more popular in the past five years.¹⁸⁹

There is some disagreement on price trends in Montenegro. According to one source, prices have mostly remained stable, showing no increase.¹⁹⁰ A Glock sells for around €1 000, while a 357 Magnum costs about €2 000. The Zastava M70A is €600, and

the Zastava P25, nicknamed ‘Crna dama’ (‘Black lady’ in English), is around €200. The Tetejac-Pistol Zastava TT 7.65 mm costs €300, while an AK-47 costs approximately €250. Criminal organizations usually do not use blank pistols due to the high risk.¹⁹¹

However, according to an investigative journalist from Montenegro, the prices of weapons on the illegal market are increasing ‘primarily because the arms and ammunition reserves robbed from military warehouses in Montenegro during the wars of the 1990s are reducing and organized crime groups are increasingly sourcing weapons from Albania, Bosnia and Herzegovina, Serbia, and Kosovo’.¹⁹² The highest demand is for pistols such as the Zastava CZ, Zastava M57 Tetejac, and the Zastava M84 Scorpion automatic pistol, which are used in most organized crime-related homicides in Montenegro. According to this source, pistols sell for €200 and up. AK-47s are around €300, but cheaper options can be found depending on their condition. Grenades sell for approximately €50. The supply of explosives is decreasing, and handmade explosives are present in the market, ranging from €100 to €300 depending on quality. Blank-firing pistols range from €50 to €150.¹⁹³

There was an indirect link between illegal weapons prices in Serbia and the conflict in Ukraine. According to an arms trafficking expert, prices of illegal weapons increased slightly in Serbia due to inflation, which rose steeply in 2022 and 2023, in part due to soaring energy and food prices after the Russian invasion of Ukraine. Domestically produced firearms are cheaper. An arms trafficking expert in Belgrade also noted that weapons made in Western European factories are more expensive on the illegal market due to the fact they are highly sought after by criminals because of their status.¹⁹⁴ Automatic and semi-automatic rifles and pistols range from €150 to €400 in Serbia. Starting pistols are around €50–€60. Tetejac or Zastava M57 pistols are the most readily available illegal weapon, while Glocks are more expensive. Hand grenades go for €10 to €50, and the price of explosives ranges from €1 500 to €4 000 per kilogram, depending on quality.¹⁹⁵ According to Bojan Elek, deputy director of the Belgrade Centre for Security Policy, a Zastava CZ99 pistol costs around €300, the Tetejac about the same price, while an AK-47 ranges from €300 to €600. The Zastava M70 assault rifle goes from €150 to €700, depending on the condition. Pistols and revolvers are the most smuggled weapons.¹⁹⁶



FIGURE 15 Main weapons smuggling channels from the Western Balkans to Europe and potential flows connecting to the established weapons route from Ukraine.

NOTE: Flows show general directions only. For more on potential maritime smuggling hotspots in the region, see Ruggero Scaturro and Walter Kemp, *Portholes: Exploring the maritime Balkan routes*, GI-TOC, July 2022, <https://globalinitiative.net/analysis/balkans-maritime-routes-ports-crime>

Trends: connecting to the pipeline?

The established ecosystem of Western Balkan arms trafficking – both in terms of routes and actors – means that the necessary infrastructure and networks are already in place to take advantage of a surge in firearms, as may be expected once the conflict in Ukraine ends.¹⁹⁷ The suggestion about diminishing supply in Montenegro may also mean that Western Balkan arms traffickers may be anxious to secure more and better-quality stock to supplement their diminishing and aging stockpiles.

In one possible scenario, weapons flowing out from the conflict in Ukraine could link up with the Western Balkan pipeline to Western and Northern Europe, merging with pre-existing networks and contacts. As this section has highlighted, the security of Ukraine’s western borders is uneven, with the Romanian border proving to be particularly vulnerable.

Another potential route for large volumes of weapons may be the maritime route from Odesa, which was a hub for arms trafficking before the Russian invasion. In this scenario, larger batches of weapons could be sent along the newly restored shipping route along the western edge of the Black Sea, before entering the EU via the port of Constanta in Romania or the port of Varna in Bulgaria, which as highlighted in this section is already an entry point for weapons coming from Turkey.

Against this is the consistent buffer of high risk, low profit and the current preference for gas guns, all of which will play into criminal thinking when considering smuggling weapons from the conflict. Yet as in other areas of life, the customer is king, and the types of weapons trafficked will reflect the preferences (and budgets) of their main consumers – criminals in Western Europe.



CUSTOMERS: WESTERN EUROPE

Firearms are used to settle scores related to the drug trade, as in a shooting incident in Lyon, France, in June 2022. © Jean-Philippe Ksiazek/AFP via Getty Images



Organized crime is the main customer for illegal weapons trafficked in the EU.¹⁹⁸ The weapons are used in a variety of illicit markets as lethal or intimidation tools or status symbols. Many factors contribute to the demand for weapons in organized crime, including the relative stability or maturity of the underworld (with more volatile/emerging markets witnessing more gun-related violence), the prevailing illicit markets (especially violent crime and the drugs market),¹⁹⁹ and relative ease (or otherwise) of obtaining weapons in different member states. As discussed in the previous section, the Western Balkans remains the main source for 'traditional' weapons in Europe, but these flows have also complemented by reactivated decommissioned weapons, and converted blank/gas guns and Flobert weapons. 3D-printed weapons are also continuing to advance in sophistication.

Given the extensive body of literature on the subject – notably the landmark Project Target report in 2021 – this section will not attempt to recount the various factors driving gun use in Western Europe, but will instead focus on findings in the field from France, Belgium, Sweden and the Netherlands – all countries that host lucrative and violent drug markets that act as magnets for weapons.

As data from the Institute for Health Metrics and Evaluation highlights, homicides by firearm among young and middle-aged men in these countries are significantly higher than in many other areas of Europe (rates in Romania (0.14) and Poland (0.21), for example, are far below those in France, Belgium and the Netherlands). The United Kingdom is a further outlier in this regard, arguably speaking to the high degree of difficulty of obtaining weapons in the UK.

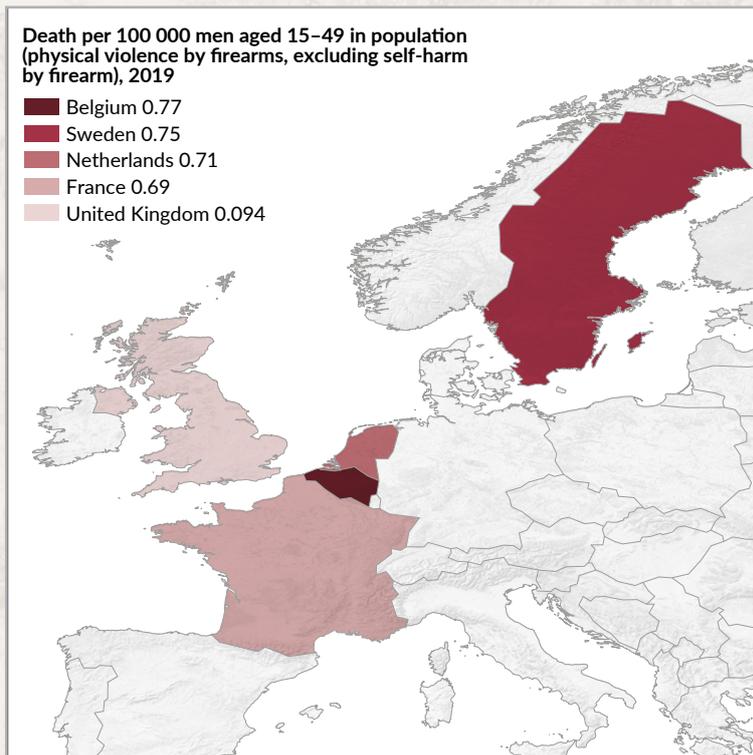


FIGURE 16 Homicide by firearm rate in selected Western European countries. SOURCE: Institute for Health Metrics and Evaluation, <https://vizhub.healthdata.org/gbd-compare/#>

France, Belgium and the Netherlands

Fieldwork in 2023 found interesting trends regarding illegal weapons in France, Belgium and the Netherlands, particularly concerning the potential diminution of supply from the Western Balkans, and the increasing sophistication of 3D-printed weapons.

In general, arms trafficking in France is not a highly organized activity. Instead, weapons arrive in small flows carried by ‘ants’ (individual couriers). This means that customers are not able to order a specific weapon, but must instead take whatever is available. In Belgium and the Netherlands, weapons often arrive in parts and must be reassembled before use (this method makes it more challenging for law enforcement to locate and seize the weapons). Numerous intermediaries are involved in moving the gun from source to end customers in these countries, each of whom receives a cut, which drives up the ultimate price of the weapon. For example, a weapon bought for €400 in Eastern Europe may be sold to an intermediary for €650–€700, who in turn will move it France to be sold for double or even triple the price paid for it.

Another method is to acquire a collector’s weapon that is missing one or more parts, either from online vendors or by going to Slovenia and Slovakia. These guns can then be reconverted in Western Europe to fire live ammunition again. There are many specialists in this type of ‘repair’ in Belgium and France. Another method mentioned to the GI-TOC was much more local, involving criminals identifying members of a gun club as they exit the shooting range and following them to their houses, before robbing them to obtain the weapons. In one case, the GI-TOC heard of an MR 308 assault rifle that had been stolen from a gun club member being sold for €3 500, together with scope, bag and tripod – a €1 500 discount on the legal purchase price.²⁰⁰

Information collected by the GI-TOC in France and triangulated with other sources confirm that although prices for weapons are higher in France and Belgium than in Eastern Europe, arms trafficking is still not a profitable activity, certainly when compared with drugs. With an AK-47 retailing at between €2 000 (average condition) and €3 000 (good condition, with two full magazines), an arms trafficker would have to sell at least 10 of these guns to generate approximately the same amount of money as 1 kilogram of cocaine (€30 000, wholesale price).²⁰¹ The risks are also much greater. Even handguns, the most-in demand weapon among criminals, are not money spinners: GI-TOC fieldwork found that 9mm handguns retailed for about €1 500, and Glock 17s for about €2 000.²⁰² Grenades in the Netherlands are reportedly cheap, costing between €5 and €50.²⁰³

Interestingly, one criminal source commented that the supply of weapons from former Yugoslavia and Albania had 'dried up'. According to them, weapons were now coming from Romania, Bulgaria, Slovenia and Slovakia, although whether these countries were the origin or merely transit countries was not made clear. It was not possible to verify this trend at the time of writing, but the Monitor will conduct more research to ascertain whether this phenomenon is indeed widespread, or merely a supply chain issue facing some individual customers.

This reported shift requires further research; according to Dutch law enforcement, for example, the Western Balkans is still the number one supplier. However, the above assessment may reflect the age of the Western Balkan arsenal, which affects both performance and desirability, with more weapons dropping out of supply as they lose functionality. Again, the trend can be tracked in price: submachine guns such as the Škorpion and the Uzi – seen as old and heavily used – have decreased in price significantly, to the point where one source claimed that it was now possible to buy one for between €1 500 and €2 000.²⁰⁴ (Although this low price may also make them attractive, as seen by their adoption since 2021 in the UK, where they sell for between £9 000 and £15 000.)²⁰⁵ But the shortcomings of supply may also reflect internal demand dynamics in the Western Balkans, as discussed in the previous section.

According to a French underworld source, other types of weapon are also becoming rarer, in part due to the fact that the criminal activities they were associated with have become less frequent. RPG-7s, for example, have become increasingly scarce on the market, retailing for €3 500–€4 500, though this may be less due to lack of supply than lack of demand. In the past, RPG-7s were used for robbing security vans – a crime that has become rare in France today.²⁰⁶ This may have been a secondary impact of the heightened attention among law enforcement and national security agencies following the spate of terrorist attacks in France, which may have made a more fraught operating environment for criminals using heavy weaponry.

3D-printed weapons: a market in the making

The threat of 3D-printed weapons has long been on the horizon. Our researchers heard 3D-printed weapons described as ‘embryonic’, but getting more and more powerful. Printing plans for many guns are freely available on the internet; some only require the maker to acquire a metal barrel (which can be obtained as a spare part from the US), which can then be added to the printed parts.²⁰⁷

Prices vary: we heard that a handgun can be bought for between €800 and €1 000, while one French operation in February 2024 busted a ring selling 3D-printed parts on Telegram (which could then be reassembled) for between €1 000 and €1 500 for a 9mm machine gun.²⁰⁸ Another French investigation found two printers who were prepared to produce a Liberator – the first 3D-printable gun that can be made entirely from plastic, with a single metal pin²⁰⁹ – for as little as €200.²¹⁰

These weapons are still in their infancy and very small in scale: according to Dutch law enforcement, there has been no fatality or injury linked to a 3D-printed weapon.²¹¹ France recorded its first incident in June 2023, when a 3D-printed gun was used in an assassination attempt in Marseilles as part of a feud between drug traffickers.²¹² Printed weapons are currently limited in their

functionality, but this will improve in years to come, particularly when metal printing becomes more affordable and widespread.²¹³ They will also continue to appear in more innovative forms that may make interdiction harder, such as the guns made in the shape of a ballpoint pen discovered in Belgium in February 2024.²¹⁴ 3D-printed grenades are also in development²¹⁵ – one was seized in France in September 2023.²¹⁶



A 3D-printed semi-automatic FGC-9 gun, one of a number of weapons manufactured by gangs and seized during French police operations. © Nicolas Tucet/AFP via Getty Images

Sweden

In recent years, Sweden has experienced a surge in the use of firearms and explosives linked to organized crime. The 60 deaths attributed to gun violence in 2022 were the highest on record, and a further 53 people were killed in 2023.²¹⁷ In 2022, the per capita murder rate with firearms in Stockholm was approximately 30 times higher than that of London and, in 2023, Sweden had the second-highest gun death rate in Europe.²¹⁸

As outlined in a forthcoming GI-TOC report, gun violence in Sweden has been shaped by the evolving organized crime landscape.²¹⁹ The 2000s have seen the emergence of street gangs, especially in immigrant suburbs of Sweden's major cities. Drugs became a major criminal economy, leading to conflicts over turf and supremacy. Children under the age of 15, who

cannot be imprisoned for serious criminal offences under Swedish law,²²⁰ have increasingly been targeted by gangs to become foot soldiers.

This situation, along with the glamorization of gangster culture in Sweden, has led to heightened demand for firearms and explosives.²²¹ Most weapons are sourced from other European countries and the Western Balkans, with Balkan arms traffickers resident in Sweden playing a central role in facilitating the trade. Handguns remain the most seized weapons, but assault rifles and grenades are also in demand. Converted alarm and blank-firing guns have also become more popular since the mid-2000s. Once in Sweden, these weapons are often traded within criminal organizations and from friend to friend.

Despite the healthy supply, prices remain high due to high demand and also the desirability of certain weapons for their image (especially Glock).²²² On the black market, Glock 17s and 18s sell for about 28 000 Swedish krona (SEK) (€2 500), and Glock 19s for about SEK30 000 (€2 675). Assault rifles such as the AK-47 are relatively expensive, ranging from SEK40 000 to SEK70 000 (€3 500–€6 250). Even the Skorpion, available in France for between €1 500–€2 000, costs far more in Sweden. A 16-year-old told us he had bought one on Telegram for US\$5 000, or €4 600. The use of hand grenades also became more prevalent between 2016 and 2018, with the most common being the M75 from the former Yugoslavia. Prices for these, however, are high, between SEK1 500 and SEK5 000 (€130–€460), and there has been an upsurge in homemade bombs (such as a Thermos containing TNT), which can be made cheaply.

Trends: a matter of time?

The apparent rise in armed violence associated with organized crime over the past five years in Europe is likely to increase demand for weapons in the countries spotlighted here and others, especially those with strong drug trafficking industries.

While weapons and explosives from the conflict in Ukraine have not yet arrived in these criminal marketplaces, such an outcome seems only a matter of time. One potential enabling factor is the relocation of Ukrainian and Russian criminal actors to Europe since the invasion. Although many of these are bosses who will have little interest in anything other than enjoying their riches in Europe and managing their criminal affairs back home, other criminal ex-pats may reach out to compatriots for weapons, creating a direct connection between source and customer. What scale this trade will reach is unknowable at present, but large-scale, systematic trafficking of hundreds of weapons and explosives is deeply unlikely given the level of attention on the issue. It may be that Europe will see the kind of small but steady stream from Ukraine that it has experienced from the Western Balkans in previous decades: small numbers of AK-type weapons and grenades for the mass criminal market, together with a few pieces of more sophisticated small arms for the more discerning (and high-paying) customers. Smuggled in minibuses, cars and other means, these small 'drop-lets' of weapons may cumulatively add up to a significant pool of firepower for criminals in Western Europe to draw upon.



THE DARK WEB

The dark web is a significant part of the supply chain in the illegal firearms trade, able to easily connect sellers and buyers. © Silas Stein/picture alliance via Getty Images



A complex and little-understood phenomenon, the dark web has over the past decade or so emerged as a key enabler of the drug trade and as a place where stolen data can be bought and sold. Weapons are also available on the dark web – a fact that gained international attention after the 2016 Munich shopping mall shooting in which nine people were killed and 36 injured. The perpetrator reportedly acquired the weapons (a reactivated Glock 17) from Slovakia on the dark web.²²³ Unconfirmed reports also linked darknet firearms to the 2015 Paris shootings at the offices of Charlie Hebdo,²²⁴ with Slovakia again cited as the source.²²⁵

There have been numerous attempts in the UK since 2014 to trade guns (or attempts to) on the dark web, with weapons mainly sourced from the UK, mainland Europe and the US, including at least one case of sales to organized crime groups,²²⁶ and another case where the buyer was planning a mass shooting.²²⁷ The scale of this trade, however, is relatively small in the UK. According to the UK's National Crime Agency, 'few firearms are sold via the dark web; however it remains a way to buy and sell – especially for people who are not part of a criminal network. Such weapons would typically enter the UK as parcel post'.²²⁸

Yet the dark web remains a vector that can connect sellers and buyers across borders, without the need for on the ground intermediaries.²²⁹ As previous incidents have highlighted, buyers can range from lone wolf terrorists, organized crime groups or those with conflicts at home or in business. Fears that Western weapons sent to Ukraine would end up on the dark web initially appeared to be confirmed in June 2022, when a cyber-security specialist found numerous listings for weapons, including a Javelin,²³⁰ although these listings were quickly debunked as Russian disinformation.²³¹

To shed greater light on this phenomenon, the GI-TOC commissioned an in-depth investigation into the nature and scale of arms sales on the dark web, and on how to assess the veracity of dark web listings.²³² The investigation found that all of the English-language listings advertising weapons for sale bore the hallmarks of being scams. These sites offered weapons for sale at the legal price (in countries where they could be bought legally), claimed to manage stock centrally and be able to ship anywhere in the world. Site construction was basic, and outside the 'webs of trust' that have contributed to the stability and relative reliability of the drugs and fraud markets on the dark web. There was one Russian-language marketplace that appeared genuine, but the choice of weapons was very limited, prices high and the geographic distribution tightly confined (i.e. no shipping options were available; weapons were delivered by dead drops).

This indicates that the dark web is not currently being exploited for arms trafficking from the conflict in Ukraine, beyond what are likely to be isolated instances in former Soviet Union countries now part of the Commonwealth of Independent States (CIS) (although these sites are actively being monitored by law enforcement). Furthermore, the technical, language and geographic barriers between Western and CIS markets appear to represent an effective online partition, preventing the small CIS retail arms trade easily leaking to the Western markets.

The structure of the dark web: drugs, scams – and regulation

Darknet markets in their current form began in 2011, when Ross Ulbricht started the Silk Road dark web marketplace, which was the first of its kind to utilize both the Tor dark web browser for user and server anonymity, combined with the (then) highly novel and unproven cryptocurrency Bitcoin. Interestingly, the mechanics of how dark web markets operate is different in the West (including Europe) compared with countries that emerged from the Soviet Union.²³³ In both cases, however, the objective is the same: to enable a user to find a reliable entry point on the clearnet, or surface web (such as an internet forum), and find a sufficiently legitimate web of trust for future visits. Failure to navigate the dark web through such a web of trust will expose the user to a wide range of scams of varying levels of sophistication and apparent legitimacy.

In the West, dark web markets use an eBay-style structure, based on feedback and relationships, that allows for trust to be formed and maintained. A new market looking to be listed (and effectively endorsed) must demonstrate proven vendors (e.g. sellers of drugs or fraud services) and approximate adoption of darknet market rules norms. Darknet portals such as the (now defunct) DeepDotWeb and contemporary 'legal gateways'²³⁴ collaborate to maintain community standards about legitimate active markets and links. Darknet and some clearnet forums do the same, soliciting qualitative and quantitative feedback about market purchases and issues, and are able to detect signals of law enforcement, scamming activity or technical issues with a relatively high degree of sensitivity. Between these gateways, forums, vendors and markets, a web of trust is formed that can be relied upon by vendors as well as buyers of these services.



Twelve people were killed during a shootout at the offices of Charlie Hebdo in 2015. Darknet-acquired firearms were linked to the attacks. © AFP via Getty Images

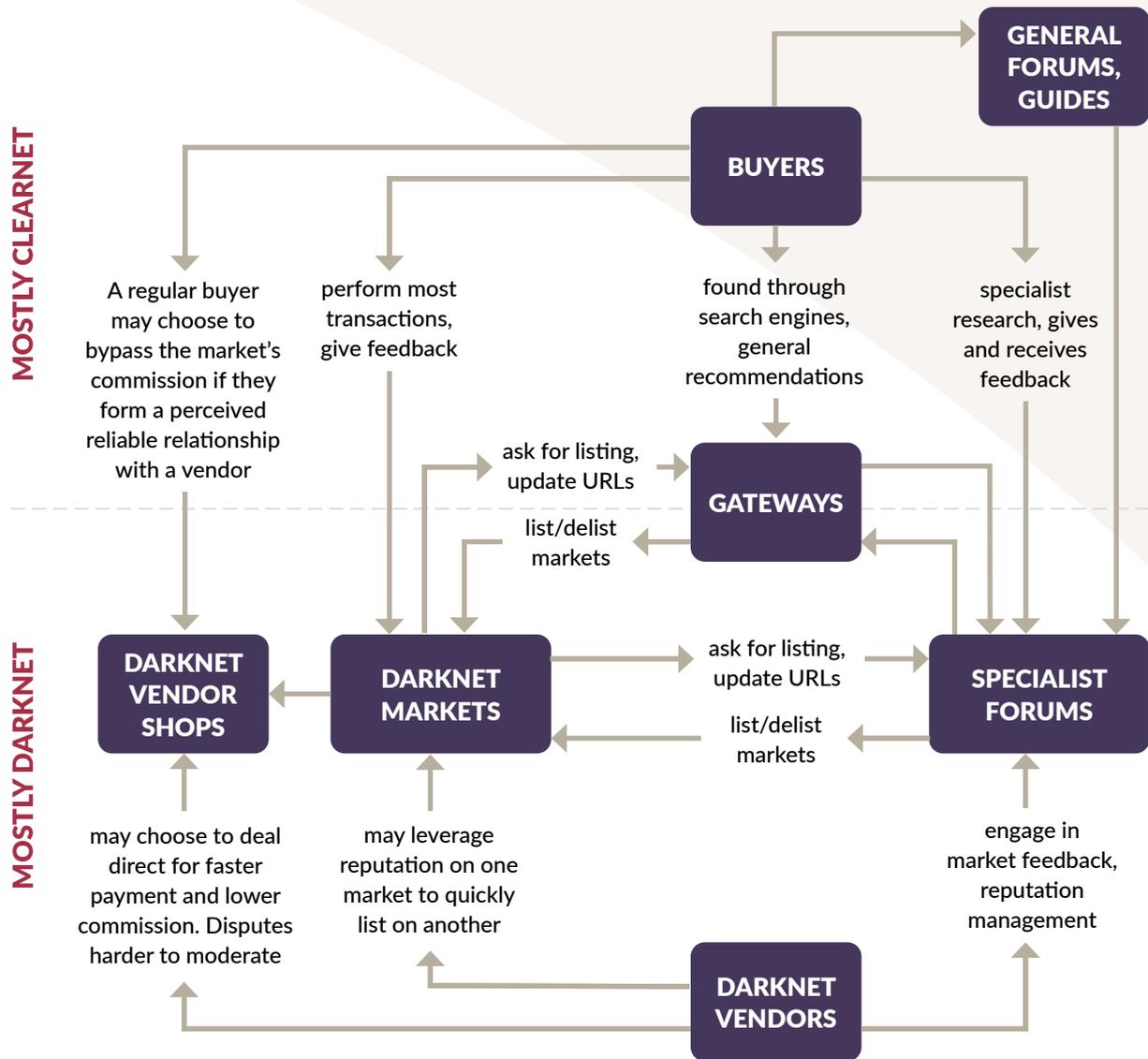


FIGURE 18 Organizational diagram of interface between the clear and dark web in the West.

The CIS communities online have mostly structured their commerce around general-purpose forum software, rather than eBay-style marketplaces. Instead of the marketplace functioning as a single broker for transactions and disputes, senior forum members act as ‘guarantors’ when brokering transactions between junior members. This structure offers a reduced technical barrier to entry and an ability to delegate brokering to trusted forum members for flexible fees rather than fully centralizing commerce responsibility. (However, this decentralized structure allows for differing commerce rules and types within the same platform,²³⁵ and also enables a single vendor to impersonate multiple vendors, in effect allowing a forum administrator to create a purportedly ‘open’ marketplace that they actually fully control.)



Example of a 'verification' photo, showing proof of holding the product at a specific date. Photo: Onion Gun Forum

CIS forums also do not use established entry portals in the same way, but use similar guiding principles of using a reliable entry point on the clearnet (such as an internet forum) and finding a sufficiently legitimate web of trust.

Connected to the creation of trust is the trend of increasing regulation of mainstream dark web commerce over time. Early darknet regulation was initially limited to the prohibition of sales of child abuse images and spamming. However, as services such as assassination-for-hire and weapons sales started gaining a reputation for being either scams or law enforcement operations,²³⁶ community feedback created pressure on markets and forums to forbid such services too. By 2015, the dominant darknet market at the time (Agora) became the first to ban the sale of weapons and poisons, a trend most darknet markets followed.²³⁷ This self-regulatory process has led to a stable overall market for drugs and fraud, albeit punctuated by regular law enforcement shutdown actions and other disruptions.

Communities themselves – such as dominant English-language darknet drug forum 'Dread' – are averse to allowing discussion of mostly disproven scam services involving weapons in order to both protect their own users and to avoid drawing the attention of law enforcement agencies focused on firearms and terrorism, and thus limiting their exposure to drug and fraud task forces.

CIS forums have more often allowed small-scale weapons dealing between forum users, so long as they provide proof of product to prevent scams. In order for a vendor to prove they actually hold stock, norms have been established around posting a customized message on a piece of paper along with the product.

Yet despite these efforts at self-regulation, demand for weapons on the dark web clearly persists, although organized crime is not a serious customer. The demographics of those arrested for hiring a hitman or ordering a gun consistently shows them to be relatively unremarkable individuals without any relationship to established criminal networks, whose turn to violence has been motivated by domestic or business concerns.²³⁸ Chris Monteiro's ongoing investigation into murder-for-hire sites demonstrates how customers often start out by seeking to buy a gun, but are then up-sold into ordering a murder.²³⁹ There is also a small but persistent demand for weapons from individuals interested in becoming hitmen themselves.²⁴⁰ That said, this market is also fraught with scams. The demand for violence is large, but not many people are selling either the hardware or services, creating an opening for scammers, who (unlike the dark web market for drugs) can operate with relative impunity.

Telegram: a challenge to the dark web?

The rise of Telegram in Ukraine and Russia may offer another avenue for arms traffickers seeking to sell weapons. As mentioned, the preference in CIS countries for forum structures with guarantors brings increased administrative overheads and commission compared to Western eBay-style darknet markets. As such, many commodity transactions around drugs and fraud data have shifted in recent years to the encrypted chat platform Telegram, which allows vendors to avoid using brokers or paying commission.

Telegram channels offering drugs can be seen spraypainted around cities in Ukraine and the CIS states, bypassing issues of establishing legitimacy online.²⁴¹ As in the West (where encrypted messengers are also used for drug sales), dedicated 'bots' are utilized to negotiate product, price, payment and locations, negating the need for sophisticated centralized software and servers on the darknet.²⁴²

As yet, the extent to which weapons from the conflict in Ukraine are being sold on Telegram has not been determined – unlike drugs, there are no open channels in Ukraine selling weapons on Telegram. Sales, if they are taking place, will be person to person, using Telegram as a messaging service. But given the scale of arms trafficking revealed using the Encrochat application – more than 900 weapons were seized in related operations – the potential for criminal business using the platform is significant.²⁴³

Weapons from the conflict: a scammer's market

Despite the many stories of weapons from the conflict appearing for sale on the dark web, the actual scale of darknet sales from and in Ukraine remains small. On the domestic front, there appears to be a relatively high risk of encountering law enforcement operations and making very little profit on the transactions. With regard to exporting small quantities of guns to the rest

of Europe, pan-European surveillance of such materials, as well as strong investigations and prosecutions, has rendered this export trade highly unprofitable.

Again, analysis of the phenomenon must take into account the geographic division in the dark web between East and West, which reveals very different characteristics.

ATTRIBUTE	SCAMMING MARKETPLACES	FUNCTIONING MARKETPLACES
Discoverability	Scores of sites readily available through darknet search engines in English	Sites mostly limited to Commonwealth of Independent States forums in Russian. Word of mouth on and offline advertising
Site structure	Structured as a commerce site or market, streamlined purchase and payment	Structured as forums. Bespoke negotiations needed for each purchase
Vendors	One per market	Multiple branded vendors per market
Branding	Mostly faceless, generic branding	Named users with individual reputations
Photos	Stock photos	Photos with verification paper
Stock	Comprehensive, any weapon you might wish for	Limited based on conversion availability
Communications	Website forms, email	Forums, encrypted messengers
Reputation	Self-serving testimonials	Linked in and out of a web of trust, individual vendor reputation
Shipping	Worldwide, almost without exception	Highly geographically limited. Dead drop exchanges required
Price	Competitive with US legal retail prices	Over 2x that of legal retail. A darknet Glock, for example, retailed at US\$3 500, versus US\$1 500 legal price (where available)
Payment	Cryptocurrency, often to fixed addresses	Cryptocurrency (Bitcoin or Monero discount), addresses not advertised
Personal information exposure	Often email address	Minimal
Software	Flat websites, off the shelf CMS and e-commerce software	Forums

FIGURE 19 Key differences between scamming and functioning marketplaces on the dark web.

In simple terms, the openly advertised market in the West is a scammer's market, offering everything and delivering nothing. Using popular darknet search engine ahami.fi, a search was performed for the keyword 'gun', which returned 417 sites, of which the top 50 were downloaded for later offline integrity checking and analysis. This method simulated a person of an average level of knowledge and sophistication searching the darknet.

Many of the top 50 English-language sites used generic names such as 'Gun Market', 'Gun City' or 'Black Market Guns', and positioned themselves as dedicated weapons 'vendor shops', selling a large range of popular guns, with stock on individual sites ranging from 10 guns to almost 300. A small number of the sites positioned themselves as 'full' darknet markets also selling drugs and fraud services. Only one site claimed to sell 3D-printed guns, and none offered explosives.

The construction of the sites themselves was mostly achieved using a commodity content management software such as Wordpress or other generic e-commerce tools – an unusual aspect that indicates that the administrators prioritized ease of use over sophisticated functionality or security. The small sites used flat website configurations. Despite the sensitivity of the products offered, there was a surprising diversity of communication options: alongside secure email providers such as Protonmail and 'darknet email' (dnmx.com)²⁴⁴ and Telegram, other communication options included Gmail and even website contact forms. Nearly all websites offered prices in US dollars. Only one had listings in euros, despite multiple websites claiming to be located in Europe (although half the sites provided no information about where they were located).

Crucially, none of the websites demonstrated their position within any web of trust. In addition, none of the sites employed a multiple vendor and broker system as in functional darknet markets, claiming instead to manage stock and shipping centrally. In the context of the dark web, this lack of a feedback loop that can verify a site's reputation is strong evidence that the sites are scams.²⁴⁵ In sum, all of the websites analyzed were

assessed as fraudulent and run either by scammers or law enforcement.

In contrast to the advertised English-language websites, with their seemingly unlimited product selections, international shipping and constant stock, the real market for guns on Russian-language websites is quite different. Vendors are open about the fact they are selling reconverted weapons with limited stocks and are limited in the geographies where they will deliver by dead drop, such as near Moscow. In the course of years of monitoring the dark web in Ukraine, the anonymous co-investigator of this section had never seen equipment such as optics, anti-aircraft weapons and spare parts available for sale on Russian-language dark web markets. Offerings were limited to small amounts of ammunition, mining explosives and suppressors.

This trend was borne out by the results of the investigation, in which the only search result that seemed legitimate and was independently identified by both researchers in the course of this investigation was a Russian-language gun forum, 'Onion Gun'. Entirely separate from the English-language sites, the site has both a clearnet (.com) address and darknet (.onion) address. The domain has been registered for almost 18 months, but its hosting location is hidden behind the Cloudflare security service. The site is probably using either so-called 'bullet-proof' hosting (which allows illicit activities and resists takedown orders from law enforcement), or at the very least is hosted in a CIS-allied state. The forum itself uses the open-source Simple Machines Forum software.

On the site a very small number of 'vendors' are re-converting decommissioned handguns (or converting blank and gas guns) to enable them to fire live ammo and selling them. These are both Russian- and Western-made handguns and long guns. This limited retail market appears to be restricted both in geography and supply. While the delivery method can be agreed between buyer and seller, it is believed the most common method is delivering products through a dead drop so as to avoid potential encounters from law enforcement or discovery using the postal system.

Trends: a limited market

As of 2023, the stable drug and fraud trade on the dark web and Telegram has mostly not involved itself with the small retail arms market. Like with English-language markets, they should be intermittently monitored by trained specialists in case this situation evolves. This

would be focused on keeping abreast of the darknet webs of trust. Due to the technical barriers, evolving web of trust and dynamic appearance and disappearance of markets, forums and vendors, such high-level monitoring does not yet lend itself to high levels of automation.



CONCLUSION

The trajectory of the war in Ukraine will determine whether arms trafficking becomes a significant area of concern in the future. © Jose Colon/Anadolu via Getty Images



The Arms Monitor has not detected any confirmed instances of arms trafficking of weapons out of Ukraine, but it has identified the structural conditions of how weapons are circulating within Ukraine, and the market conditions required for weapons from Ukraine to become more attractive to criminal buyers in western Europe.

This is a highly changeable situation that will be closely linked to the trajectory of the war. The sudden Russian retreat in late 2022 left a huge arsenal of trophy weapons in deoccupied Ukraine; future changes in the front line may have similarly transformative effects, as may any number of other military developments. A pause in the fighting may reduce the hunger for weapons at the front line and so cause more seepage into Ukrainian society or further afield. Worsening economic prospects may similarly see more people sell acquired weapons for hard cash. On the other hand, legislative and political changes, such as a dedicated law on weapons or a path to legally register trophy weapons, may help restrict the circulation of illegal weapons in the country.

The Monitor will continue to track developments in Ukraine and its European neighbourhood, harnessing its existing network and expanding its work in key potential transit countries such as Poland and Hungary. It will also research developments to the east of the conflict in Russia, the Caucasus and further afield, where the flow of illegal weapons is already significant, judging from early indicators, such as the rise in gun-related violence in regions of Russia bordering occupied Ukraine.²⁴⁶

Providing in-depth, granular coverage of trends in this sphere, the Monitor intends to bolster and expand its capacity to provide an early-warning system of emerging arms-related risks, but it also will continue to investigate how these weapons contribute to the protection and aggression of illicit networks across local contexts. Understanding the motivations and requirements of criminal actors, as well as the practicalities of how weapons are moving, will be essential to shed more light on this niche and shadowy illicit business.



ANNEX: PRICES OF ILLEGAL WEAPONS IN UKRAINE

While the conflict in Ukraine represents a serious arms trafficking risk facing Europe, it is by no means the only one. The EU has many different illicit firearms markets, with no shortage of choice for criminals. © Andrew Kravchenko/Bloomberg via Getty Images

Black market prices in Ukraine collected by the Observatory and open source, mid-2023 to early 2024

WEAPON	BLACK MARKET PRICE
Makarov pistol	Kyiv region: UAH15 000 (December 2023); US\$300–500 (with two clips; January 2024) Odesa: US\$400 (80th Brigade soldier attempt to sell, September 2023) Unspecified: US\$400 (with two magazines; May 2023)
RGD-5 grenade	Kyiv region: US\$50 (December 2023); US\$50 (January 2024) Mykolaiv: UAH150 (December 2023)
AK-47	Odesa: US\$1 000 (December 2023); US\$1 200 (with two cartridges, September 2023); US\$1 500 (with two magazines; January 2024) Mykolaiv: US\$800 (December 2023); US\$1 500 (trophy, new, with ammo; December 2023) Dnipro (attempt to sell): US\$1 500 (December 2023); US\$1 000–1 2000 (with two magazines; January 2024) Kyiv: US\$1 500 (with two magazines; January 2024) Kharkiv: US\$500–US\$700 (with two magazines; wholesale price for 10+ weapons; January 2024)
AK-74U (AKSU)	Kyiv: UAH56 800 (with two magazines and 60 cartridges; September 2024)
Grenades	Odesa: UAH300 (December 2023); US\$50 (September 2023); UAH800 (January 2024) Mykolaiv: UAH600 (January 2024) Dnipro: US\$30 (January 2024)
F1 grenade	Kyiv: US\$30 (September 2023)

WEAPON	BLACK MARKET PRICE
AK-12	Kyiv: US\$2 000 (December 2023) Dnipropetrovsk: UAH60 000/approx. US\$1 500 (September 2023) ²⁴⁷
	 <p><i>AK-12 carbine for sale Dnipropetrovsk, UAH60 000</i></p>
AK-19	Kyiv: US\$2 000 (December 2023)
Serdukov pistol	Kyiv: US\$1 500 (new; December 2023)
PKM	Mykolaiv: US\$1 500 (bullets included; December 2023)
Glock (3rd generation)	Dnipro: US\$1 000 (old; December 2023)
Glock 17	Odesa: US\$1 000 (September 2023) Unspecified: start from UAH24 000 (May 2023)
CzH 75	Kyiv: US\$1 500 (September 2023) Dnipro: US\$1 500 (January 2024)
RShG-2 grenade launcher	Kherson: UAH14 500/approx. €365 (September 2023) ²⁴⁸
	 <p><i>Grenade launcher for sale in Kherson, UAH14 500</i></p>
Ilga anti-aircraft system	Kherson: UAH115 000/approx. €2 900 (September 2023) ²⁴⁹
SVD Russian trophy sniper rifle	Kharkiv: US\$1 200 (September 2023)
VAL (Russian special forces assault rifle)	Kharkiv: US\$2 000 (September 2023)
Stechkin	Unspecified: US\$600 (one magazine; May 2023)
Wz.88 Tantal AK74 Modernized (5.45x39)	Unspecified: UAH37 000 (May 2023)
Romarm 7.62x39	Unspecified: UAH35 000 (May 2023)
APS	Unspecified: US\$550 (with two magazines; May 2023)

NOTES

- 1 Naina Bajekal and Vivienne Walt, How Europe's terrorists get their guns, *Time*, 7 December 2015, <https://time.com/how-europes-terrorists-get-their-guns/>.
- 2 National Ballistics Intelligence Service – West Midlands Police, Antique firearms, November 2017, https://library.college.police.uk/docs/appref/Gun_crime_Antique_firearms_final.pdf.
- 3 Weapons supplied to Ukraine were falsely reported to have been resold on the dark web to Mexican drug cartels and Hamas, among others. On the dark web, see BBC, Undercover with Russia's fake arms dealers, 24 September 2022, <https://www.bbc.co.uk/news/world-62983444>; on Mexican drug cartels, the former US Republican presidential candidate Vivek Ramaswamy retweeted a claim from a pro-Russian account, adding 'it turns out that the US military weapons that we sent to *Ukraine*, including Javelin anti-tank missiles & missile launchers, are ending up in the hands of Mexican drug cartels south of our border.', Twitter post, 1 June 2023, <https://twitter.com/VivekGRamaswamy/status/1664312872703344648?lang=en>; closer analysis by 'milbloggers' and reporters revealed that the weapon in question was in fact an AT-4 (widely available) and was also inert; Ryan Macbeth, Twitter post, 1 June 2023, <https://twitter.com/RyanMcbeth/status/1664219834052222976>; on Hamas, there were false reports that Ukraine had supplied weapons to the group through the grain corridor and a fake BBC/Bellingcat investigation that claimed Ukrainian politician Davy Arakhamia had brokered the sale of arms to Hamas, see <https://youtu.be/Wld-KihzkMU?si=u0wtjyXZOo7cwhp5>, and <https://twitter.com/dannnuts/status/1732379690516820340>; on Donetsk People's Republic leader Denis Pushilin, see UKRinform, Russian propaganda keeps spreading fakes about Western arms sales to third countries by Ukraine, 22 December 2022, <https://www.ukrinform.net/rubric-factcheck/3639145-russian-propaganda-keeps-spreading-fakes-about-ukraine-selling-western-weapons-to-third-countries.html>.
- 4 Tass News, About 20% of weapons sent to Kiev end up on black market – Russia's UN mission, 28 October 2023, <https://tass.com/politics/1698249>.
- 5 Interfax, Putin said he is confident that weapons will leak from Ukraine, 13 October 2023, <https://www.interfax.ru/russia/925809>; this line was echoed by then acting head of the DPR, Denis Pushilin: 'Ukraine is becoming one of the central suppliers of weapons on the black market, on the dark market you can buy the weapons that are supplied to Ukraine as part of assistance and support by Western countries.' He mentioned Javelins among the weapons being diverted to the black market. Weapons supplied to Ukraine flooding Africa's black markets: DPR Head, Al Mayadeen, 14 December 2022, <https://english.almayadeen.net/news/politics/weapons-supplied-to-ukraine-flooding-africas-black-markets>.
- 6 See There is no arms smuggling from Ukraine to EU countries – Vadym Dzyubynskyi, *The Day*, 30 November 2023, <https://day.kyiv.ua/news/301123-kontrabandy-zbroji-z-ukrayiny-do-krayin-yes-nemaye-vadym-dzyubynskyi>.
- 7 Interviews with recently demobilized soldiers, Kyiv, January–February 2024.
- 8 For instance, it found that American defence officials and diplomats in Washington and Europe had failed to quickly or fully account for nearly 40 000 weapons that by law should have been closely monitored because their sensitive technology and relatively small size makes them attractive bounty for arms smugglers. Lara Jakes, US military aid to Ukraine was poorly tracked, Pentagon report says, *The New York Times*, 11 January 2024, <https://www.nytimes.com/2024/01/11/world/europe/us-military-aid-ukraine.html?referringSource=articleShare>.
- 9 Reuters, Ukraine says it uncovers mass fraud in weapons procurement, 28 January 2024, <https://www.reuters.com/world/europe/ukraine-uncovers-mass-fraud-weapons-procurement-security-service-2024-01-27/>.
- 10 This perspective has been voiced in other official quarters and this position was echoed by Vadym Dzyubynsky. See Max Hunder, EU says it has not seen high levels of weapons smuggling from Ukraine, Reuters, 11 May 2023, <https://www.reuters.com/world/europe/eu-says-it-has-not-seen-high-levels-weapons-smuggling-ukraine-2023-05-11/>.

- 11 See Konstantin Toropin and Jared Keller, Russian fronts, criminal gangs: US couldn't account for weapons sent to Ukraine last year, *Military.com*, 20 July 2023, <https://www.military.com/daily-news/2023/07/20/weapons-sent-ukraine-were-danger-of-falling-criminal-hands-watchdog-warned.html>.
- 12 Ukraine's maritime exports reached pre-war level in January, *Ukrainska Pravda*, 6 February 2024, <https://www.pravda.com.ua/eng/news/2024/02/6/7440681/>.
- 13 Nils Duquet and Kevin Goris, Firearms acquisition by terrorists in Europe – Research findings and policy recommendations of Project SAFTE, Flemish Peace Institute, 18 April 2018, p 127, https://flemishpeaceinstitute.eu/safte/files/vrede_syntheserapport_safte_lr.pdf.
- 14 World Customs Organization, Illicit Trade Report 2022, p 13, https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/illicit-trade-report/itr_2022_en.pdf.
- 15 Interviews with Ukrainian law enforcement sources, by phone, February 2024.
- 16 According to World Customs Organization data, cited by the UN Office on Drugs and Crime (UNODC), the average number of weapons seized per customs interdiction for a vessel was 19.8, compared to 1.9 by vehicle. UNODC, Global study on firearms trafficking 2020, March 2020, <https://www.unodc.org/unodc/en/firearms-protocol/firearms-study.html>.
- 17 Interview with underworld figure, France, February 2024.
- 18 Directive (EU) 2017/853 of the European Parliament and of the Council of 17 May 2017 amending Council Directive 91/477/EEC on control of the acquisition and possession of weapons, OJ L137/22, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017L0853>.
- 19 Interview with Slovak law enforcement officer, Bratislava, Slovakia, April 2023.
- 20 Interview with senior law enforcement officer in the Netherlands, online, 12 February 2024.
- 21 Ibid.
- 22 Emily Proctor, 4 out of 5 assassinations in the Netherlands are related to cocaine, *IamExpat*, 2 February 2024, <https://www.iamexpat.nl/expat-info/dutch-expat-news/4-out-5-assassinations-netherlands-are-related-cocaine>.
- 23 Interview with Dutch explosives expert, February 2024.
- 24 Ibid.
- 25 Ibid.
- 26 Italian organized crime groups the 'Ndrangheta and the Camorra have reportedly sourced hundreds of handguns, 50 AK-type weapons and five submachine guns and other weapons from Austria. See UNODC, Illicit trafficking in firearms, their parts, components and ammunition to, from and across the European Union, 2020, p 67, https://www.unodc.org/documents/firearms-protocol/2020/UNODC-EU-Report-A8_FINAL.pdf.
- 27 Interview with demobilized soldier, Kyiv, February 2024.
- 28 Khrystyna Reu, The procedure for accounting and use of trophy weapons by members of the DFTG, Lawyers of the Armed Forces of Ukraine, 5 October 2022, <https://pravo-ua.com/dftg/poryadok-obliku-ta-vykorys-tannya-trofejnoyi-zbroyi-chlenamy-dftg/>.
- 29 Roger Cohen, Arms trafficking to Bosnia goes on despite embargo, *The New York Times*, 5 November 1994, <https://www.nytimes.com/1994/11/05/world/arms-trafficking-to-bosnia-goes-on-despite-embargo.html>.
- 30 As mentioned below, Romania has purchased 26 new scanners, the first two of which arrived in February 2024, but the implementation timeframe is uncertain.
- 31 Interview with Dutch explosives expert, February 2024.
- 32 Small Arms Survey, A guide to the identification of small arms and light weapons: A handbook, Chapter 2, p 48, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-HB-06-Weapons-ID-ch2.pdf>.
- 33 Mark Galeotti, Time of troubles: the Russian underworld since the Ukraine invasion, *GI-TOC*, December 2023, <https://globalinitiative.net/analysis/the-russian-underworld-since-the-ukraine-invasion/>.
- 34 Vadym Dziubynskyi, Head of the Criminal Investigation Department of the National Police of Ukraine, Black market firearms trafficking as a Russian narrative and an element of information warfare [31.38], *UKRinform*, YouTube video, <https://www.youtube.com/live/V3G8k-zB6fE>.
- 35 Abbey Fenbert, Pentagon watchdog: US did not track all weapons sent to Ukraine, *Kyiv Independent*, 12 January 2024, <https://kyivindependent.com/pentagon-watchdog-us-did-not-track-all-weapons-sent-to-ukraine/>.
- 36 Julia Monn and Andreas Rüesch, How do Western weapons reach Ukraine? A visit to the secret site that coordinates deliveries, *Neue Zürcher Zeitung*, 3 January 2023, <https://www.nzz.ch/english/how-western-weapons-reach-ukraine-ld.1719248>; US Army Europe and Africa, US Department of Defense establishes Security Assistance Group-Ukraine in Wiesbaden, Press Release, 16 November 2022, <https://www.europeafrica.army.mil/ArticleViewPressRelease/Article/3219717/press-release-us-department-of-defense-establishes-security-assistance-group-uk/>; and Claire Mills, Military assistance to Ukraine since the Russian invasion, House of Commons Library, 27 March 2024, <https://researchbriefings.files.parliament.uk/documents/CBP-9477/CBP-9477.pdf>.

- 37 The only exception to this was in the early months of the war, when oversight mechanisms were more limited. Then, as was widely reported, a Russian-led organized crime group stole a grenade launcher and machine gun, among other weapons, by using forged documents to enlist in volunteer battalions, although it is notable that this group intended to use the weapons for 'destabilizing activities', not criminal ones (including sale). See Konstantin Toropin and Jared Keller, Russian fronts, criminal gangs: US couldn't account for weapons sent to Ukraine last year, *Military.com*, 20 July 2023, <https://www.military.com/daily-news/2023/07/20/weapons-sent-ukraine-were-danger-of-falling-criminal-hands-watchdog-warned.html>.
- 38 See C4ADS, *The Odessa Network*, <https://c4ads.org/reports/the-odessa-network/>.
- 39 US Department of State, *US Plan to Counter Illicit Diversion of Certain Advanced Conventional Weapons in Eastern Europe*, 27 October 2022, <https://www.state.gov/u-s-plan-to-counter-illicit-diversion-of-certain-advanced-conventional-weapons-in-eastern-europe/>; OSCE, *Ukraine creates national co-ordination platform on combating illicit trafficking of weapons, ammunition and explosives with OSCE support*, Press release, 16 February 2022, <https://www.osce.org/project-coordinator-in-ukraine/512293>.
- 40 Interview with law enforcement, Uzhhorod, October 2023.
- 41 Observatory of Illicit Economies in South Eastern Europe, *Illicit weapons in the Western Balkans: a threat to Europe*, Risk Bulletin, Issue 2, GI-TOC, November 2020, <https://riskbulletins.globalinitiative.net/see-obs-002/02-illicit-weapons-in-the-western-balkans-a-threat-to-europe.html>.
- 42 Anton Martyniuk, *Measuring illicit arms flows: Ukraine, Small Arms Survey*, April 2017, p 4, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-BP3-Ukraine.pdf>.
- 43 Interview with senior police source, Odesa, May 2023.
- 44 In June 2023, a police operation exposed a drug trafficking ring that also sold weapons, seizing an AK-47 and foreign-made RPG launcher. Kyiv Police Telegram post, 28 June 2023, <https://t.me/policekyivregion/5290>; another such polycriminal group in Kyiv selling drugs and guns (with an estimated monthly income of almost UAH2 million, or about €50 000) was exposed in February 2023, Kyiv Police Telegram post, 23 February 2023, <https://t.me/policekyivregion/3557>.
- 45 Interview with source based in Dnipro, by phone, January 2024.
- 46 Interview with underworld source, Odesa, May 2023.
- 47 According to the journalist, these stashes were small – only 10–15 weapons each – known only to two or three people, increasing the probability that if these people were redeployed or killed, knowledge of the stash would be lost. Interviews with journalist, Odesa, May 2023 and law enforcement, Kyiv, June 2023.
- 48 See, for example, SBU Telegram post, 20 September 2023, <https://t.me/SBUkr/9707>.
- 49 Cristian Segura, *Russia becomes the main (involuntary) supplier of weapons to Ukraine*, *El País*, 7 October 2022, <https://english.elpais.com/international/2022-10-07/russia-becomes-the-main-involuntary-supplier-of-weapons-to-ukraine.html>.
- 50 In July 2023, for example, a gunsmith in Kherson was caught trying to sell Russian 9M133 Kornet anti-tank missile systems, RPG-22 grenade launchers, anti-tank mines and ammunition to underworld figures, see SBU Telegram post, 21 July 2023, <https://t.me/SBUkr/9003>; in September 2023, the SBU arrested a Moscow patriarchate priest in Kherson as he was attempting to sell Russian trophy weapons including two 9K38 Iglá portable anti-aircraft missile systems, priced at UAH115 000, or about €2 900. The priest also attempted to buy ammunition for RPG-7 grenade launchers. The priest's stock also contained machine guns and Kalashnikovs, F1 grenades and almost 7 000 rounds for automatic weapons, see SBU Telegram post, 26 September 2023, <https://t.me/SBUkr/9771>.
- 51 Military supplies for the system were stored by a second criminal in a rented garage elsewhere in Kyiv region. The cost of missiles was estimated at UAH30 million, or about €750 000. See 'TOR' air defence system. How the Ukrainians hid the air defence system left by the Russians near Kyiv and kept it in the garden, *BBC News*, 29 September 2023, <https://www.bbc.com/ukrainian/articles/c4n474gyge2o>.
- 52 Arms dealing gang detained in Dnipro – nearly \$6 million seized, *Kyiv Post*, 6 December 2023, <https://www.kyivpost.com/post/25126>.
- 53 Interview with sources close to law enforcement, Ukraine, December 2023.
- 54 GI-TOC, *New front lines: Organized criminal economies in Ukraine in 2022*, February 2023, <https://globalinitiative.net/analysis/organized-criminal-economies-ukraine-2022/>.
- 55 Interview with underworld source, by phone, May 2023.
- 56 SBU Telegram post, 18 August 2022, <https://t.me/SBUkr/4849>.
- 57 There were 209 such cases for the period January to November 2023 – almost pre-invasion levels. See statistics at Ukraine General Prosecutor's Office, *About registered criminal offenses and the results of their pre-trial investigation*, <https://gp.gov.ua/ua/posts/pro-zareystrovani-kriminalni-pravoporushennya-ta-rezultati-yih-dosudovogo-rozsliduvannya-2>; Article 410 of Ukraine's Criminal Code covers 'Stealing, misappropriation, extortion by a serviceman of weapons, military supplies, explosive or other combat substances, means of transportation, military and special equipment or other military property, as well as taking possession of them by fraud or abuse of official position'.

- 58 Other sources also corroborate the low return rates: the police chief of Kyiv said that by the end of August 2022, only 1 000 weapons had been returned by Kyiv citizens. According to the then Defence Minister, 21 000 rifles were issued in two days. See Ukrainians are in no hurry to return the weapons that were distributed at the beginning of the invasion – are they waiting for legalization?; Informator, 16 March 2023, https://informator-ua.translate.google.com/uk/zbroyu-yaka-rozdali-na-pochatku-vtorgnennya-ukrajinci-pover-tati-ne-pospishayut-cheKayut-na-legalizaciyu?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp; and Khrystyna Golovchak Reznikov told how many weapons were issued in Kyiv at the beginning of the full-scale invasion, TSN News, 9 March 2023, https://tsn-ua.translate.google.com/ato/reznikov-rozpoviv-yaku-kilkist-zbroyi-vidali-u-kiyevi-na-pochatku-povnomasshtabnogo-vtorgnennya-2402710.html?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 59 Dzyubynskyi claimed that 'if such a weapon emerges in any country in Europe or the world, we will immediately understand that it is a drop-in and a fake, that it is the work of Russian special services for disinformation and narratives about Ukraine'.
- 60 UKRinform, The number of crimes related to the use of firearms increased by a third – Klymenko, 6 February 2022, https://www.ukrinform.ua.translate.google.com/rubric-society/3498058-kilkist-zlociniv-povazanih-iz-zastosuvannam-vognepalnoi-zbroi-zrosla-na-tretinu-klymenko.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 61 See UA weapons, Lost and stolen weapons in Ukraine, <https://ua-weapons.streamlit.app>.
- 62 Ibid.
- 63 The Glock 17 has been used by organized crime actors in Ukraine in the past. For example, a Glock 17 was used by a Russian hitman in the contract killing of an Odesa businessman in Kyiv in 2017. Glocks and a Makarov (a Soviet handgun) were also found in 2016 in the possession of a group of robbers who targeted high-end properties; former and current law enforcement officers were part of the group, explaining their access to such weapons. General Prosecutor's Office (GPO), Громадянину РФ повідомлено про підозру у вчиненні замовного вбивства у Києві, 6 September 2022, and GPO, Громадянину РФ повідомлено про підозру у вчиненні замовного вбивства у Києві; росіянину оголосили підозру у вчиненні замовного вбивства у 2017 році у Києві, Ukrinform, 6 September 2022; UKRinform, a Russian was declared suspected of committing contract murder in 2017 in Kyiv, 9 June 2022, <https://www.ukrinform.ua/rubric-kyiv/3565488-rosianinu-ogoloslili-pidozru-u-vcinenni-zamovnogo-vbivstva-u-2017-roci-u-kiyevi.html>; У поліції показали фото і відео затримання бандитів, на яких полювали поліцейські у Княжичах, TSN, 4 December 2016, <https://tsn.ua/ukrayina/u-policiyi-pokazali-foto-i-video-zatrimannya-banditiv-na-yakih-polyuvali-policeyski-u-knyazhichah-818915.html>; До банди грабіжників у Княжичах входили колишні та діючі правоохоронці – Троян, TSN, 4 December 2016, <https://tsn.ua/ukrayina/do-bandi-grabizhnikov-u-knyazhichah-vhodili-kolishni-ta-diyuchi-pravoohoronci-troyan-818898.html>.
- 64 Zbroya.info, Prize weapons were seized from the bodyguards of criminal authorities, 3 March 2019, https://zbroya-info.translate.google.com/blog/17230_u-okhorontsiv-kriminalnikh-avtoritetiv-viluchena-nagorodna-zbroia/?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp; Ukrainian Association of Gun Owners, Inconvenient questions for the SBU, the Ministry of Internal Affairs and the office of the President of Ukraine, 30 July 2020, https://uavz-org.translate.google.com/nezruchni-pytannya-do-sbu-mvs-ta-ofsu-prezydenta-ukrainy/?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 65 A year ago, Avakov gave Yatsenyuk a Maxim machine gun, *Ukrainian Pravda*, 18 May 2016, https://www-pravda-com.ua.translate.google.com/rus/news/2016/05/18/7108855/?_x_tr_sl=ru&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 66 Volodymyr Bogatyr, Firearms as a reward: how many are issued by the Ministry of Internal Affairs and for what, *Yuridychna Gazeta*, 8 September 2023, https://yur--gazeta-com.translate.google.com/dumka-eksperta/vognepalna-zbroya-u-nagorodu-skilki-yiyi-vidae-mvs-i-za-shcho.html?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 67 Vitaly Kolomiets, The Ministry of Internal Affairs of Ukraine reported that Ukraine does not keep records of the owners of award-winning short-barreled rifled firearms. Avakov's answer, Zbroya.info, 1 December 2015, https://zbroya-info.translate.google.com/partner/oklegal/blog/7885_onovleno-mvs-ukrayini-povidomilo-shcho-v-ukrayini-ne-vedetsia-oblik-vlasnikiv-nagorodnoyi-korotkostvolnoyi-nariznoyi-vognepalnoyi-zbroyi-vidpovid-avak/?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 68 Volodymyr Bogatyr, Firearms as a reward: how many are issued by the Ministry of Internal Affairs and for what, *Yuridychna Gazeta*, 8 September 2023, https://yur--gazeta-com.translate.google.com/dumka-eksperta/vognepalna-zbroya-u-nagorodu-skilki-yiyi-vidae-mvs-i-za-shcho.html?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 69 For context, the police source said that 88 000 weapons were awarded between 2021 and 2022. Interview with law enforcement gun expert, September 2022.
- 70 Natalia Balyukh, ДБР розслідує вибух в експертно-криміналістичному центрі МВС під Києвом, *Suspilne*, 21 August 2023, <https://suspilne.media/555537-dbr-rozslidue-vibuh-v-ekspertno-kriminalisticnomu-centri-mvs-pid-kiyevom-3/>.
- 71 Ukraine Expert Service of the Ministry of Internal Affairs, Державний Науково-Дослідний Експертно-Криміналістичний Центр МВС України, Дослідження, ослідування, <https://dndec.mvs.gov.ua>.

- 72 Sources close to Ukrainian law enforcement, by phone, January 2024.
- 73 Vadym Dziubynskyi, Head of the Criminal Investigation Department of the National Police of Ukraine, 'Black market firearms trafficking' as a Russian narrative and an element of information warfare [31.38], YouTube, <https://www.youtube.com/watch?v=V3G8k-zB6fE>.
- 74 See, for example, GI-TOC, Drugs on the front line: The war in Ukraine is fuelling drug use among soldiers, particularly of synthetic substances, 22 January 2024, <https://globalinitiative.net/analysis/ukraine-synthetic-drugs-ocindex/>.
- 75 Interview with activist, Odesa, May 2023.
- 76 UKRinform, In Kremenchuk, grenades were sent by mail – the police, 29 September 2023, <https://www.ukrinform.ua/rubric-regions/3767707-u-kremencuci-postou-pereslali-granati-policia.html>.
- 77 SBU Telegram post, 30 October 2023, <https://t.me/SBUkr/10150>; see also Valentina Romanenko, A father and son sold weapons through the Internet throughout Ukraine – the police, *Ukrainian Pravda*, 10 May 2023, https://www-pravda-com-ua.translate.google.com/news/2023/05/10/7401544/?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=fr&_x_tr_pto=wapp.
- 78 In November 2023 for instance, the SBU seized Russian weapons from the front line (including Russian-made Kalashnikov assault rifle, anti-tank weapons and explosives) in Rivne and Ivano-Frankivsk regions. SBU Telegram post, 29 November 2023, <https://t.me/SBUkr/10517>.
- 79 Vadym Dziubynskyi, Head of the Criminal Investigation Department of the National Police of Ukraine, 'Black market firearms trafficking' as a Russian narrative and an element of information warfare [32.57], YouTube, <https://www.youtube.com/watch?v=V3G8k-zB6fE>.
- 80 Interview with high-level authority at regional level, October 2023.
- 81 Interview with law enforcement source, Uzhhorod, October 2023.
- 82 Natalya Dulyaba, At the border with Poland, the bus driver was detained with weapons contraband, Lviv Portal, 22 May 2023, https://portal-lviv-ua.translate.google.com/news/2023/05/22/na-kordoni-z-polshcheiu-vo-dii-avtobusa-zatrymaly-z-kontrabandoiu-zbroi?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 83 Interview with local journalist and activists, Chernivtsi, October 2023.
- 84 Interview with activists, Chernivtsi, October 2023.
- 85 Gas and alarm guns are very cheap to acquire in Ukraine, and can be bought easily on Telegram, although the scale of this attempt, and uniformity of product, indicates a more organized operation.
- 86 The investigation revealed an organization headed by a businessman in Kharkiv, who advertised on the internet. SBU, The SBU detained three dealers who wanted to export equipment for MiG-29 fighters from Ukraine, Press release, 8 November 2023, <https://ssu.gov.ua/novyny/sbu-zatrymala-trokh-dilkiv-yaki-khotily-vyvezty-z-ukrainy-obladnannia-dlia-vynyshchuvachiv-mih29>.
- 87 Georgia State Security Service, The Counterterrorism Centre seized several units of special explosive devices and explosive substance in large quantities, Press release, 5 February 2024, <https://sbg.gov.ge/en/news/909/saxelmtsifo-usaftrxoebis-samsaxurma-ramdenime-erteuli-specialuri-asafetqebeli-motsyobiloba-da-didi-raodeno-bit-asafetqebeli-nivtiereba-amoigho-EN>.
- 88 Alessandra Prentice and Anton Zverev, Ukraine, after war, becomes a trove for black market arms trade, Reuters, 25 July 2016, <https://www.reuters.com/article/idUSKCN1050Z4/>; Anton Martyniuk, Measuring illicit arms flows: Ukraine, Small Arms Survey, April 2017, p 4, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-BP3-Ukraine.pdf>.
- 89 The weapon should be registered with the police and kept in a safe that is fixed to the floor, and the police should check from time to time to see if it is there. See Iryna Sayevich, Will short-barreled firearms become available in Ukraine?, *Suspilne*, 30 June 2022, https://suspilne-media.translate.google.com/255581-ci-stanev-ukraini-dostupnou-korotkostvolna-vognepalna-zbroa-2/?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc&_x_tr_hist=true.
- 90 Anton Martyniuk, Measuring illicit arms flows: Ukraine, Small Arms Survey, April 2017, p 4, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-BP3-Ukraine.pdf>; and Ukraine Parliament, Пояснювальна Записка до проекту Закону України 'Про право на цивільну вогнепальну зброю', 23 June 2021, <https://itd.rada.gov.ua/billInfo/Bills/pubFile/795732>.
- 91 Interviews with underworld source and journalist, Odesa, May 2023.
- 92 National Police of Ukraine, International drug trafficking: Kyiv police stopped the activities of a drug gang with an annual profit of 100 million hryvnias, Press release, 12 January 2024, https://www-npu-gov-ua.translate.google.com/news/mizhnarodnyi-narkotrafik-politseyski-kyieva-prypnyly-dialnist-narkouhropovannia-z-richnym-prybutkom-u-100-milioniv-hryven?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 93 Anastasia Goncharenko, In Volyn, border guards landed a drone with 22 kg of drugs, TSN News, 11 February 2024, <https://tsn.ua/ru/ukrayina/na-volyni-pogranichniki-prizemlili-dron-s-22-kg-narkotikov-2511631.html>; and Tanya Polyakovska, Another war of drones: in Volyn smugglers found a workshop for the production of UAVs, *Unian*, 15 December 2023, https://www-unian-ua.translate.google.com/incidents/novini-volini-kontrabandisti-organizovali-virobncitvo-droniv-12484542.html?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 94 Anna Pshemyska, Ukraine: Huge increase in drone production, DW News, 18 November 2023, <https://www.dw.com/en/ukraine-huge-increase-in-drone-production/a-67476091>.

- 95 Reuters, Ukraine to produce a million FPV drones next year – minister, 20 December 2023, <https://www.reuters.com/world/europe/ukraine-produce-million-fpv-drones-next-year-minister-2023-12-20/>.
- 96 SBU Telegram post, 21 September 2022, <https://t.me/SBUkr/5141>.
- 97 Interview with an investor, Chernivtsi, October 2023.
- 98 Joshua Yaffa, Ukraine, a 'supermarket' for guns, *New Yorker*, 17 January 2017, <https://www.newyorker.com/culture/photo-booth/ukraine-a-supermarket-for-guns>.
- 99 Beyza Binnur Dönmez, Ukraine's president signs law on civilian use of weapons during wartime, Anadolu Agency, 10 March 2022, <https://www.aa.com.tr/en/russia-ukraine-war/ukraines-president-signs-law-on-civilian-use-of-weapons-during-wartime/2529765>.
- 100 Chernivtsi Law School, Regarding certain issues of the right to firearms and their legalization in Ukraine, Blog, 11 March 2023, https://law-chnu-edu-ua.translate.google.pravo-na-vohnepalnu-zbroiu-ta-yii-lehalizatsia-v-ukraini/?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 101 Ukraine Ministry of Internal Affairs, Plans, actions, results: Today – about the launch of the Unified Weapons Register, 1 May 2023, https://mvs.gov.ua.translate.google/news/2023-plani-diyi-rezultati-syogodni-pro-zapusk-jedinogo-rejestru-zbroiy-igor-klimenko?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 102 Grenade among birthday gifts' kills adviser to Ukraine's military chief, *The Guardian*, 7 November 2023, <https://www.theguardian.com/world/2023/nov/07/grenade-among-birthday-gifts-kills-adviser-to-ukraines-military-chief>.
- 103 Tamila Baranivska, In the Kyiv region, a man threatened his son with a grenade, *Suspilne*, 26 February 2024, <https://suspilne.media/693228-na-kiivsini-colovik-pogrozuvav-sinu-bojovou-granatou/>; a similar incident occurred in January 2024, when a grenade was thrown into the yard of a deputy's house in Transcarpathia. Anna Popp and Oleksandr Kurta, In Transcarpathia, a deputy detonated grenades in the building of the Keretsk village council. The injured were hospitalized, *Suspilne*, 15 December 2023, <https://suspilne.media/640136-na-zakarpatti-v-budivli-kereckivkoi-silskoi-radi-deputat-pidirvav-granati/>.
- 104 UKRinform, In Kryvyi Rih, an unknown person fired a grenade launcher into a high-rise building, 25 January 2024, https://www.ukrinform.ua.translate.google/rubric-regions/3818147-u-krivomu-rozi-nevidomij-vistrliv-u-bagatopoverhivku-z-rpg.html?_x_tr_sl=uk&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 105 GI-TOC, Port in a storm: Organized crime dynamics in Odesa since the Russian invasion, September 2023, <https://globalinitiative.net/analysis/odesa-bessarabia-organized-crime>.
- 106 Grenade Explodes in Kyiv apartment, soldier and woman dead, *Kyiv Post*, 20 November 2023, <https://www.kyivpost.com/post/24358>; see also Alyona Mazurenko, A grenade exploded in a car in Chernihiv, killing two, *Ukrainian Pravda*, 14 February 2024, <https://www.pravda.com.ua/news/2024/02/14/7441858/>.
- 107 See, for instance, Darnytsky News, A drunken soldier of the armed forces blew himself up with a grenade near Kyiv, 20 July 2023, <https://darnitskiy.org.ua/pid-kiye-vom-pyanij-boyets-zsu-pidirvav-sebe-granatoyu/>.
- 108 GI-TOC, Drugs on the front line: The war in Ukraine is fuelling drug use among soldiers, particularly of synthetic substances, 22 January 2024, <https://globalinitiative.net/analysis/ukraine-synthetic-drugs-ocindex/>; see also Death can wait: Drugs on the frontline in Ukraine, 22 May 2023, <https://globalinitiative.net/analysis/deep-dive-podcast/>; Ruggero Scatturo, The devil's not-so-new psychoactive substance, 23 May 2023, <https://globalinitiative.net/analysis/alfa-pvp-drug-trafficking-ukraine-russia-conflict>.
- 109 Alexander Butler, How many troops do Russia, US and UK have as Ukraine military calls for 500,000 more, *Independent*, 21 December 2023, <https://www.independent.co.uk/news/world/europe/ukraine-russia-war-us-uk-troops-b2467652.html>.
- 110 Mark Galeotti, Time of troubles: the Russian Underworld since the Ukraine invasion, GI-TOC, December 2023, <https://globalinitiative.net/analysis/the-russian-underworld-since-the-ukraine-invasion/>.
- 111 Russian military announces plan to expand, create new units, Associated Press, 21 December 2022, <https://apnews.com/article/putin-finland-sergei-shoigu-ee-953abf7f9bf217ccd61ec1b35ddd>.
- 112 Sources close to law enforcement, January 2024.
- 113 EUAM Ukraine, National firearms focal points: Ukraine's quest for EU best practices, 17 November 2023, <https://www.euam-ukraine.eu/news/national-firearms-focal-points-ukraine-s-quest-for-eu-best-practices/>.
- 114 EUAM Ukraine, How to combat illicit firearms trafficking effectively, 9 November 2023, <https://www.euam-ukraine.eu/news/how-to-combat-firearms-trafficking-effectively/>.
- 115 On cross-border arms smuggling between Ukraine and Poland, Hungary, Romania and Moldova, see Matt Schroeder and Olena Shumska, Making the rounds: Illicit ammunition in Ukraine, Small Arms Survey, January 2021, pp 39–43, <https://smallarmssurvey.org/sites/default/files/resources/SAS-Report-Illicit-Ammunition-Ukraine.pdf>; on Slovakia, Interview with Slovak law enforcement, Bratislava, Slovakia, April 2023; Europol, Weapons from Slovakia to Ukraine, 12 detained in Poland in gun smuggling crackdown, Press release, 17 June 2021, <https://www.europol.europa.eu/media-press/newsroom/news/12-detained-in-poland-in-gun-smuggling-crackdown>; on Romania, see, for example, Interfax, Romanian border guards intercept record batch of revolvers with ammunition on their way to Ukraine, 27 May 2021, <https://en.interfax.com.ua/news/general/746775.html>; on Transnistria's role as an arms hub, there are conflicting accounts: much

- has been written about the flows of weapons between Transnistria and Ukraine in the past, but some Western diplomats argued that this phenomenon has been exaggerated. See Anton Martyniuk, Measuring illicit arms flows: Ukraine, Small Arms Survey, Briefing paper, April 2017, p 4, <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-BP3-Ukraine.pdf>; Ahto Lobakas, Moldova: Western diplomats say reports of smuggling from Transdniestler likely exaggerated, Radio Free Europe, 11 October 2005, <https://www.rferl.org/a/1062030.html>.
- 116 Matt Schroeder and Olena Shumska, Making the rounds: Illicit ammunition in Ukraine, Small Arms Survey, January 2021, p 52, <https://smallarmssurvey.org/sites/default/files/resources/SAS-Report-Illicit-Ammunition-Ukraine.pdf>.
- 117 Ibid., p 53.
- 118 'The large quantities of arms and ammunition exported to Ukraine since the invasion has revived concerns about widespread cross-border arms trafficking to Europe but, thus far, there are no signs of such trafficking. This is unlikely to change soon given the high consumption rate of munitions in Ukraine and the importance of these munitions to both sides.' Anne-Séverine Fabre, Nicolas Florquin and Matt Schroeder, Illicit firearms ammunition and other explosive munitions in the European Union, Flemish Peace Institute, p 18 https://gunviolence.eu/wp-content/uploads/2023/12/Project_INSIGHT_ammunition_DEF_REV.pdf.
- 119 Sofia Globe, Europol: Nearly 250 arrests in Operation Bosphorus against smuggling of Turkish pistols via Bulgaria, 23 January 2017, <https://sofiaglobe.com/2017/01/23/europol-nearly-250-arrests-in-operation-bosphorus-against-smuggling-of-turkish-pistols-via-bulgaria/>.
- 120 Interview with local journalist, Uzhhorod, Ukraine, October 2023. Slovakia's leg of the European Trans European Network will not be completed by its due date in 2023. See Michal Hudec, Slovakia won't finish its part of the European highway corridor on time, Euractiv, 14 December 2021.
- 121 Interview with former SBU officer, Uzhhorod, October 2023.
- 122 Interview with former member of the municipality council in Vicovo, Romania, October 2023.
- 123 Interview with former smuggler, Suceava, Romania, October 2023.
- 124 Interview with local journalist, Uzhhorod, Ukraine, October 2023; on minibus drivers smuggling cigarettes, interview with law enforcement, Uzhhorod, October 2023 and journalist, Lutsk, Ukraine, October 2023.
- 125 Interview with former smuggler, Suceava, Romania, October 2023.
- 126 Interview with former member of the municipality council in Vicovo, Romania, October 2023.
- 127 Interview with activist, Chernivtsi, October 2023.
- 128 Interview with Slovak law enforcement, Bratislava, Slovakia, April 2023.
- 129 In April 2022, two non-lethal pistols were discovered at Vama Veche; in October 2022 46 rounds of 9mm were discovered at the same crossing; in April 2023 a Makarov gas pistol with 269 projectiles was discovered at Isaccea. See Romanian Border Police, Two non-lethal pistols and 110 related cartridges discovered by the border police in PTF Vama Veche, 12 April 2022, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-doua-pistoale-neletale-si-110-cartuse-afereite-descoperite-de-politistii-de-frontiera-in-ptf-vama-veche-28741.html>; Romanian Border Police, 6 cartridges caliber 9mm, discovered on a Bulgarian citizen in PTF Vama Veche, 7 October 2022, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-46-de-cartuse-calibrul-9mm-descoperite-asupra-unui-cetatean-bulgar-in-ptf-vama-veche-31072.html>; Romanian Border Police, Makarov gas pistol and 269 projectiles, discovered on a Ukrainian citizen in PTF Isaccea, 3 April 2023, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-pistol-cu-gaze-makarov-si-269-proiectile-descoperite-asupra-unui-cetatean-ucrainean-in-ptf-isaccea-32954.html>.
- 130 Hotărâre nr. 66/2023, cod RJ 23e9234d2, 10 July 2023, https://docs.google.com/document/d/1c4bePo6aRyFJT-tw1XRqegtB_5Zm3v8uj/edit?usp=drive_link&oid=115356972692581304979&rtpof=true&sd=true.
- 131 Romanian Border Police, *1.200 de pistoale suspecte de a fi arme letale, depistate în PTF Negru Vodă*, 31 March, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-1200-de-pistoale-suspecte-de-a-fi-arme-letale-depistate-in-ptf-negru-voda-32917.html>; GI-TOC investigation into prosecutorial dismissal, which concluded that the weapons were non-lethal and could not be converted, due to a non-removable breech and non-detachable barrel.
- 132 Romanian Border Police, 1 520 non-lethal weapons subject to authorization discovered by border police in a truck in PTF Isaccea, 2 October 2023, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-1520-de-arme-neletale-supuse-autorizarii-descoperite-de-politistii-de-frontiera-intrun-camion-in-ptf-isaccea-34919.html>.
- 133 See, for example, EUBAM, Joint operation targeting firearms and explosives at the Ukrainian/Moldovan border, 22 June 2017, <https://www.europol.europa.eu/media-press/newsroom/news/joint-operation-targeting-firearms-and-explosives-ukrainian/moldovan-border>.
- 134 GI-TOC, Global Organized Crime Index – Moldova, 2023, <https://ocindex.net/country/moldova>. There has been some debate as to the actual extent of arms trafficking in Transnistria, but there have been reported cases. See: Smugglers who were transporting weapons were detained in the Kuchurgan estuary. Currently, the involvement of officials of the Transnistrian Moldavian Republic in the organization of the smuggling channel is being investigated. They had five RGD grenades with fuses, an RKG-3 manual cumulative grenade and an F-1 grenade with fuses, as well as 10 rounds of ammunition for an AGS-17 and almost 1 200 5.45 calibre cartridges. SBU Telegram post, 10 June 2021, <https://t.me/SBUkr/2596>.

- 135 See, for instance, the EU-assisted operation in 2021, which was part of the broader Western-supported effort to remove weapons from circulation in Moldova since 2005. UNDP, More than 2 000 arms were removed from civil circulation, with EU and UNDP support, press release, 25 November 2021, <https://www.undp.org/moldova/press-releases/more-2000-arms-were-removed-civil-circulation-eu-and-undp-support>.
- 136 See Frontex, Frontex and Moldovan authorities practice detecting firearms, 22 November 2022, <https://www.frontex.europa.eu/media-centre/news/news-release/frontex-and-moldovan-authorities-practice-detecting-firearms-AxwuRN>; INTERPOL, Operational assistance in Moldova initiative, <https://www.interpol.int/en/Crimes/Organized-crime/Operational-Assistance-in-Moldova-Initiative>; European Commission, Informal Home Affairs Council: EU launches the Support Hub for Internal Security and Border Management in Moldova, 11 July 2022, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_44.
- 137 Moldpres, Last year, the police seized about 2 500 weapons, 25 January 2024, https://www-moldpres-md.translate.goog/news/2024/01/25/24000508?_x_tr_sl=ro&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp
- 138 Interview with investigative journalist, Chisinau, January 2024.
- 139 Information received from high-level border official, Odesa region, Ukraine, January 2024.
- 140 Interview with smuggler in Siret, Romania, October 2023.
- 141 The one exception to this was the March 2023 seizure of 1 200 Stalker pistols, which garnered a ministry announcement, but the case was quickly closed for reasons unknown.
- 142 Anca Grădinaru, Romanian Customs only one working scanner. Bought from China. European money for new scanners is waiting to be used, Radio Free Europe, 24 August 2023, <https://romania.europalibera.org/a/romania-s-a-angajat-sa-cumpere-scannere-pentru-vami-de-doi-ani-dar-nu-a-inceput-achizitionarea-lor-in-trei-ani-expira-finantarea-de-la-ue/32561590.html>.
- 143 In order for the machines to be put into operation, special locations need to be built at the two customs offices, and permits regarding compliance with radiological protection standards for operating the equipment must be obtained. See Romanian Customs Authority, Border customs offices to be equipped with 26 new X-ray scanning systems to inspect goods entering the country, Press release, 5 December 2023, <https://www.customs.ro/noutati/birourile-vamale-de-frontiera-vor-fi-dotate-cu-26-sisteme-noi-de-scanare-cu-raze-x-pentru-inspectarea-marfurilor-care-intra-in-tara>; Anca Grădinaru, Romanian Customs only one working scanner. Bought from China. European money for new scanners is waiting to be used, Radio Free Europe, 24 August 2023, <https://romania.europalibera.org/a/romania-s-a-angajat-sa-cumpere-scannere-pentru-vami-de-doi-ani-dar-nu-a-inceput-achizitionarea-lor-in-trei-ani-expira-finantarea-de-la-ue/32561590.html>; and Anca Grădinaru, The first customs scanners bought by Romania in the last 13 years have arrived in the country. 24 more to come, Radio Free Europe, 10 February 2024, <https://romania.europalibera.org/a/primele-scannere-vamale-cumparate-de-romania-in-ultimii-13-ani-au-ajuns-in-tara/32812587.html>.
- 144 Interview with Romanian investigative journalist, January 2024; Romania Insider, Former mayor of Constanta gets 118-month jail sentence, 6 May 2019, <https://www.romania-insider.com/radu-mazare-118-month-sentence>.
- 145 Interview with Romanian investigative journalist, January 2024.
- 146 Interviews with Western officials and local journalists, Romania, late 2023.
- 147 Interview with an activist, Bucharest, July 2023.
- 148 OHCHR, Report on human rights and the regulation of civilian acquisition, possession and use of firearms – answer by Romania, A/HRC/32/21, 15 April 2016, <https://documents.un.org/doc/undoc/gen/g16/078/72/pdf/g1607872.pdf?token=qvW6CbJJBgEAspgB-7j&fe=true>; and Roxana Albisteanu, Alexandru Dena and Matthew Lewis, Romania: firearms and security at the EU eastern border, Flemish Peace Institute, p 327, https://vlaamsvredesinstituut.eu/safte/files/project_safte_romania.pdf.
- 149 Interview with journalists, Budapest, August 2023.
- 150 Interview with Slovak law enforcement, Bratislava, Slovakia, April 2023; on decrease in use of firearms by organized crime between 2004 and 2013 and on decline of mafia-style groups in Slovakia, see GI-TOC, Organized Crime Index – Slovakia, <https://ocindex.net/country/slovakia>.
- 151 Miroslava German Sirotnikova, Jan Kuciak: A murder that changed Slovakia, Balkan Insight, 5 August 2020, <https://balkaninsight.com/2020/08/05/jan-kuciak-a-murder-that-changed-slovakia>; GI-TOC, Faces of Assassination: Ján Kuciak, <https://assassination.globalinitiative.net/face/jan-kuciak/>.
- 152 Polish Penal Code, Chapter XXXII, Article 258, 259, 259a, 259b, 6 June 1997, https://sherloc.unodc.org/cld/en//legislation/pol/penal_code/chapter_xxxii/article_258_259_259a_259b/article_258-259.html?lng=en&tmpl=sherloc.
- 153 Hungarian Criminal Code, Act C of 2012, https://sherloc.unodc.org/cld/uploads/res/document/hun/2012/hungary_criminal_code_.html/Criminal_Code_not_incorporating_amendments.pdf; Slovakian Penal Code, 300/2005 Coll. Act, 20 May 2005; https://sherloc.unodc.org/cld/uploads/res/document/svk/2005/penal_code_html/Penal_Code_of_Slovakia_English.pdf; and Republic of Moldova Penal Code; https://sherloc.unodc.org/cld/uploads/res/document/mda/2002/criminal_code_of_the_republic_of_moldova_html/Republic_of_Moldova_Criminal_Code.pdf.

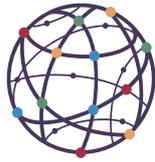
- 154 Romanian Penal Code, Law no. 286/2009, 17 July 2009, https://sherloc.unodc.org/cld/uploads/res/document/rou/2017/romania_penal_code_2017_html/Romanian_Penal_Code_Eng.pdf.
- 155 In operation led by Romania and Bulgaria, 22 firearms traffickers arrested, *Sofia Globe*, 3 April 2023, <https://sofiaglobe.com/2023/04/03/in-operation-led-by-romania-and-bulgaria-22-firearms-traffickers-arrested/>.
- 156 In March 2023, 1 200 Stalker pistols (Glock replicas) were seized in Romania. The GI-TOC investigated this case and were told by official sources that these pistols had come from Turkey via Bulgaria. The continuation of this route was also confirmed by a senior Dutch law enforcement officer in an interview in February 2024; see Romanian Border Police, 1 200 pistols suspected of being lethal weapons, detected in PTF Negru Vodă, press release, 31 March 2023, <https://www.politiadefrontiera.ro/ro/garda-de-coasta/i-1200-de-pistoale-suspecte-de-a-fi-arme-letale-depistate-in-ptf-negru-voda-32917.html>.
- 157 Flobert weapons – which have a low projectile velocity and are commonly used for indoor shooting, but which can be converted into lethal firearms – have previously been linked to arms trafficking from Eastern Europe to the Netherlands and the UK. See Eurojust, Illegal trade in converted firearms halted in Slovakia, Czech Republic and Netherlands, 8 October 2021, <https://www.eurojust.europa.eu/news/illegal-trade-converted-firearms-halted-slovakia-czech-republic-and-netherlands>.
- 158 New legislation in 2015 made the decommissioning process much more complex, in turn making reactivation more challenging.
- 159 According to a Slovak law enforcement source, there have been cases of these weapons being bought with fake or stolen documents, or through third parties such as homeless people. Interview with Slovak law enforcement, Bratislava, Slovakia, April 2023; interview with senior Dutch law enforcement source, February 2024.
- 160 Mariana Butnariu, Searches at a suspected arms trafficking group in Romania, *Gazeta de Sud*, 12 September 2023, <https://www.gds.ro/eveniment/2023-09-12/video-perchezitii-la-o-grupare-suspecta-de-traffic-de-arme-in-romania/>.
- 161 Interview with local journalist, Romania, January 2024.
- 162 Ibid.
- 163 US Department of Justice, Foreign national convicted of racketeering and drug trafficking conspiracy, press release, 17 November 2023, <https://www.justice.gov/opa/pr/foreign-national-convicted-racketeering-and-drug-trafficking-conspiracy>.
- 164 IHME, GBD compare, <https://vizhub.healthdata.org/gbd-compare/#>.
- 165 For comparison, the firearms homicide rate among men aged between 15 and 49 in Serbia is 2.04, North Macedonia 2.55, Montenegro 2.29 and Albania 3.93. IHME, GBD compare, <https://vizhub.healthdata.org/gbd-compare/#>.
- 166 Sergiy Berezhnyi, Group intercepted in Bulgaria on charges of trafficking arms for Russian military forces, *Liga News*, 11 October 2023, <https://news.liga.net/en/world/news/v-bolgarii-zaderjali-gruppu-po-podozreniyu-v-kontrabande-dlya-armii-rf-i-gruppirovke-vagnera>.
- 167 Euractiv, 'Guns and roses': Bulgaria arms trade booms on Ukraine war, 22 March 2023, <https://www.euractiv.com/section/elections/news/guns-and-roses-bulgaria-arms-trade-booms-on-ukraine-war/>; Curtis Coward and Jeffrey Bialos, The Bulgarian defense industry: Strategic options for transformation, reorientation & NATO Integration, Atlantic Council, 2001, pp 1–15.
- 168 Bartosz Sieniawski, Polish right calls for easier access to guns, *Euractiv*, 21 March 2022, https://www.euractiv.com/section/politics/short_news/polish-right-calls-for-easier-access-to-guns/.
- 169 Firearms ownership in Poland, 2022: growth in the year of war, *Milmag*, 14 March 2023 <https://milmag.pl/en/firearms-ownership-in-poland-2022-growth-in-the-year-of-war/>.
- 170 Bartosz Sieniawski, Polish right calls for easier access to guns, *Euractiv*, 21 March 2022, https://www.euractiv.com/section/politics/short_news/polish-right-calls-for-easier-access-to-guns/.
- 171 Interview with Western diplomat, Poland, December 2023.
- 172 Europol, Serious and Organized Crime Threat Assessment (SOCTA), 14 December 2021, <https://www.europol.europa.eu/publications-events/main-reports/socta-report>.
- 173 Misha Glenny *McMafia: A Journey Through the Global Criminal Underworld*, London: Random House, 2008; and Walter Kemp, Transnational tentacles: Global hotspots of Western Balkan Organized Crime, GI-TOC, July 2020, <https://globalinitiative.net/analysis/transnational-tentacles-wb6/>.
- 174 Interview with Fatjon Softa, security expert in Tirana, Albania, December 2023.
- 175 Turkish Ministry of Interior, Amendments have been made to the Regulation No. 5729 on Weapons Capable of Firing Sound and Gas Cartridges, press release, 17 December 2019, <https://www.egm.gov.tr/5729-sayili-ses-ve-gaz-fisegi-atabilen-silahlar-hakkinda-yonetmelikte-degisiklik-yapildi>.
- 176 Interview with police officer working on organized crime and main interest in illegal weapons, Skopje, North Macedonia, December 2023.

- 177 The WB6 countries are Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia.
- 178 Interview with Eugen Beci, former prosecutor. This view was corroborated by a Serbian criminologist, who asserted that there was no organized criminal group in Serbia that specialized in arms smuggling, although there is one case pending of a group involved in procuring weapons, ammunition and high-powered explosive devices from Tuzla in Bosnia and Herzegovina. The Serbian Prosecutor's Office for Organized Crime, announced that they were charging Milan Radoičić with procuring weapons, ammunition and high-powered explosive devices from Tuzla in Bosnia and Herzegovina, which were delivered to him in Belgrade and then transferred and stored in Kosovo. Interview with Dušan Stanković, criminologist and former police officer, December 2023, Belgrade, Serbia; see also Extradition to Kosovo of monastery attack suspect 'impossible', Serbian FM says, Radio Free Europe, 13 December 2023, <https://www.rferl.org/a/kosovo-serbia-radoicic-extradition-impossible/32729208.html>.
- 179 Several instances of criminals smuggling weapons into Western European countries were recorded, as well as several police actions that prevented this type of smuggling. According to data from interview with an active member of the BiH Investigation and Protection Agency (SIPA BiH) in Mostar, 1 January 2024; interview with former member of an organized criminal group in Trebinje, 3 January 2024; and interview with active member of the Sarajevo Canton Ministry of Interior, Sarajevo, 8 January 2024.
- 180 Interview with the GI-TOC Kosovo expert for arms trafficking, December 2023. This view was supported by an investigator into arms trafficking, who said that northern Kosovo saw high levels of trafficking, and cited a case in which a group was arrested in South Mitrovica for trafficking of around 30 to 40 AK-47s. The group was allegedly trying to reach an agreement with bus drivers to transport the weapons into Western Europe, and also offered AK-47s to Serbian criminal groups based in northern Kosovo. Interview with a police officer who investigates smuggling with arms, December 2023. On northern Kosovo as an arms hotspot, see also Alice Taylor, Kosovo's interior minister gets death threat after weapons bust in north, Euractiv, 7 September 2023, <https://www.euractiv.com/section/politics/news/kosovos-interior-minister-gets-death-threat-after-weapons-bust-in-north/>.
- 181 A Slovak law enforcement source reported that they had had cases 'when Slovakia was a transit country for illegal weapons originating from the countries of the former Yugoslavia, while these were primarily headed to the countries of Western Europe, respectively to Great Britain or the Scandinavian countries'. Interview with Slovak law enforcement, Bratislava, Slovakia, April 2023.
- 182 Interview with Croatian investigative journalist, 13 December 2023, online.
- 183 Interview with Bojan Elek, deputy director of the Belgrade Centre for Security Policy, December 2023, Belgrade, Serbia.
- 184 Balkan weapons trafficked into France still 'major problem', *The Local*, 16 November 2016, <https://www.thelocal.fr/20161116/balkan-weapons-trafficked-in-to-france-still-a-major-problem>.
- 185 Guillermo Vazquez del Mercado, Arms trafficking and organized crime, GI-TOC, August 2022, <https://globalinitiative.net/analysis/arms-trafficking-and-organized-crime>; Observatory of Illicit Economies in South Eastern Europe, Squeezing the sponge: post-conflict Ukraine poses a great risk of firearms trafficking, Risk Bulletin, Issue 16, GI-TOC, August 2023, <https://riskbulletins.globalinitiative.net/see-obs-016/02-post-conflict-ukraine-poses-a-great-risk-of-firearms-trafficking.html>; Observatory of Illicit Economies in South Eastern Europe, Illicit weapons in the Western Balkans: a threat to Europe, Risk Bulletin, Issue 2, GI-TOC, November 2020, <https://riskbulletins.globalinitiative.net/see-obs-002/02-illicit-weapons-in-the-western-balkans-a-threat-to-europe.html>.
- 186 Interview with an active member of the BiH Investigation and Protection Agency, Mostar, 1 January 2024.
- 187 See Anna Khakee and Nicolas Florquin, How many guns are there in Kosovo? In Kosovo and the gun: A baseline assessment of small arms and light weapons in Kosovo, Small Arms Survey, 2003, pp 11–26, <https://www.jstor.org/stable/resrep10739.11?seq=16>.
- 188 Interview with former member of an organized criminal group in Trebinje, Bosnia and Herzegovina, 3 January 2024.
- 189 On the rise of gas guns in Bosnia and Herzegovina, see, for instance, the law enforcement operation in January 2021 that found a person in the municipality of Stolac (BiH) who used a facility for the modification of weapons. Three gas pistols, two combat pistols, a large amount of ammunition of different calibres, parts of weapons (firing pins, pipes, etc.) and a machine used for mechanical modification of weapons, were found and confiscated. *Bljesakinfo*, Akcija u Stocu: Policija pronašla stroj za preradu oružja, 12 January 2021, <https://bljesak.info/vijesti/crna-kronika/akcija-u-stocu-policija-pronasla-stroj-za-preradu-oruzja/335523>. See also A Kapo, Razbojnici i kriminalci imaju novo 'oružje': U pljačkaške pohode kreću sa – gasnim pištoljima, *Radiosarajevo*, 20 September 2023, <https://radiosarajevo.ba/metromahala teme/razbojnici-i-kriminalci-imagju-novo-oruzje-u-pljackaske-pohode-krecu-sa-gasnim-pistoljima/513630>.
- 190 Interview with Miloš Vukčević, attorney at law and professor at the University of the Mediterranean Law Faculty, Podgorica, Montenegro, December 2023, by phone.

- 191 Ibid.
- 192 Interview with investigative journalist from Montenegro, December 2023, online.
- 193 Ibid.
- 194 Interview with arms trafficking expert, December 2023, Belgrade, Serbia.
- 195 Ibid.
- 196 Bojan Elek, deputy director of the Belgrade Centre for Security Policy, December 2023, Belgrade, Serbia
- 197 Observatory of Illicit Economies in South Eastern Europe, Squeezing the sponge: post-conflict Ukraine poses a great risk of firearms trafficking, Risk Bulletin, Issue 2, GI-TOC, August 2023, <https://riskbulletins.globalinitiative.net/see-obs-016/02-post-conflict-ukraine-poses-a-great-risk-of-firearms-trafficking.html>.
- 198 UNODC, Illicit Trafficking in Firearms, their Parts, Components and Ammunition to, from and across the European Union, Vienna 2020, p 14, https://www.unodc.org/documents/firearms-protocol/2020/UNODC-EU-Report-A8_FINAL.pdf.
- 199 'Within the European Union, firearms are mainly seized from criminals involved in violent crime and drug trafficking, with an average of 48 per cent of the seizures occurring in the context of violent crime and an average of 28 per cent of the seizures occurring in the context of drug trafficking.' UNODC, Illicit Trafficking in Firearms, p 14, https://www.unodc.org/documents/firearms-protocol/2020/UNODC-EU-Report-A8_FINAL.pdf.
- 200 Interview with French source close to underworld, January 2024.
- 201 According to a November 2023 article in *La Croix*, AK-47s retailed for approximately €2 500–€3 000, which would require ten to be sold to earn the same as a kilo of cocaine. Pierre Bienvault, Arms trafficking in France: the hidden side of the crime, *La Croix*, 6 November 2023, https://www-la-croix-com.translate.goog/France/Trafic-darmes-France-face-cachee-crime-2023-06-11-1201270998?_x_tr_sl=fr&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc.
- 202 Interview with French source close to underworld, January 2024.
- 203 Interview with Dutch explosives expert, February 2024.
- 204 Interview with French source close to underworld, January 2024.
- 205 Patrick Edrich, 'Skorpion' gun has killed the last three times it's been fired on Merseyside, *Liverpool Echo*, 2 April 2023, <https://www.liverpooecho.co.uk/news/liverpool-news/skorpion-machine-gun-behind-three-26600690>; Andrew Bardsley and Amy Walker, Faces of EncroChat gang members responsible for biggest ever gun trafficking conspiracy in UK and colossal drug dealing operation, *Manchester Evening News*, 19 October 2023, <https://www.manchester-eveningnews.co.uk/news/greater-manchester-news/faces-encrochat-gang-members-responsible-27942303>.
- 206 Interview with French source close to underworld, January 2024.
- 207 For printed plans, two such sites include: <https://3d-gunbuilder.com/> and <https://defcad.com/users/IvanTheTroll/>.
- 208 Annie Vergnenegre, Weapons made with 3D printers: sold on Telegram, delivered on Vinted, 'it's the Uberization of traffic', Franceinfo, 6 February 2024, <https://france3-regions.francetvinfo.fr/provence-alpes-cote-d-azur/bouches-du-rhone/marseille/armes-3d-vendues-sur-telegram-livrees-sur-vinted-payees-en-cryptomonnaie-c-est-l-uberisation-du-traffic-2919471.html>.
- 209 V&A Museum, The Liberator – the world's first 3D printed handgun, <https://www.vam.ac.uk/articles/the-liberator-the-worlds-first-3d-printed-handgun>.
- 210 Christophe Rauzy, Illegal, untraceable and easy to produce: we had a weapon printed in 3D and we fired it, Franceinfo, 2 January 2024, https://www.francetvinfo.fr/economie/emploi/metiers/armee-et-securite/enquete-franceinfo-illegale-intracable-et-facile-a-produire-on-a-fait-fabriquer-une-arme-imprimee-en-3d-et-on-a-tire-avec_3149347.html.
- 211 Interview with Dutch law enforcement, February 2024.
- 212 Eric Pelletier, A weapon made using a 3D printer found after an assassination attempt in Marseille, Franceinfo, 15 January 2024, https://www.francetvinfo.fr/faits-divers/criminalite-a-marseille/info-francetv-une-arme-fabriquee-a-l-aide-d-une-imprimante-3d-retrouvee-apres-une-tentative-d-assassinat-a-marseille_6304755.html.
- 213 At the moment, metal printing, with some exceptions, is an expensive endeavour. See Leo Gregurić, How much does a metal 3D printer cost?, All3DP, 21 November 2023, <https://all3dp.com/2/how-much-does-a-metal-3d-printer-cost/>.
- 214 Maïthé Chini, Police raid illegal workshop for 3D printed weapons in Leuven, *Brussels Times*, 6 February 2024, <https://www.brusselstimes.com/belgium-news/912255/police-bust-illegal-workshop-for-3d-printed-weapons-in-leuven-tbtb>.
- 215 Ordnance Lab, 3D printed grenade test, YouTube, https://www.youtube.com/watch?v=v_oaVfIdIA.
- 216 Interview with French law enforcement, March 2024.
- 217 Richard Organge, In numbers: Has Sweden's wave of deadly gang violence peaked?, *The Local*, 24 March 2024, <https://www.thelocal.se/20240327/in-numbers-has-swedens-wave-of-deadly-gang-violence-peaked>.
- 218 Viktor Sunnemark, How gang violence took hold of Sweden – in five charts, *The Guardian*, 20 November 2023, <https://www.theguardian.com/world/2023/nov/30/how-gang-violence-took-hold-of-sweden-in-five-charts>.
- 219 This research is drawn from a draft of a forthcoming GI-TOC report that will look at arms trafficking dynamics in Sweden in detail.
- 220 Council of Europe, Answers to the questionnaire on principles of public prosecution as regards juvenile justice, <https://rm.coe.int/answers-to-the-questionnaire-on-principles-of-public-prosecution-as-re/168071cb39>.

- 221 See, for example, *Vänd igen*, a track by Swedish rapper 'Sticky' about drug trafficking and killing rivals, YouTube, <https://www.youtube.com/watch?v=oQNbSOUifdQ>.
- 222 Declan Hillier and Matt Lewis, A deadly cocktail: firearm violence and trafficking in Sweden, Flemish Peace Institute, October 2022, p 11, https://vlaamsvredesinstituut.eu/wp-content/uploads/2022/11/TARGET_Sweden3.pdf.
- 223 The gunman had been planning the crime for a year, *Der Spiegel*, 24 July 2016, [https://www.spiegel-de.translate.google/panorama/justiz/amokschuetze-von-muenchen-tatwaffe-aus-dem-darknet-a-1104461.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp](https://www.spiegel.de.translate.google/panorama/justiz/amokschuetze-von-muenchen-tatwaffe-aus-dem-darknet-a-1104461.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp).
- 224 Nikita Malik, How the darknet can be used by terrorists to obtain weapons, *Forbes*, 15 January 2019, <https://www.forbes.com/sites/nikitamalik/2019/01/15/how-the-darknet-can-be-used-by-terrorists-to-obtain-weapons/?sh=7b7ee54862cd>.
- 225 Thomas Seymat, Charlie Hebdo attacks may have used weapons legally purchased in the EU, *Euronews*, 18 February 2015, <https://www.euronews.com/2015/02/18/charlie-hebdo-attacks-eu-gun-laws>.
- 226 Jason Murdock, 'Premier league of arms dealers': Pair jailed for using dark web to supply UK gangsters, *International Business Times*, 18 September 2017, <https://www.ibtimes.co.uk/premier-league-arms-dealers-pair-jailed-using-dark-web-supply-uk-gangsters-1639829>.
- 227 Teenager jailed for 16 years after buying gun and ammunition on dark web, 13 September 2019, *Shropshire Star*, <https://www.shropshirestar.com/news/uk-news/2019/09/13/teenager-jailed-for-16-years-after-buying-gun-and-ammunition-on-dark-web/>.
- 228 National Crime Agency, Illegal firearms, <https://www.nationalcrimeagency.gov.uk/what-we-do/crime-threats/firearms>.
- 229 See, for instance, a 2016 case in which two men were arrested in Slovenia accused of selling weapons and explosives to customers across the EU. Europol, Darknet arms vendor arrested in Slovenia with support of Europol, 20 December 2016, <https://www.europol.europa.eu/media-press/newsroom/news/darknet-arms-vendor-arrested-in-slovenia-support-of-europol>.
- 230 Bill Toulas, Dark web sites selling alleged Western weapons sent to Ukraine, *Bleeping Computer*, 9 June 2022, <https://www.bleepingcomputer.com/news/security/dark-web-sites-selling-alleged-western-weapons-sent-to-ukraine/>.
- 231 Maria Korenyuk, Lucy Swinnen and Jack Goodman, Undercover with Russia's fake arms dealers, *BBC News*, 24 September 2022, <https://www.bbc.co.uk/news/world-62983444>.
- 232 Unlike mature darknet drug and fraud markets, the dark web market for weapons was far too fragmented, filled with scams and unreliable to be actively monitored through a commodified automated means. Instead, the investigators sought to report on the intersection between the advertised dark web arms sales with the actual verified market for arms. They assumed the role of a person with average technical knowledge and sophistication, and analyzed the top 50 sites returned with the keyword 'gun'. Due to the size and complexities of the US gun market, this was excluded from the research, retaining a focus on Europe with its more homogenous gun laws and cultures.
- 233 The language split between the English, sometimes other European, and Russian and sometimes other CIS communities continues to differentiate the retail experience for those looking to buy products in their country or language. There are very few exclusively Ukrainian-language sites, with Russian being the lingua franca of CIS darknet commerce.
- 234 Fact check: Feds did not call DarkDotFail a criminal enterprise, *DarknetLive*, 7 August 2020, <https://darknetlive.com/post/fact-check-feds-did-not-call-darkdotfail-a-criminal-enterprise/>.
- 235 Extreme examples of this flexibility allowed the brokering of the 2019 murder of a Russian Police officer, and the apparent 2020 case of a Russian weapons vendor who pivoted from gun sales to brokering murder for hire. See Svetlana Reiter and Andrei Soshnikov, Russia police probe 'dark net' murder case, *BBC News*, 29 March 2019, <https://www.bbc.com/news/technology-47747357>; see also Moscow court arrests suspected owner of dark-net site for hiring assassins, *Radio Free Europe*, 10 September 2021, <https://www.rferl.org/a/russia-hitmen-for-hire-darknet/31454299.html>.
- 236 Although law enforcement officers are forbidden from setting up 'honeypots,' they may seize a website and keep for it live for up to a year to collect orders and information on buyers.
- 237 Joseph Cox, The dark web's biggest market is going to stop selling guns, *Vice*, 9 July 2015, <https://www.vice.com/en/article/ypw9xb/the-dark-webs-biggest-market-is-going-to-stop-selling-guns>.
- 238 This information is not yet published. Potentially available by request.
- 239 Elisabeth Holzer-Ottawa, 'Killer wanted': 12 years in prison for murder that never happened, *Kurier*, 17 November 2023, [https://kurier-at.translate.google/chronik/oesterreich/darknet-mordversuch-auftrag-smord-prozess-graz/402673429?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp&_x_tr_hist=true](https://kurier.at.translate.google/chronik/oesterreich/darknet-mordversuch-auftrag-smord-prozess-graz/402673429?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp&_x_tr_hist=true).
- 240 Jon Brodtkin, FBI: Rent-a-Hitman site nabbed Air National Guardsman who was 'excited' to kill, *Ars Technica*, 17 April 2023, <https://arstechnica.com/tech-policy/2023/04/fbi-rent-a-hitman-site-nabbed-air-national-guardsman-who-was-excited-to-kill/>; and

- Daniel Hubbard, Hitman arrested In Bergen County is the son of NY state trooper: Report, Patch, 30 October 2016, <https://patch.com/new-jersey/mahwah/arrested-hitman-son-ny-state-trooper-report>.
- 241 Bohdan Butkevich, The inscriptions on the wall: 'Salts, spices in Telegram.' How this drug business works, Amlav.com, 24 October 2017, https://glavcom-ua.translate.google.com/columns/butkevych/napisi-na-stini-soli-spaysiv-telegram-yak-pracyuje-cey-narkobiznes-446345.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp.
- 242 Max Daly, It's never been a better time to buy drugs on Telegram, Vice News, 11 May 2023, <https://www.vice.com/en/article/z3mna4/cocaine-prices-telegram>.
- 243 Europol, Dismantling encrypted criminal EncroChat communications leads to over 6 500 arrests and close to EUR 900 million seized, press release, 27 July 2023, <https://www.europol.europa.eu/media-press/newsroom/news/dismantling-encrypted-criminal-encrochat-communications-leads-to-over-6-500-arrests-and-close-to-eur-900-million-seized>.
- 244 Since starting this investigation this domain has been taken down likely by law enforcement. See Reddit, r/darknet, Forum thread, https://www.reddit.com/r/darknet/comments/17bfb6u/dnm_x_raided/?share_id=7qFsFikerBDE89QiqZeVQ&utm_content=2&utm_medium=android_app&utm_name=androidcss&utm_source=share&utm_term=1.
- 245 During searches, one testimony was found about the site Tor Guns on the questionable darknet news site <https://darknet.nu/>. They provide a high-level, if incomplete, guide on spotting such scam websites on Tor. See Dark web anti-scam: Gun store 'TOR GUNS', Darknet.nu, 22 August 2023, <https://archive.fo/yrPLS#selection-461.0-473.16>.
- 246 Mark Galeotti, Time of troubles: The Russian underworld since the Ukraine invasion, GI-TOC, December 2023, <https://globalinitiative.net/analysis/the-russian-underworld-since-the-ukraine-invasion/>.
- 247 In September 2023 in the Dnipropetrovsk region, the SBU blocked a criminal allegedly trying to sell Russian weapons captured from the battlefield including explosives, a Kalashnikov machine gun and assault rifles (AK-12 and AK-74), and artillery shells and grenades to others in the criminal milieu. The AK-12 automatic carbine was priced at almost UAH60 000, approximately €1 500. SBU Telegram post, 7 September 2023, <https://t.me/SBUkr/9571>.
- 248 In September 2023, a criminal was arrested attempting to sell a Russian-type RShG-2 grenade launcher to underworld figures for UAH14 500, or about €365, SBU Telegram post, 7 September 2023, <https://t.me/SBUkr/9571>.
- 249 SBU Telegram post, 26 September 2023, <https://t.me/SBUkr/9771>.



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