

CHAPTER 2

FROM SEIZURES TO TRAFFICKING

Chapter overview

This chapter delves deeper into seizure-related data, analysing the legal justifications employed for firearms seizures and the broader criminal context in which seizures take place. Data on the legal justification used by law enforcement authorities to seize firearms and the subsequent criminal context that emerges from the investigation suggest that the great majority of firearms are first stopped on the ground of illegal possession but trafficking is frequently recorded at a later stage, as the criminal context in which seizures took place. In fact, only around one half of arms known or suspected to have been seized in a trafficking context were typically seized with this legal justification.

When a firearm is seized, the authority that carries out the seizure – usually a law enforcement agency – is required to provide a legal justification for their action. Looking at national averages, the most frequently used justification is illicit possession of a firearm, accounting for nearly two-thirds of seizures, while illicit firearms trafficking is the stated reason in some 9 per cent of cases. It is probable, however, that the legal justifications mainly reflect considerations other than the full context of the seizure. Illicit possession can be used to take the firearm out of circulation quickly and efficiently while the different crimes associated with the seized firearms (“criminal context”) may come to light later. The majority of the crimes that emerge in the criminal context still relate to firearms (mainly illicit possession and trafficking) but there are also other crimes that occur in relation to seized firearms such as violent crime and drug trafficking.

Establishing the criminal context of a seizure through statistics is challenging. Data provided to UNODC are based on suspected offences in aggregated form. These data indicate that firearms trafficking is more prevalent as the context of crime than what the legal justification used for the seizures alone would imply, and that the share of arms seized in the context of trafficking was, on average, 19 per cent. Moreover, the data also highlight the regional differences with regard to the other forms of crime committed in the context of arms not associated with offences related to firearm regulations. Among these offences, for example, violent crime was most prominent in Africa and Latin America and the Caribbean, while in Europe, drug trafficking was assessed more frequently than violent crime.

Conflict is also related to firearms trafficking because situations of armed conflict may weaken the rule of law and impede the authorities’ ability to manage firearm stockpiles and enforce regulations, therefore enhancing the illicit supply of firearms.



Firearms can enter the illicit market in several ways. As most trafficked firearms are produced legally, the illicit chain starts when firearms undergo transfers or movements in violation of national or international laws and regulations. This is called the 'point of diversion' and can happen in numerous ways. Firearms may be lost by or stolen from the legitimate owners, who may have been, for example, individuals, law enforcement or defence forces, private security companies or international peacekeeping forces. Legitimate owners may also have sold their firearm illicitly, there may be unauthorized artisanal firearms manufacturing in some countries, firearms could have been illegally modified, or their unique markings could have been altered, rendering the firearms illicit.

The chapter looks at the unique markings of firearms, as mandated by international regulations. These markings are crucial for enabling identification and tracing of firearms, and in spite of well-known efforts by traffickers to tamper with the markings, the vast majority of seized firearms – some 85 per cent - are indeed appropriately marked. Moreover, out of these seized and marked firearms, nearly 90 per cent were found to have been industrially manufactured, indicating that illicit firearms manufacture – although acutely present in some locations – remains a relatively limited phenomenon.

The chapter also looks at the various ways in which firearms enter the illicit markets, focusing on diversion from domestic sources in addition to trafficking from abroad. While it is difficult to determine whether diversion took place in the country of seizure or another country, some evidence suggests that a significant share of seized illicit firearms are diverted in the same country where they were seized. This seems to hold true also for countries with restrictive laws related to the range of available firearms and the ease of obtaining them. The levels of legally regulated firearms in a given country may also influence how the black market for firearms is supplied.

The chapter closes with an analysis of the role of licit markets in firearms trafficking, homing in on prominent countries for firearms manufacturing. Illicit firearms flows are complex and do not necessarily follow the licit flows. This means that the country of origin of licit firearms – the manufacturing country - and the country where the diversion (where the illicit origin starts) and seizures take place often do not overlap. This is clearly seen by the diversity of regions that are identified as manufacturing and as point of illicit origin. Europe is reported as the main region of manufacturing of seizures made across the world; the Americas is the continent most reported as illicit origin. Firearms are durable goods and their circulation before and after diversion to the black market can and often do involve several transfers.

Why is it seized: legal justification and criminal context

In order to understand the context and the nature of firearms seizures, it is helpful to look at the legal justification used to justify the seizures as well as the criminal offences associated with the seizures. The legal justification may provide partial information on the criminal context of the seizures, but this may not capture the entire picture, because authorities may use justifications which are easier to prove at the time of seizing the firearms. For example, it is relatively easy to establish the offence of illicit possession—that is, that a firearm is held by somebody who is not its legally registered owner at the time of seizure—or, that the firearm was used to commit another criminal offence (for example, a homicide). Illicit firearms may come to light in an incidental fashion in the context of a wide variety of criminal offences; in such cases, the offence of trafficking is often considered a secondary (predicate) offence and is particularly difficult to prove when it occurred prior to the principal offence.

In such a context, offences such as illicit possession are quick to establish and can justify the immediate seizure while obviating the need for a parallel investigation into the specific offence of trafficking. The information on the illicit origin of the firearm may initially only be based on suspicions and the relevant evidence may emerge, if at all, only at a later stage of the process. Hence legal justifications for seizures and suspected offences related to seizures describe two related but different aspects of the context of seizures.

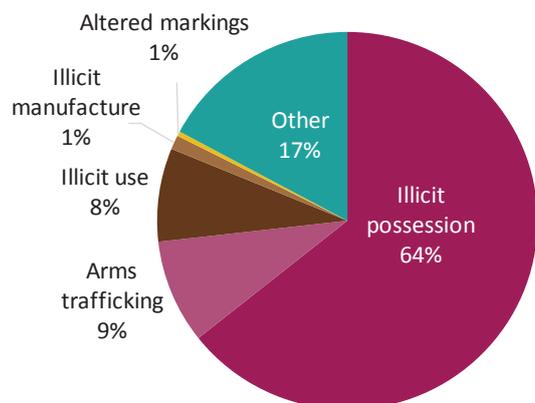
Data provided by 53 countries show these different aspects.¹ Possession is typically the most prevalent justification used by national authorities to seize firearms, but in terms of suspected offences a different scenario emerges. This information suggests that while firearms may be seized on given legal grounds, the suspected offences point to an overlap between these firearms and other, additional forms of criminality. Due to the fact that the data on criminal context are based on suspected offences, the extent of this link is however difficult to assess in quantitative terms.

Legal justification

Forty-eight countries provided information about the legal grounds for seizures of arms. On average, countries tend to seize the majority of arms for offences related to illicit possession (64 per cent), followed by trafficking and illicit use. Other specific firearm-related offences, namely altered

1 Forty-eight countries provided data on legal justification and thirty-six countries provided data on other suspected offences. Some countries are included among both the 48 and the 36 because they reported on both types of data.

FIG. 1 Average distribution* in a single country of seized arms, by legal justification, 2016-17



* Simple average of data 48 countries, adjusted for seizures whose legal justification was unknown or unclassified.

Source: UNODC IAFQ.

markings and illicit manufacture, are typically much less frequent in national seizures (on average), as measured in terms of number of arms seized. This can be the results of different dynamics.

As stated earlier, firearms seizures do not point automatically to illicit trafficking, unless the firearms were seized at the border or in any other context that establishes a clear link to a trafficking case. Illicit possession may be easier to prove than trafficking and is the offence most used by law enforcement to justify seizures. Proving the offence of

firearms trafficking requires specific examinations, including the tracing of the firearm (see Section: SDG indicator 16.4.2 and tracing) and additional investigations which take more time and may involve other authorities. The charge of illicit possession may be the easiest and fastest way to take firearms out of circulation, even if it may appear clear from additional circumstances, that the firearm(s) had been trafficked.

The predominance of illicit possession as legal grounds for seizure may be influenced in part by practical considerations, such as the relative ease of proving such an offence for law enforcement agencies at the time of issuance of the seizure order, as well as issues of perceived priority and resource allocation.

Another complementary explanation relates to the size of seizures. Seizures of one or a few firearms may more likely be related to illegal possession than to trafficking. So the fact that the largest portion of firearms are seized for illicit possession may be linked to the prominence of small seizures.

There is, however, some regional variation. The majority of countries in Europe reported illegal possession as the predominant justification for seizures, but this might relate to the large number of cases with single arms seized. But there are noticeable departures from this general pattern showing the possible different nature of seizures in single countries. A large share of firearms seized on the grounds of trafficking was reported by Hungary - 127 arms out of a total of 337 - and Greece, with a very large single seizure

International and national definitions of firearms trafficking

The United Nations Firearms Protocol, in its Article 3 (e), defines “illicit trafficking” as “the import, export, acquisition, sale, delivery, movement or transfer of firearms, their parts and components, and ammunition from or across the territory of one State Party to that of another State Party if any one of the States Parties concerned does not authorize it in accordance with the terms of this Protocol or if the firearms are not marked in accordance with article 8 of this Protocol”. This definition contains two crucial elements: (1) a transnational character, and (2) a violation of a regulatory measure (i.e. lacking authorization or having improper markings). The related offences defined by the Protocol are intended to increase transparency associated with the cross-border movement of firearms and related items.^a

National definitions of firearms trafficking of State parties and non-State parties to the Firearms Protocol may however vary, both in terms of nomenclature and in terms of the punishable behaviour. Some

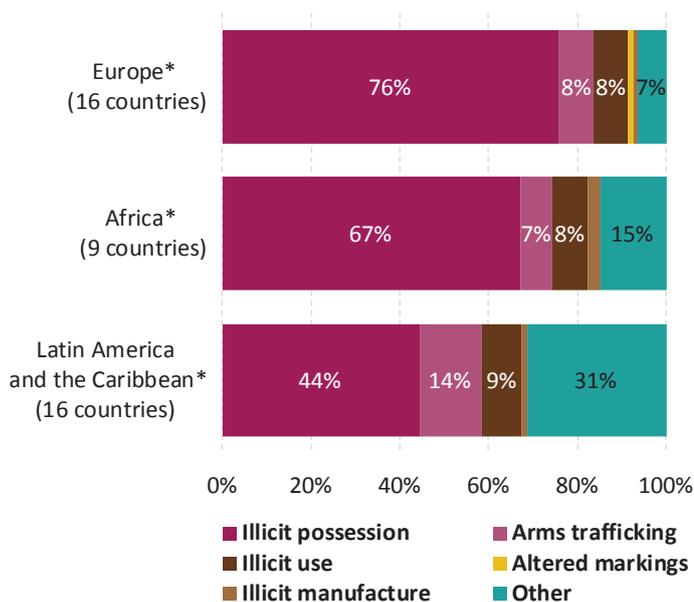
national legislation may include in one single offence the illicit nature of both domestic and transnational transfers. Countries with such legislation may not be able to distinguish seizures related to transnational arms trafficking from those related to domestic illicit circulation.

Based on the information provided by Member States, it seems that this type of legislation is quite common. Only 6 of the 53 countries that provided information regarding their national definitions of firearms trafficking do not include the transfer or movement of arms within national borders in their firearms trafficking legislation.

It should also be noted that not all countries have established firearms trafficking as a criminal offence, and the relevant violation may have the character of a customs infringement, such as “illegal importation”, “smuggling”, or “contraband”.

^a See Legislative Guide for the implementation of the UN Firearms Protocol, paragraph 201.

FIG. 2 ---- Average national distributions* of seized arms by legal justification, according to region, 2016-17



* Simple averages adjusted for seizures whose legal justification was unknown or unclassified.

Source: UNODC IAFQ.

of trafficking of 6,435 firearms (of which 6,404 were shotguns).² Sweden for example, reported a relatively high proportion of arms (284 out of 1,769 during the period of 2016-17) seized on the grounds of alterations in the firearm markings.³

Illicit manufacture as legal grounds for seizure was most marked – even if still very small in relative terms - in Africa, driven mainly by Algeria, which reported 265 arms seized in 2016-17 on these grounds (18 per cent of the total arms seized in these two years) and Kenya (424 arms out of 5,264 seized in 2016). This is in keeping with the known prevalence of artisanal manufacture of firearms in this region. Burkina Faso also seized significant numbers of artisanally manufactured arms, but data on legal justification were not provided.

On the other hand, trafficking as legal justification was most marked in countries in Latin America and the Caribbean. For example, in the Plurinational State of Bolivia, 69 arms were seized on these grounds in 2017, out of a total of 152. In the same region, Jamaica registered the largest proportion for illicit manufacture as a legal justification of seizures: all of the 111 seized “homemade” arms in 2016-17 (out of a total of 1,511) were seized with “illicit manufacture” as a legal justification (see also Figure 8).

2 This seizure was made by the Hellenic Coast Guard in Crete, from containers intended for the Democratic Republic of the Congo.
 3 The purpose of the markings is to enable identification, accountable weapons management and tracing.

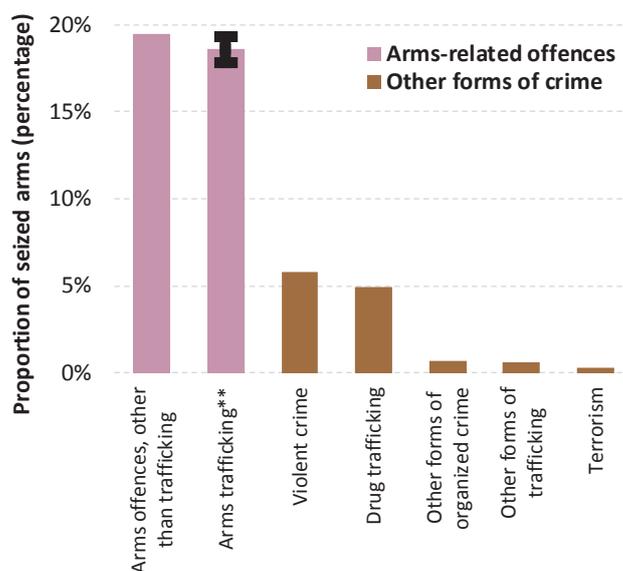
Criminal context

Illicitly sourced or trafficked firearms may be seized in the context of criminal activities which are not related to firearms, such as drug trafficking, homicides or other crimes.

Among the 36 countries that provided information on arms seized in the context of offences not related to firearm regulations, a relatively small proportion of firearms were seized in relation to drugs (from 0 per cent to 36 per cent) and violent crime (from 0 per cent to 21 per cent, with only one country reaching 79 per cent), with a negligible percentage related to other forms of organized crime, and terrorism. Still the highest percentage of firearms are seized in connection to suspected firearms-related offences (possession and trafficking). These data confirm that there is a connection between illegal activities related to firearms and other forms of crime, but they do not define the magnitude of this connection because of possible underreporting of suspicions based on observed circumstances and the fact that the starting point of the analysis is the firearms seizures. More connections could potentially be found if the starting point were drug trafficking or other crimes.

While the average percentage of arms seized related to forms of crime not connected to arms related offences is low, there are regional variations in the different kinds of crime (other than arms offences) and in the national shares of seizures related to other forms of crime. As a context for arms seizures, violent crime was on average most pronounced in Latin America and the Caribbean and in

FIG. 3 ---- Criminal context of seizures, measured by arms seized in context as average proportion* of arms seized in a single country, 2016-17

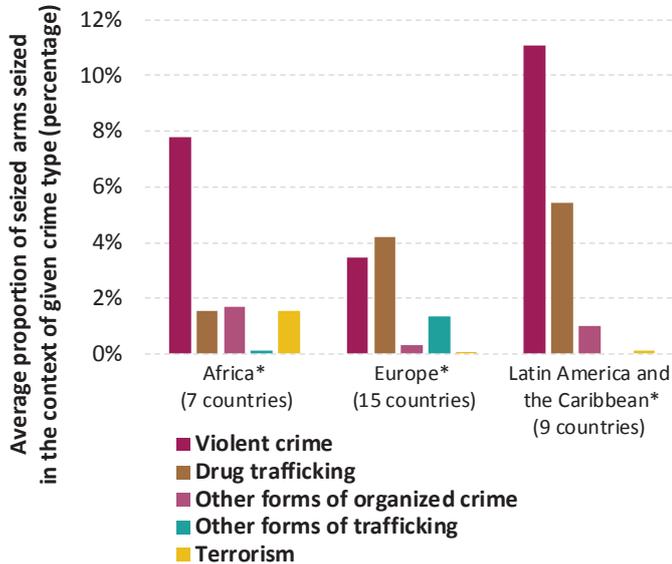


* Simple averages, based on data for 36 countries.

** Error bars reflect uncertainty due to potential overlaps in recording of trafficking as a legal justification and as a criminal context.

Source: UNODC IAFQ.

FIG. 4 ---- Other forms of crime (not connected to firearms offences) emerging in the context of arms seizures, measured by arms seized as proportion of overall seizures in a given country (averages by region), 2016-17



* Simple averages.

Source: UNODC IAFQ.

Africa. This is in line with the relatively high levels of violent deaths (conflict-related or otherwise), in particular intentional homicide and specifically firearm-related homicides, known to affect these regions.⁴ Drug trafficking was also prominent in Latin America and the Caribbean, where the links between this phenomenon and violence are also well-documented.^{5,6}

Guatemala, for example, reported that, out of 9,626 total arms seized in 2016-17, more than three quarters (7,641) were seized in the context of violent crime, 250 in the context of drug trafficking and 500 in the context of other forms of organized crime. In Burundi, although total seizures were low (235 arms during 2016-17), around a fifth were seized in the context of a violent crime, while the analogous share was around 15 per cent in Algeria and Morocco. In Tunisia, out of 1,570 arms seized in 2016-17, 11 per cent were linked to terrorism.

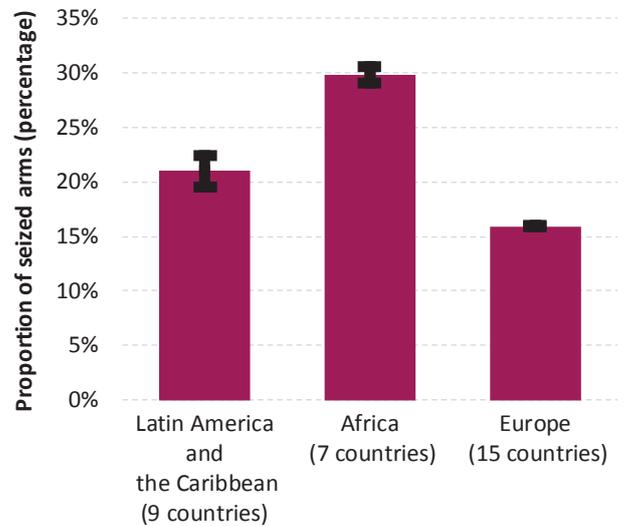
In Europe, notable quantities of arms were seized in the context of drug trafficking by Portugal (668 during 2016-17), Spain (538) and, in relative terms, Albania (146 out of 963). Denmark and Sweden were among the countries in Europe registering the highest proportions of seized arms linked to violent crime (13 per cent in Denmark and 8 per cent in Sweden).

4 UNODC, *Global Study on Homicide*, 2019.

5 UNODC, *Global Study on Homicide*, 2019; UNODC, *World Drug Report*, 2016.

6 UNODC, *World Drug Report*, 2016.

FIG. 5 ---- Arms seized in the context (confirmed or suspected) of trafficking, as proportion* of overall seizures in a given country (averages by region), 2016-17



* Based on data for 36 countries (simple averages).

Note: Error bars reflect uncertainty due to potential overlaps in recording of trafficking as a legal justification and as a criminal context.

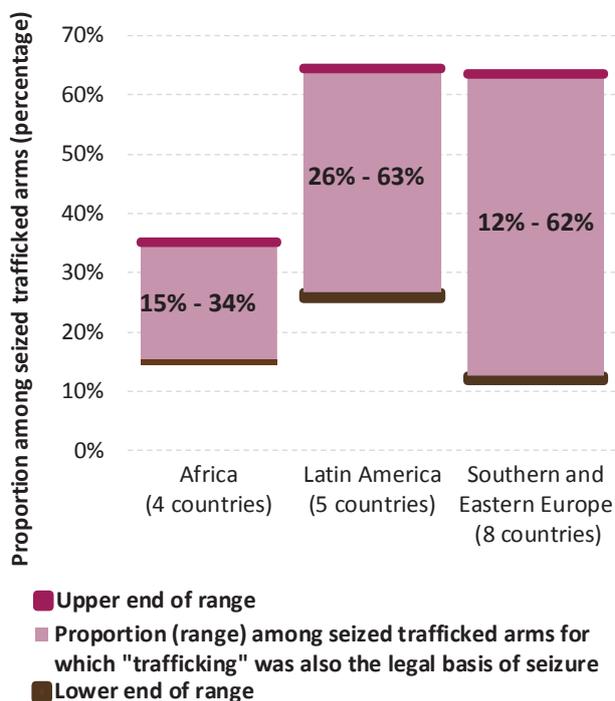
Source: UNODC IAFQ.

The data on criminal context suggest that more serious arms offences, such as arms trafficking, are more prevalent than would appear from the legal justification used as grounds for seizure. Indeed, taking into account both kinds of reporting linking arms to trafficking (suspected criminal context as well as legal justification), the data suggest that the proportion of arms seized which could be placed in the context of trafficking was, in most countries, around double that which the legal justification alone would indicate (on average, 19 per cent in each country). In other words, only around one half of arms known or suspected to have been seized in a trafficking context were typically seized on these grounds as a legal justification.

Africa registered the highest average proportions of arms seized and linked to trafficking, with notable proportions reported by Sudan, Tunisia, Algeria and Kenya. In Europe, the highest percentages were registered by Romania, North Macedonia and Greece, each of which reported more than half of the arms seized in 2016-17 being linked to firearms trafficking. However, the quantity of arms seized was small in Romania (85), while the high proportion in Greece was attributable to a single large seizure.

The seizure of a firearm is the first step of a criminal justice process which later includes investigation, prosecution and possible conviction. The legal justification which forms the basis of a seizure does not necessarily correspond to the final charges and convictions resulting from the seizures. Placing the legal justification of firearms trafficking in relation to the actual extent of firearms which had

FIG. 6 --- Proportion of arms seized on the basis of trafficking as a legal justification, among trafficked arms, 2016-17



Source: UNODC IAFQ.

been trafficked, gives an initial indication of the extent to which trafficking of firearms is detected and recognized at the earliest stage of the criminal justice process. Based on the available data, only about one half of arms which could be linked to trafficking were already recognized as such in terms of legal justification at the point of seizure. However, given the reliance on suspicions of criminal context, and on such suspicions being captured in the recording and reporting, the available data on criminal context likely underestimate the de facto levels of trafficking in the context of seizures; consequently, the share of one half is likely optimistic and should be taken as a lower bound.

An independent way to estimate this share is to assume, as a worst case scenario, that all seized arms had been trafficked, with the exception of those seized from their legitimate owners (as these arms had presumably not been trafficked). This “pessimistic” approach is biased in the opposite direction but, when combined with the data on known and suspected cases of trafficking, allows to derive the proportion as a range. This approach would indicate that, in Africa (based on data from 4 countries), on average 15-32 per cent of arms that were trafficked were seized as such. In other words, less than one third of trafficked arms were indeed seized for trafficking (as a legal justification); similarly, the proportion is estimated to range between 26 and 63 per cent in Latin America (based on 5 countries) and 12 to 63 per cent in the case of Southern and Eastern Europe (based on 8 countries).

Understanding the black market for firearms

Supply and demand of illicitly sourced firearms

The demand for illicitly sourced and trafficked firearms is linked to a multitude of factors which revolve around three main elements: crime, conflict and speculation. Firearms can also have a value by themselves and be used as monetary value in exchange for commodities from other illicit markets such as drugs. Each country may have a different factor or a combination of factors that drive demand. In certain countries, crime may be the primary driver as criminals opt to resort to firearms which are not accessible to them through legal means – for example, because their profile or criminal record precludes them from possessing the weapon of choice, or because such a weapon is not freely available to civilians in the country.

The intended illicit use of firearms by criminals may vary, with perpetration of violent crime perhaps the most obvious. Firearms become an instrument of violent crime in different ways, mainly threatening and perpetrating violence that result in homicide, assaults, robberies, extortion or kidnapping. Firearms are instrumental to organized crime and gangs as they can convey the sense of threat and power which allow the protection of the group, the territory and eventually their illicit markets. In some cases, firearms help organized crime groups and gangs to display extreme brutality as a message intended to catch the attention of the general public as well as state authorities.

Trafficked firearms can also be instrumental to violence perpetrated for political or ideological reasons, in particular insurgency and terrorism. Non-state armed groups which exercise de facto control of a certain territory may rely on diverted or trafficked firearms as tools for “enforcement”. Certain groups of a legitimate nature may also resort to firearms obtained indiscriminately, such as community-based “vigilante groups”. The various forms of armed conflict, including civil war and armed resistance, create a demand for firearms which may be met through trafficking.

Diversion of legally manufactured firearms to illegal markets appears to be a major contributor driving supply of illicit firearms.⁷ The licit holdings of firearms by the civilian population are susceptible to being diverted into the black market, from where they can become instruments of illegal activity. Loopholes in legislation and weak rule of law may facilitate diversion. Armed conflict may drive demand but can also drive supply, in that it may bring about a breakdown in the rule of law and undermine the ability of authorities to manage state stockpiles and enforce

7 See subsections on “Condition of seized firearms and grey areas” and “Evidence on diversion”.

regulations on civilian firearms which may be more easily diverted into illicit markets. In post-conflict scenarios, the accumulation of weapons over the course of the preceding conflict may also result in a pool of firearms outside of the legal control mechanisms which can increase supply.

Independently of the presence of conflict, holdings of firearms by military and law enforcement agencies can constitute a risk of diversion and can increase supply if the adequate measures are not in place to ensure proper inventory management, storage, transportation and disposal and to safeguard against leakage through theft or corruption.

Modalities for firearms to enter the black market

Firearms trafficking presents distinct features as compared to other commodities. Some forms of trafficking, such as the trafficking of drugs which are under the most restrictive regulation in the international drug conventions (such as cocaine and heroin), have to do with the movement and trade of commodities which are illicitly sourced; for such commodities, the trafficking chain typically starts at the place of cultivation or manufacture. The licit production of these substances is typically insignificant in comparison with the amounts illicitly manufactured.

In contrast, the vast majority of firearms, and indeed of trafficked firearms, are manufactured legally by licensed manufacturers.⁸ Aside from certain exceptions which account for a minority of firearms of illicit origin, the illicit chain starts at the moment when the legal chain is diverted into the illegal chain – that is, when transfers or movement occur in violation of national laws or international provisions.

In order to understand how the black market for firearms is supplied, it thus becomes crucial to understand the point at which firearms cross over from the licit sphere to the illicit sphere; this is referred to as the “point of diversion.” Once a firearm enters the illicit market, it can in principle continue to be trafficked indefinitely, unless taken out of circulation; hence diversion is only the beginning of the trafficking chain.

The transition from the licit sphere into the black market can occur at various points of the firearm’s life cycle: domestic or international transfer and transit, storage, possession and use or final disposal. There are various modalities for diversion to happen.

Many firearms seized from illicit circulation are recorded as lost, or stolen from their legitimate holder (who may be a private individual, national law enforcement or defence forces, or personnel of private security companies, et cetera).

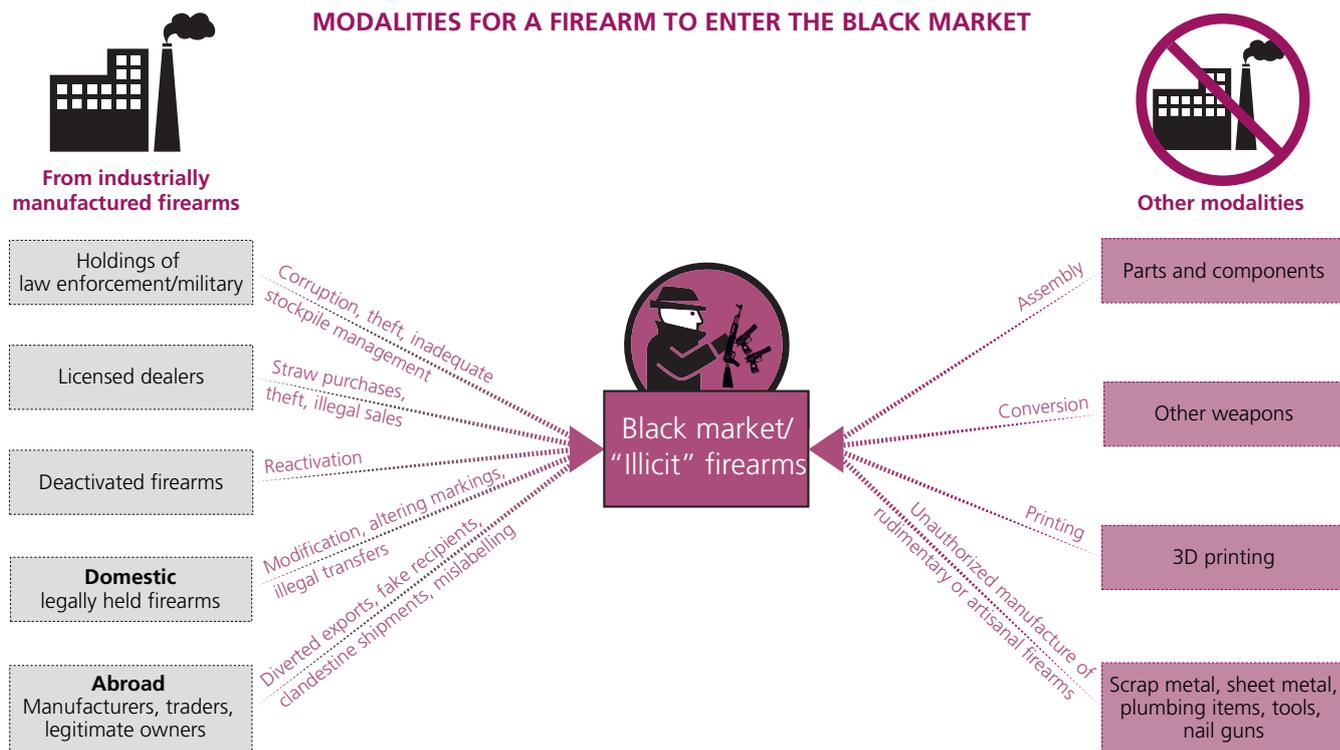
Firearms may be stolen from an unaware legitimate holder, but it is also possible for the legitimate holder to sell their firearm to a buyer in violation of laws governing transfers, licensing and registration, as the national legislation may require. Indeed, one technique which has been documented for criminals to acquire firearms is that of “straw purchases”,⁹ whereby an individual with a clean criminal record buys a firearm from a licensed outlet, quite possibly without violating any laws in so doing, precisely with the intention of selling it either on the black market (in the same country or not) or to a pre-determined buyer who would otherwise not be eligible to own such a firearm.

In conflict and post-conflict countries, the accumulation of legal stockpiles of weapons may create the potential for firearms to reach the hands of non-state armed groups, other criminal groups or even the general population, especially if that very conflict weakens the ability of the state infrastructure to manage those stockpiles properly. Another scenario, of crucial importance, is that of a firearm which is legally acquired or held in one country and which is then transferred illegally to another country, circumventing the applicable regulations on transfers, either by simply concealing and transporting the firearms across borders or by the use of falsified or misleading declarations, fake and decoy recipients or other methods. In such cases, the point of diversion can arguably be considered to be the international cross-border movement itself rather than a specific country. Moreover, this modality is especially relevant in case of source countries which have less stringent restrictions on the licit market than the destination countries.

In some countries, firearms may be manufactured in artisanal settings, which may be an avenue for firearms to enter the illicit market. There are also indirect ways in which a firearm may illicitly come into existence. Some weapons, such as gas pistols, may in some countries fall outside of the formal definition of a firearm and therefore not necessarily be subject to the same legal restrictions, but may at the same time easily lend themselves to conversion into a functioning firearm by any person with a modicum of skill. In some instances, it may be possible to reactivate a deactivated firearm, another modality resulting in a functional firearm which thereby enters the illicit sphere. It may also be possible to circumvent laws and regulations by buying various parts and components of firearms separately, potentially from different countries with different control regimes, in order to assemble complete firearms. There have also been known incidents of the use of 3-D printing to produce firearms, although the technology appears not to be sufficiently developed to yield reliable firearms yet.

8 This is confirmed, for example, by the presence of markings found on seized firearms – see next section, “Condition of seized firearms and grey areas”.

9 See, for example: United States, Department of the Treasury, Bureau of Alcohol, Tobacco & Firearms, *Following the Gun: Enforcing Federal Laws Against Firearms Traffickers*, Department of the Treasury, Bureau of Alcohol, Tobacco & Firearms, June 2000.



Firearms can also be modified in ways which significantly change their functionality and features, and thereby potentially circumvent legal restrictions. For example, shortening the barrel of a shotgun makes it easier to conceal and use at close quarters, while the potential of a semi-automatic firearm for inflicting damage can be significantly increased by rendering it capable of automatic fire. Finally, the United Nations Firearms Protocol stipulates that the alteration or obliteration of markings meant to enable the identification, accountable management and tracing of the firearm is itself an offence and renders the firearm illicit even if it continues to be held by the person who originally acquired it through legal means.

Condition of seized firearms and grey areas

The majority of trafficked firearms are likely to have been legally manufactured and diverted after manufacture along national and international trafficking routes. Most of firearms seized by countries are uniquely marked so they are traceable. Among those that are not marked, seizures data suggest that there is regional variation on how traffickers conceal the firearms' provenance or source firearms outside of marked, legal production. In Latin America and the Caribbean, traffickers seem to use legally manufactured firearms and alter markings to hide their origin, while in Africa it is more likely than in other regions to find no markings on seized firearms, likely reflecting the importance of artisanal production in this region.

Firearms can be produced or modified in different ways. The majority of trafficked firearms are industrially manufactured, but seizures data show that there are some other methods used in clandestine production varying from firearms which are modified, converted, assembled, reactivated or artisanally manufactured. In some countries it is possible to note specific characteristics of concealing methods or illegal manufacturing, for example, artisanal manufacture is more common in parts of Asia and Africa.

Firearms can also be converted from other weapons such as those designed to only fire tear gas or even blanks as well as pneumatic ("air") weapons, which rely on air pressure (rather than an explosion) to convey motion to the projectile. Specific patterns in some countries suggest a geographical concentration of the different methods used to convert such weapons into firearms, most notably in Europe.

"Every firearm tells a story"

The identification and analysis of firearms and their ammunition can give an indication of their illicit nature and clues about specific *modi operandi* of criminals. With the right procedures it is possible for example to determine if firearms were discharged and used in crime; whether they were used to kill or injure a particular victim. Firearms that are not produced in an industrial manner and lack original marking and serial number, or those whose markings have been erased, are likely to have been illicitly manufactured or diverted to the illicit market at a certain point; but without a traceable mark, investigation on the nature of the firearms is more difficult.

The presence of markings helps to understand the history of firearms found in illegal markets. As per article 8 of the United Nations Firearms Protocol, States Parties which authorize manufacture of firearms are to “require unique marking providing the name of the manufacturer, the country or place of manufacture and the serial number, or maintain any alternative unique user-friendly marking with simple geometric symbols in combination with a numeric and/or alphanumeric code, permitting ready identification by all States of the country of manufacture”.¹⁰

Such markings are crucial to facilitate the identification and tracing of firearms and define points of vulnerability in the illegal market; however, criminals and traffickers sometimes attempt to obliterate such markings on industrially manufactured firearms or to render them unreadable—actions which States Parties are also required to criminalize. Moreover, in cases of illicitly manufactured firearms, including illicit artisanal manufacture, such markings are typically not present.

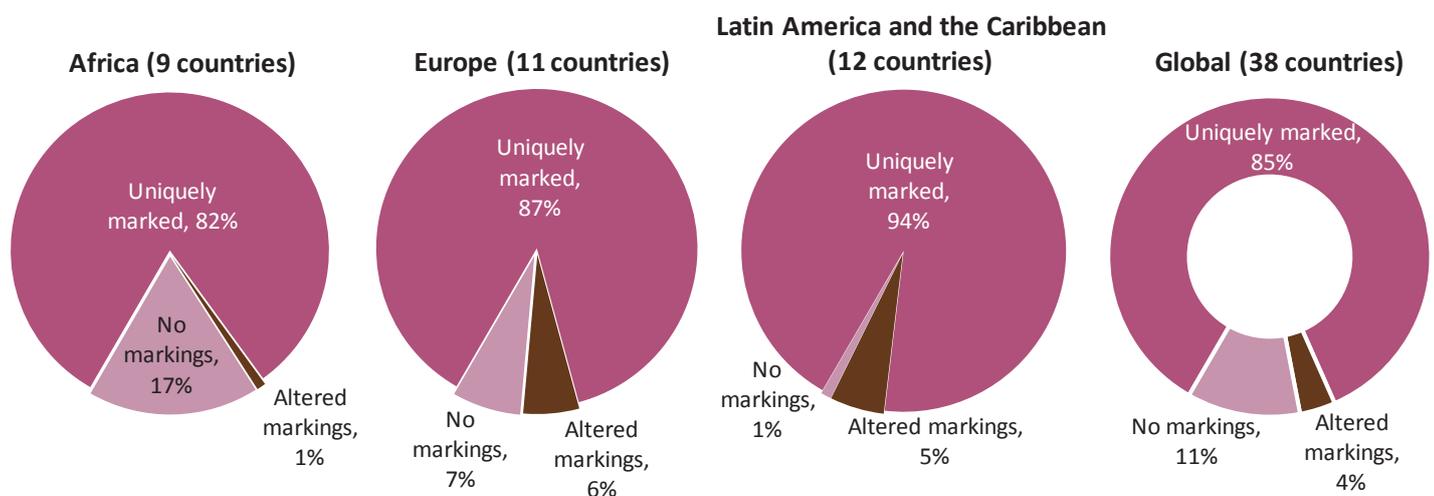
On average, 85 per cent of arms seized in a single country in 2016-17 were uniquely marked – reflecting the fact that the vast majority of firearms originate from industrial legal manufacture. Among those that were not uniquely marked, once more, regional variations could be observed in terms of the balance between firearms with altered markings and no markings at all. In Latin America and the Caribbean, arms with altered markings dominated the firearms that were not uniquely marked, driven mainly by the numbers reported by Argentina (9,980 arms with altered markings out of 43,321) and Brazil (896 out of 7,078). Altered markings were also significant in Europe:

Spain and Portugal were among the most prominent in the region, seizing respectively 2,322 and 1,275 arms with altered markings. However, in the United Kingdom, seized arms with no markings (622) outnumbered arms with altered markings (111). Arms with no markings at all were conspicuous in Africa, likely reflecting the importance of artisanal production in this region, and driven by the shares registered in Algeria, the Central African Republic and Ghana (although the seizures in Ghana were very small in absolute terms). Algeria also reported instances of artisanal firearms seized among significant cases, including artisanal hunting weapons.

There are several types of actors who may produce or adapt firearms outside of the legal industrial process. This includes hobbyists, gunsmiths and tribal groups who produce firearms for cultural reasons or for the purpose of hunting, as well as criminals and traffickers. Some research suggests that non-state armed groups operating in conflict and post-conflict zones rely mainly on professionally-manufactured small arms, while they may resort to their own production of light weapons and their ammunition.¹¹

Some rudimentary arms can be produced by putting together commercially available parts which were not meant to be used to construct a firearm. In other cases, the starting point to illicitly obtain a firearm can be any of the following: a deactivated firearm; an “ordinary” firearm which is subsequently modified to increase its efficiency or capacity for damage; industrially manufactured parts and components of firearms which are illegally assembled; or other weapons which can be easily converted into firearms.

FIG. 7 Average national distributions of seized arms by marking status, global and by region, 2016-17



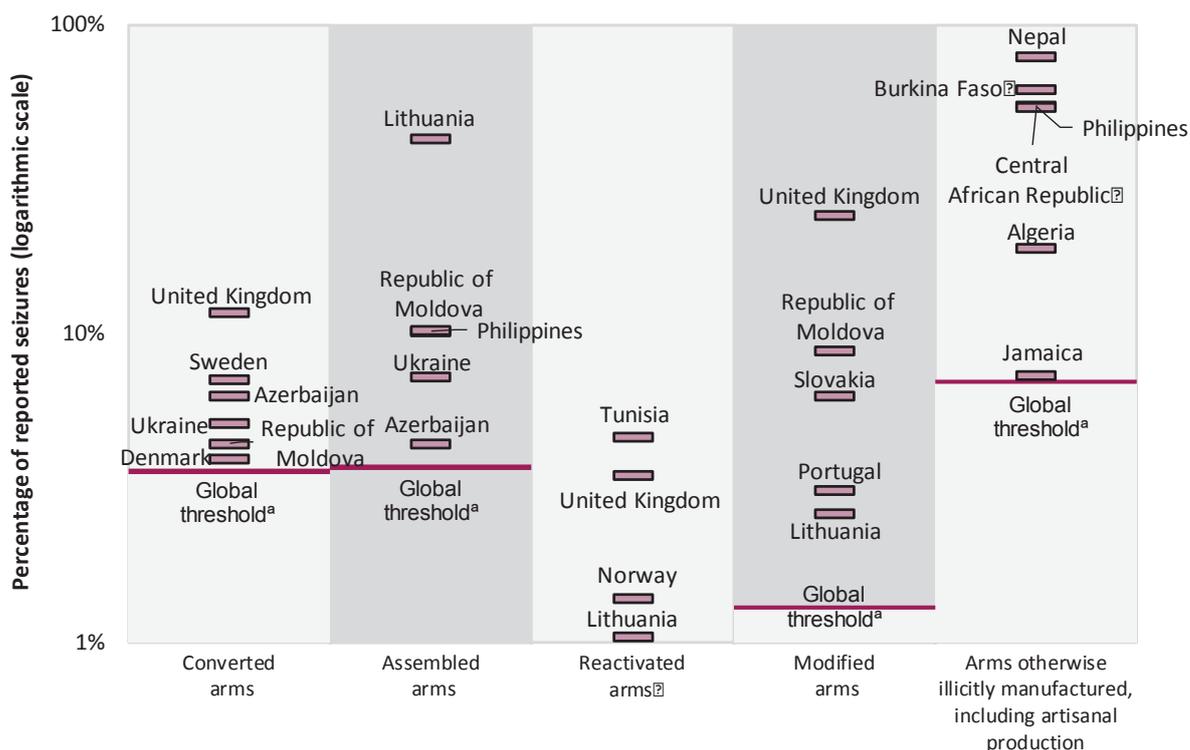
Notes: Simple averages of distributions. Adjusted for arms whose marking status was unknown or unclassified.

Source: UNODC IAFQ.

10 Other requirements are applicable in the case of importation of firearms and transfers from government stocks to civilian use.

11 Small Arms Survey, *Beyond State Control, Improvised and Craft-produced Small Arms and Light Weapons*, 2018.

FIG. 8 --- Countries seizing notable proportions^a of arms other than industrially manufactured arms in factory condition, 2016-17



^a A proportion was deemed notable if it was based on a total of at least 30 arms seized and exceeded a threshold calculated as the 90th percentile of the proportions from countries which reported a comprehensive breakdown.

^b Includes ammunition and other items.

^c May include licensed artisanal manufacture.

^d Very few countries reported reactivated arms.

Source: UNODC IAFQ.

Based on 21 countries which gave a comprehensive breakdown of seizures according to this typology, on average 88 per cent of seized firearms at the national level were industrially manufactured in factory condition (with no signs of alteration or deactivation); the other categories (modified firearms; firearms which had been converted (from other kinds of weapon); firearms which had been assembled (from parts and components); reactivated firearms; or arms otherwise illicitly manufactured (including in artisanal settings) together accounted for an average of less than 15 per cent. However, the exceptions yield some insights into the modalities employed by criminals to obviate restrictions on firearms and the ways to acquire them.

An examination of the countries with unusually high proportions (compared to all countries in general – see Figure 8): of seized arms that were not industrially manufactured (in factory condition) shows that several countries in Europe, notably Northern Europe (Denmark, Lithuania, Norway, Sweden and the United Kingdom) have some specificities. The United Kingdom in particular was conspicuous in terms of the proportions of seized arms that were converted, reactivated and modified; this could reflect the relatively restrictive nature of laws and regulations in this country, which may spur individuals to resort to adaptations of firearms or conversions of other, more easily

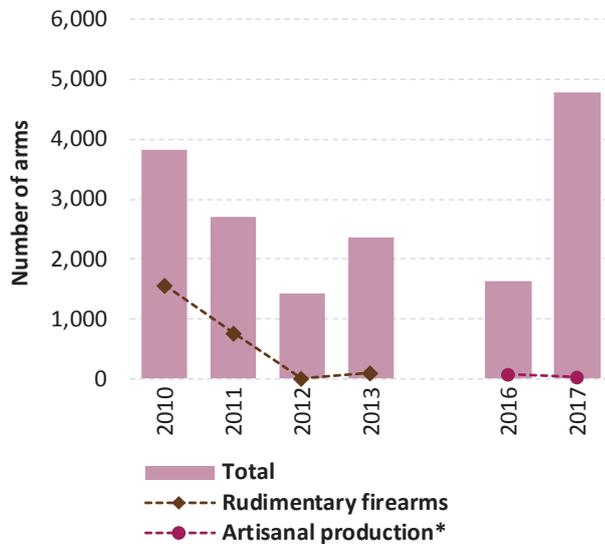
accessible weapons. Lithuania identified the main type of trafficked firearms as semi-automatic pistols, mostly converted and/or reactivated. Sweden and Denmark reported significant proportions of arms converted from “starter pistols” and from “gas-/alarm pistols”, respectively.

Ukraine registered significant proportions of assembled and converted arms. This corroborates other evidence of these two types of illicit manufacture in this country, including the discovery of conversion workshops catering mainly for criminals, and the detection in recent years of workshops specializing in the assembly of firearms from parts and components.¹²

Some countries in Africa registered high proportions of seized arms which were neither industrially manufactured nor produced from industrially manufactured weapons or components through techniques such as modification, conversion, reactivation and assembly of components. This reflects to a large extent the importance of artisanal production – including under licence in some countries - of firearms in this region.

12 Buscemi, F., Duquet, N., Golovko, E. & Woods, E. ‘Illicit firearms proliferation in the EU periphery: The case of Ukraine’, in Duquet, N. (Ed.), *Triggering terror: Illicit gun markets and firearms acquisition of terrorist networks in Europe*, Brussels: Flemish Peace Institute, 2018.

FIG. 9 --- Seizures of artisanal/rudimentary arms in comparison with total arms seizures in Peru, 2010-17



* Includes all types of illicit manufacture other than conversion, assembly and reactivation. Does not include modified arms.

Note: No data were available for 2014 and 2015.

Source: UNODC IAFQ.

Nepal also registered a high proportion of such firearms among its seizures, with some described as “homemade” pistols and typically seized individually (only one per instance). This is again in line with the documented prevalence of artisanal manufacture in this country.¹³

Although countries in Latin America and the Caribbean were not particularly prominent (with the exception of Jamaica) in terms of the proportions of illicitly manufactured arms among seizures, several countries reported “armas hechizas” (rudimentary firearms) among their seizures, including Costa Rica, Honduras and Peru. Based on historical data collected in the 2015 UNODC firearms data collection exercise, rudimentary firearms were prominent among seizures in Peru in 2010 and 2011. Despite some comparability issues, the data for 2016-17 from the present study suggest that this phenomenon has considerably decreased. Significant numbers of arms “otherwise illicitly manufactured” were also reported by Argentina, El Salvador and Guatemala.

Pneumatic, blank-firing and gas weapons

There are some weapons that do not technically qualify as “firearms” as defined by the Firearms Protocol that could, however, be of particular relevance to firearms trafficking, in that they may be easily converted into firearms (depending on the characteristics of the specific models). They include weapons designed to only fire tear gas or

even blanks (e.g. starting pistols used for track and field races) as well as pneumatic (“air”) weapons, which rely on air pressure (rather than an explosion) to convey motion to the projectile. Since the rules and regulations governing the sale, transfer and ownership of such weapons are less stringent than firearms, these weapons can be legally sold and transferred among countries and regions, and subsequently be converted into illicit firearms and used in crime. Moreover, such rules and regulations depend on national legislation, and consequently the interpretation of seizures data needs to be done with caution since their legal justification (if any) varies across countries.

Several countries provided information on seizures of such weapons. Independently of whether these weapons had been illicitly converted, or were meant to be converted, into firearms, the fact that they were seized and reported indicates that they were detected in circumstances which violated the applicable national laws and regulations.

Aside from the total number of seized pneumatic, blank-firing and gas weapons, several countries reported on emerging modalities, related to these weapons, which may affect the illicit manufacture or adaptation of firearms.

Denmark reported a rise, in 2016-17, in the levels of trafficking of converted gas-/alarm pistols. Trafficking of sawn-off shotguns was also occasionally detected alongside the more prevalent pistols, while weapons assembled from separately trafficked parts and components were rarely encountered. These pieces of information together suggest that there is a demand in the criminal underworld in Denmark for smaller weapons that are easier to conceal. Sweden registered three cases of 3D-printed firearms in 2017, and one in 2016.

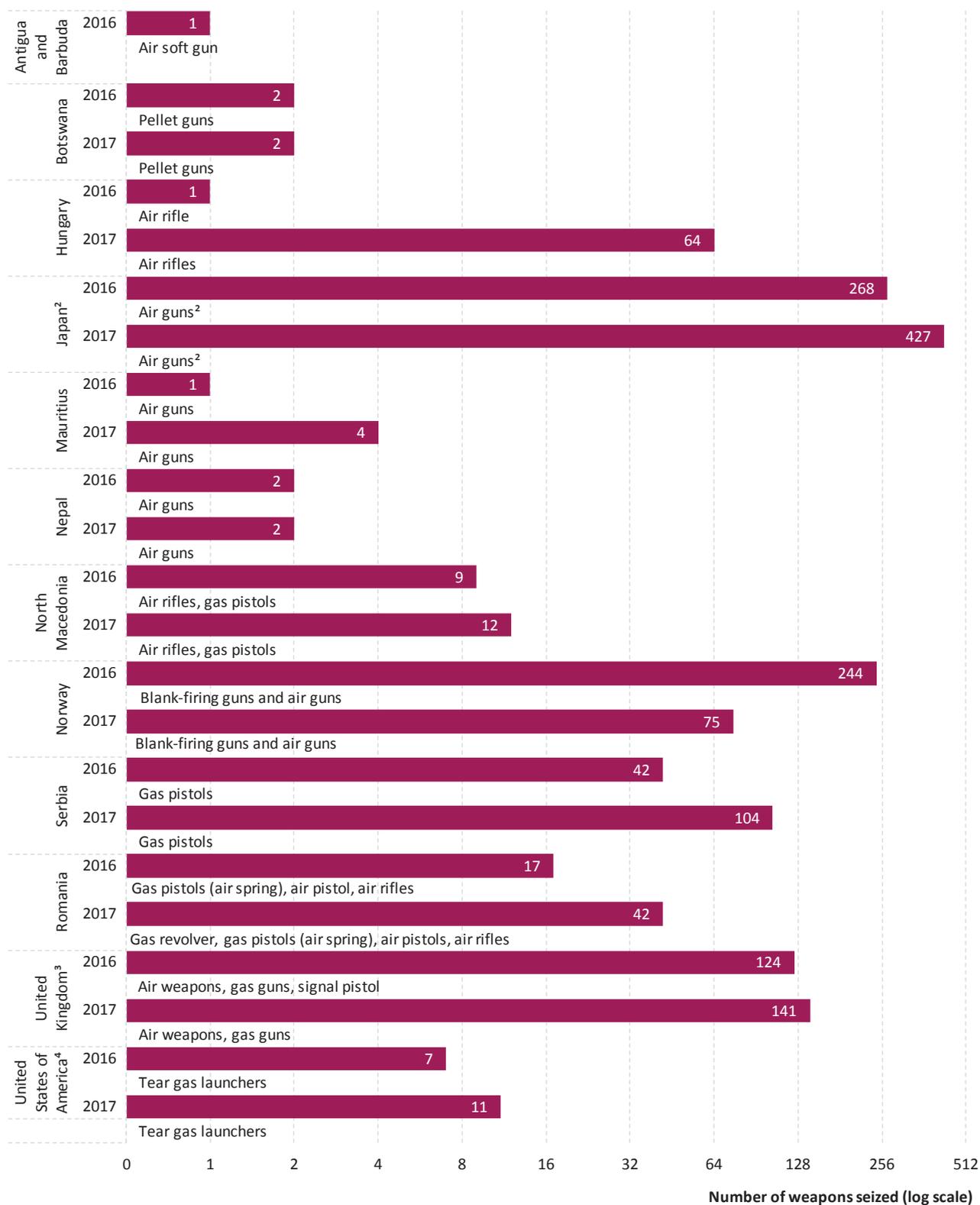
North Macedonia mentioned some cases of individuals who held gas pistols, signal pistols or an air rifle without adequate permission, and highlighted the trade in the illegal market of flare guns illegally converted into other types of weapons, including semi-automatic weapons. These weapons were reportedly most frequently procured from Turkey, where they were manufactured, but it was also possible to procure them from Bulgaria. The flare guns were usually converted by replacing the barrel, after which the weapons could be used as firearms with 6.35mm and 7.65mm calibre rounds.

Hungary reported an increase of incoming gas and alarm pistols from Turkey as well as an increase in such weapons purchased domestically (the legislation in Hungary does not require permission to purchase gas or alarm pistols nor does it require such weapons to be registered). This trend is likely driven by the demand for such weapons for the purpose of illegal conversion.

Portugal highlighted the conversion of 6.35mm calibre weapons into firearms as well as the modification of shotguns whose barrels are cut, and also reported indications

13 Small Arms Survey, *The Highway Routes - Small Arms Smuggling in Eastern Nepal*, Issue Brief No. 4, November 2014.

FIG. 10.... Reported seizures¹ of pneumatic, blank-firing and gas weapons, 2016-17



¹ Includes only cases where the number of seized weapons of this type could be quantified. Several other countries reported seizures of such weapons aggregated with other types.

² Figures for Japan may also include machine guns and other weapons.

³ Figures for the United Kingdom potentially include found weapons in addition to seized weapons.

⁴ Data for the United States include firearms (as classified by the Bureau of Alcohol, Tobacco, Firearms and Explosives, United States) submitted for tracing to the Bureau of Alcohol, Tobacco, Firearms and Explosives by a law enforcement agency, resulting from seizure as well as abandonment, buy-back program, or other recovery method. Moreover, only seized firearms submitted for tracing are included. Firearms submitted for tracing after recovery do not represent the entire set of all seized firearms.

Source: UNODC IAFQ.

of Portuguese citizens with sufficient knowledge and equipment to modify or otherwise adapt weapons in their homes. Portugal also reported some seizures of Flobert guns which entered Portugal illegally from Slovakia.

Among the types of trafficked weapons, Spain identified “unused” reactivated pistols, blank-firing pistols (“pistolas detonadoras”) originating mainly from Turkey, “acoustic-expansion” weapons originating mainly from Czechia and Slovakia, and homemade weapons. The blank-firing pistols and “acoustic-expansion” weapons were converted by making the necessary adaptations in the barrel (eliminating the stopper or seal) and “unused” pistols were reactivated in order to be able to produce real fire. Homemade weapons ranged from simple and rudimentary weapons, such as the so-called “chimbas”, to more sophisticated and reliable pen guns.

In one jurisdiction in Australia where blank-firing firearms were sold legally, there was an apparent market for homemade, modified or converted firearms including shotguns and blank-firing firearms. There is no information on what triggered this dynamic, but access to modification instructions on the internet may have played a role. Another jurisdiction in Australia detected proscribed modifications such as sawn-off barrels in the illicit market.

Evidence on diversion

The concept of tracing lies at the heart of efforts to identify the point of diversion, understood as the point in which firearms exit the legal circuit and enter the illicit realm. The United Nations Firearms Protocol, in its Article 3 (f), defines “tracing” as the “systematic tracking of firearms and, where possible, their parts and components and ammunition from manufacturer to purchaser for the purpose of assisting the competent authorities of States Parties in detecting, investigating and analysing illicit manufacturing and illicit trafficking.” In practice, this may involve a variety of strategies, depending on national context, to track the lifecycle of a firearm, but a systematic approach usually entails an examination of the legally required markings on the firearm (which are intended precisely for the purpose of tracing), a check against national records and international databases and, where necessary, the submission of tracing requests to counterparts in other countries.

Such efforts may yield a variety of outcomes, and some information on these tracing outcomes was collected through the UNODC questionnaire, in a format designed to cater for the purposes of SDG indicator 16.4.2.¹⁴ Although these data are geared towards the measurement of the success rate in tracing, they can also give some information about the nature of diversion and the modality whereby the weapons become illicit.

14 See Section on SDG Indicator 16.4.2 and tracing.

A central question is the extent to which the firearms of illicit origin¹⁵ in a country’s black market derive from illicit domestic sources (domestic diversion or domestic illicit manufacture) as opposed to trafficking from abroad. Some information on this may be gleaned from data on tracing outcome, which includes information on whether the firearm was identifiable through marking, whether the firearm was seized from its legitimate owner,¹⁶ whether a tracing attempt was made and, if so, whether the firearm could be traced to a local or foreign registry (see Figure 11).

The above question can be addressed by considering three different sets of arms of illicit origin, defined in terms of the tracing outcome. The largest of the three sets consists of all seized firearms which were uniquely marked (except for those seized from their legitimate owner). This set captures the biggest universe of seized firearms which could provide information on the nature of diversion (domestic or not), but it carries most uncertainty, as it includes several tracing outcomes which do not conclusively determine whether the illicit origin was of a domestic or transnational nature. These data show that, on average, illicit origin of a domestic nature accounted for between 32 to 92 per cent of all seized arms of illicit origin (see bar “A-F” in Figure 12).

When focusing on the smaller subsets of seized arms, those for which a tracing attempt was made and those for which there was successful tracing, this range becomes smaller and more revealing, although the numbers may be less representative (since the universe of firearms considered is smaller – see bars “B-F” and “D-F” in Figure 12).

The smallest set consists of successfully traced arms. In principle, it can reveal with most precision the proportion of domestically diverted arms, through data on firearms that have been traced to a foreign registry (and quite likely diverted abroad) and firearms that have been traced to the national registry (and quite likely diverted domestically).¹⁷ These data suggest a share of domestically diverted arms of around 70 per cent among seized arms of illicit origin. However, these data provide a partial picture because they describe only those seizures where it was possible to determine the point of diversion through successful tracing.

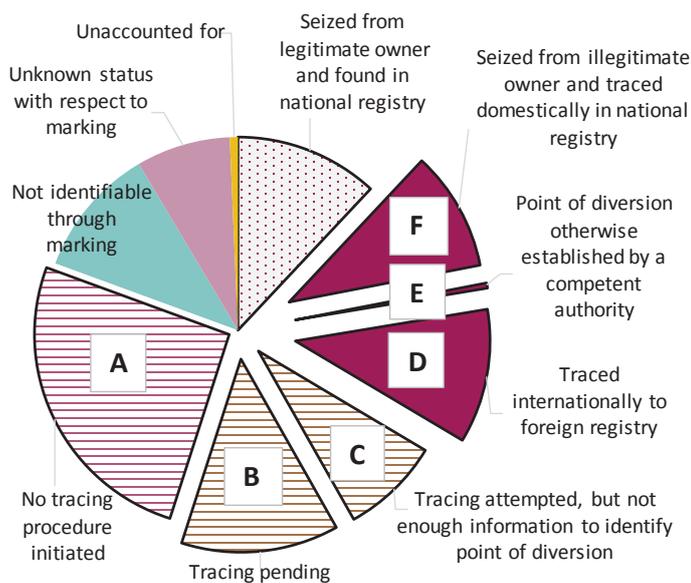
The picture which emerges overall, though not definite, does suggest that, on average, a significant proportion (potentially a majority) of arms of illicit origin derive from domestic sources, at least on the basis of seized arms which

15 See next Section “SDG Indicator 16.4.2 and tracing” for a discussion of the “illicit origin” of firearms.

16 Firearms held by their legitimate owner cannot be said to be of “illicit origin” and the question of domestic versus transnational illicit origin is not applicable.

17 This assumes that the tracing process follows through to the last legal record of the firearm, implying that the firearm was not legally exported at a later stage (thus precluding the rather unusual, albeit also documented, scenario of firearms which are exported, subsequently diverted and then trafficked back into the country of seizure).

FIG. 11.... Average breakdown of seized arms by tracing outcome in a single country,* 2016-17

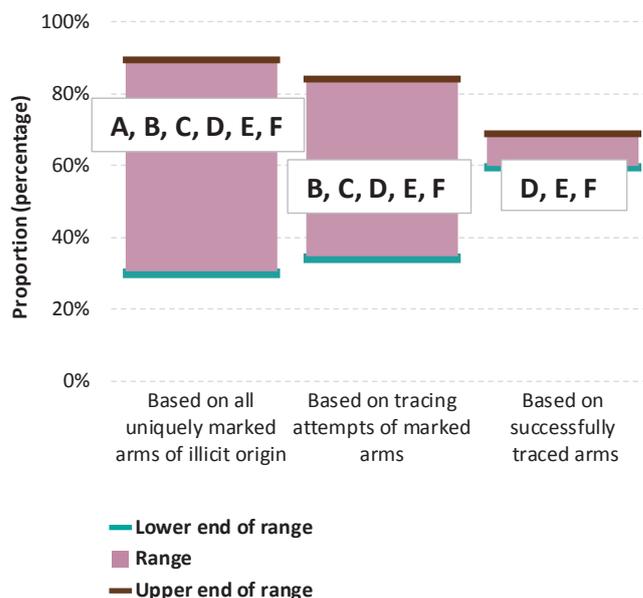


* Simple averages for 14 countries.

Notes: Black border denotes arms which were uniquely marked. Dotted background denotes arms not considered to have an "illicit origin". Striped shading denotes outcomes which do not provide evidence on the domestic or transnational nature of the illicit origin of an arm (including segment E).

Source: UNODC IAFQ.

FIG. 12.... Domestically diverted arms as proportion* of seized arms of illicit origin – ranges (based on uniquely marked arms only), 2016-17



* Simple averages.

Note: Letters refer to labelled segments in Figure 11.

Source: UNODC IAFQ.

are identifiable through marking.¹⁸ Although this reflects the typical scenario to be expected on average, the reality in a given country will of course depend on its specificities and the nature of its licit and illicit market. It stands to reason that, if a given country's licit market provides an ample, varied and easily accessible pool of weapons, it may be more viable for criminals to divert firearms internally rather than resort to firearms trafficked from other countries. This holds not only for countries with legal domestic manufacture but also for countries whose licit market is mainly supplied by legal imports.

Also, in countries with relatively restrictive laws on the licit market which severely curtail the range of accessible firearms and the ease of obtaining them, domestic diversion remains a predominant source for illicit firearms. An example is the United Kingdom. Based on the information from the National Ballistics Intelligence Service (NABIS) of the United Kingdom, the number of firearms seized there from legitimate owners is negligible. Moreover, using serial numbers and manufacture markings when present, as well as information on legal sales for those firearms of an age where sales records were believed to be in existence, NABIS

are able to determine the country of diversion of approximately one third of firearms recovered in the United Kingdom. Analysis of those firearms has consistently shown that approximately 70 per cent transitioned from lawful to unlawful possession in the United Kingdom.

It may be the case that, in such countries, some of the novel and unconventional ways of illicitly manufacturing a firearm, including assembly, conversion, extensive modification and reactivation, provide an alternative to trafficking from abroad as a method to supply the illicit market with weapons that are not available on the licit market.

Other factors to consider are the levels of legally registered firearms in a country. The National Firearm Trace Program of the Australian Criminal Intelligence Commission, for example, found that, based on firearms traced in 2015-16, the primary contemporary method of diversion in Australia was theft from licensed individuals or firearm dealers (including suspected staged theft), while illegal import accounted for a relatively small percentage of illicit firearms in the Australian market.¹⁹

18 In general, illicit domestic sources could in principle consist of diversion as well as illicit manufacture. For seized arms which are identifiable through marking, the contribution of illicit manufacture is less relevant.

19 Australian Criminal Intelligence Commission, *Illicit Firearms in Australia*, 2016.

SDG indicator 16.4.2 and tracing

SDG indicator

With the adoption of target 16.4 of the 2030 Agenda for Sustainable Development, countries committed to “*by 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime*”. To measure the attainment of this target, Member States adopted Sustainable Development Goal (SDG) indicator 16.4.2, which measures the reduction of illicit arms flows by collecting data on the “*proportion of seized, found and surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments*”.

The purpose of the indicator is to establish the illicit origin of relevant seized, found and surrendered arms, which entails identifying the specifics of the moment or situation in which the arm began its illicit lifecycle. For legally manufactured arms, this boils down to establishing the point of diversion, that is, the moment when the (originally legal) arms crossed from legal to illegal status. For arms which were manufactured illicitly, establishing the “illicit origin or context” requires identification of the circumstances in which they came into existence.

This chapter describes the process of disentangling information on firearms seizures to compute the SDG indicator and presents the first global baseline data for the indicator although still based on data from a relatively small number of countries. This first data set shows that the practice of tracing, in order to establish the illicit origin or illicit context of seized firearms—along with the systematic recording of the outcome of tracing—is not very well established. On average, it was possible to have successful tracing outcomes for only 28 per cent of the relevant category of firearms – mainly those with identifying markings.

The countries that achieved high success rates in tracing firearms reported relatively low seizure levels, perhaps because tracing requires separate investigative efforts, time and human resources that are often not available. On the other hand, some countries with high levels of seizures registered a low success rate, which may also be linked to firearms seized in connection with less serious offences which are not prioritised in tracing.

A pathway through seizure data to determine success in tracing outcomes

Establishing how many seized firearms could successfully be traced requires a careful analysis of the data on seized firearms in all their components. Firstly, it should be noted that some firearms may be seized from their legitimate owner, in which case their origin cannot be described as

illicit, and they are not linked to illicit flows. These seizures are not taken into account when determining if there was successful tracing and can be removed from the universe of the indicator, which thus includes in principle any situation in which the firearm is seized, found or surrendered in circumstances other than from/by its legitimate holder.

In practice, the process for establishing the illicit origin of firearms is heavily impacted by the presence of markings. Industrially manufactured firearms carry identifying markings which render them uniquely identifiable and enable authorities to trace their legal lifecycle, and hence the last legal record and the point of diversion. However, some firearms are also manufactured in artisanal settings or come into existence in other illicit ways, in which case markings may not be present. Some firearms may also have their markings erased or altered in a way which renders them not uniquely identifiable any more; such action in itself can be considered to represent the beginning of the illicit lifecycle of the firearm.

Thus, the process of tracing the illicit origin of a seized firearm starts by checking whether the firearm is uniquely identifiable through markings. This is, however, only the first step. For uniquely marked firearms, the tracing process usually starts by ascertaining whether the firearm in question is recorded in the national registry of the seizing country; aside from firearms seized from their legitimate owner, such a search may yield “successful” outcomes if the firearm was recorded as “lost”, “stolen”, “confiscated”, “marked for destruction”, “deactivated”, et cetera. If the firearm is not recorded in a national registry, the next step is usually to attempt to identify the last legal record of the firearm through searches in international databases, such as Interpol’s iARMS database of stolen, lost and found firearms, or, if necessary, to locate a legal record of the firearm in a foreign registry by sending individual tracing requests through bilateral contacts or other established tracing mechanisms. The markings may assist in identifying the countries to which such requests may be directed. Such countries can be the country of manufacture or, if the relevant markings exist, the country of last legal importation. If successful, such requests may yield outcomes similar to the case of items found in national registries. One helpful outcome for both domestic and international tracing is if the item is recorded as “exported”, because this could facilitate tracing back the history of the firearm. In order to truly identify the point of diversion, it is important that the process identifies the last legal record of the firearm.

For items which were not uniquely identifiable through marking, the process would entail pursuing a variety of potential avenues as the opportunity arises, including further investigations and intelligence gathering, ballistics work, communication with international counterparts and other measures.

FIG. 13... Typical process for the establishment of illicit origin/context of seized, found and surrendered arms, their parts and components and ammunition

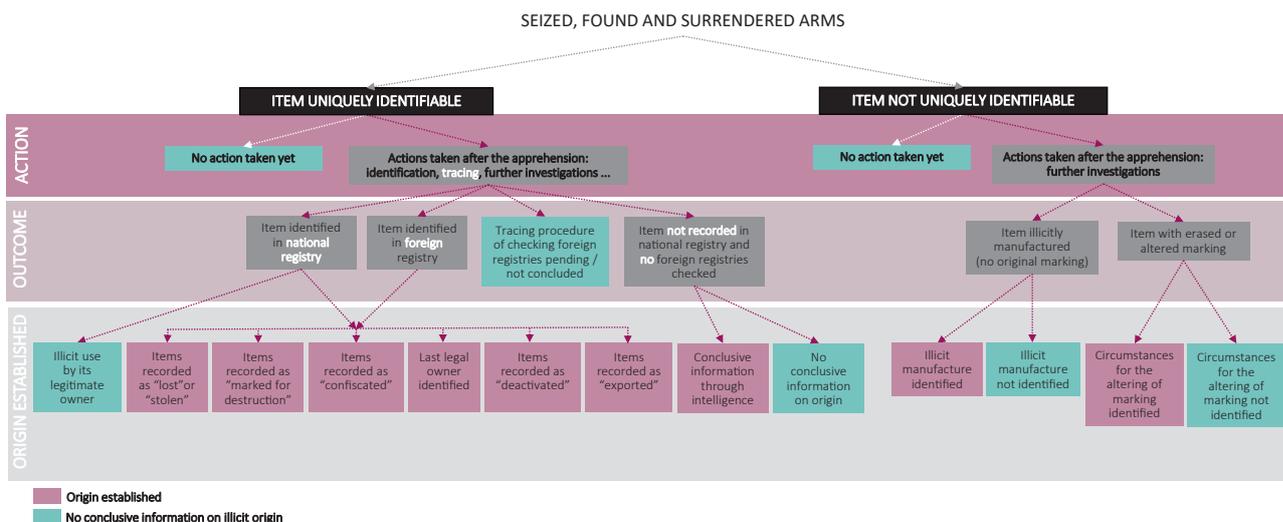
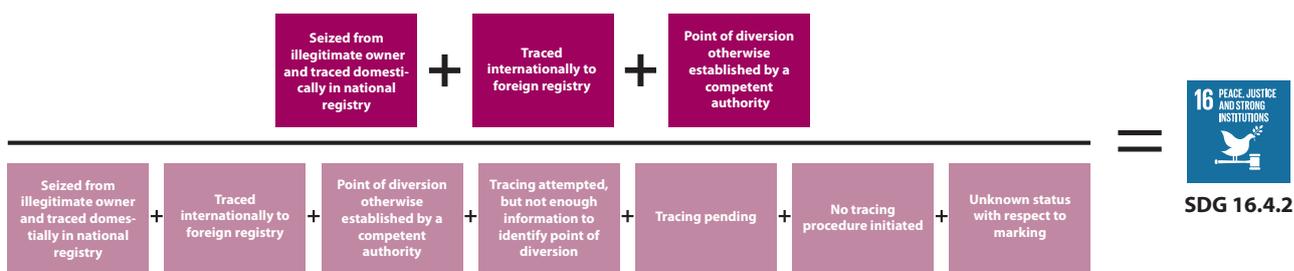


FIG. 14... Computation of SDG Indicator 16.4.2



See Figure 13 for a general illustration of the process of establishment of illicit origin/context of seized firearms. It should be borne in mind, however, that, due to considerations of data availability as well as the focus of SDG target 16.4 on illicit flows, this schematic representation goes beyond the categories used for the computation of indicator 16.4.2.

The computation of the SDG indicator 16.4.2 requires to distinguish between “successful” and “unsuccessful” efforts to establish the illicit origin or context, among the entire universe of seized arms²⁰ where this concept is relevant and applicable (that is, excluding arms seized from their legitimate owner). UNODC’s IAFQ questionnaire asks Member States to classify the outcome of these efforts into a number of categories, which are then used to determine the numbers of firearms for which these efforts were successful or not.

The data collected by UNODC distinguish between those firearms which were uniquely identifiable through markings and those which were not. For those firearms which

were not identifiable through markings, which include illicitly manufactured firearms and firearms with erased or altered markings, there is a certain degree of subjectivity in determining whether the circumstances of the illicit origin were ascertained with sufficient detail; moreover, the available data do not allow to distinguish between successful and unsuccessful outcomes. For this reason, the computation of the SDG indicator focuses on the sub-universe of “potentially traceable” firearms, which consists mainly of firearms with uniquely identifiable markings (and also excludes firearms seized from their legitimate owners). Firearms whose marking status was not recorded are also included and considered as “unsuccessful” instances of the efforts to identify the illicit origin. See Figure 14 for an illustration of the computation of the SDG and the various categories.

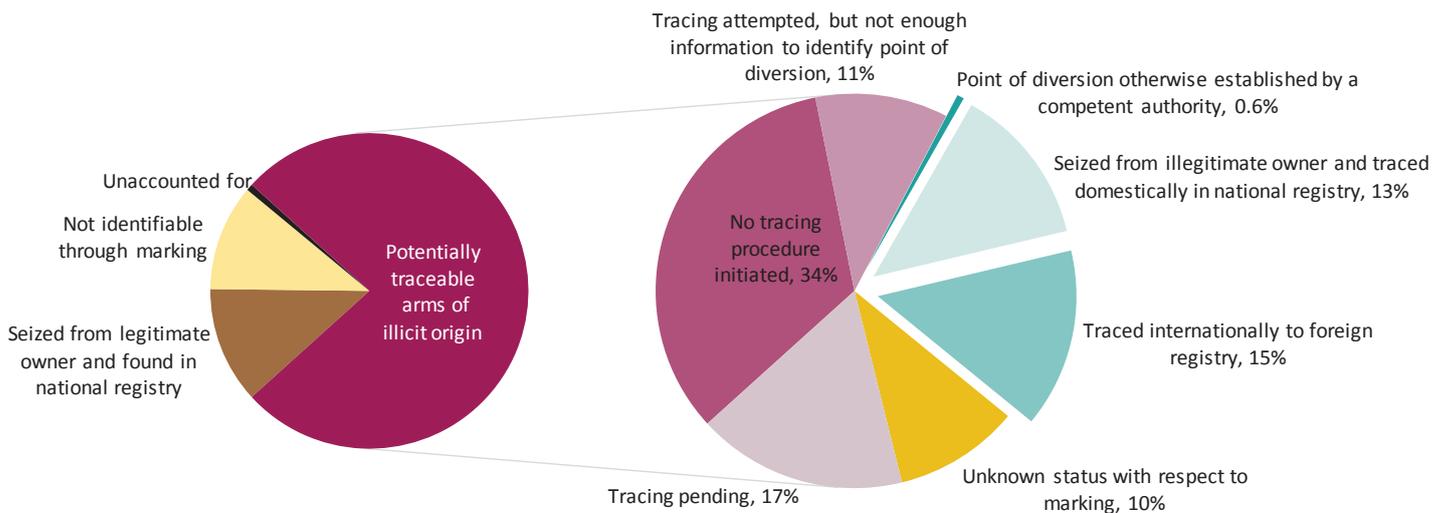
Findings on the SDG indicator

Sufficiently detailed data to compute the SDG indicator were provided by 14 countries. On average, the value of the indicator amounted to 28 per cent.²¹ This number was

20 The SDG Indicator also refers to found and surrendered arms; in view of the availability of data, the computations so far have been restricted to seized arms.

21 The average proportion of successfully traced arms is adjusted for arms which do not belong to the universe of potentially traceable arms. See Methodological Annex for details.

FIG. 15... Typical breakdown* of seizures by tracing outcome and SDG Indicator 16.4.2, 2016-17



* Average of 14 countries.
Source: UNODC IAFQ.

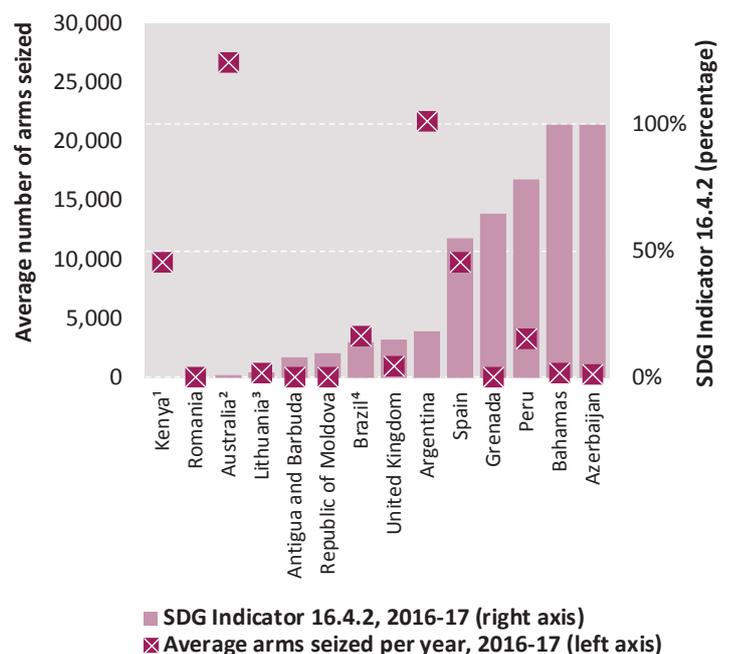
driven by two components in roughly equal measure: firearms traced domestically to a national registry (13 per cent) and firearms traced internationally to a foreign registry (15 per cent).

There was notable variability in the value of SDG indicator 16.4.2 across the 14 countries. In particular, some very high proportions of traced firearms were registered in some countries with relatively low levels of seized arms, such as Bahamas (average of 362 arms seized per year in 2016-17) and Azerbaijan (215 per year). At the other extreme, some very low proportions were registered by countries with relatively high numbers of arms seized, such as Kenya (9,728 firearms seized in 2017) and Australia (average of 26,660 arms seized per year in 2016-17).

This apparent association between high seizure levels and low values for the SDG indicator could potentially reflect two different mechanisms. Smaller quantities of firearms to be traced create less of a burden for tracing which is more likely to be carried out successfully (and conversely higher numbers, a bigger burden, and less successful tracing). Higher seizure levels may also be indicative of firearms seized for less serious offences, which may in turn not be deemed to warrant the investment of resources dedicated to tracing. This last inverse association is mainly observable at the extreme values of the indicator and cannot be said to constitute a general pattern (see Figure 16).

A breakdown of the different types of tracing outcomes gives further insights into the composition of the successful outcomes. In some countries, such as Argentina, Australia, Azerbaijan, Peru, Republic of Moldova and Spain, the dominant contribution was the component of firearms found in a national registry. In general, such a pattern is not surprising, given that tracing to a foreign registry is

FIG. 16... Value of SDG Indicator 16.4.2, in comparison with average arms seized, 2016-17



¹ Data for 2017 only.

² Include seizures of an administrative nature.

³ Data for 2016 only.

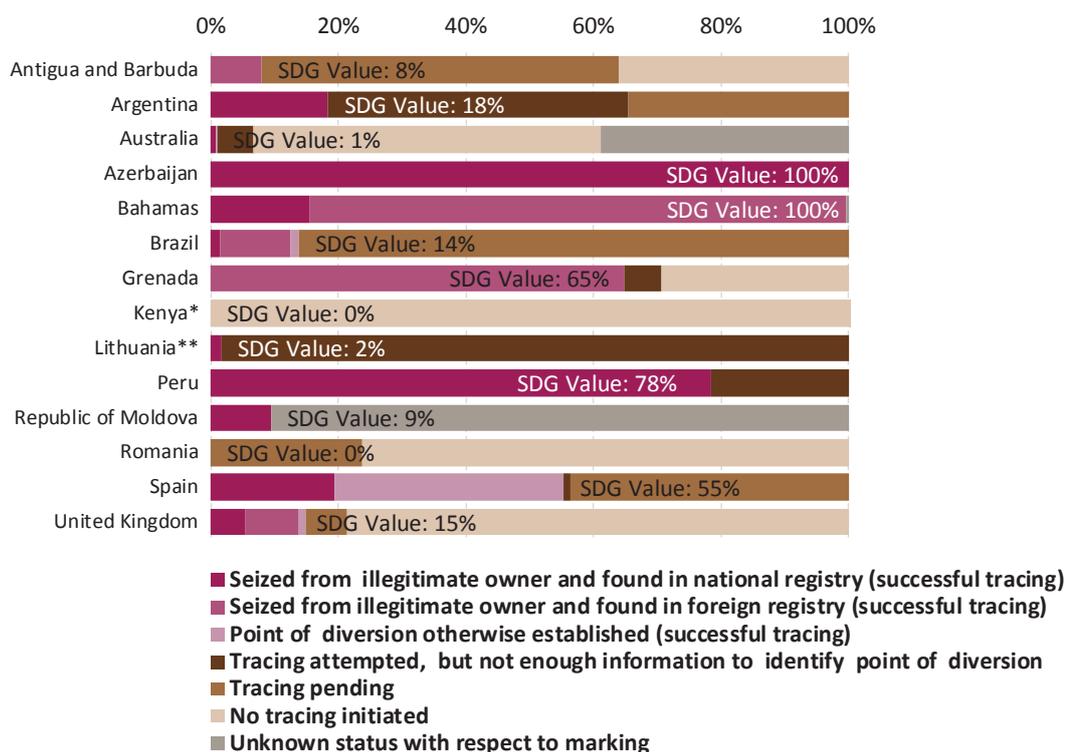
⁴ Both the average number of arms seized as well as the value of the SDG Indicator are based only on seizures in the records of the Federal Police Tracing Centre of Brazil.

Source: UNODC IAFQ.

inherently more onerous in comparison with tracing to a national registry.

In some cases, such as Argentina, the predominance of domestic tracing may be driven by a significant component of seized firearms which were manufactured in the

FIG. 17.... Breakdown of potentially traceable arms by tracing outcome, and composition of Sustainable Development Indicator 16.4.2 by type of successful outcome, 2016-17



* Based on data for 2017 only.

** Based on data for 2016 only.

Note: Successful tracing outcomes are shown on the left hand side in different shades of purple; unsuccessful tracing outcomes are shown on the right hand side in different shades of brown.

Source: UNODC IAFQ.

country and diverted domestically (at least 69 per cent of firearms seized in Argentina in 2016-17 had been manufactured in Argentina itself²²).

In some cases, the lack of successful international tracing to a foreign registry was due to countries' limited capacity to report on this number. However, some countries also reported that no firearms were traced internationally, suggesting that greater capacity and awareness raising are needed in this area.

In other countries, such as Bahamas, Brazil and the United Kingdom, the dominant component of successful tracing outcomes was that of firearms traced to foreign registries. It should however be borne in mind that these computations are based on a subset of all seized firearms.

Tracing requests sent and received

Aside from the outcome of tracing efforts, countries were also asked to provide information about the number of tracing requests sent during 2016-17, and to which countries or agencies these requests were addressed. In total, 15

countries reported having sent 6,173 requests to 45 different countries and one agency (Interpol) (see Figure 18).

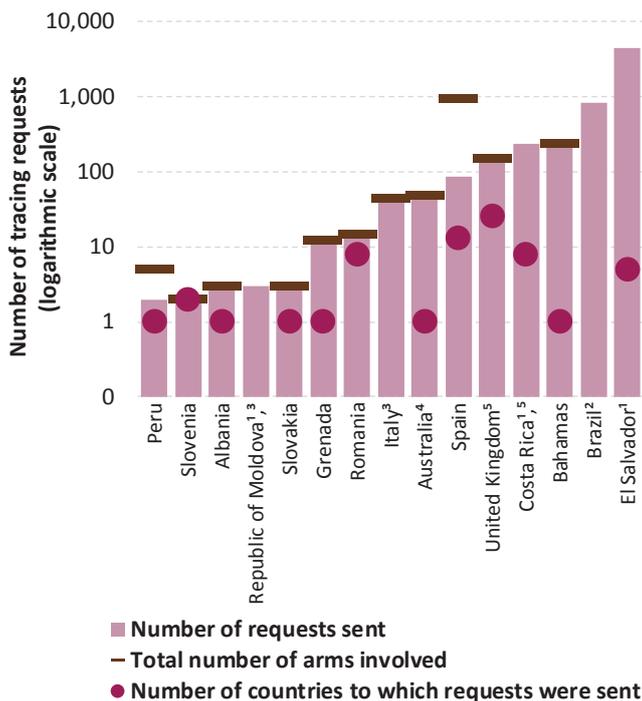
The largest numbers of sent requests were reported by countries in Latin America and the Caribbean; in some cases, similar requests pertaining to the same firearms may have been sent to multiple countries in a systematic fashion. In terms of the number of different countries to which requests were sent, the highest numbers were reported by the United Kingdom (26) and Spain (13); however, based on a small subset of tracing requests for which details were available (23 out of 837 made during the period 20 February 2017-31 December 2017), Brazil sent tracing requests to at least 15 different countries.

The United States was most frequently mentioned as the country to which tracing requests were sent (mentioned by 6 countries), followed by Germany (4 countries). In addition, 7 countries reported sending requests to, or facilitated by, Interpol.

There appeared to be a certain correspondence between the country of manufacture of seized firearms and the countries to which tracing requests were sent. For example, in the case of the United Kingdom, among the top nine countries which were identified as the country of manu-

22 Out of 43,321 arms seized in 2016-17, 29,794 had been manufactured in Argentina; in addition, the country of manufacture was unknown for 4,251 arms.

FIG. 18... Tracing requests sent, by reporting country, 2016-17



¹ For Costa Rica, El Salvador and Republic of Moldova the total number of arms involved was not available.

² Data for Brazil refer to the period 20 February 2017-31 December 2017 only. The total number of arms involved and the total number of countries to which requests were sent were not available.

³ For Italy and Republic of Moldova, all requests were sent to or through Interpol.

⁴ Data from one jurisdiction only.

⁵ Data for Costa Rica and the United Kingdom refer to 2017 only.

Source: UNODC IAFQ.

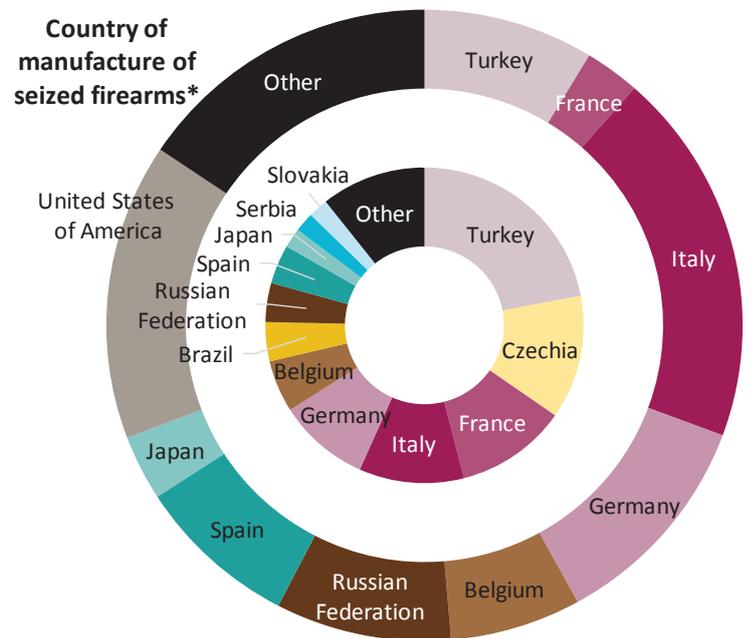
fabrication of firearms seized by the United Kingdom (excluding the United Kingdom itself), most (seven) were also among the top nine to which the United Kingdom sent tracing requests. This is to be expected, as the country of manufacture is a natural starting point in tracing the life-cycle of a firearm (see Figure 19).

Countries were also asked to provide information about the number of tracing requests received during 2016-17, and from which countries or agencies these requests originated. In total, 16 countries reported receiving 6,915 requests from 65 countries and 2 agencies (Europol and Interpol) (see Figure 20).

Some of the countries which reported sending high numbers of tracing requests were also among those which received relatively high numbers of requests; this included Costa Rica, El Salvador, Spain as well as the United Kingdom (in view of the fact that data available for this country covered 2017 only).

Belgium attributed the large number of tracing requests received (769 from at least 39 countries) to the presence of a large firearms production facility in Belgium. Local

FIG. 19... Tracing requests sent by the United Kingdom, by requested country, in comparison with country of manufacture of arms seized by the United Kingdom, 2017



* Top 9 countries, excluding the United Kingdom itself and unknown countries of manufacture. Other countries included under "Other".

** Top 12 countries to which requests were sent. Other countries included under "Other".

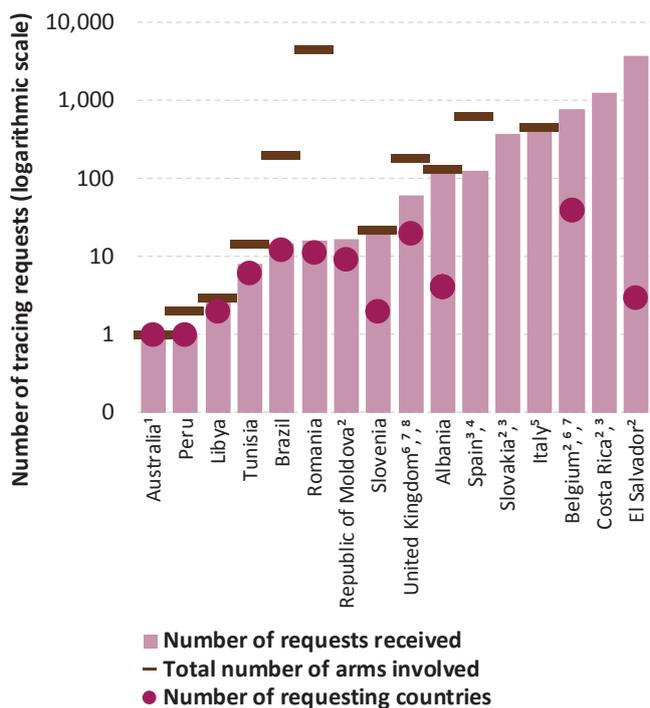
Source: UNODC IAFQ.

manufacture may also play a role in the cases of Italy, Spain and the United Kingdom—among countries which provided data on tracing requests received, Italy, Spain, Belgium and the United Kingdom constitute the top four countries in terms of their frequency as the country of manufacture of seized firearms (compare Figure 20 and Figure 24).

In some cases, the high numbers of requests appeared to be driven by requests between neighbouring countries; for example, El Salvador reported sending a total of more than 4,000 requests to Mexico, Guatemala, Honduras, Nicaragua and Costa Rica, and receiving a total of more than 3,500 requests from Mexico, Honduras and Costa Rica. A similar pattern held also for Costa Rica, which sent requests to eight countries, of which seven were in Central America, and identified only Panama among the countries from which it received tracing requests.

In other cases, the high numbers of requests were received from a very diverse group of countries. Brazil, Spain and the United Kingdom, which sent tracing requests to the highest numbers of countries, were also among those reporting requests received from the highest numbers of countries: at least 20 in the case of the United Kingdom, at least 13 in the case of Spain (aside from Europol and Interpol) and 12 in the case of Brazil. This suggests that a

FIG. 20.... Tracing requests received, by reporting country, 2016-17



¹ Data from one national agency only.
² For Belgium, Costa Rica, El Salvador, Republic of Moldova and Slovakia the total number of firearms involved was not available.
³ For Costa Rica and Slovakia, the number of requesting countries was not available.
⁴ Spain received requests from 13 countries or more.
⁵ For Italy, all requests were received from or through Interpol.
⁶ For Belgium, the number of requesting countries may omit an unknown number of countries reported under "other".
⁷ Data for Belgium and the United Kingdom refer to 2017 only.
⁸ For the United Kingdom, the number of requesting countries may omit one country reported under a regional aggregation.

Source: UNODC IAFQ.

general engagement of such countries in the area of tracing begets mutually reinforcing roles of receiving and responding to tracing requests.

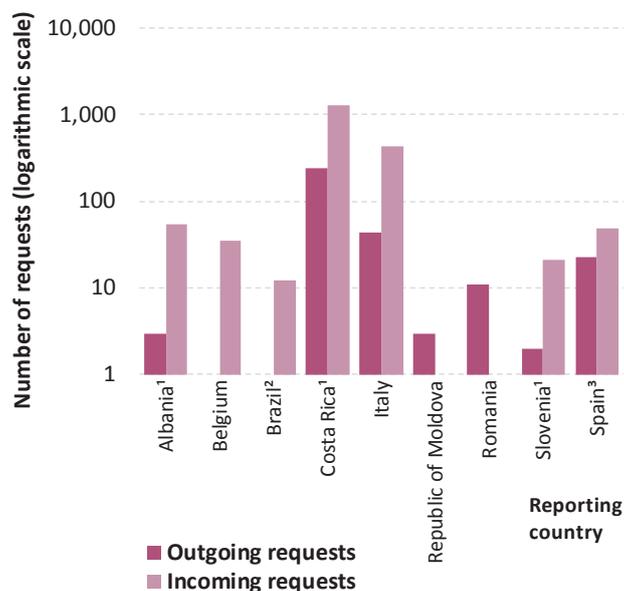
Nine countries reported the involvement of Interpol in tracing requests sent or received (see Figure 21). Among these countries, the number of tracing requests received tended to be higher than requests made; this may be influenced by the ability of countries to effectively direct tracing requests to multiple countries through the use of a dedicated multilateral platform managed by Interpol.

Licit manufacture

It is important to note that, while the illicit supply chain starts at the point of diversion (or illicit manufacture), a diverted weapon may have a long licit history prior to diversion, starting with the country of licit manufacture.

With the exception of some countries with significant domestic licit manufacture of firearms, typically the majority of seized weapons were manufactured outside the coun-

FIG. 21.... Tracing requests sent to, received from, or otherwise facilitated by Interpol, 2016-17



¹ Includes requests placed through the Interpol platform iARMS.
² Brazil reported sending 18 requests involving Interpol; however details were unavailable for the vast majority of requests and therefore this number likely underestimates the actual figure.
³ Spain also reported 12 requests coming from Europol.
 Note: Slovakia reported 381 incoming requests, of which an unspecified number were received from Europol and Interpol.

Source: UNODC IAFQ.

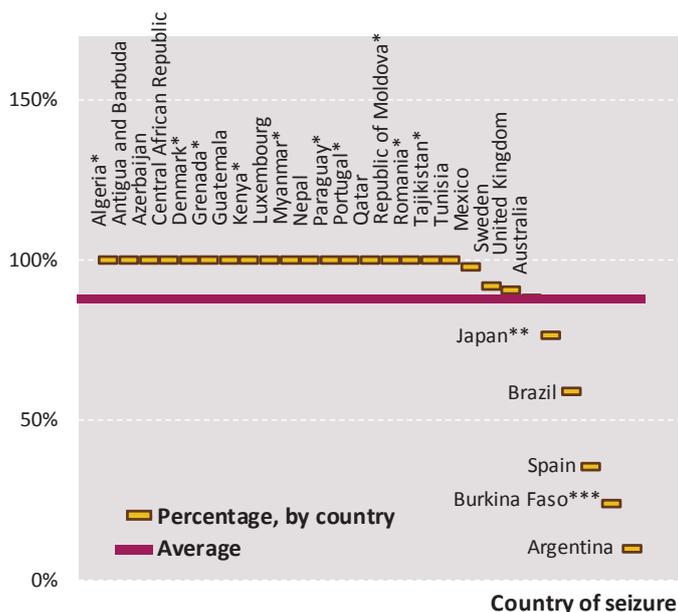
try of seizure. This is hardly surprising, given that, in many countries, the licit market also relies heavily on imports from the major producing countries (see Figure 22).

The country of diversion may be anywhere on the chain between the country of manufacture and the country of seizure. The indications that the illicit source of firearms is often to be found in the country where firearms are seized (see Figure 12), coupled with the fact that seized arms are, for most countries, manufactured outside the country of seizure, suggest that the country of manufacture may have little to do with the country of diversion. There is also the possibility of undetected diversion happening in manufacturing countries, but this could not be ascertained with the available information.

Further corroboration of this can be found when considering a special subset of seized arms which by definition are unlikely²³ to have been diverted in the country of seizure - namely arms seized on incoming cross-border shipments. Among such seizures, there appears to be a significant proportion which enter from a country other than the country of manufacture. This does not, by itself, establish what proportion of arms are diverted within the

²³ Aside from the possibility that a firearm was diverted in a given country, then trafficked into another country, followed by an attempt, detected at the border, to traffic the firearm back into the country of diversion.

FIG. 22... Proportion of seized arms manufactured outside country of seizure, by country, 2016-17



Note: Proportions are adjusted to exclude arms whose country of manufacture was unknown or not reported.

* These reporting countries did not indicate themselves among the countries of manufacture, but reported some seized arms manufactured in unspecified "Other" countries (a breakdown by country was only collected for the main (top 10) countries of manufacture.)

** Based on data for revolvers and pistols only (data on country of manufacture for overall seizures were not available).

*** Based on data for 2016 only. The response from Burkina Faso suggests that arms manufactured in Burkina Faso itself (using artisanal techniques) accounted for the largest share of arms seized in the country, but the number of such arms was not quantified. As a proxy, the total number of artisanally manufactured arms is used in the calculation. However, some arms manufactured in neighbouring countries may also have been manufactured using artisanal techniques; hence the proportion manufactured outside Burkina Faso may be under-estimated.

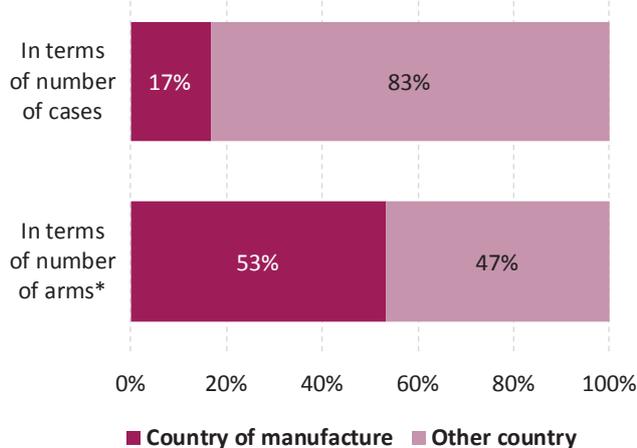
Source: UNODC IAFQ.

country of manufacture or otherwise, but it gives a strong indication that diversion has occurred after exportation from the country of manufacture (see Figure 23); in other words, it is very plausible in such a scenario for an arm to be first legally manufactured, then legally exported, and only then diverted.

The different distribution between number of cases and number of arms is affected by two large seizures demonstrating the attempt to illegally export a large quantity of arms from a manufacturing country. This suggests that there may be cases with a large number of trafficked firearms where the point of diversion is in the country of legal manufacturing (or at its border). However, such cases were relatively infrequent; once more, this is not surprising, given that many civilian firearms are exported at wholesale level and only subsequently sold at retail level outside of the country of manufacture.

Once a firearm has been legally sold and is in civilian ownership, it is rather unlikely for the legitimate owner to undertake, in a legal fashion and for purely legal purposes,

FIG. 23... Country of provenance of arms seized on an incoming route, breakdown into country of manufacture versus third country, 2016-17



* This distribution is heavily impacted by two large seizures by the same country and from the same country of provenance. Excluding these two large cases, the distribution is: 22 per cent of weapons for which the country of provenance coincided with the country of manufacture, 78 per cent of weapons for which the country of provenance was another country.

Note: Based on reported significant cases of weapons seized on an incoming route for which the country of provenance (country from which the seized arms entered the country of seizure) and as the country of manufacture of the seized weapons were both available (7 countries).

Source: UNODC IAFQ.

an exportation to another country – unless the owner herself moves across the border (temporarily or to take up residence for the longer term²⁴). Thus, for firearms in civilian possession, the country of the last legal status may frequently coincide with the country of the first retail purchase, with individual mobility being the main counterbalance to this. In other words, if an illicit firearm was at some point diverted from civilian ownership, it is quite plausible that this happened either within the country of first retail purchase, or else in an outgoing cross-border movement from the country of first retail purchase.²⁵

The concept of tracing²⁶ requires the identification of the point at which the transition is made from the licit to the illicit spheres (point of diversion). In principle, this requires the identification of the last legal owner; in some countries where there is no legal obligation to keep records of the final end-user, this information is not possible to obtain and tracing practices will by necessity look for the retail purchase in order to determine with some approximation the point of diversion.

24 For example, sports shooters and hunters may cross borders with their legally held firearms and sell their arms during their travel.

25 One exception to this is the possibility of legal exports which are really pretexts for diverting the weapon in the country of importation.

26 See Article 3 of the UN Firearms Protocol and paragraph 5 of the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons.

TABLE 1 Most frequently reported countries of manufacture of seized arms, ranked by number of reporting countries^a (by geographical proximity of reporting country), 2016-17

Country of manufacture	Reporting countries, in relation to country of manufacture			
	Intra-subregional ^a	Intra-regional	Inter-regional	Total
Italy	3	5	15	23
Germany	4	5	13	22
United States of America		6	15	21
Belgium	4	3	10	17
Czechia	1	6	9	16
Russian Federation	1	4	10*	15*
Spain	2	5	7	14
Turkey	2	1	11	14
China	2	2	8	12
Austria	2	3	5	10
France	2	3	4	9
Brazil	1	2	5	8
United Kingdom	1	1	2	4
Israel			4	4
Japan		1	2	3
Yugoslavia (former State)		3		3

* In addition, one African country reported seized arms manufactured in the Union of Soviet Socialist Republics (former State).

^a Not including countries reporting seized arms manufactured in their own countries.

Source: UNODC IAFQ.

TABLE 2 Most frequently reported countries of manufacture of seized arms, ranked by number of reporting countries^a (by region of reporting country), 2016-17

Country of manufacture	Region of reporting country					Total
	Africa	Americas	Asia	Europe	Oceania	
Italy	3	7	4	8	1	23
Germany	3	5	4	9	1	22
United States of America	2	6	4	8	1	21
Belgium	2	5	3	7		17
Czechia	1	4	3	7	1	16
Russian Federation	5*	1	4	5		15*
Spain	2	2	2	7	1	14
Turkey	3	2	3	6		14
China	2	3	4	2	1	12
Austria		5		5		10
France	4			5		9
Brazil		3	1	3	1	8
United Kingdom	1			2	1	4
Israel	2	2				4
Japan			1	1	1	3
Yugoslavia (former State)				3		3

* In addition, one African country reported seized arms manufactured in the Union of Soviet Socialist Republics (former State).

^a Not including countries reporting seized arms manufactured in their own countries.

Source: UNODC IAFQ.

In general, the country of last legal record and that of first retail purchase may often coincide, but this relationship deserves further research.

Countries of manufacture

The vast majority of trafficked firearms originate as legally manufactured firearms which are at some point diverted to the black market. The above analysis indicates that firearms may leave the country of manufacture through legal trade, with diversion happening after the first border crossing. Therefore, the country of manufacture of a trafficked firearm may in principle be far removed from the trafficking route, and thus does not necessarily coincide with the starting point of the illicit flow of a trafficked firearm.

Nevertheless, information on the country of manufacture of seized firearms may yield additional insights into their provenance. This determination of the country of manufacture can be based on verifiable criteria, such as the markings present on firearms as well as (to a certain extent) the particular brand or model of the weapon.²⁷ These insights can be useful, for example, to improve or put in place preventive measures at the early stages of the supply chain.

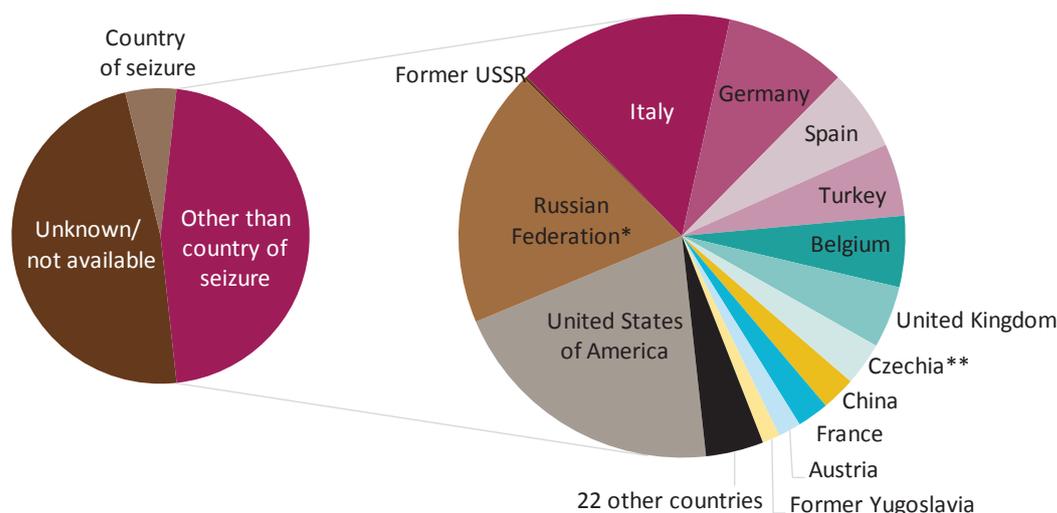
Based on data on the country of manufacture reported through the Illicit Arms Flow Questionnaire, several European countries emerge among the most prominent countries of manufacture. This is most pronounced in the case of Germany and Italy, which stood out in terms of

two different metrics: the number of countries which identified them among the countries of manufacture of seized weapons, as well as the proportion of seized arms originating from the country—in terms of manufacture²⁸ (see Table 1, Table 2 and Figure 24). The United States and the Russian Federation also emerge among the most prominent countries, especially in terms of the second metric.

At the level of subregional groupings (see Figure 25), Northern and Western Europe emerged consistently as a prominent subregion of manufacture across most subregions of seizure. Southern Europe (excluding the Western Balkans) also accounted (in terms of manufacture) for significant proportions of arms seized across various subregions, including other parts of Europe but also in the Americas and within Southern Europe itself. The role of Northern America as a subregion of manufacture was most marked in the Americas as well as parts of Asia and Oceania, while arms manufactured in Eastern Europe were prominent in Africa and Western Asia. South America was another subregion which seized, on average, a large share of arms manufactured within the subregion itself, and specifically within the country of seizure.

A comparison of the location of manufacture of seized arms with incoming illicit flows of weapons illustrates the complex relationship that may exist between trafficking routes and countries of manufacture. In the case of South America, for example, illicit incoming inter-regional flows are dominated by the share from Northern America, while

FIG. 24.... Typical distribution^a of country of manufacture of seized arms, 2016-17



^a Simple average over 29 reporting countries

* Includes one aggregate mention for Russian Federation and former Union of Soviet Socialist Republics.

** Includes one aggregate mention for Czechia, Slovakia and former Czechoslovakia.

Source: IAFQ

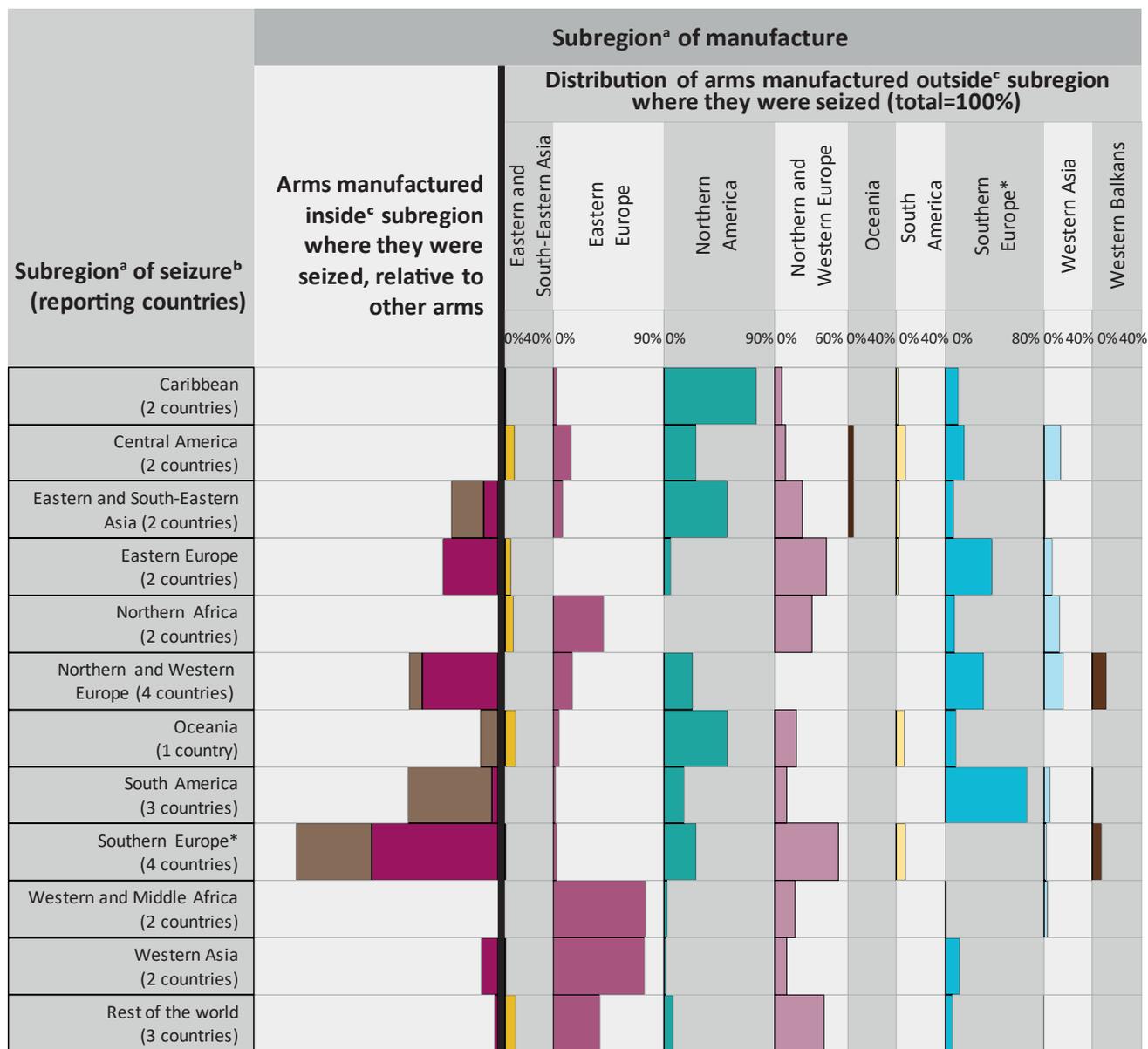
27 The model of a weapon may not necessarily uniquely determine its manufacturer; however, depending on the particular case, information on the model and the brand, coupled with a knowledge of the market for firearms, may help to identify or narrow down the country of manufacture.

28 These calculations do not include instances of countries reporting seizures of arms manufactured in their own countries.

Europe accounts, in contrast, for the vast majority of seized weapons in terms of manufacture. Similarly, in the case of Southern Europe (excluding the Western Balkans), Northern America accounts for a large share in terms of countries of manufacture, but not in terms of incoming illicit flows.

On the other hand, certain similarities between the two types of distribution can also be seen, especially in the case of Northern and Western Europe, as well as the role of the Western Balkans in the case of Southern Europe.

FIG. 25... Breakdown of seized arms by subregion^a of manufacture, according to subregion^a of seizure, 2016-17



■ Arms manufactured in other country within same subregion as country of seizure
 ■ Arms manufactured in country of seizure

^a See Methodological Annex for the list and composition of subregional groupings used.

^b Data were not available for all subregions.

^c Percentages are normalized so that the shares of arms manufactured outside the subregion of seizure sum up to one (for each subregion of seizure). Weapons seized outside the subregion of manufacture are represented proportionally on the left hand side. The calculations adjust for the share of seized arms whose country of manufacture was not known or not reported.

* Excluding Western Balkans.

Source: UNODC IAFQ.

FIG. 26.... Distribution of subregions identified as departure of incoming illicit flows^a (inner circle) and manufacture^a (external circle) for seizures made in South America, 2016-17

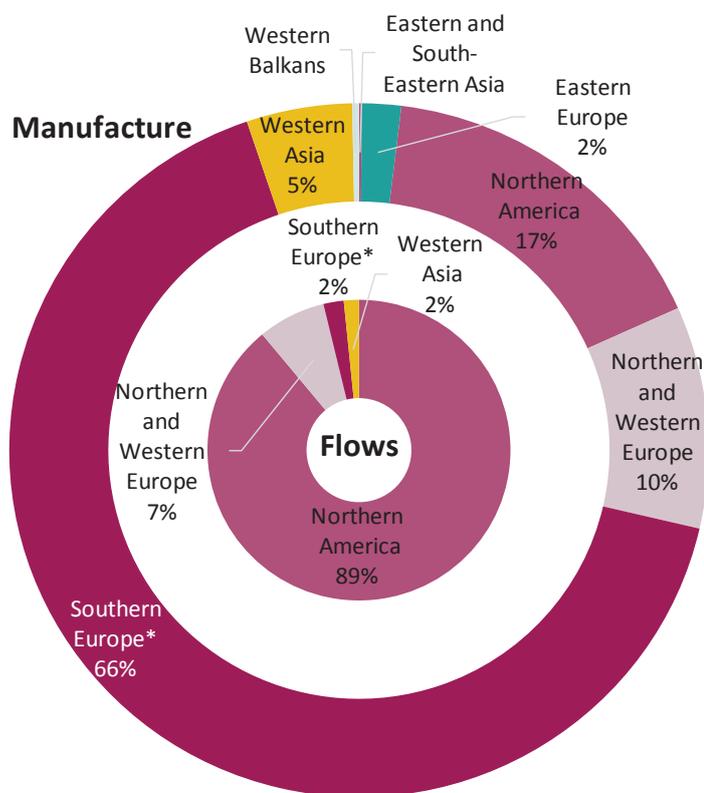
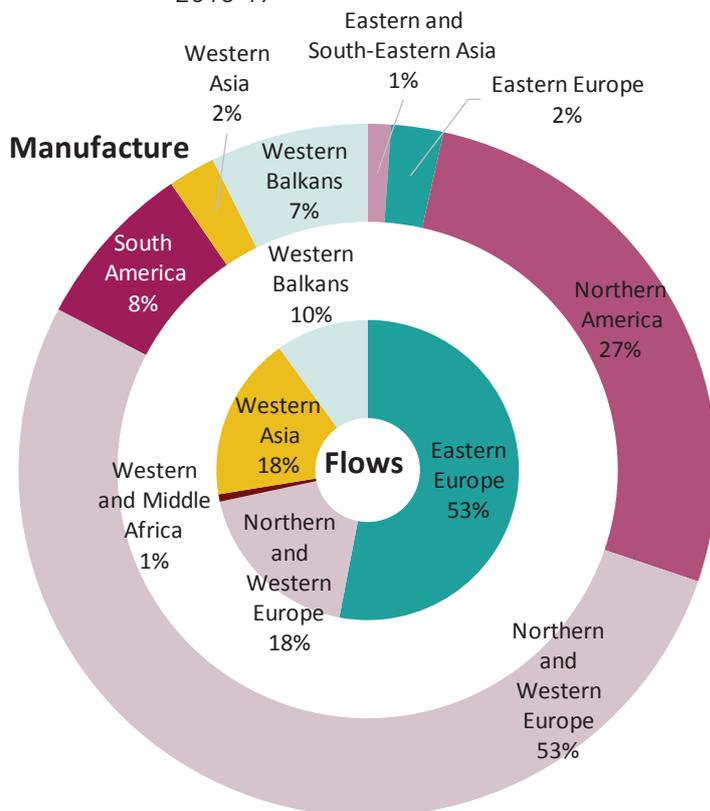


FIG. 27.... Distribution of subregions identified as departure of incoming illicit flows^a (inner circle) and manufacture^a (external circle) for seizures made in Southern Europe,* 2016-17



* Excluding Western Balkans.

^a The largest share of transnational illicit flows affecting countries in South America occurs between countries within South America. Similarly, countries in South America itself account for the largest share of manufacture of arms seized in South America (including arms seized in the country of manufacture). These shares are not shown in the above figure.

Note: The shares of flows and of manufacture are based on different kinds of data which require different methodologies. Therefore the comparison should be made with caution. In both cases, the calculations adjust for the share which is not classified or reported as unknown.

Source: UNODC IAFQ.

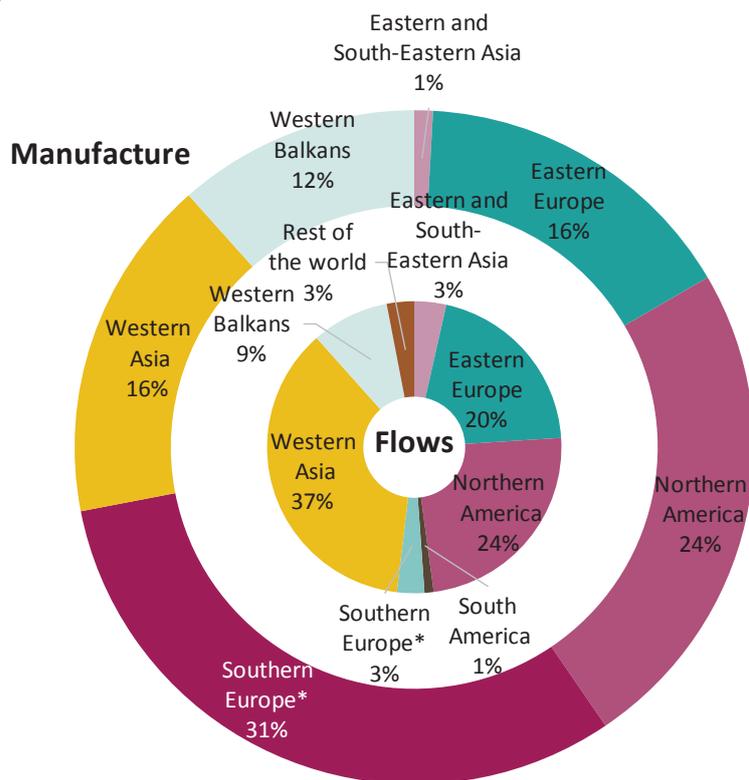
* Excluding Western Balkans.

^a Southern Europe itself accounts for the largest share of manufacture of weapons seized in Southern Europe. Similarly, there is also a small share of transnational illicit flows affecting countries in Southern Europe* which occurs between countries within Southern Europe. These shares are not shown in the above figure.

Note: The shares of flows and of manufacture are based on different kinds of data which require different methodologies. Therefore the comparison should be made with caution. In both cases, the calculations adjust for the share which is not classified or reported as unknown.

Source: UNODC IAFQ.

FIG. 28.... Distribution of subregions identified as departure of incoming illicit flows^a (inner circle) and manufacture^a (external circle) for seizures made in Northern and Western Europe, 2016-17



* Excluding Western Balkans.

^a The largest share of transnational illicit flows affecting countries in Northern and Western Europe occurs between countries within Northern and Western Europe. Similarly, Northern and Western Europe accounts for the largest share of countries of manufacture of weapons seized in Northern and Western Europe. These shares are not shown in the above figure.

Note: The shares of flows and of manufacture are based on different kinds of data which require different methodologies. Therefore the comparison should be made with caution. In both cases, the calculations adjust for the share which is not classified or unknown.

Source: UNODC IAFQ.