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Visitors inspect assault rifles and guns during a defence fair in Belgrade, Serbia, June 2007. © Srdjan Ilic/AP Photo

Sifting the Sources

AUTHORIZED SMALL ARMS TRANSFERS

INTRODUCTION

For years, spotty and imperfect information from governments precluded a firm estimate of the global authorized trade in small arms and light weapons, and their parts, accessories, and ammunition. The *Small Arms Survey 2006* advanced a figure of around USD 4 billion, based on available customs data amounting to roughly half of this figure, but underlined its tentative nature (Small Arms Survey, 2006, pp. 66–67). Nonetheless, new sources of data—and the expansion and refinement of existing sources—are resulting in greater international understanding of the trade in small arms and light weapons.

According to customs data reported to the UN Commodity Trade Statistics Database (UN Comtrade),¹ in 2006 firearms accounted for approximately USD 1.44 billion of the USD 2.97 billion in transfers of small arms, light weapons, and their parts, accessories, and ammunition. This chapter assesses the former figure through an in-depth analysis of data on the three main categories of firearms: sporting and hunting shotguns and rifles, pistols and revolvers, and military firearms. A 53-country comparison of data from UN Comtrade with data from other sources—including the UN Register of Conventional Arms (UN Register) and national and regional arms transfer reports²—reveals an estimated USD 140 million in additional firearms transfers not captured in customs data. Based on this combined data, the Small Arms Survey estimates that the documented global authorized trade in firearms was worth approximately USD 1.58 billion in 2006.³ The undocumented trade, which remains prevalent despite greater reporting on firearms transfers, is likely to be at least USD 100 million (see Box 1.3). Assuming that the trade in light weapons—along with parts, accessories, and ammunition for small arms and light weapons—is also under-reported in UN Comtrade, the actual value of the trade in small arms and light weapons almost certainly exceeds the previous USD 4 billion estimate. Over the next few years, the Small Arms Survey will attempt to deal with this issue more definitively by systematically analysing the trade in light weapons, as well as parts, accessories, and ammunition for small arms and light weapons. By the end of this process, the Survey will have comprehensively reassessed the entire global trade and will be able to provide a more refined analysis.

Major findings of this chapter include the following:

- A comprehensive survey of data on firearms transfers from 53 important exporting countries reveals that the authorized trade in firearms worldwide was at least USD 1.58 billion in 2006.
- Existing data suggests that the previous estimate of USD 4 billion for the global authorized trade in small arms and light weapons and their parts, accessories, and ammunition is a significant underestimate.
- According to available customs data, the authorized trade in small arms and light weapons, and their parts, accessories, and ammunition increased by approximately 28 per cent from 2000 to 2006 after adjusting for inflation.

- While many countries have improved their reporting of small arms and light weapons transfers, a number of others remain selective in the information that they provide, issue misleading information, or do not report on such transfers at all.
 - Suspected or known significant exporters of small arms that report little or no information on their firearms exports include Belarus, Iran, Israel, North Korea, and South Africa. Other exporters, including China, Pakistan, Singapore, and the Russian Federation, provide some data on exports of sporting shotguns and rifles, but little or no data on their military firearms exports.
- The authorized trade in firearms worldwide was at least USD 1.58 billion in 2006.**
- In 2006 the top exporters of small arms and light weapons (those with an annual export value of at least USD 100 million), according to available customs data, were (in descending order) the United States, Italy, Germany, Brazil, Austria, and Belgium. We believe that China and the Russian Federation also merit 'top' exporter status, although customs data alone does not support this. The top importers of small arms and light weapons for that year (those with an annual import value of at least USD 100 million), according to customs data, were (in descending order) the United States, France, Japan, Canada, South Korea, Germany, and Australia.⁴
 - The exports of no more than 20 countries account for 80 per cent of the trade in small arms and light weapons.
 - The 2009 Transparency Barometer identifies Switzerland, the United Kingdom, Germany, Norway, the Netherlands, Serbia,⁵ and the United States as the most transparent of the major small arms and light weapons exporters. The least transparent major exporters are Iran and North Korea, both scoring zero.
 - The United States imports most of the world's exported handguns and many of the world's exported sporting and hunting shotguns and rifles. In 2006 handgun sales to the United States accounted for 59 per cent of the major exporters' sales, and US imports of sporting and hunting shotguns and rifles accounted for 42 per cent.
 - Most of the reported trade in sporting and hunting shotguns and rifles occurs among wealthy Western countries, which are both major exporters and importers.

The chapter begins with a brief overview of terms and definitions in the section entitled 'Framing the issues'. The next section, 'Global trends, 2000–06', provides a brief analysis of recent trends in the authorized trade in small arms and light weapons and their parts, accessories, and ammunition, as revealed by customs data reported to UN Comtrade. The focus of the chapter then narrows to an analysis of the authorized trade in firearms, while drawing on data from several additional sources, including the UN Register and various national and regional reports. The section entitled 'Charting a new approach' looks at recent changes to the various data sources and what they reveal (and do not reveal) about the global trade in firearms. It also summarizes the results of a 53-country assessment of data on firearms transfers from multiple sources. The next section, 'Analysis of firearms transfers in 2006', gives a category-by-category analysis of firearms transfers in 2006. The Small Arms Trade Transparency Barometer 2009 concludes the chapter.

FRAMING THE ISSUE: KEY TERMS AND CONCEPTS

This section provides summaries and definitions for several key terms and references used repeatedly in the chapter.⁶ For the purposes of this chapter, the terms 'small arms' and 'light weapons' are used slightly differently than in the 1997 *Report of the Panel of Governmental Experts on Small Arms* (UNGA, 1997).⁷ The term 'small arms and light

weapons’ is used here to refer not only to the items individually categorized as ‘small arms’ and ‘light weapons’ by the UN Panel, but also small arms ammunition, missiles and shells for light weapons, landmines, grenades, and parts and accessories, which the UN Panel places in a separate category. Explosives, which the UN Panel included in the same category as ammunition, are excluded.

In the context of this chapter, ‘firearms’ refers to the following items:

- pistols and revolvers;
- sporting rifles and shotguns; and
- military firearms, including light machine guns; heavy machine guns with a calibre of 14.5 mm or less; sub-machine guns, assault rifles, and non-automatic military rifles; military shotguns; and anti-materiel rifles with a calibre of 14.5 mm or less.

The term ‘firearms’ is used instead of ‘small arms’, because heavy machine guns, which are defined as ‘light weapons’ by the UN Panel, are included in the same category as other military firearms in some of the sources reviewed for this chapter.⁸ It is therefore often impossible to disaggregate these weapons from the other types of firearms categorized by the UN Panel as ‘small arms’.

The chapter focuses exclusively on authorized transfers. In the context of this chapter, authorized transfers means international transfers that are authorized by the importing, exporting, or transit states. Such shipments will often—but not always—require an export licence or authorization and other forms of documentation. The term

Box 1.1 International transfers

Most existing sources of information on international arms transfers focus on commercial exports and, to a lesser extent, government-to-government transfers. Almost all of the data that the chapter uses reflects cases involving a change in ownership between countries. Nevertheless, it also includes transfers without a change of ownership despite the movement of weapons across international borders (e.g. point 3.1, below). Available data sources, especially UN Comtrade, do not always distinguish between the two cases. The sources used in the chapter include the following types of international transfers:

1. Sales

1.1. Commercial sales: sales by either private or state-owned manufacturers or dealers to private or state buyers with the purpose of making a profit.

1.2. Government-to-government sales: sales of arms negotiated by a state, or sales of weapons owned by a state, to a state institution in another country for use by state institutions in national defence, law enforcement, or security activities.

1.3. Trials and sampling: small arms and light weapons sent abroad for trials and sampling to facilitate a possible commercial or government-to-government deal.

2. International assistance and training

2.1. Assistance: small arms and light weapons sent by a government to another government without involving a sale and with the purpose of assisting the armed or security forces of the recipient country.

2.2. Training: small arms and light weapons sent to an ally or a friendly country for use as part of a training programme or in military exercises.

3. Other kinds of transfers

3.1. Peacekeeping operations: small arms and light weapons sent by one state to its peacekeeping forces deployed abroad.

3.2. Repairs: small arms and light weapons sent abroad for repairs.

3.3. Surplus disposal: returning old weapons (without involving a sale) to the original manufacturer or exporting state. For example, a manufacturer may receive old weapons as part of a deal to supply new ones.

3.4. Returning leased or lent weapons to the leasing or lending country.

3.5. Intra-governmental transfers: weapons sent by a government institution to its agents abroad for purposes other than peacekeeping, including training.

3.6. Transfers by individuals: arms owned by civilians that accompany, or are sent to, a person who has travelled internationally. An example is of people taking their own sporting guns on safari or hunting holidays.

'authorized' is used instead of 'legal', because transfers authorized by governments are not necessarily 'legal' in that a fully licensed arms transfer could still violate international law.

UN Comtrade

Much of the data used in this chapter comes from UN Comtrade, the database administered by the UN Statistics Division. UN member states send to UN Comtrade data derived from customs authorities that summarizes the annual movement of goods across borders. UN Comtrade is a rich data source on the trade in small arms and light weapons. In 2006, for example, some 17,500 records containing information on transfers of small arms, light weapons, and their parts, accessories, and ammunition were reported by 126 countries. Far more data is available via UN Comtrade than from either national reports on arms exports or the UN Register. In addition, UN Comtrade uses standardized categories developed by the World Customs Organization (WCO) for all goods. This means that, unlike information from other data sources, reports from UN Comtrade can be compared and aggregated with ease.

Nevertheless, UN Comtrade does pose some challenges for researchers. Some major exporters, such as South Africa, do not report any transfers of small arms and light weapons. More countries are partial reporters. For example, China and the Russian Federation report transfers of sporting shotguns and rifles, but withhold information on handguns and military small arms and light weapons. Similarly, Austria, Belgium, and Brazil do not report their exports of pistols and revolvers to UN Comtrade. UN Comtrade also provides little information on imports of weapons by states in sub-Saharan Africa. Furthermore, the customs categories are not always very specific. In some cases, several types of weapon or ammunition are combined. Lastly, UN Comtrade merely records the movement of goods across borders; it does not specify the identity of the end users; whether they were located in the importing country; or if the transfer was a permanent export or some other kind of transaction, such as the return of equipment for repair. UN Comtrade is a useful source of data, but it does not cover all transfers and, where possible, it should be corroborated with other data sources.

China and Russia withhold information on transfers of military small arms and light weapons.

Firearms are reported to UN Comtrade by national customs agencies under the following codes (930190 was introduced in 2002):

- 1) military firearms: 930190;
- 2) pistols and revolvers: 930200;
- 3) sporting and hunting shotguns: 930320; and
- 4) sporting and hunting rifles: 930330.

These codes follow international standards set by the World Customs Organization, referred to as 'Harmonized System' or 'HS'. According to the WCO, the HS is composed of approximately 5,000 commodity groups, each of which is identified by a six-digit code. The codes are arranged in a logical structure and defined by detailed rules and classifications of goods. The Harmonized System is used by over 200 countries as the basis of their customs tariffs international trade statistics. Over 98 per cent of international trade in goods is classified by Harmonized System, which is governed by 'The International Convention on the Harmonized Commodity Description and Coding System' (WCO, n.d., p. 1).⁹

It is important to clarify that some countries produce and export civilian versions of assault rifles, anti-materiel rifles, and military shotguns that are sold in civilian markets in countries in which the possession of these weapons by private users is lawful. In some cases, the 'commercial' versions of these firearms are declared as 'sporting rifles' or 'sporting

shotguns'. Therefore, for the purposes of this chapter, the terms 'sporting rifle' and 'military weapon' do not refer to the specific technical characteristics of the weapons, but to what the exporting country declares them to be.

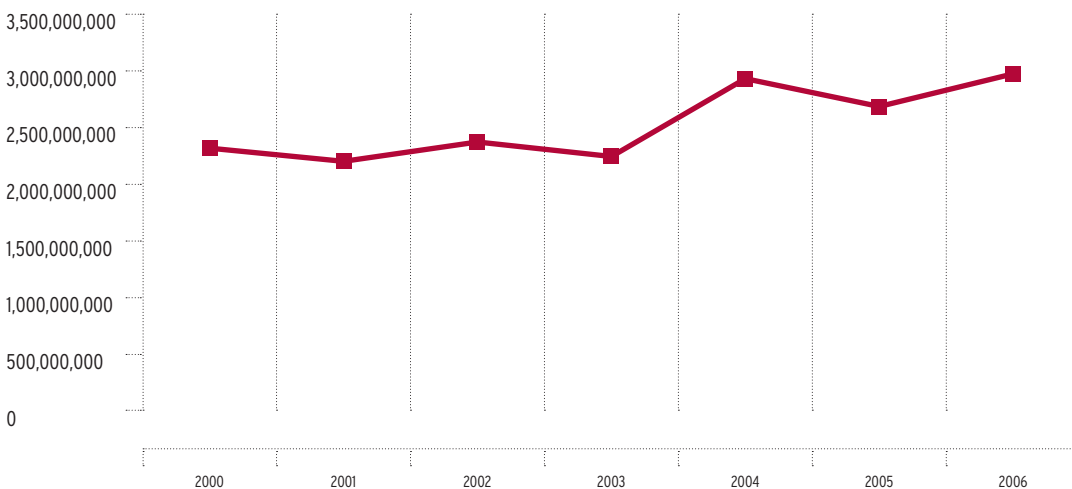
GLOBAL TRENDS, 2000-06

This section charts trends in the global market for small arms, light weapons, and their parts, accessories, and ammunition. Unlike the two sections that follow, this section is based solely on trade data supplied by the UN Comtrade database.¹⁰ The figures presented here do not show a complete picture of the trends in world trade, because some countries have not reported data. All figures in this section have been adjusted for inflation, and are presented in constant 2006 US dollars (USD). The section covers the time period 2000–06, which corresponds with the first year that the Small Arms Survey assessed the global trade in small arms and light weapons using trade data (2000) and the most recent year for which comprehensive data is available (2006).

It is important to note that, compared to other sections in this chapter, this section covers different weapons types and uses only one data source. It is therefore to be expected that the figures in this section will differ from those in other sections.

After correcting for inflation, there was an absolute increase of some USD 653 million in the value of the global trade in small arms, light weapons, and their parts, accessories, and ammunition from 2000 to 2006. According to UN Comtrade data, between 2000 and 2006 the value of global transfers of small arms and light weapons rose from USD 2.31 billion in 2000 to USD 2.97 billion in 2006. This increase of USD 653 million was a rise of 28 per cent over the seven-year period. This increase was not uniform. As shown in Figure 1.1, the value of the identified trade was largely static until 2004, when it rose to almost USD 3 billion, a figure that it reached again in 2006.

Figure 1.1 The value of the global trade in small arms and light weapons, and their parts, accessories, and ammunition (USD*), 2000-06



* All USD values have been adjusted for inflation and are expressed in constant 2006 USD.

Sources: UN Comtrade (n.d.); NISAT (n.d.)

Previous editions of the *Small Arms Survey* (Small Arms Survey, 2003; 2004) have highlighted the global distribution of the production of small arms, light weapons, and their parts, accessories, and ammunition, which, as of 2003, were produced in over 90 countries. Nevertheless, analysis of UN Comtrade data from 2000 to 2006 indicates that the top 15 exporters accounted for 83 per cent of all exports over the seven-year period. The United States is consistently the largest exporter, and it alone accounted for 22 per cent of all exports in the period 2000–06. The next 14 largest exporters were, in descending order, Italy, Germany, Belgium, Brazil, Austria, the United Kingdom, Japan, Canada, Switzerland, Spain, the Russian Federation, the Czech Republic, France, and Turkey. While use of additional data sources described in the following two sections of this chapter¹¹ increases our estimates of some countries' exports, it is highly likely that between 2000 and 2006 some 80 per cent of world exports of small arms, light weapons, and their parts, accessories, and ammunition were concentrated among less than 20 exporters.

The top 15 importers accounted for 67 per cent of all imports, and the United States alone was responsible for, on average, 27 per cent of all imports of small arms, light weapons, and their parts, accessories, and ammunition. Indeed, the USD 653 million increase in the value of the estimated global trade can be explained in part by imports into the United States, which rose by a total of USD 291 million over the seven-year period. Increased demand by the United States accounted for 48 per cent of the increase in all imports. The next 14 largest importing countries (in descending order of average annual imports) were Saudi Arabia, Cyprus, Germany, France, the United Kingdom, Canada, South Korea, Australia, Italy, Japan, Spain, the Netherlands, Greece, and Belgium.

Table 1.1 Trends in small arms transfers reported to UN Comtrade, 2000–06

| | 2000 value (USD thousands) | 2006 value (USD thousands) | Absolute growth, 2000–06 (USD thousands) | Relative growth (%) |
|---|-------------------------------|-------------------------------|--|------------------------|
| Military small arms & light weapons | 527,710 | 375,493 | -152,216 | -29 |
| Pistols & revolvers | 265,604 | 427,550 | 161,946 | 61 |
| Sporting shotguns | 282,848 | 458,414 | 175,566 | 62 |
| Sporting rifles | 182,487 | 304,316 | 121,829 | 67 |
| Parts & accessories for pistols or revolvers | 60,164 | 120,765 | 60,600 | 101 |
| Shotgun barrels | 39,087 | 47,549 | 8,463 | 22 |
| Parts & accessories for rifles or shotguns | 155,096 | 223,266 | 68,170 | 44 |
| Shotgun cartridges | 249,927 | 275,239 | 25,312 | 10 |
| Small-calibre ammunition (<14.5 mm) | 551,550 | 734,840 | 183,290 | 33 |
| Total | 2,314,472 | 2,967,433 | 652,960 | 28 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded, which explains differences in totals.

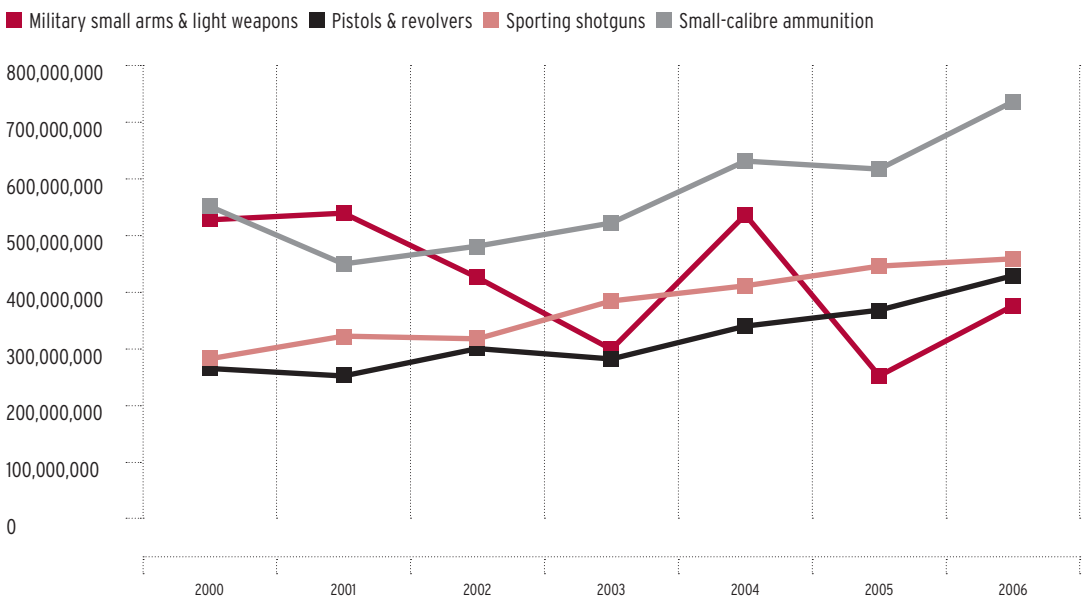
Sources: UN Comtrade (n.d.); NISAT (n.d.)

The top 15 importers had a smaller share of the total compared to the exporters for two reasons. Firstly, the only barriers to becoming a significant importing state are demand, financial resources, and the willingness of others to sell to you. Becoming a major exporter, however, requires the development of significant production capacity or the possession of large stocks of surplus weapons. Secondly, individual countries frequently made significant imports over a few years, but not over the entire seven-year period. Such large ‘one-off’ purchases may be explained by procurement cycles.

It should be noted that the USD 653 million increase in the value of the global trade is not explained by an increase in reporters to UN Comtrade. The number of countries reporting to UN Comtrade did grow over the seven-year period, but the vast majority of increases in global transfers have been made by exporters and importers whose reporting practices have not changed. As this section highlights, the global trade in small arms and light weapons is dominated by a small number of countries; in general, the new reporters contributed only marginally to the global total. The two countries whose improved reporting coincided with the largest increases in exports over the period 2000–06 were Romania and Serbia and Montenegro.¹² Nevertheless, the absolute increases in exports for each country only amounted to 5.3 per cent and 1.8 per cent of the global increase, respectively.

Nor is the increase in the value of the global trade explained by a rise in exports of military small arms and light weapons destined for Iraq or Afghanistan, or to peacekeeping forces worldwide (see Box 1.4). In fact, these weapons, which include equipment such as assault rifles, sub-machine guns, rocket launchers, and mortars, showed considerable volatility. As Table 1.1 shows, the seven-year period ended with a 29 per cent decrease in military small arms and light weapons exports reported to UN Comtrade.¹³

Figure 1.2 **Changes in the value of the trade in four categories of small arms and light weapons (USD*), 2000–06**



* All USD values have been adjusted for inflation and are expressed in constant 2006 USD.

Sources: UN Comtrade (n.d.); NISAT (n.d.)

The three largest absolute increases in the trade in small arms and light weapons reported to UN Comtrade were, in descending order, small-calibre ammunition, sporting and hunting shotguns, and pistols and revolvers. These three categories are examined in greater detail in the remainder of this section, along with military small arms and light weapons (which showed the greatest volatility).

Figure 1.2 highlights the fact that changes in these sectors were not uniform. Military weapons in particular experienced very wide year-on-year variations. Exports of military weapons have varied dramatically, starting the period at USD 528 million and ending at USD 375 million in 2006, i.e. USD 152 million lower than in 2000.

The value of the trade in ammunition, and pistols and revolvers, also rose and fell during the period, but much less dramatically. Measured in total value, small arms ammunition exports in 2000 were the largest category in every year but 2001 (when they were second to military small arms and light weapons). Initially, exports declined, but bounced back in 2001 and steadily increased throughout the rest of the period, ending with a total value of USD 735 million in 2006. Small-calibre ammunition was also the category that increased in value most in absolute terms, from USD 552 million in 2000 to USD 735 million in 2006.

Small-calibre ammunition

The highest growth sector was small-calibre (<14.5 mm) ammunition. The value of small-calibre ammunition transfers reported to UN Comtrade increased by USD 183 million, or 33 per cent, between 2000 and 2006. The ten largest exporters of small-calibre ammunition over this period on average are given in Table 1.2. These ten countries accounted for 70 per cent of all exports from 2000 to 2006, during which there was an absolute increase in global exports of USD 183 million. Fifty-five countries increased their exports between 2000 and 2007, and the aggregated value of this rise was USD 304 million. These increases were partially offset by decreases in 38 countries, the aggregated value of which was USD 121 million. Such mixed fortunes are reflected in the record of the ten largest exporters, as shown in Table 1.3.

Table 1.2 Ten largest exporters of small-calibre ammunition, 2000-06

| Exporter | Average exports, 2000-06 (USD thousands) | % of all exports in this category, 2000-06 |
|--------------------|---|---|
| United States | 158,885 | 28 |
| Germany | 43,790 | 8 |
| Switzerland | 35,384 | 6 |
| Canada | 28,145 | 5 |
| United Kingdom | 26,267 | 5 |
| Russian Federation | 25,097 | 4 |
| Norway | 22,050 | 4 |
| Sweden | 21,942 | 4 |
| Czech Republic | 19,149 | 3 |
| South Korea | 18,358 | 3 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.3 Change in exports among the ten largest exporters of small-calibre ammunition, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|--------------------|--|---------------------|
| United States | 88,228 | 61 |
| Germany | 30,992 | 138 |
| Canada | 30,055 | 184 |
| Switzerland | 21,339 | 94 |
| Norway | 8,224 | 104 |
| South Korea | -3,612 | -18 |
| Sweden | -7,356 | -29 |
| Czech Republic | -12,461 | -42 |
| Russian Federation | -25,288 | -44 |
| United Kingdom | -30,855 | -55 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.4 Ten largest increases in small-calibre ammunition exports, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|---------------------|--|---------------------|
| United States | 88,228 | 61 |
| Germany | 30,992 | 138 |
| Canada | 30,055 | 184 |
| Switzerland | 21,339 | 94 |
| Serbia & Montenegro | 19,906 | 2,304 |
| Brazil | 16,389 | 166 |
| France | 11,289 | 94 |
| Finland | 9,607 | 93 |
| Norway | 8,224 | 104 |
| Austria | 7,706 | 148 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

The ten countries with the largest absolute increases in small-calibre ammunition exports between 2000-06 are given in Table 1.4. These ten countries accounted for 80 per cent of the total USD 304 million aggregated increase in small-calibre ammunition exports. The ten countries experiencing the largest decreases are given in Table 1.5.

Table 1.5 Ten largest decreases in small-calibre ammunition exports, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|--------------------|---|---------------------|
| Portugal | -3,475 | -99 |
| South Korea | -3,612 | -18 |
| Iran | -4,124 | -100 |
| Greece | -5,084 | -91 |
| Netherlands | -6,204 | -95 |
| Sweden | -7,356 | -29 |
| Czech Republic | -12,461 | -42 |
| South Africa | -12,482 | -82 |
| Russian Federation | -25,288 | -44 |
| United Kingdom | -30,855 | -55 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.6 Ten largest importers of small-calibre ammunition, 2000-06

| Importer | Average imports, 2000-06 (USD thousands) | % of all imports in this category, 2000-06 |
|----------------|--|--|
| United States | 96,996 | 17 |
| Germany | 42,626 | 7 |
| Australia | 28,954 | 5 |
| Netherlands | 24,843 | 4 |
| Canada | 22,937 | 4 |
| France | 21,568 | 4 |
| United Kingdom | 19,417 | 3 |
| South Korea | 18,540 | 3 |
| Israel | 17,671 | 3 |
| Switzerland | 16,302 | 3 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

The ten largest importers of small-calibre ammunition in the period 2000-06 are given in Table 1.6. These ten countries accounted for 54 per cent of all imports. The countries with the largest increases in imports are given in Table 1.7. The rise in Egypt's imports is particularly striking. Starting with a value of USD 0.484 million in 2000, imports of small arms ammunition by Egypt steadily increased to USD 51.7 million by 2006.

Table 1.7 Ten countries with the largest absolute rise in imports of small-calibre ammunition, 2000-06

| Importer | Absolute change in imports, 2000-06 (USD thousands) | Relative change (%) |
|---------------|--|---------------------|
| United States | 61,789 | 84 |
| Egypt | 51,177 | 10,563 |
| Netherlands | 43,461 | 333 |
| Australia | 38,390 | 131 |
| France | 24,945 | 203 |
| Israel | 18,637 | 167 |
| Cyprus | 13,984 | 3,386 |
| Denmark | 13,026 | 370 |
| Canada | 10,194 | 43 |
| Switzerland | 10,188 | 91 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

The global market in small-calibre ammunition is dominated by a small number of exporters and importers, but not to the same extent as for sporting shotguns, pistols, and revolvers. Purchasers of small-calibre ammunition include ministries of defence, police and law enforcement agencies, and private individuals. While civilian demand is likely to vary according to local levels of income, laws, and culture, the demand by governments is likely to vary less among countries. Regardless of their location and nationality, armed uniformed personnel need to be supplied with ammunition.

The large absolute increase in imports by the United States may well be associated with widely reported difficulties in meeting the ammunition requirements of troops stationed in Iraq and Afghanistan from domestic production and stockpiles (see Government Accountability Office, 2005). UN Comtrade data sheds little light on this issue, since it only identifies the importing country, not the recipient.

Sporting shotguns

The trade in sporting shotguns increased steadily from 2000 to 2006. Exports were 62 per cent higher in 2006 than in 2000. The ten largest exporters on average of sporting shotguns over this period are given in Table 1.8. These ten countries accounted for 93 per cent of all identified transfers of sporting shotguns in the period 2000-06.

Of the categories of small arms and light weapons assessed in this chapter, sporting shotguns experienced the second-highest absolute growth in the value of transfers reported to UN Comtrade, increasing by USD 176 million from 2000 to 2006. Absolute increases in exports were identified in 64 countries, with an aggregated absolute rise of USD 187 million. These increases were offset slightly by declines by 42 countries, which totalled USD 11.5 million. Among the ten largest exporters, all but one experienced rises in the value of their exports (see Table 1.9).

Table 1.8 Ten largest exporters of sporting shotguns, 2000-06

| Exporter | Average exports, 2000-06 (USD thousands) | % of all exports in this category, 2000-06 |
|--------------------|---|---|
| Italy | 189,920 | 51 |
| Turkey | 24,434 | 7 |
| Russian Federation | 20,544 | 5 |
| Germany | 19,723 | 5 |
| United States | 18,788 | 5 |
| Belgium | 17,669 | 5 |
| Japan | 16,590 | 4 |
| Spain | 14,801 | 4 |
| United Kingdom | 14,030 | 4 |
| Brazil | 12,345 | 3 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.9 Change in exports among the ten largest exporters of sporting shotguns, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|--------------------|--|---------------------|
| Italy | 94,727 | 74 |
| Turkey | 34,175 | 382 |
| Russian Federation | 10,336 | 69 |
| Germany | 9,432 | 55 |
| United States | -3,736 | -17 |
| Belgium | 7,299 | 54 |
| Japan | 930 | 5 |
| Spain | 2,897 | 24 |
| United Kingdom | 1,660 | 11 |
| Brazil | 11,263 | 144 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

The United States had the largest absolute decrease in exports. The second-largest decline was experienced by Portugal, a country just outside the top ten exporters. Exports from Portugal fell by USD 3.2 million between 2000 and 2006.

The largest importers comprised a similar group of countries to the exporters (see Table 1.10). These ten countries accounted for 77 per cent of global imports. The United States held a dominant position over the period, with an average of almost half of all imports.

Table 1.10 Ten largest importers of sporting shotguns, 2000-06

| Importer | Average imports, 2000-06 (USD thousands) | % of all imports in this category, 2000-06 |
|--------------------|---|---|
| United States | 169,201 | 45 |
| United Kingdom | 28,471 | 8 |
| France | 21,209 | 6 |
| Belgium | 13,642 | 4 |
| Spain | 12,751 | 3 |
| Germany | 11,915 | 3 |
| Russian Federation | 9,239 | 2 |
| Greece | 7,514 | 2 |
| Canada | 7,124 | 2 |
| Portugal | 6,878 | 2 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.11 The ten fastest-growing importers of sporting shotguns, 2000-06

| Importer | Absolute increase in imports, 2000-06 (USD thousands) | Relative change (%) |
|--------------------|--|---------------------|
| United States | 69,870 | 52 |
| United Kingdom | 21,692 | 146 |
| Spain | 12,616 | 278 |
| Russian Federation | 12,145 | 383 |
| France | 10,801 | 73 |
| Germany | 8,986 | 131 |
| Canada | 5,642 | 105 |
| Ukraine | 4,891 | 218 |
| Denmark | 3,805 | 251 |
| Australia | 3,519 | 129 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

The countries with the largest absolute increases in imports of sporting shotguns from 2000 to 2006 are given in Table 1.11. The absolute increases in imports of sporting shotguns by these ten countries accounted for USD 154 million, or 89 per cent of the total global increase of USD 176 million. The import activity of the United States, which accounted for 40 per cent of the total absolute increase, is particularly noteworthy. Not only was it the largest importer of sporting shotguns in 2000, but imports by the United States grew by 52 per cent over the seven years studied. This growth could explain why US exports fell while those of other major exporters' rose. It may be that,

as sales increased in the US domestic market, US firms concentrated on supplying consumers at home. For more information on the dominance of the United States and Western Europe in the demand for sporting firearms, see the section entitled 'Analysis of firearms transfers in 2006'.

Pistols and revolvers

The international trade in pistols and revolvers shows similar characteristics to that of sporting shotguns, since the sector is dominated by a few countries and has seen an overall increase in transfers. Over the period 2000–06 transfers of pistols and revolvers reported to UN Comtrade increased by USD 162 million, or 61 per cent. The ten countries with the largest average exports over the period are given in Table 1.12.

Table 1.12 Ten largest exporters of pistols and revolvers, 2000-06

| Exporter | Average exports, 2000-06 (USD thousands) | % of all exports in this category, 2000-06 |
|----------------|---|---|
| Austria | 81,133 | 25 |
| Germany | 63,943 | 20 |
| Brazil | 37,323 | 12 |
| United States | 28,895 | 9 |
| Italy | 27,871 | 9 |
| Czech Republic | 14,541 | 5 |
| Croatia | 10,388 | 3 |
| Canada | 7,391 | 2 |
| Israel | 6,984 | 2 |
| Argentina | 6,415 | 2 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.13 Change in exports among the ten largest exporters of pistols and revolvers, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|----------------|--|---------------------|
| Austria | 47,852 | 70 |
| Germany | 46,819 | 112 |
| Croatia | 25,960 | 2,282 |
| Italy | 17,958 | 78 |
| Brazil | 11,078 | 30 |
| Czech Republic | 6,126 | 61 |
| Argentina | 5,534 | 146 |
| Israel | 255 | 3 |
| Canada | -1,500 | -18 |
| United States | -5,803 | -16 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

These ten countries accounted for 89 per cent of all global exports of pistols and revolvers over the seven years studied in this chapter. All but two of them experienced an increase in exports over the period 2000–06 (see Table 1.13).

The importance of the US pistol market is illustrated by the case of Croatia, which dramatically increased its exports over the seven-year period. In 2000 exports of pistols and revolvers from Croatia were worth just USD 1.1 million. By 2006 they had increased to USD 27 million, 98 per cent of which were to the United States. This case suggests that a country can become a major global player just by developing an export market in the United States. This dependence on the United States as an importer is reflected, to a lesser extent, in all the other exporters, only three of which exported less than half of their exports to the United States (see Table 1.14).

Table 1.14 Dependence on exports to the United States, 2006

| Exporter | Proportion of exports sent to the United States (%) |
|----------------|---|
| Croatia | 98 |
| Canada | 96 |
| Brazil | 86 |
| Austria | 75 |
| Israel | 68 |
| Argentina | 68 |
| Italy | 44 |
| Germany | 38 |
| Czech Republic | 32 |

Table 1.15 Ten largest increases in pistol and revolver exports, 2000–06

| Exporter | Absolute change in exports, 2000–06 (USD thousands) | Relative change (%) |
|----------------|---|---------------------|
| Austria | 47,852 | 70 |
| Germany | 46,819 | 112 |
| Croatia | 25,960 | 2,282 |
| Italy | 17,958 | 78 |
| Brazil | 11,078 | 30 |
| Czech Republic | 6,126 | 61 |
| Belgium | 5,817 | 195 |
| Argentina | 5,534 | 146 |
| Poland | 3,061 | 4,103 |
| China | 2,202 | 144 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

From 2000 to 2006, 58 countries saw an increase in their exports of pistols and revolvers, and the aggregated increase in all exports was USD 181 million. This was offset by declines in 49 countries, the total value of which was USD 19 million. The countries with the largest absolute increases in exports are given in Table 1.15.

As noted above, the United States is clearly the world's largest importer of pistols and revolvers, accounting for 54 per cent of all imports. No other country imports more than 4 per cent of the global total (see Table 1.16). These ten countries received 73 per cent of all imports of pistols and revolvers over the period 2000–06. As well as being the largest market, the United States was also the location of the greatest absolute growth in imports (see Table 1.17).

Table 1.16 Ten largest importers of pistols and revolvers, 2000–06

| Importer | Average imports, 2000–06 (USD thousands) | % of all imports in this category, 2000–06 |
|---------------|---|---|
| United States | 173,209 | 54 |
| France | 12,537 | 4 |
| Thailand | 7,836 | 2 |
| Germany | 7,713 | 2 |
| Spain | 6,729 | 2 |
| Italy | 5,500 | 2 |
| Belgium | 5,440 | 2 |
| Canada | 5,346 | 2 |
| Mexico | 4,892 | 2 |
| Philippines | 4,575 | 1 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.17 Ten countries with the largest absolute rise in imports of pistols and revolvers, 2000–06

| Importer | Absolute change in imports, 2000–06 (USD thousands) | Relative change (%) |
|---------------|--|---------------------|
| United States | 99,986 | 69 |
| France | 27,327 | 1,954 |
| Saudi Arabia | 12,448 | 6,937 |
| Thailand | 8,477 | 124 |
| Canada | 7,346 | 454 |
| Spain | 5,068 | 148 |
| Philippines | 3,348 | 172 |
| South Africa | 2,809 | 663 |
| Iraq* | 2,761 | n/a |
| Brazil | 2,124 | 724 |

* The dramatic increase by Iraq is largely explained by the lifting of the UN arms embargo that was in place until 2003.

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Military small arms and light weapons

Between 2000 and 2006 the trade in military small arms and light weapons reported to UN Comtrade declined from USD 528 million to USD 375 million, an absolute decline of USD 152 million, or 29 per cent. The ten largest exporters are given in Table 1.18.

In this section, 'military small arms and light weapons' refers to small arms designed to military specifications, including automatic rifles and carbines, sub-machine guns, and combat shotguns; and to light weapons such as grenade launchers, rocket launchers, and heavy machine guns. The data used to compile these numbers was reported

Table 1.18 Ten largest exporters of military small arms and light weapons, 2000-06

| Exporter | Average exports, 2000-06 (USD thousands) | % of all exports in this category, 2000-06 |
|----------------|---|---|
| United States | 228,512 | 54 |
| Belgium | 27,136 | 6 |
| France | 22,651 | 5 |
| Germany | 16,213 | 4 |
| United Kingdom | 13,651 | 3 |
| China | 10,148 | 2 |
| Norway | 9,520 | 2 |
| Italy | 9,331 | 2 |
| Canada | 8,857 | 2 |
| Switzerland | 6,945 | 2 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.19 Ten largest absolute decreases in exports of military small arms and light weapons, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|----------------|--|---------------------|
| United States | -173,630 | -48 |
| France | -26,742 | -87 |
| Italy | -18,219 | -55 |
| United Kingdom | -16,887 | -74 |
| Belgium | -13,751 | -70 |
| Canada | -13,245 | -76 |
| Saudi Arabia | -5,493 | -95 |
| Sweden | -2,077 | -34 |
| Georgia | -1,180 | -100 |
| Slovakia | -1,111 | -100 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

under UN Comtrade codes 930100 (mainly before 2002), and 930190 and 930120 (mainly after 2002). Note that in UN Comtrade code 930100, data on transfers of artillery systems and other large conventional weapons is combined with data on military small arms and light weapons. All known transfers of artillery were compared to the data used to produce this section, and any transactions that could have comprised heavy artillery were removed. Nevertheless, some countries are not sufficiently transparent to allow one to distinguish between military small arms and light weapons and conventional weapons. Consequently, a small percentage of the data in this section may reflect transfers of items other than small arms and light weapons.

Thirty-eight countries' exports of military small arms and light weapons decreased between 2000 and 2006. The aggregated value of these decreases was USD 277 million. The ten exporters experiencing the largest absolute decreases are given in Table 1.19.

Exports of over USD 1 million were recorded for Slovakia and Georgia in 2000, but by 2006 their identified exports had dropped to zero. Similarly, in 2000 Saudi Arabia exported USD 5 million in military small arms and light weapons, after which it exported either nothing or less than USD 500,000 per year. In 2000 the United States dominated the international trade in military small arms and light weapons, accounting for 68 per cent of all exports. By 2006 the United States' dominance had waned slightly, its share of the world export market in military small arms and light weapons declining to 49 per cent.

These decreases were partially offset by increases in exports from 47 countries totalling USD 125 million. The ten countries with the largest absolute increase in exports are given in Table 1.20. The relatively large increases by Bangladesh and Thailand occurred because they exported no military small arms and light weapons in 2000, but in 2006 they both made a single large transfer to one country. It is likely that they will return to being minimal exporters in future years. The context of the Bangladesh transfer is explained in greater detail in Box 1.4. It is also important to note that, of the ten countries identified below, only Serbia and Montenegro, Thailand, Spain, and Poland report their exports of military small arms and light weapons to UN Comtrade. The large relative increase by Serbia and Montenegro is partly explained by it starting to report data to UN Comtrade during the period studied. The figures

Table 1.20 Ten largest absolute increases in exports of military small arms and light weapons, 2000-06

| Exporter | Absolute change in exports, 2000-06 (USD thousands) | Relative change (%) |
|---------------------|---|---------------------|
| China | 20,092 | 1,815 |
| Germany | 15,551 | 333 |
| Israel | 11,613 | 611 |
| South Africa | 11,078 | 1,148 |
| Russian Federation | 11,061 | 592 |
| Serbia & Montenegro | 9,787 | 751,021 |
| Bangladesh | 8,733 | n/a |
| Thailand | 7,928 | n/a |
| Spain | 6,163 | 659 |
| Poland | 4,865 | 310 |

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

Table 1.21 Ten largest importers of military small arms and light weapons, 2000–06

| Importer | Average imports, 2000–06 (USD thousands) | % of all imports in this category, 2000–06 |
|---------------|---|---|
| Cyprus* | 106,998 | 20 |
| South Korea | 48,487 | 9 |
| Japan | 38,904 | 7 |
| Greece | 34,847 | 6 |
| Saudi Arabia | 34,303 | 6 |
| United States | 26,981 | 5 |
| Netherlands | 17,928 | 3 |
| Turkey | 14,928 | 3 |
| Egypt | 13,992 | 3 |
| Australia | 13,436 | 2 |

* The peculiarity of Cyprus being the largest importer was noted in previous editions of the Small Arms Survey (Small Arms Survey, 2003, pp. 104–05; 2004, p. 108).

Note: All USD values have been adjusted for inflation and are expressed in constant 2006 USD; all figures have been rounded.

for the other countries are based on ‘mirror data’ (i.e. reports by countries importing their exports) and therefore are likely to be underestimates.

The main importers of military small arms and light weapons during 2000–06 are given in Table 1.21. The high volatility of this sector is explained by three factors. The first is the cyclical nature of the military procurement process. Governments purchase large quantities of weapons infrequently. For example, a country may re-equip all its soldiers with a new model of assault rifle and then place no additional large orders for that type of gun for decades.¹⁴ Secondly, as noted above, many of the largest exporters have not reported their data to UN Comtrade, and the figures are calculated from mirror data. We therefore have a much narrower view of the trade than we do with, for example, sporting shotguns, which are widely reported. Thirdly, the customs codes for military small arms and light weapons were changed in 2002. This transition means that the data from before and after this date are not completely comparable, although there is a large degree of overlap.

Summary

A large proportion of the discussion on the global trade in small arms and light weapons is actually a discussion of the United States. It is by far the largest importer of pistols and revolvers, sporting shotguns, and small-calibre ammunition. Furthermore, increases in demand in the United States explain almost half of the global rise in exports of small arms, light weapons, and their parts, accessories, and ammunition. Of the four sectors analysed here, the only one in which the United States was not both the largest exporter and importer was military small arms and light weapons. While dominant in military exports, the United States was the sixth-largest importer in this category. After the United States, and depending on the type of weapons, another 15–20 countries account for most imports and exports. Most transfers of pistols and revolvers, small-calibre ammunition, and sporting shotguns, for example, were between developed countries. In all, the major exporters are responsible for some 83 per cent of all exports reported to UN Comtrade between 2000 and 2006. Production of small arms and light weapons has been globalized, but a handful of countries still control most of the trade.

CHARTING A NEW APPROACH

In 2006, using data sources that were improving in terms of quantity and quality, but still deficient in key ways, the Small Arms Survey reiterated its earlier USD 4 billion estimate of the annual value of the global authorized trade in small arms and light weapons, and their parts, accessories, and ammunition (Small Arms Survey, 2006, pp. 66–67). Three years later, is there enough additional data to measure this trade more accurately? This section launches a multi-year exploration of this question that will culminate in a revised dollar value estimate for the entire global authorized trade in small arms and light weapons. The trade in firearms was assessed this year and will be followed by a similar assessment of parts and accessories, ammunition, and light weapons in subsequent years.¹⁵

Much of the global trade in small arms remains difficult to ascertain.

As part of this year's assessment, the authors compiled data on firearms exports from 53 countries in 2006. This data was drawn from multiple sources, including new ones, such as information on small arms transfers submitted to the UN Register. Below is a brief assessment of the data itself, followed by an analysis of what the data says about the global trade in firearms. Note that this and the next section of the chapter¹⁶ focus solely on firearms (see the introduction for a definition of this term), and therefore the values do not include other types of light weapons, parts, accessories, or ammunition unless otherwise indicated.

Changes to the data and reporting since 2001

The quantity and, to a lesser extent, clarity and utility of data on firearms transfers has increased notably since the first edition of the *Small Arms Survey* in 2001. New sources of data shed light on previously unreported arms transfers and clarify data in existing sources that is ambiguous or incomplete. Particularly noteworthy is the background information on firearms transfers submitted to the UN Register. In 2006 these submissions revealed new information or additional details about the export of military firearms from 35 of the 53 countries surveyed for this chapter (UNDDA, 2006).¹⁷ New national reporting by major exporters of firearms like Bulgaria and Ukraine has also resulted in the release of large quantities of useful data.¹⁸

The expansion and refinement of existing data sources has also improved public understanding of the firearms trade. Changes to the way in which countries report on arms exports to UN Comtrade have made this data more useful. As part of a package of amendments to the Harmonized Commodity Description and Coding Systems enacted in 2002, the WCO created new sub-headings for HS code number 930100, 'military weapons'. The new sub-headings effectively disaggregate data on the disparate collection of weapons lumped together under the old code, allowing researchers to distinguish transfers of military firearms (930190) from transfers of artillery, rocket launchers, torpedo tubes, and other weapons. The adoption of these sub-headings has been rapid and widespread. By 2006 only seven countries still reported under the old 930100 code.

Also indicative of the trend towards more and better data are improvements to the report on arms exports published as part of the *Annual Report According to Operative Provision 8 of the European Union Code of Conduct on Arms Exports* (EU Report),¹⁹ a key source of data on European arms exports (e.g. see CoEU, 2007; 2008). When the EU first published the report in 1999, data on conventional arms transfers was limited to the total value of arms exports and the number of arms export licences issued by each EU member state. In contrast, the 2007 report contains a detailed breakdown of exports by Military List category to each recipient, including data on both actual deliveries of weapons and licences issued.²⁰

Despite these improvements, much of the global trade in firearms remains difficult to ascertain. Several major small arms producers report only on certain categories of firearms. Of the 53 countries surveyed for this chapter,

seven provided data to UN Comtrade on exports of sporting and hunting firearms, but little or no official data on handguns or military firearms. These countries include the Russian Federation and China—two of the largest exporters of firearms in the world. Other countries provide even less information: six of the countries surveyed provided no data on firearms exports at all in 2006. Mirror data from importing countries filled in some of the resulting gaps, but many large arms transfers undoubtedly went unreported.²¹

Among countries that do report on firearms exports through one or more of the reporting mechanisms surveyed for this chapter, the scope, clarity, and specificity of this data varies significantly. Some data sources are remarkably detailed, listing not only the type, quantity, value, and recipient of transferred firearms, but also the purpose of the transfer (e.g. 'for re-export to India') and the mode and date of delivery (UNDDA, 2006, p. 26). New Zealand's submission to the UN Register for 2007, for example, identifies the importing country, make, model, and serial number of each exported firearm (New Zealand, 2008). Other reports reveal little about the reporter's export and import activity. Japan's submission to the UN Register for 2006, for example, aggregates all data on procurement, including domestic procurement (UNDDA, 2006, p. 21). This data reveals little about Japan's suppliers and their export activity.

The lack of compatibility between data sources is another significant barrier to fully understanding the firearms trade. Some sources, such as the EU Report, provide only the values of transfers, while others, including

Box 1.2 US arms exports and the mysterious 9301909090 transfers to Japan

Even data from the most transparent countries often suffers from ambiguity, imprecision, and opacity. The United States, which is often identified by the Small Arms Survey as one of the most transparent small arms exporters in the world (see Transparency Barometer), is a good example. The US government publishes several different publicly available reports on arms transfers; disaggregates customs data on firearms transfers into ten-digit commodity codes; and helps private researchers to clarify ambiguities in data sources and reconcile seemingly contradictory data.

Despite this openness, ambiguities in data classification, importer sensitivities, and a patchwork approach to national reporting on arms transfers preclude a definitive accounting of US firearms exports. The effect of these limitations on clarity and transparency is readily apparent in the case of arms exports to Japan in 2006. Of the USD 245 million in exports reported by US exporters under the four main customs categories used for firearms in 2006, Japan was identified as the importing country of nearly 38 per cent (USD 92 million). Of that total, more than 98 per cent (USD 90 million) was filed under an obscure sub-category of 'military weapons' ambiguously labelled 'other' weapons (commodity code 9301909090) (US Census Bureau, 2008). What is meant by 'other' is not clear, and exporters have shipped items other than firearms under this sub-heading in the past.²² The primary US national report, the Section 655 report, provides little clarification, because data on government-to-government military sales to Japan is redacted and information on commercial sales is limited to licensing data. Since US licences are good for four years and not every licence results in a transfer, the licensing data is of limited utility.

A month-long inquiry by the US Census Bureau into the USD 90 million in exports of 'other' weapons to Japan revealed that 57 per cent (USD 51,653,899) were categorized incorrectly. Exports valued at USD 34,643,080 were subsequently recategorized as parts and accessories for unspecified 'other' military weapons, and the remaining USD 17,010,819 in exports was recategorized as 'parts for guided missiles'.²³ These corrections alone resulted in a downward revision of the estimated value of US firearms exports in 2006 by more than 20 per cent.

This case illustrates both the shortcomings of existing data on firearms transfers and the difficulty of confirming and corroborating this data. Few governments publish data that is detailed enough to spot such anomalies, and fewer still would respond expeditiously to outside requests to investigate them. Even in countries like the United States, where such inquiries are possible, investigating each ambiguously categorized transfer in this way is not feasible. Thus, even in the most transparent countries, analysing the firearms trade is a difficult task and systematically confirming each transfer is nearly impossible.

the UN Register, only indicate the number of units transferred. As a result, combining and reconciling these data sources is difficult. Furthermore, financial data often reveals very little about the nature and size of the export, yet it remains the most commonly reported data on firearms transfers.

A lack of transparency in reporting facilitates the concealment of arms sales to abusive regimes.

Compounding this problem is inconsistent and misleading data. A particularly nettlesome inconsistency is the apparent submission to the UN Register of licensing data by some countries and delivery data by others. Despite guidelines from the UN to ‘report only those transfers which they consider to have been effected during that reporting year’ (UNDDA, 2007, p. 5), 6 of the 13 respondents to a survey conducted by the Stockholm International Peace Research Institute (SIPRI) indicated that their submissions to the UN Register for 2006 were based on licensing data, which may or may not reflect actual exports (Holtom, 2008, p. 26). Another problem is the miscategorization of exports in customs data. As documented by the Small Arms Survey, Brazil routinely reports exports of pistols as sporting and hunting rifles in its customs data (Small Arms Survey, 2007, pp. 95–96).

Thus, despite significant improvements in the quantity and quality of data on small arms transfers, much of the trade remains opaque. This opacity not only hinders attempts to measure the global trade in firearms, but also facilitates the concealment of arms sales to abusive or aggressive regimes; impedes efforts to prevent excessive accumulation of weapons; and hinders the proper operation of multilateral agreements, which depend on detailed, accurate information on arms transfers to monitor compliance by member states.

Revising the global estimate for authorized firearms transfers

To convert the expanding pool of data on firearms transfers into knowledge about the overall trade, the authors collated and analysed data on 53 countries. Forty-six of the countries were selected based on their status as the largest exporters of small arms and light weapons in 2006, as revealed in UN Comtrade data.²⁴ Seven additional countries were selected either because they have significant export potential (owing to large surplus small arms holdings, or latent or nascent production capacity) or because they are suspected of significant export activity, but publish little or no data on their arms exports.²⁵ Together, these countries account for approximately 99 per cent of small arms and light weapons transfers recorded in UN Comtrade (in dollar value terms). The majority of data collected for this study came from the following sources: UN Comtrade (n.d.), the UN Register, the EU Report (CoEU, 2007), national arms export reports, the NISAT Database on Small Arms Transfers (NISAT, n.d.), and other regional and country-specific sources, including field research conducted by country experts.²⁶

For each of the 53 countries, data on exports of military firearms,²⁷ pistols and revolvers, and sporting and hunting shotguns and rifles was collected from each of the aforementioned data sources. Individual spreadsheets were then created for each country and populated with the data, which was then compared. Often, two or more sources reported different values for the same exports. In those cases, the data that was the most detailed or specific, or from the source considered most reliable, was selected.²⁸

When data on the quantity (units) of exported small arms was provided, but not the value of the export, the unit data was converted into a dollar value by multiplying the number of units by an average per unit price calculated from data on past exports of the same or comparable firearms from the country in question. When data on export values from previous years was not available or not available in sufficient quantity from a given country, a global average unit price—calculated from seven years of export data on exports of the same or comparable firearms collected from various countries²⁹—was used. In cases where data on transfers of different types of firearms was aggregated under a single munitions category, the data was used only when more detailed or specific corresponding data

Table 1.22 Estimated* small arms exports from 53 countries, aggregated by category, 2006

| Category | UN Comtrade total (USD)** | Revised estimate (USD)** | % difference |
|----------------------------|---------------------------|--------------------------|--------------|
| Military firearms | 244 million | 321 million | 32 |
| Pistols & revolvers | 428 million | 430 million | <1 |
| Sporting rifles & shotguns | 756 million | 779 million | 3 |
| Firearms (unspecified) | n/a | 39 million | n/a |
| Total | 1,428 million | 1,568 million | 10 |

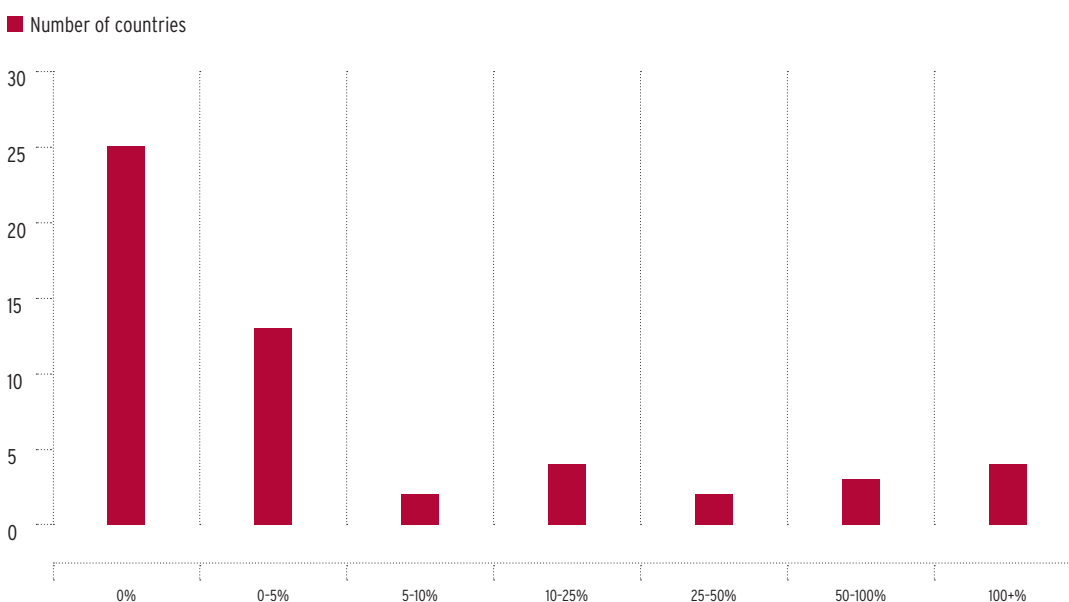
* It is important to stress that these values are only estimates. As explained in Box 1.2, data limitations preclude definitive assessments of even the most transparent countries.

** Totals are rounded to the nearest million.

was not included in other sources. The estimated value of these transfers was a small percentage of the global total (see ‘Firearms (unspecified)’ in Table 1.22).

For each country, the data selected from the various sources was then added together to come up with estimated dollar value totals for each category of firearms (i.e. military firearms, pistols and revolvers, and sporting and hunting shotguns and rifles). The category totals for each country were then added together to derive estimated global totals for each category. These totals are provided in Table 1.22. The first estimate, presented in the column entitled ‘UN Comtrade total’, is composed solely of data from UN Comtrade. The second column, labelled ‘Revised estimate’, contains the totals derived from the abovementioned methodology and sources. Compiling and juxtaposing the totals from the two sets of data in this way highlights the differences between the historic source of data (UN Comtrade) and the new and expanded sources of data, as reflected in the revised estimate. It also underscores the fact that the two figures are estimates, not definitive calculations.³⁰

Figure 1.3 Difference between UN Comtrade data and combined data sources (%)



As Table 1.22 shows, the data sources reviewed for this chapter contained records of approximately USD 1.57 billion in firearms transfers for the 53 countries surveyed. Roughly 9 per cent of this total, or USD 140 million, reflects transfers in excess of what was reported to UN Comtrade. The non-UN Comtrade data sources were particularly rich in data on military firearms, as evidenced by the 32 per cent upward revision in the global estimate for transfers in this category. The differences between the estimated totals for transfers of handguns and sporting shotguns and rifles were less dramatic at the global level, but significant differences were apparent at the country level.

Our findings also varied significantly from country to country, as illustrated in Figure 1.3. In 25 of the 53 countries analysed there was no difference between the dollar value total calculated using data from UN Comtrade and the total derived from all sources. Modest differences (less than 5 per cent) were apparent in the totals for 13 of the countries, and in 2 other cases the difference was between 5 and 10 per cent. In 13 of the 53 countries analysed, the difference between the revised estimate and the UN Comtrade total was more significant, i.e. greater than 10 per cent. In 4 of these countries, the difference between the revised estimate and the UN Comtrade total exceeded 100 per cent.

**Public understanding
of firearms exports
from many
countries remains
extremely limited.**

Cumulatively, the additional data collected for the countries in which the difference was 10 per cent or greater reflects dozens of arms transfers consisting of thousands of weapons not reported to UN Comtrade. Data on Hungary alone reveals additional transfers of 24,280 sub-machine guns, 2,736 light machine guns, 136 heavy machine guns, and 175 pistols. This case also illustrates the importance of unit data. Ageing and surplus weapons are often given away or sold for a fraction of their original cost. Therefore, data on the value of these transfers is rarely a good indicator of their significance from a security or foreign policy perspective.

Our research also generated more detailed information on arms transfers reported to UN Comtrade. This information revealed more precisely the types of exported firearms and, in some cases, facilitated the identification and correction of errors. Data on US military firearms obtained from the US Census Bureau is a good example. Unlike the data in UN Comtrade, which is lumped together in a single six-digit commodity category labelled 'military weapons' that includes all military firearms and unspecified 'infantry support weapons', the data from the Census Bureau is broken down into four (4) ten-digit sub-categories: 'military rifles' (9301903000), 'military shotguns' (9301906000), 'machine guns, military' (9301909030), and 'other' military weapons (9301909090). This data indicates that, of the roughly 75,000³¹ 'military weapons' aggregated under the six-digit category in UN Comtrade, 29 per cent were military rifles, 14 per cent were military shotguns, and 45 per cent were machine guns. The remaining units were listed by exporters as 'other' weapons. An analysis by the Small Arms Survey of the disaggregated data in the 'other' category led to the discovery and correction of a USD 50 million error in the data on exports to Japan (see Box 1.2). This discovery would not have been possible without the disaggregated data.

As noted above, our research yielded little or no additional data on nearly 65 per cent of the countries studied.³² Sources other than UN Comtrade contained negligible additional data on 9 countries and no additional data on 25 other countries. The latter group includes several countries that report little or no data to UN Comtrade, including Iran and North Korea, both of which are believed to be producers and exporters of small arms. These gaps in data are explained by several factors, including the voluntary nature of the reporting mechanisms and non- or partial reporting of mirror data by importing states. Thus, despite the proliferation of data in recent years, public understanding of firearms exports from many countries remains extremely limited.

Box 1.3 Assessing the undocumented trade

Given the lack of data on firearms transfers from several known or suspected exporting states, the undocumented trade in firearms is probably significant. Determining the full extent of this trade is not possible with any specificity. However, some sense of the export activity not currently caught in existing data sources can be garnered indirectly, through such sources as information on firearms production, political-military relationships, media accounts of recent transfers, and mirror data from importing states. Using this information, we estimate the undocumented trade in firearms to be at least USD 100 million. This is a conservative estimate, and is arrived at very differently from the other estimates provided in this chapter, which are grounded in extensive—if imperfect—data. We provide a brief explanation of our estimates below, by firearm category.³³

Military firearms

We estimate that the highest level of undocumented trade involves firearms made to military specifications. Prior behaviour, the size of the national firearms industry, press reports of alleged deals, fieldwork, or a combination of these suggests that certain countries were major exporters in 2006, even though available data appears incomplete. China is probably the country with the largest quantity of undocumented exports, given numerous, but often vague, reports of exports of Chinese military firearms to states in Africa and Asia. Other countries that appear to have significant levels of undocumented transfers are Israel, Singapore, and Taiwan. Countries with somewhat smaller levels of estimated undocumented transfers are Belarus, Iran, North Korea, Pakistan, and South Africa. As fieldwork indicated that the Russian Federation's only significant export was to Venezuela, a country for which we have import data, it was considered not to have significant undocumented exports in 2006.



Anchored outside Durban harbour, the Chinese container vessel *An Yue Jiang* carries a cargo of weapons destined for Zimbabwe, April 2008. © AP Photo

Revolvers and pistols

UN Comtrade and other sources provide considerable data on transfers from the 11 top exporters of pistols and revolvers. However, there are countries that produce pistols that do not report consistently to UN Comtrade and for which there appears to be inadequate mirror data. These are China, the Russian Federation, and South Africa. The undocumented trade in pistols and revolvers from these states could be significant, given (1) their production capacity, including the production of export models; (2) extensive military cooperation and defence trade agreements with countries in Africa, Asia, and Latin America that under-report firearms imports to UN Comtrade; and (3) an absence of mirror data from the United States, which is transparent and imports 56 per cent of the pistols exported by the 53 countries surveyed in this chapter.

Sporting and hunting rifles and shotguns

The value of undocumented transfers of sporting and hunting rifles and shotguns appears to be minimal. Since most countries in the world report on transfers of sporting rifles and shotguns to UN Comtrade, we can be fairly certain that nearly all of the major exporters can be identified—at least by using the data that importers provide to UN Comtrade. Of the 17 countries identified through UN Comtrade as exporting 1 per cent or more of the USD 779 million in documented transfers of sporting and hunting shotguns and rifles, there is robust information available for all of them but Ukraine, and its exports are included in its national report (Pyadushkin, 2008).³⁴ Nonetheless, there is at least one country suspected of exporting sporting and hunting rifles for which we have no UN Comtrade data: Belarus. While Belarus does not appear to be a major producer of firearms, it may have a large surplus of Soviet and pre-Soviet-period firearms available for export.

ANALYSIS OF FIREARMS TRANSFERS IN 2006

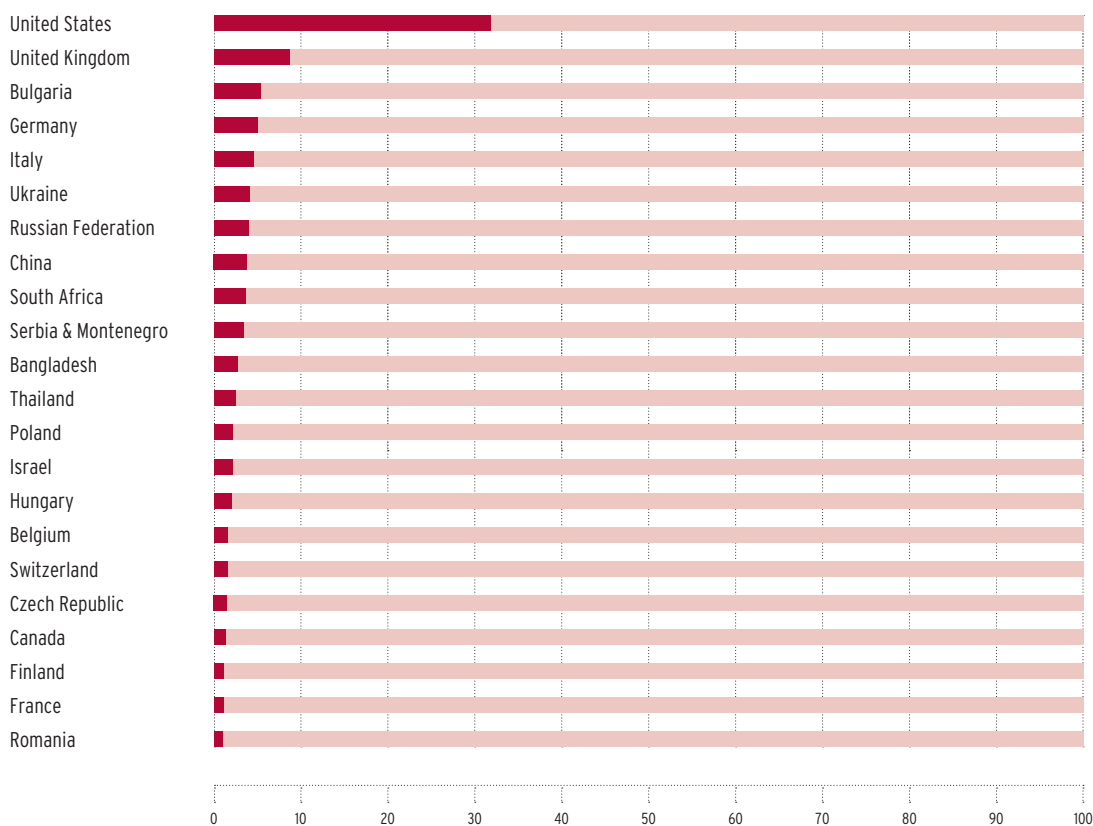
Military firearms

In 2006 the 53 countries analysed in this section exported at least 500,000 military firearms worth an estimated USD 321 million. These transfers accounted for 20 per cent of the value of authorized transfers of all firearms during that year. As some countries reported little or no information on the number of arms exported, the above tally is an underestimate.

This section examines the trade in firearms made to military specifications: automatic rifles and carbines; sniper rifles; light, sub-, general purpose, and heavy machine guns; and 'combat' shotguns.³⁵ Heavy machine guns, due to their lack of portability by one person, are normally categorized as light weapons. They are included here because, in practice, exporters often place heavy machine guns in the same category as military small arms, often making it impossible to disaggregate data on heavy machine guns from other small arms.

It is important to note that this section examines different categories of weapons to those analysed in the section entitled 'Global trends, 2000–06'. In the latter section, the category 'military small arms and light weapons' included all types of light weapons, including rocket launchers and grenade launchers. In the present section, the term 'military

Figure 1.4 Proportion of identified global trade in military firearms (%), 2006



Note: This figure only includes those countries with 1 per cent or more of global transfers, so the percentages for the individual countries will not total 100 per cent.

Sources: UN Comtrade (n.d.); national arms export reports; CoEU (2007); UNDDA (2006); NISAT (n.d.)



firearms' is used and it only includes the previously mentioned firearms. As a result, the figures in the two sections are often very different.

The present section reiterates some of the findings in the section entitled 'Global trends, 2000–06'.³⁶ While a diversification of production capacity is clearly reflected in the 2006 data, this section also suggests that, in practice, the trade in military firearms is dominated by the United States and a small number of other countries. Of those countries whose transfers of military firearms is documented, only 22 had exports that totalled 1 per cent or more of the total global trade carried out by the 53 countries. Of these, three had 5–10 per cent, and the United States accounted for almost a third of all identified transfers with 32 per cent.

Table 1.23 summarizes the available data on exports of military firearms for all countries with more than 1 per cent of global exports. This data was drawn from several data sources, including UN Comtrade, national arms export reports, the EU Report, the UN Register, field research, and the NISAT database. Despite the wide array of sources used, the figures for four countries in the table—the Russian Federation, Israel, South Africa, and China—are likely to be significant underestimates, because these countries withhold data on exports of military firearms. Data on these countries' exports is therefore largely limited to 'mirror data' (i.e. data submitted by importing countries). Conversely, two countries, Bangladesh and Thailand, are unlikely to be included in subsequent years' tallies of the top exporters. In both cases, their inclusion is explained by a single large transfer—from Bangladesh to Côte d'Ivoire and from Thailand to Singapore.

Table 1.23 Countries with 1% or more of global transfers, 2006

| Country (in descending order of value of transfers)* | Number of identified military firearms (may not include all transfers) | % of all military firearms transfers | % of all small arms transfers | Top five partners (exports >USD 100,000) |
|--|--|--------------------------------------|-------------------------------|---|
| United States | <ul style="list-style-type: none"> • Machine guns: 31,928 • Military rifles & carbines: 26,129 • Unspecified: 13,124 • Combat shotguns: 7,830 <p>Total: 79,011</p> | 31.8 | 6.5 | Japan Colombia Netherlands Bahrain Egypt |
| United Kingdom | <ul style="list-style-type: none"> • Sniper rifles: 15,273 • Sub-machine guns: 1,356 • Assault rifles: 12,909 • General purpose machine guns: 466 • Semi-automatic rifles: 207 • Heavy machine guns: 33 • Light machine guns: 115 • Rifles & carbines: 13 • Automatic rifles: 21 • Unspecified: 1 <p>Total: 30,394</p> | 8.7 | 1.8 | Afghanistan Turkey Saudi Arabia Brazil Pakistan |
| Bulgaria | <ul style="list-style-type: none"> • Light machine guns: 2 <p>(Limited available data on quantities)</p> | 5.3 | 1.1 | Iraq |
| Germany | <ul style="list-style-type: none"> • Unspecified: 19,453 • Assault rifles: 1,482 • Sub-machine guns: 440 <p>Total: 21,375</p> | 5.0 | 1.0 | Saudi Arabia United States Latvia Switzerland Malaysia |
| Italy | <ul style="list-style-type: none"> • Unspecified: 2,498 <p>Total: 2,498</p> | 4.6 | 0.9 | Switzerland Mexico United States |
| Ukraine | <ul style="list-style-type: none"> • Assault rifles & sub-machine guns: 152,502 • Unspecified: 17,217 • Light machine guns: 799 • Heavy machine guns: 13 <p>Total: 170,531</p> | 4.1 | 0.8 | Libya Georgia ³⁷ Azerbaijan Chad United States |
| Russian Federation | <ul style="list-style-type: none"> • Unspecified: 48,187 <p>Total: 48,187</p> | 4.0 | 0.8 | Venezuela United States |
| China | <ul style="list-style-type: none"> • Unspecified: 24,555 • Rifles & carbines: 390 • Sub-machine guns: 118 <p>Total: 25,063</p> | 3.7 | 0.8 | Ethiopia Tanzania Madagascar |



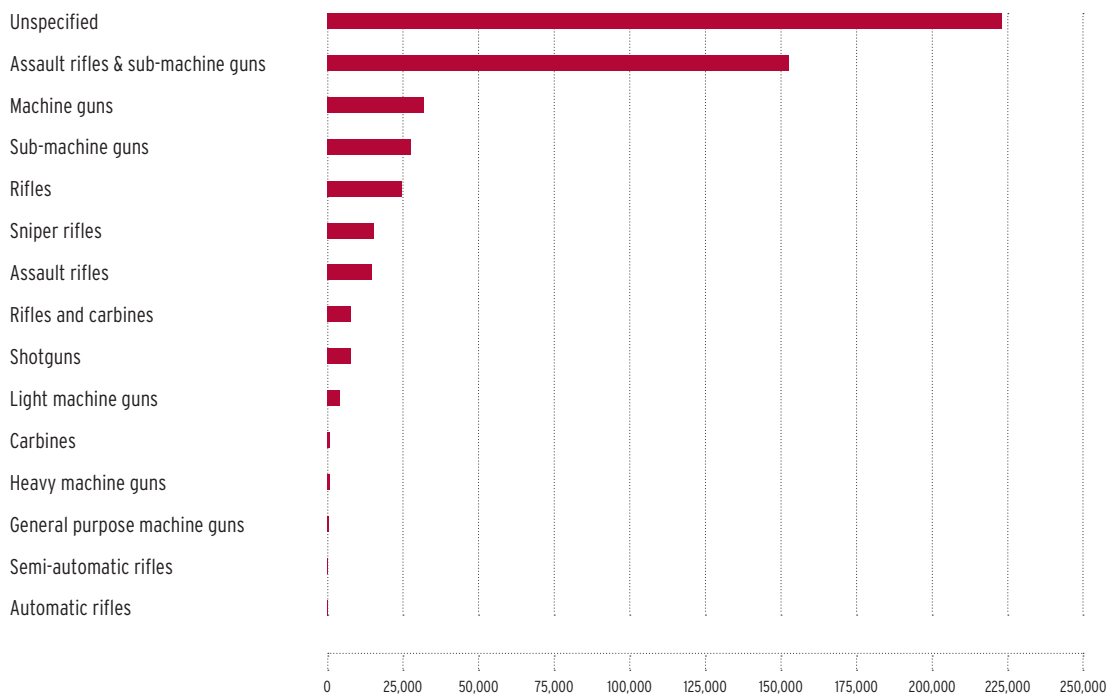
| | | | | |
|---------------------|---|-----|-----|---|
| South Africa | <ul style="list-style-type: none"> • Unspecified: 2 (Limited available data on quantities) | 3.6 | 0.7 | Colombia Saudi Arabia |
| Serbia & Montenegro | <ul style="list-style-type: none"> • Unspecified: 12,466 Total: 12,466 | 3.4 | 0.7 | Burma/Myanmar Cameroon Iraq Armenia Greece |
| Bangladesh | Data on quantities not available | 2.7 | 0.6 | Côte d'Ivoire |
| Thailand | <ul style="list-style-type: none"> • Unspecified: 8,817 Total: 8,817 | 2.5 | 0.5 | Singapore |
| Poland | <ul style="list-style-type: none"> • Unspecified: 7,163 • Heavy machine guns: 345 • Assault rifles: 22 Total: 7,530 | 2.1 | 0.4 | Jamaica Iraq India Bulgaria Jordan |
| Israel | <ul style="list-style-type: none"> • Unspecified: 9,133 • Assault rifles: 200 • Rifles & carbines: 2 Total: 9,335 | 2.1 | 0.4 | Colombia Trinidad & Tobago United States Cameroon Australia |
| Hungary | <ul style="list-style-type: none"> • Sub-machine guns: 24,280 • Unspecified: 5,437 • Light machine guns: 2,736 • Heavy machine guns: 136 Total: 32,589 | 2.0 | 0.4 | Afghanistan United States Romania Iraq |
| Belgium | <ul style="list-style-type: none"> • Unspecified: 3,307 • Rifles & carbines: 344 • Light machine guns: 60 • Heavy machine guns: 1 Total: 3,712 | 1.6 | 0.3 | Switzerland Mexico United States Canada Germany |
| Switzerland | <ul style="list-style-type: none"> • Unspecified: 6,848 Total: 6,848 | 1.6 | 0.3 | Egypt Germany France Italy Singapore |
| Czech Republic | <ul style="list-style-type: none"> • Rifles & carbines: 3,855 • Sub-machine guns: 196 • Heavy machine guns: 159 • Assault rifles: 30 • Light machine guns: 19 Total: 4,259 | 1.5 | 0.3 | Georgia Bosnia & Herzegovina Canada |

| | | | | |
|---------|---|-----|-----|---|
| Canada | <ul style="list-style-type: none"> Unspecified: 2,452 Total: 2,452 | 1.3 | 0.3 | United Kingdom United States Netherlands Denmark Sweden |
| Finland | <ul style="list-style-type: none"> Unspecified: 1,234 Sniper rifles: 20 Total: 1,254 | 1.1 | 0.2 | Estonia Sweden United States Germany Italy |
| France | <ul style="list-style-type: none"> Unspecified: 14 Machine guns: 4 (Limited available data on quantities) | 1.1 | 0.2 | Colombia Australia Senegal |
| Romania | <ul style="list-style-type: none"> Unspecified: 4,259 Total: 4,259 | 1.0 | 0.2 | Germany Afghanistan Iraq Maldives Islands |

* The countries are ranked in descending order according to the financial value of their transfers. Proportions of the trade in military firearms and all small arms are similarly calculated by the value of transfers.

Sources: UN Comtrade (n.d.); national arms export reports; CoEU (2007); UNDDA (2006); NISAT (n.d.); US Census Bureau (2008)

Figure 1.5 **Number of military firearms exported during 2006**



Sources: UN Comtrade (n.d.); national arms export reports; CoEU (2007); UNDDA (2006); field research; NISAT (n.d.)

As mentioned in the section entitled ‘Charting a new approach’, this chapter draws heavily on a detailed study of the transfers by the top 53 exporters. Based on this study, we estimate that at least 500,000 military firearms were transferred by the 53 countries in 2006. As this figure was generated from several different data sources covering exports and imports, and many countries did not report the number of units they transferred, it is an incomplete and provisional tally of the military firearms exported during 2006. Of these weapons, 44 per cent were not identified by specific type of firearms (e.g. ‘rifle’). Instead, they are described in more generic terms, such as ‘smooth-bore weapons with a calibre of less than 20 mm, other arms and automatic weapons with a calibre of 12.5 mm or less’ (described in Table 1.23 and Figure 1.5 as ‘unspecified’). The other 56 per cent of the firearms were identified by specific type. A summary of data on these firearms is provided in Figure 1.5. Note that the designations provided in Table 1.23 and Figure 1.5 come directly from the various data sources, which do not use consistent classifications. For example, firearms labelled as ‘machine guns’ by one country are disaggregated into ‘sub-machine guns’, ‘light machine guns’, and ‘heavy machine guns’ by others.

The types of firearms exported, as presented in Table 1.23 and Figure 1.5, reflect exporters for which data was available. Several made significant transfers to Iraq and Afghanistan, including a Hungarian export of 21,480 sub-machine guns to Afghanistan and 11,026 assault rifles from the United Kingdom. If countries such as China, Israel, the Russian Federation, or

Box 1.4 Transfers to peacekeeping forces

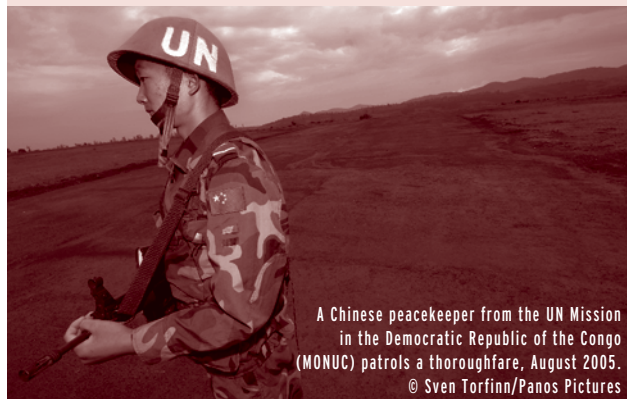
One important type of transfer of military small arms and light weapons is to forces deployed on international operations that include armed peacekeepers. These missions can be mandated by the UN Security Council, and operate under the auspices of regional organisations (such as the EU and the African Union) or as part of a bilateral agreement between two governments.

Arms transfers to peacekeeping forces are an interesting sub-group of the transfers analysed in this chapter. Sometimes arms and associated parts and ammunition are transported with military forces as they are being deployed, and then return with them. In other cases, a government may transfer weapons to a mission staffed by other nationalities, perhaps as part of a military aid package. While peacekeeping operations are frequently established in areas under UN arms embargoes, such transfers are lawful, as most embargo resolutions exclude transfers of arms for peacekeeping forces.

Some data sources highlight transfers to peacekeeping forces, while others, including UN Comtrade, do not. In addition, transfers to peacekeepers may be made concomitantly with transfers to a foreign government. It is therefore impossible to consistently disaggregate transfers to peacekeeping operations from other types of transfers of small arms and light weapons, thus precluding the development of an accurate estimate of their value.

Nevertheless, there are several recent examples of transfers that are almost certainly related to peacekeeping. One transfer mentioned in this chapter is that of USD 8,733,369 worth of military firearms (UN Comtrade code 930190) from Bangladesh to Côte d’Ivoire in 2006. In 2006 Bangladesh stationed 3,400 soldiers, 250 police, and 25 military observers in Côte d’Ivoire as part of the UN Operation in Côte d’Ivoire (UNOCI, 2006). The Government of Bangladesh did not provide the authors with specific information on this export, but a Bangladeshi army officer confirmed that the only circumstances in which such arms transfers take place is to peacekeeping operations.³⁸

The EU Report includes information on ‘Exports By EU Member States and Acceding Countries to United Nations-Mandated Or Other International Missions in 2006’ (CoEU, 2007, table A.11). These exports included both transfers to national troops stationed abroad (e.g. Hungary) and transfers to international missions or organizations, such as the Austrian export of pistols and components to the International Criminal Tribunal for Rwanda. These transfers are highlighted in Table 1.24.



A Chinese peacekeeper from the UN Mission in the Democratic Republic of the Congo (MONUC) patrols a thoroughfare, August 2005.
© Sven Torfinn/Panos Pictures

Table 1.24 EU member states' exports to international missions, 2006

| Exporting country | Destination country | Recipient | Weapon type (only small arms and light weapons shown) |
|-------------------|--|---|---|
| Austria | Democratic Republic of the Congo (DRC) | UN Mission in the Democratic Republic of the Congo (MONUC) | Pistols and components |
| | Iraq | Multinational Force* | Pistols and components |
| | Kuwait | UN Assistance Mission for Iraq (UNAMI) | Pistols and components |
| | Lebanon | UN Economic and Social Commission for Western Asia; UN International Independent Investigation Commission | Pistols and components |
| | Liberia | UN Mission in Liberia (UNMIL) | Pistols and components |
| | Serbia & Montenegro | UN Mission in Kosovo (UNMIK) | Components (for small arms and light weapons) |
| | Tanzania | International Criminal Tribunal for Rwanda (Security Unit) | Pistols and components |
| Hungary | Cyprus | UN Peacekeeping Force in Cyprus | 7.62 PKMSZ machine gun; 7.62 mm AK63/D AMMSZ sub-machine gun; 9 mm P9RC revolver**; ammunition for pistols |
| | Georgia | UN Observer Mission in Georgia | Training ammunition; revolvers; pistols |
| | Israel | Multinational Force and Observers Sinai | 9 mm P9RC pistol** |
| | Lebanon | UN Interim Force in Lebanon (UNIFIL) | 9 mm 96M P9RC PA pistol** & ammunition |
| Germany | Burundi | UN Operation in Burundi Movement Control Logistic Base | Parts for pistols |
| | DRC | MONUC Logistic Base | Semi-automatic smooth-bore guns; parts for sub-machine guns; ammunition for guns; ammunition for hunting guns; ammunition for pistols |
| | Republic of Congo | MONUC chief procurement officer | Sub-machine guns; parts for sub-machine guns |
| | Kuwait | Administrative officer, UNAMI Movement Control | Parts for sub-machine guns |
| | Liberia | UNMIL Receiving and Inspection Unit | Parts for sub-machine guns |



| | | | |
|----------------|----------------------|--|---|
| Greece | Afghanistan | International Security Assistance Force (ISAF) | Ammunition; weapon sight |
| | Bosnia & Herzegovina | EU Force (EUFOR) Operation Althea | Pistol |
| | DRC | EUFOR in the Democratic Republic of the Congo (EUFOR RD Congo) | Assault rifle; pistol |
| | Macedonia | UNMIK | Ammunition |
| Portugal | Afghanistan | ISAF | Small arms & light weapons; ammunition |
| | DRC | EUFOR RD Congo | Small arms & light weapons; ammunition; |
| | Gabon | Support for EUFOR RD Congo | Small arms & light weapons; ammunition |
| | Lebanon | UNIFIL | Small arms & light weapons; ammunition |
| United Kingdom | Haiti | EU*** | Revolvers (15); shotguns (6); semi-automatic pistols (8); components for semi-automatic pistols; sub-machine guns (6); small arms ammunition; sporting gun ammunition |

* The Multinational Force in Iraq was authorized by UN Security Council Resolution 1511 of 2003.

** This information was taken directly from the EU Report, hence the discrepancies in the way in which what appears to be the same type of weapon is named/categorized.

*** Taken directly from the EU Report.

Source: CoEU (2007)

South Africa were also to report their exports of military firearms, the ratios in Figure 1.5 would probably be significantly different.

Of the ten largest exporters of military firearms, the export values of four—Hungary, the United Kingdom, Bulgaria, and Ukraine—increased by over USD 5 million when data from sources other than UN Comtrade was considered. The United Kingdom is most striking. It has been described as a mid-level producer (see Small Arms Survey, 2003, pp. 64–65), and thus it is noteworthy that data sources other than UN Comtrade suggest that it ranked among the largest exporters of military firearms in the world during 2006.

Pistols and revolvers

Background: pistols and revolvers: weapons of two worlds

Due to existing national regulations and controls, in most parts of the world military firearms (sub-machine guns, automatic rifles, military shotguns, machine guns, and anti-materiel rifles) are mainly legally sold to military forces, law enforcement agencies, and very specific (and smaller) civilian markets, such as collectors and museums. Similarly, the authorized production and trade of sporting and hunting rifles and shotguns address the demand of specific

groups of civilian users, such as hunters and sporting shooters and inhabitants of isolated rural areas. Long-barrelled guns are poorly suited to urban environments, where they cannot be carried without causing alarm (Small Arms Survey, 2007, pp. 63–64). In contrast, pistols and revolvers, commonly referred to as side arms or handguns, differ from other types of firearms in that there is roughly equal demand for them in military, law enforcement, and civilian markets. Small, easy to use, conceal, and carry, and very effective at close range, handguns are effective weapons for personal defence in urban environments and for close-range engagements by military and law enforcement users (Small Arms Survey, 2007, pp. 63–64; Forecast International, 2007a, pp. 15–17).

With the exception of the small and highly specialized niche market for high-precision sporting shooting pistols, handguns are generally produced for both civilian and military/law enforcement markets. Some manufacturers have developed less powerful versions of some high-calibre models in order to avoid national legal restrictions regarding magazine capacity or calibre.³⁹ A small number of models were designed specifically for military use, such as fully automatic versions of semi-automatic pistols or extremely powerful (and rare) calibres such as the FN Five-SeveN (5.7 mm).

In military/law enforcement markets, the demand for handguns is steady and largely determined by purchase cycles related to the renewal/modernization of ageing weapons,⁴⁰ or the adoption of a new standardized calibre deemed more effective for law enforcement, such as the .40 S&W calibre, which has significant stopping power.

**Pistols and revolvers
account for 27 per
cent of all firearms
exported in 2006.**

Most of the 650 million firearms in civilian hands are estimated to be handguns, ownership of which is largely concentrated in urban markets of developed countries. The demand for these weapons is driven by factors such as income distribution, culture, the (real or perceived) need for security (Small Arms Survey, 2007, pp. 57–64), and the restrictiveness and effectiveness of domestic firearms regulations. In wealthier markets, it is more likely that demand will reflect the latest ‘fashions’ in handgun technology, including new calibres and models incorporating new technologies (Small Arms Survey, 2007, pp. 57–65; 2005, pp. 22–23).

Exports of pistols and revolvers, 2006

In 2006 the total estimated value of exported pistols and revolvers for the 53 countries surveyed was approximately USD 430 million. That is less than 1 per cent higher than the total reported to UN Comtrade (approximately USD 428 million). The difference stems mainly from exports that are not declared in UN Comtrade by either importing or exporting countries, but are either declared by the exporting country or by importing countries in the UN Register. The largest transfers of pistols and revolvers that were not recorded in UN Comtrade were exports from Austria (3,784 units in imports declared to the UN Register by Lithuania, Greece, and Hungary). These totals include 592 units reported by Greece, 3,111 units reported by Lithuania, and 81 units reported by Hungary.

Pistols and revolvers account for 27 per cent of all firearms exported in 2006, according to existing data sources. The largest exporters (with 1 per cent or more of global transfers) were Austria, Germany, Brazil, Italy, the United States, Croatia, the Czech Republic, Argentina, Belgium, Israel, and Canada, as shown in Table 1.25.

As shown in Table 1.25, the largest importer of pistols and revolvers is the United States, the main commercial market for firearms in the world and a country where the civilian population holds about 270 million of the 650 million firearms estimated to be in civilian hands worldwide (Small Arms Survey, 2007, p. 39). In fact, the United States received 59 per cent of handguns, in dollar value terms, exported from the countries in Table 1.25. An exception to this reliance on the US market seems to be Germany, which exported nearly as many handguns (in dollar value terms) to France as to the United States in 2006. This may be related to the fact that the SIG SAUER SP 2022 pistol has been the standard service weapon in France since 2003, with orders of over 250,000 pistols. These pistols were

Table 1.25 Countries with 1% or more of global transfers of pistols and revolvers, 2006

| Exporter | Number of identified pistols & revolvers (may not include all transfers) | % of all pistols & revolvers transfers by value | % of all firearms transfers by value | Top five partners by value (in order of importance) |
|----------------|--|---|--------------------------------------|---|
| Austria | 410,702 | 27.31 | 7.48 | United States Saudi Arabia Thailand Brazil Italy |
| Germany | 288,579 | 20.61 | 5.65 | United States France Spain Sweden Switzerland |
| Brazil | 278,262 | 11.10 | 3.04 | United States Philippines Germany Honduras Ecuador |
| Italy | 145,741 | 9.52 | 2.61 | United States Argentina Spain Mexico South Africa |
| United States | 94,867 | 7.14 | 1.95 | Canada Thailand Belgium Germany Japan |
| Croatia | 143,432 | 6.31 | 1.73 | United States Dominican Republic Canada Thailand Bosnia & Herzegovina |
| Czech Republic | 35,363 | 3.64 | 1.24 | United States Thailand Egypt Colombia Germany |
| Argentina | 88,895 | 2.17 | 0.59 | United States Nicaragua Guatemala Costa Rica Dominican Republic |



| | | | | |
|--------------------|------------------|------|------|---|
| Belgium | 17,886 | 2.05 | 0.56 | United States Pakistan Italy Australia Luxemburg |
| Israel | 72,205 | 1.93 | 0.53 | United States Colombia Guatemala Germany Barbados |
| Canada | 12,993 | 1.65 | 0.45 | United States Norway Italy Philippines France |
| Total units | 1,588,925 | | | |

made in Germany, since SIG SAUER is a Swiss–German industrial conglomerate that includes J.P. Sauer & Sohn and Blaser, GmbH. in Germany and Swiss Arms AG in Switzerland, and that manufactures weapons in both countries (SIG SAUER, 2008).

The leading pistols exporter in the world is Austria, which produces probably the most innovative design of the last three decades: polymer-made pistols, pioneered by the Austrian company Glock in the 1980s. Glock's early adoption of this technology explains, in part, Austria's dominant position in the market in 2006. Germany (Walther, H&K, Sauer), Italy (Beretta), the United States (Colt, Ruger, Smith & Wesson, etc.), the Czech Republic, and Belgium are historically large exporters of pistols that continue to command a large share of the global market today. Other major exporters of pistols and revolvers are Brazil, Argentina, Croatia, and Israel, each of which captured a significant share of the US market during the 1990s and the beginning of the current decade through aggressive marketing strategies and high-quality products. The fruits of these efforts are reflected in the data from 2006. Eighty-six per cent of Brazil's USD 48 million in exports of pistols and revolvers, and 68 per cent of Argentina's exports, went to the United States. Croatia is an even starker case, with more than 98 per cent of its revenue from handgun exports (USD 27 million) generated through sales to the United States. In the case of Brazil (Taurus, Imbel) and Argentina (Bersa), penetration of the US market was made possible through the production of reliable, high-quality handguns that cost less than similar US-made products (Small Arms Survey, 2004, pp. 16–26; Dreyfus, Lessing, and Purcena, 2005).

Through the production of reliable and robust models such as the Israeli Military Industries' Jericho and Desert Eagle series (Forecast International, 2007b, pp. 8–9), Israel has also established itself as a major player in the US market. In 2006 Israel exported nearly USD 6 million worth of pistols and revolvers to the United States (NISAT, n.d.). Israel also exports significant quantities of pistols and revolvers (close to USD 1 million in 2006) to Colombia and Guatemala, two traditional customers of Israeli military equipment (Small Arms Survey, 2004, p. 23; Klare and Andersen, 1996, pp. 1–16; Beit-Hallahmi, 1987, pp. 79–84). Croatia won its access to the US market through production cooperation agreements with US-based companies such as Springfield Armory, which markets Hrvatski Samokres (commonly known as HS) pistols to US civilians (Small Arms Survey, 2003, p. 45).

Brazil, Austria, Belgium, and the 'invisible pistols'

As in past years, the only available data on handgun transfers from Austria, Brazil, and Belgium in 2006 was mirror data from importers. This is because these countries do not report their exports of these products to UN Comtrade. Moreover, there is strong evidence that Brazil reports its pistols under category 930330 (sporting and hunting rifles) (Small Arms Survey, 2007, pp. 94–97; En la Mira, 2007; 2008).

Officials of the Directorate of Controlled Products of the Brazilian Army, the office in charge of authorizing production, imports, and exports of arms, admitted during a Hearing Commission of the Brazilian Congress (which was active from March 2005 to November 2006) that specific pistols and revolvers categories are not published or communicated to open sources (such as UN Comtrade) for national security reasons. According to these officials, the values and quantities of exports of pistols and revolvers are not reported in order to protect information considered by Brazil to be strategic (Brazil, 2006, p. 439).

It is, however, possible to identify the destination of Austrian, Brazilian, and Belgian pistols by looking at the import data provided by their main importers, particularly the United States. Of these three countries, Brazil is the only one in which, after empirical tests, there is evidence that the pistols are more likely reported under another category of firearms, in this case sporting rifles (Small Arms Survey, 2007, pp. 94–97; 2006, p. 75; En la Mira, 2007; 2008). The data from Belgium and Austria does not follow a similar pattern.

Sporting and hunting shotguns and rifles

Background: an exclusive, lucrative, and blurred market

In general, sporting and hunting weapons are produced for a small and very demanding market sector that requires precise, accurate, and long-lasting weapons that have a high production cost. There is, however, a market for cheaper mass-produced products. Prices in this market range from USD 64,600 for a UK-made Holland and Holland Deluxe Hammerless Double shotgun

to a KBI M-1500 SC .22 calibre rifle worth USD 200 made in the United States (Carpentieri, 2003, pp. 474, 485).

This market is composed of the following types of products:

- 1) precision shooting rifles (labour-intensive production; very expensive);
- 2) high-calibre bolt-action precision hunting rifles (labour-intensive production; very expensive);
- 3) repeating and semi-automatic small-calibre rifles (mass-produced; generally low priced);
- 4) semi-automatic versions of automatic military rifles (e.g. the AR-15 rifle by Pac-West Arms) (mass-produced; moderately priced);
- 5) civilian versions of military anti-materiel sniper rifles (e.g. Barrett .50 rifles) (labour-intensive production; expensive);
- 6) hand-made, single shot, single- or double-barrelled rifles and shotguns (i.e. some Holland and Holland models) (labour-intensive production; very expensive);



A hunting firearm on display during the fourth annual trade fair for US products and services in Beirut, Lebanon, October 2008. © Jamal Saidi/Reuters

- 7) mass-produced single shot and repeating shotguns (low to moderately priced)
- 8) semi-automatic shotguns (i.e. Franchi SPA 12) (mass-produced, but sophisticated and expensive); and
- 9) 50-year-old+ surplus military bolt-action rifles for use as hunting rifles (inexpensive to moderately priced, depending on the condition of the weapons).

The production of labour-intensive, expensive hunting weapons is concentrated in European countries (including Eastern Europe and the Russian Federation). These industries are descended from ancient small arms manufacturing traditions (e.g. firms such as Holland and Holland in the United Kingdom and Beretta in Italy) and are based in countries with historically strong (although

waning) hunting traditions, particularly in countries like Austria, Germany, Italy, France, and Spain. There are also highly respected manufacturers of these types of weapons in the United States (such as Marlin).

The production of civilian versions of assault rifles and high-calibre sniper rifles is mainly concentrated in the United States, where the country's gun culture embraces (and permissive regulations facilitate) the ownership of semi-automatic assault rifles and sniper rifles by civilians. This market has grown since the US assault weapons ban expired in 2004.

Simple and inexpensive hunting weapons are primarily produced in the United States and in countries outside Europe, such as Brazil and the Philippines. The export of surplus bolt-action rifles is currently a lucrative market for Ukraine, a country that is 'disposing' of numerous surplus weapons by selling some of them. Bolt-action rifles such as pre-Second World War and Second World War Mosin-Nagant rifles, or even Mauser 98K carbines captured from the enemy during the war, are being sold as sporting rifles, mainly to collectors and hunters in the United States. These exports posed an interesting dilemma for the authors of this chapter, as these weapons were originally made to military specifications, but are currently purchased by collectors, hunters, or sports shooters. As their military role is now obsolete and their use is for civilian recreation, and based on a background information paper produced for this chapter (Pydushkin, 2008), they are classified here as sporting rifles.

Exports of sporting and hunting shotguns and rifles, 2006

Based on data compiled on the 53 countries surveyed for this chapter, the total value of sporting and hunting shotguns and rifles exported in 2006 was USD 779 million. This estimate is 3 per cent higher than the total value of transfers reported to UN Comtrade (USD 756 million). The difference between the UN Comtrade total and our estimate is largely explained by transfers reported by exporters and importers to the UN Register or in national reports that are not reflected in UN Comtrade data. Exports from Ukraine (USD 13.5 million) account for most of this difference.⁴¹

Box 1.5 The risks of exporting 'human-hunting' sporting rifles

Domestic sales of semi-automatic 'sporting' rifles in the United States and their export to countries with weak controls and regulations can facilitate access to high-firepower weaponry by criminal and illegal armed groups. In 2007 the US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) traced about 3,000 US-made small arms seized by the police in operations against drug traffickers in the State of Rio de Janeiro, Brazil, between 1998 and 2003. A total of 856 of the traced weapons had information about the first purchaser of the weapon. Twenty-three per cent of these 856 weapons were assault rifles. Thirty-four per cent of these weapons had been purchased directly from gun shops in the United States, mainly in the state of Florida (Werneck, 2007). The ATF also traced US semi-automatic assault rifles (mainly Colt and Ruger) seized in Rio de Janeiro that were originally exported to gun shops (for civilian consumption) in Paraguay (Werneck, 2007). The seizures of these weapons coincided with a period of increasing exports of sporting rifles to Paraguay in the mid-1990s. This diversion of weapons through Paraguay led the US government to establish a ban on firearms exports to that country in 1996 (Dreyfus, Marsh, and De Sousa Nascimento, 2006, p. 21).

Table 1.26 Countries with 1% or more of global transfers of sporting and hunting shotguns and rifles, 2006

| Exporter | Number of identified firearms (may not include all transfers) | | % of all shotguns & rifles transfers by value | % of all firearms transfers by value | Five top destination countries for shotguns by value | Five top destination countries for rifles by value |
|----------------|---|--------------------|---|--------------------------------------|--|---|
| Italy | Shotguns: Rifles: | 310,065 34,962 | 32.22 | 16.01 | United States United Kingdom France Spain Russian Federation | United States France United Kingdom Spain Russian Federation |
| Germany | Shotguns: Rifles: | 58,304 145,997 | 9.63 | 4.78 | United States Russian Federation Ukraine Austria Kazakhstan | United States Russian Federation France Spain Italy |
| United States | Shotguns: Rifles: | 82,001 144,989 | 7.77 | 3.86 | Canada Italy New Zealand United Kingdom Thailand | Canada Australia New Zealand United Kingdom France |
| Belgium | Shotguns: Rifles: | 21,646 49,433 | 6.27 | 3.11 | United Kingdom France Italy Denmark Spain | United States France Italy Spain Germany |
| Turkey | Shotguns: Rifles: | 204,976 39,758 | 6.04 | 3.00 | United States France Germany Italy Egypt | United States United Kingdom New Zealand Argentina Mexico |
| Japan | Shotguns: Rifles: | 32,879 75,463 | 5.04 | 2.50 | Belgium United States Australia Canada Denmark | United States Canada France Belgium Greece |
| United Kingdom | Shotguns: Rifles: | 1,237 205,140 | 4.71 | 2.34 | United States France Jordan Finland Germany | United States Switzerland Germany Qatar Russian Federation |
| Brazil | Shotguns: Rifles: | 145,771 116,026 | 4.40 | 2.19 | United States Botswana Canada Australia Argentina | United States Philippines Indonesia Honduras Dominican Republic |



| | | | | | | |
|--------------------|----------------------|-------------------|------|------|--|---|
| Russian Federation | Shotguns: Rifles: | 155,089 50,338 | 3.88 | 1.93 | United States Cyprus Germany Ukraine France | Germany United States Ukraine Cyprus Kazakhstan |
| Finland | Shotguns: Rifles: | 504 53,501 | 3.06 | 1.52 | Austria Lithuania Estonia Czech Republic Italy | United States Canada Australia Sweden United Kingdom |
| Czech Republic | Shotguns: Rifles: | 3,100 68,790 | 2.51 | 1.25 | Thailand Slovakia Lithuania Poland Bosnia & Herzegovina | United States United Kingdom France Australia Thailand |
| Spain | Shotguns: Rifles: | 34,503 7,269 | 2.13 | 1.06 | United States United Kingdom Portugal France Norway | France Denmark United States Greece Portugal |
| Canada | Shotguns: Rifles: | 4,308 185,480 | 2.10 | 1.04 | Pakistan United Kingdom Iceland United States Germany | United States New Zealand United Kingdom Greenland Russian Federation |
| Ukraine | Shotguns: Rifles: | 35 147,153 | 1.73 | 0.86 | Germany Vietnam | United States United Kingdom Germany Czech Republic Georgia |
| Austria | Shotguns: Rifles: | 2,839 34,304 | 1.52 | 0.76 | Saudi Arabia Switzerland Bulgaria United States Slovenia | Russian Federation Germany United States United Kingdom France |
| Portugal | Shotguns: Rifles: | 11,228 10,702 | 1.25 | 0.62 | Belgium France Spain United States Germany | Belgium United States Sweden Spain Japan |
| China | Shotguns: Rifles: | 57,841 30,156 | 1.11 | 0.55 | United States Germany Lebanon Argentina Canada | United States Germany New Zealand France Cambodia |
| Total units | | 2,525,787 | | | | |

The research conducted for this chapter also reveals that sporting and hunting shotguns and rifles accounted for 50 per cent of all firearms exported in 2006 by value, at least among the 53 countries surveyed. The leading exporters (with 1 per cent or more of global transfers) of sporting and hunting shotguns and rifles are Italy, Germany, the United States, Belgium, Turkey, Japan, the United Kingdom, Brazil, the Russian Federation, Finland, the Czech Republic, Spain, Canada, Ukraine, Austria, Portugal, and China, as shown in Table 1.26.

As with handguns, the largest market for sporting shotguns and rifles in 2006 was the United States, which imported approximately 42 per cent of the exports from the countries listed in Table 1.26. Regarding the non-US export market, as Table 1.26 shows, most of the exports of sporting shotguns and rifles originating in Western Europe went to other Western European countries, indicating a flow of very expensive weapons among wealthy developed countries. In fact, Western European countries imported 22 per cent of the transfers of sporting and hunting shotguns and rifles originating in the countries listed in Table 1.26. Similarly, most non-European purchasers of high-value European or US-made shotguns and rifles are also wealthy developed countries such as Australia, New Zealand, and Japan.

Outside the Western world and other developed countries, Kazakhstan and Botswana were also important destinations for sporting and hunting rifles in 2006. These exports are probably related to ‘hunting vacations’ and the safari business, as these countries are major hunting destinations. In this regard, export statistics may include weapons accompanying their owners on trips abroad or temporarily imported by safari and hunting expedition companies during the hunting season, in addition to permanent commercial exports. The Middle East, particularly the Arab Emirates, was also an important destination outside the Western world. Among the countries listed in Table 1.26, Brazil is the leading non-European exporter, exporting hunting shotguns to Botswana and rifles to the Philippines, Indonesia, Honduras, the Dominican Republic, and the United States in 2006. This data is consistent with the characteristics of Brazil’s sporting rifle industry. The Brazilian companies CBC (Companhia Brasileira de Cartuchos) and Rossi have lines of inexpensive, mass-produced .22 LR hunting rifles and carbines that have secured a place in the United States, but also in less exclusive and demanding markets in developing countries.

Sporting and hunting shotguns and rifles accounted for half of all firearms exported in 2006.

THE 2009 TRANSPARENCY BAROMETER

The Small Arms Trade Transparency Barometer was introduced in the *Small Arms Survey 2004* in order to assess countries’ transparency in reporting on their small arms and light weapons exports. Points are awarded for timeliness, access and consistency, clarity, comprehensiveness, and deliveries, as well as licences granted and refused. The Barometer examines those countries claiming—or believed—to have exported USD 10 million or more of small arms, light weapons, and their parts, accessories, and ammunition during at least one calendar year between 2001 and 2007.

The Barometer has undergone several significant changes since its introduction. Initially, it included only countries believed to have reached the USD 10 million threshold for the year being reviewed. The timeliness of submissions was not originally evaluated.

The 2009 Barometer contains several additional changes to reflect best practices and encourage the use of important new reporting tools. The overall points distribution system has been maintained, but greater emphasis is placed on consistent, more recent, and more frequent reporting.⁴² It also gives full value for ‘nil’ reporting (i.e. if a country

indicates that it did not export a particular type of small arm or light weapon in the year under review). The Barometer now assesses and encourages states to use the UN Register of Conventional Arms, which is increasingly used to cover small arms-related activity.⁴³ Additionally, the 2009 Barometer reflects specific characteristics of national reporting practices.⁴⁴

As no further changes to the system are envisaged for the foreseeable future, the Survey will retroactively rescore all previous Barometers against the new criteria to allow for comparability and to establish trends. A complete presentation of the scoring system can be found on the Small Arms Survey Web site.⁴⁵

As a rule, the 2009 Barometer assesses national transparency in small arms export activity for 2007, based on reporting in 2008. Three main sources are used: (1) national arms export reports; (2) the UN Register; and (3) UN Comtrade. National reporting includes information that states provide to the EU.⁴⁶ Should other regional organizations make information on the international arms transfers of their members *publicly* available, it would also be evaluated and scored for the Barometer. The Barometer also assesses national reports that other institutes routinely make available electronically and free of charge.⁴⁷

As its name indicates, the Transparency Barometer is designed to measure—and promote—*transparency*. It can also be used to highlight trends in national reporting. Yet it does not assess the accuracy of the data that states provide.

Forty-five countries' reporting practices were assessed in this edition: the 40 countries covered last year, plus 'newcomers' Argentina, Cyprus, Denmark, Hungary, and Taiwan—all believed to have exported at least USD 10 million worth of relevant materiel in 2007. The three most transparent countries are Switzerland, the United Kingdom, and Germany. The least transparent were North Korea and Iran, both scoring zero. The average score decreased almost 8 per cent (from 12.26 to 11.29), but some countries' scores changed considerably more than this average. Not including the five states new to the index, the greatest change in both absolute and percentage terms was Romania, whose score rose 7.25 points (or 85 per cent) from last year. The change in the US score, a reduction of just over 21 per cent, is also noteworthy. Washington's 4.5 point reduction results in the loss of the number one spot that it has held since the Barometer's creation in 2004 (see Box 1.6). Four states—Bosnia and Herzegovina, Finland, France, and Italy—lost at least 17 per cent of their points under the revised scoring system and were replaced in this year's top ten by Denmark, the Netherlands, Romania, Serbia,⁴⁸ and Sweden. More than half the countries reviewed this year received less than half the maximum number of points on offer (i.e. less than 12.5 out of 25), suggesting that despite some progress, states can do much more to improve their reporting.

Box 1.6 US scoring

Since the Barometer's inception in 2004, the United States has consistently achieved the highest score. This year, however, it has dropped to 16.50 points, placing it together with the Netherlands and Serbia in fifth place.

The Barometer has expanded in scope and now examines information given on temporary exports, end users, re-exports, intangible transfers, and transit/trans-shipments. It also asks countries to provide information on their arms export legislation, including its implementation, and other measures and commitments. States are, in essence, now required to provide more information. In the US case, this has resulted in the loss of several points.

Through UN Comtrade and in its national report, the United States provides very detailed information on its permanent transfers of small arms, associated components, and ammunition, as well as intangible transfers. It does not, however, give information on temporary exports, brokering agents, end users, or the transit/trans-shipment of small arms. While the United States publishes the text of all its arms export legislation on its Web site, it does not provide a link to this information in its national report, as required by the Barometer.



Table 1.27 Small Arms Trade Transparency Barometer 2009, covering major exporters*

| | Total (25 max.) | Export report (year covered)**/ EU Report*** | UN Comtrade** | UN Register** | Timeliness (1.5 max.) | Access and consistency (2 max.) | Clarity (5 max.) | Comprehen- siveness (6-5 max.) | Deliveries (4 max.) | Licences granted (4 max.) | Licences refused (2 max.) |
|-----------------------------------|-----------------------|--|------------------|------------------|--------------------------|---------------------------------------|---------------------|--------------------------------------|------------------------|---------------------------------|---------------------------------|
| Switzerland | 21.00 | X (07) | X | X | 1.50 | 1.50 | 4.50 | 5.25 | 3.00 | 3.50 | 1.75 |
| United Kingdom | 18.50 | X (07)/EU Report | X | X | 1.50 | 2.00 | 4.00 | 4.75 | 3.00 | 2.50 | 0.75 |
| Germany ¹ | 18.00 | X (06)/EU Report | X | X | 1.50 | 1.50 | 3.50 | 4.00 | 3.00 | 3.50 | 1.00 |
| Norway | 16.75 | X (07) | X | X | 1.50 | 1.50 | 4.25 | 3.25 | 3.00 | 2.50 | 0.75 |
| Netherlands | 16.50 | X (07)/EU Report | X | X | 1.50 | 2.00 | 3.00 | 3.75 | 3.00 | 2.00 | 1.25 |
| Serbia ² | 16.50 | X (05-06) | X | X | 1.50 | 0.50 | 3.25 | 3.75 | 3.50 | 2.50 | 1.50 |
| United States ³ | 16.50 | X (07) | X | X | 1.50 | 1.50 | 3.00 | 4.50 | 3.00 | 3.00 | 0.00 |
| Denmark | 15.75 | X (06)/EU Report | X | X | 1.50 | 1.50 | 3.75 | 4.00 | 2.00 | 2.00 | 1.00 |
| Romania | 15.75 | X (07)/EU Report | X | X | 1.50 | 0.50 | 2.50 | 4.25 | 3.00 | 3.00 | 1.00 |
| Slovakia | 15.50 | X (07)/EU Report | X | X | 1.50 | 1.50 | 3.00 | 3.00 | 3.00 | 2.00 | 1.50 |
| Sweden | 15.50 | X (07)/EU Report | X | X | 1.50 | 1.50 | 3.50 | 3.75 | 3.00 | 2.00 | 0.25 |
| Italy | 15.00 | X (07)/EU Report | X | X | 1.50 | 1.50 | 3.50 | 3.75 | 3.00 | 1.50 | 0.25 |
| France ⁴ | 14.75 | X (07)/EU Report | X | X | 1.50 | 1.50 | 3.75 | 3.25 | 3.00 | 1.50 | 0.25 |
| Finland | 14.50 | X (06)/EU Report | X | X | 1.50 | 1.50 | 2.75 | 3.50 | 3.00 | 2.00 | 0.25 |
| Spain ⁵ | 14.25 | X (07)/EU Report | X | X | 1.50 | 1.50 | 2.25 | 3.25 | 3.50 | 2.00 | 0.25 |
| Belgium | 13.25 | X (07)/EU Report | X | X | 1.50 | 2.00 | 2.50 | 2.50 | 3.00 | 1.50 | 0.25 |
| Bosnia & Herzegovina ⁶ | 13.00 | X (06) | X | X | 1.50 | 1.00 | 2.50 | 2.50 | 3.00 | 1.50 | 1.00 |
| Poland ⁷ | 13.00 | EU Report | X | X | 1.50 | 1.00 | 2.00 | 3.75 | 3.00 | 1.50 | 0.25 |
| Czech Republic | 12.75 | X (07)/EU Report | X | X | 1.50 | 1.00 | 2.25 | 3.25 | 3.00 | 1.50 | 0.25 |
| Portugal ⁸ | 12.75 | X (06)/EU Report | X | X | 1.50 | 1.50 | 2.75 | 2.25 | 3.00 | 1.50 | 0.25 |

* Major exporters are those countries that export—or are believed to export—at least USD 10 million worth of small arms, light weapons, their ammunition, and associated components annually. The 2009 Barometer includes all countries that were among the major exporters at least once in their reporting covering the years 2001-07. For major exporters in 2005, see Annex 4.1 of Small Arms Survey (2008), <http://www.smallarmssurvey.org/files/sas/publications/year_b_pdf/2008/CH4%20Transfer%20diversion%20annexes.pdf>; for those in 2004, see Annex 3.1 of Small Arms Survey (2007), <http://www.smallarmssurvey.org/files/sas/publications/year_b_pdf/2007/CH3-Transfers_Annexe_3.pdf>; for those in 2003, see Small Arms Survey (2006, pp. 68-74); for those in 2002, see Small Arms Survey (2005, pp. 102-5); and for those in 2001, see Small Arms Survey (2004, pp. 103-6).

** X indicates that a report was issued.

*** The Barometer analysed the tenth annual EU Report (CoEU, 2008), reporting on EU member states' activities in 2007.

Scoring system

The scoring system for the 2009 Barometer has changed from 2008. The new system provides more comprehensive, nuanced, and consistent thresholds for the various categories. The Barometer's seven categories assess timeliness, access, and consistency in reporting (categories i-ii, discussed below); its clarity and comprehensiveness (iii-iv); and the level of detail provided on actual deliveries, licences granted, and licences refused (v-vii).

(i) Timeliness (1.5 points max.): The first category awards points for the timeliness (promptness) of reports and of the data they contain.

(ii) Access and consistency (2.0 points max.): This second category reviews the accessibility of the information that states provide, its frequency, and the use of multiple reporting instruments.

(iii) Clarity (5 points max.): The main purpose of this third category is to analyse the extent to which information on small arms and light weapons transfers, including their ammunition, can be distinguished from conventional arms transfers. It also evaluates the information that countries provide on relevant legislation, including its implementation; measures to prevent diversion; and international, regional, and sub-regional commitments relating to the control of small arms transfers. Finally, it grants points for data on aggregated totals of deliveries and licences granted/refused, as well as information on brokers.

(iv) Comprehensiveness (6.5 points max.): The fourth category examines the level of detail provided on weapons types (e.g. (un-)guided light weapons, sporting and hunting guns, pistols and revolvers, military firearms, small arms ammunition, and ammunition larger than 12.7 mm). It also evaluates reporting of different types of transfers (e.g. permanent re-exports and transit/trans-shipment activities).

(v) Deliveries (4 points max.): The fifth category awards points for information shared on actual deliveries; end users; and the types, values, and quantities of delivered weapons.

(vi) Licences granted (4 points max.): The sixth category awards points for information shared on licence recipients; end users; and the types, values, and quantities of approved transactions.

(vii) Licences refused (2 points max.): The seventh category considers whether or not the country identified countries that were refused licences; gave an explanation of such refusals; and provided information on the types, value, and quantity of weapons for which licences were refused.

For more detailed information on the scoring guidelines, visit the Small Arms Survey Web page:

<<http://www.smallarmssurvey.org/files/portal/issueareas/transfers/baro.html>>.

Explanatory notes

Note A: The Barometer is based on each country's most recent arms exports report made publicly available from 1 January 2007 to 31 December 2008.

Note B: The Barometer takes into account country reporting to the UN Register from 1 January 2007 to 20 January 2009. Reporting to UN Comtrade for 2007 is considered up to 23 January 2009.

Note C: The fact that the Barometer is based on three sources—national arms export reports, customs data made available to the UN, and reporting to the UN Register—works to the advantage of states that publish data in all three outlets. Points awarded from each of the three sources are added up. There is, however, no double counting. If countries provide the same information to two or more different sources, they are awarded the same number of points that they would have received had they provided the information to a single source.

Note D: Where governments indicate that they do not export, or have not exported, a particular type or particular types of small arms or light weapons during the applicable reporting period ('nil reporting'), this can be considered complete information for the purpose of attributing points under relevant categories of the Barometer.

Country-specific notes

¹ Germany published a national arms export report in 2007 that was limited to data from 2006. It did issue a national report for its arms exports activities in 2007. This report was published in January 2009 (after the cut-off date of 31 December 2008) and could therefore not be evaluated for the 2009 scoring. Germany is therefore evaluated with data from 2006 for its national report and 2007 data for the EU Report. Germany's reporting to the UN Register does not contain actual deliveries, but licences issued. This information was scored accordingly.

² Serbia published a national arms export report in 2007 that was limited to data from 2005-06. The country, separated from Montenegro as of 3 June 2006, is evaluated on a 24.5 points scale because it cannot get all the points rewarded under 'Access and consistency'.

³ The US report is divided into several documents. For the purposes of the Barometer, the US annual report refers to the State Department report pursuant to section 655 on direct commercial sales and the report on foreign military sales, which is prepared by the US Department of Defense (US, 2008a).

⁴ France's 2007 report has changed in format, resulting in it being much less detailed than the previous national report. France therefore loses several points.

⁵ Spain makes public its report on small arms and light weapons exports to the Organization for Security and Co-operation in Europe (OSCE) as an annex to its arms export report. The report contains information on licences granted and actual deliveries. It covers only OSCE states and a very limited number of transactions. Spain is therefore granted only half of the points for providing information on the intended country of import and types and quantities of weapons or ammunition exported.

⁶ Bosnia and Herzegovina published a national arms export report in 2007 that was limited to data from 2006.

⁷ Poland is one of the three EU member states under review that do not produce a national report, but the country reports to the EU Report.

⁸ Portugal published a national arms export report in 2008 that included data from 2006. The country's data in its national report (2006) does not correspond with the data evaluated in the EU Report (2007).

⁹ Austria's national report does not contain information on its small arms exports, but the country appends to the report its reporting to the EU Report.

¹⁰ Canada published a national arms export report in 2007 that was limited to data from 2003-05. Canada has not been granted a point under 'Deliveries', although the Canadian annual report states that the majority of exports are for private end use. For a point to be awarded under this category, more detailed information needs to be provided.

¹¹ Cyprus is one of the three EU member states under review that do not produce a national report, but the country does report to the EU Report.

¹² Hungary is one of the three EU member states under review that do not produce a national report, but the country does report to the EU Report.

¹³ Taiwan's score has been evaluated on the basis of data it submits to UN Comtrade, as published by the International Trade Centre (ITC) in its Trade Map database (ITC, 2008).

¹⁴ South Africa published a national arms export report in 2007 that was limited to data from 2003-04. The country does not define the abbreviations of military categories 'A', 'B', 'C', and 'D' used in its national report. Efforts to obtain a definition from South African authorities were not successful before the printing of the *Small Arms Survey 2009*.

Sources

Austria (2007); Belgium (2008a; 2008b; 2008c; 2008d); Bosnia and Herzegovina (2007); Bulgaria (2008); Canada (2007); CoEU (2008); Czech Republic (2008); Denmark (2007); Finland (2007); France (2008); Germany (2007); Italy (2008); ITC (2008); Netherlands (2008); Norway (2008); Portugal (2007); Romania (2008); Serbia (2007); Slovakia (2008); South Africa (2007); Spain (2008); Sweden (2008); Switzerland (2008); Ukraine (2008); UN Comtrade (n.d.); UK (2008); US (2008a; 2008b)

CONCLUSION

As has been demonstrated throughout this chapter, the global trade in small arms and light weapons—and our understanding of this trade—has increased significantly in recent years. After adjusting for inflation, small arms and light weapons transfers reported to UN Comtrade increased by 28 per cent from 2000 to 2006, totalling just under USD 3 billion in 2006. The value of firearms exports alone, as reported to UN Comtrade, was nearly USD 1.44 billion. Our 53-country assessment of other data sources suggests that this data under-represents the actual trade in firearms by at least USD 140 million, which increases the estimated total for the documented trade in firearms to USD 1.58 billion. While the USD 140 million difference between the UN Comtrade total and the Small Arms Survey's revised estimate is relatively minor in dollar value terms, it represents tens of thousands of weapons, including sniper rifles, machine guns, and assault rifles—the weapons of choice for many violent extremist groups and criminals. Our assessment also revealed several persistent data gaps that, if filled, would probably add at least USD 100 million—representing the transfer of thousands of weapons—to the current estimate of approximately USD 1.58 billion.

These data gaps, and the inherent differences among the markets for small arms, light weapons, parts, accessories, and ammunition, preclude a definitive assessment of the broader trade. Nonetheless, some tentative conclusions about the value of small arms and light weapons trade can be drawn from our findings. Assuming that light weapons⁴⁹ are under-reported to UN Comtrade to the same extent as military firearms, and given the high unit cost of the guided missiles fired by some light weapons,⁵⁰ the total figure for small arms and light weapons transfers would probably increase by hundreds of millions or billions of dollars if these transfers were included.⁵¹ A clearer picture of the entire trade in small arms and light weapons will emerge over the next few years as the Small Arms Survey systematically assesses the trade in ammunition, parts and accessories, and light weapons.

Regarding the relevance of our findings to small arms control initiatives, the gaps in the data—including the shortage of specific data on the number and type of firearms transferred—uncovered during our survey are more revealing than the additional data it yielded. Data on several producers and exporters remains incomplete at best and non-existent at worst. Systematic monitoring of these countries' exports is extremely difficult. It may be possible for national intelligence agencies to track shipments from some of these countries, but few, if any, intelligence agencies have the mandate and resources to systematically track and evaluate all such transfers. Irresponsible transfers are occasionally exposed by enterprising journalists or as the result of chance events, but these transfers are the rare exceptions; it is likely that most dubious small arms transfers receive little or no international scrutiny. Recent improvements in data on the small arms trade suggest a growing international willingness to expose this trade to more scrutiny, but this sentiment is far from universal. ■

LIST OF ABBREVIATIONS

| | | | |
|----------------|---|-------------|--|
| ATF | US Bureau of Alcohol, Tobacco, Firearms and Explosives | OSCE | Organization for Security and Co-operation in Europe |
| EU | European Union | SIPRI | Stockholm International Peace Research Institute |
| EUFOR | EU Force | UN | United Nations |
| EUFOR RD Congo | EU Force in the Democratic Republic of the Congo | UNAMI | UN Assistance Mission for Iraq |
| EUR | euro | UN | UN Commodity Trade Statistics Database |
| EU Report | <i>Annual Report According to Operative Provision 8 of the European Union Code of Conduct on Arms Exports</i> | Comtrade | |
| DRC | Democratic Republic of the Congo | UNIFIL | UN Interim Force in Lebanon |
| HS | Harmonized System (of the World Customs Organization) | UNMIK | UN Mission in Kosovo |
| ISAF | International Security Assistance Force | UNMIL | UN Mission in Liberia |
| ITC | International Trade Centre | UN Panel | UN Panel of Governmental Experts on Small Arms |
| MONUC | UN Mission in the Democratic Republic of the Congo | UN Comtrade | UN Commodity Trade Statistics Database |
| | | US | United States |
| | | USD | US dollar |
| | | WCO | World Customs Organization |

ENDNOTES

- 1 The UN Comtrade database is available, free of charge, at <<http://comtrade.un.org/dlb/>>.
- 2 A more complete list of the data sources used in this report is included in Annexe 1.3.
- 3 This figure includes the USD 1,568 million in transfers documented as part of our 53-country study (see Table 1.22), plus USD 10 million in transfers reflected in UN Comtrade data for the countries not included in the 53-country study.
- 4 For additional information, see the online Annexes to this chapter on exporter and importer tables for 2006.
- 5 The Federal Republic of Yugoslavia ceased to exist on 4 February 2003 and was replaced by the union between Serbia and Montenegro. This union ended on 3 June 2006 (i.e. near the end of the period under analysis), and Montenegro became an independent state. For stylistic reasons,

the name Serbia and Montenegro is used throughout this chapter, except for the discussion of the Transparency Barometer, which reflects countries' reporting for 2007, i.e. after the break-up of the union, where the name Serbia is used.

- 6 Additional information is provided in Annexe 1.3.
- 7 The UN Panel's definition of small arms includes 'revolvers and self-loading pistols; rifles and carbines; sub-machine-guns; assault rifles; [and] light machine-guns'. Light weapons, as defined by the UN Panel, are 'heavy machine-guns; hand-held under-barrel and mounted grenade launchers; portable anti-aircraft guns; portable anti-tank guns; recoilless rifles; portable launchers of anti-tank missile and rocket systems; portable launchers of anti-aircraft missile systems; [and] mortars of calibres of less than 100 mm'. Ammunition is combined with explosives in a separate category consisting of 'cartridges (rounds) for small arms; shells and missiles for light weapons; mobile containers with missiles or shells for single-action anti-aircraft and anti-tank systems; anti-personnel and anti-tank hand grenades; landmines; [and] explosives' (UNGA, 1997).
- 8 For example, 14.5 mm machine guns and anti-materiel rifles are presumably included in UN Comtrade category 930190.
- 9 The International Convention on the Harmonized Commodity Description and Coding System has been in force since 1 January 1988 (WCO, n.d.). See <http://www.wcoomd.org/home_wco_topics_hsoverviewboxes_hsharmonizedsystem.htm> for more information.
- 10 Data from UN Comtrade was downloaded on 27 August 2008. Data submitted to UN Comtrade can be revised by the reporting countries, so subsequent access to UN Comtrade may produce different figures.
- 11 Entitled 'Charting a new approach' and 'Analysis of firearms transfers in 2006'.
- 12 Serbia and Montenegro did not start reporting on all categories of small arms and light weapons until 2004, and Romania did not report to UN Comtrade before 2006.
- 13 It is possible that exports to Iraq, Afghanistan, and peacekeeping forces deployed in other countries were responsible for the rise in exports of small-calibre ammunition.
- 14 For more information on cyclical procurement, see Small Arms Survey (2006, ch. 1).
- 15 It should be noted that, for the purposes of monitoring and detecting problematic arms transfers, data on the quantity, type, and intended end users of exported firearms is often more useful than data on the value of the transfer. The former type of data is still the rare exception, however, and while data on the values of transfers is an imperfect substitute, it does provide information on the origins and destinations of exported firearms, the types of firearms being transferred, the market shares of individual exporting countries, and trends in firearms transfers over time.
- 16 Entitled 'Analysis of firearms transfers in 2006'.
- 17 The agency's name was changed from the UN Department of Disarmament Affairs (UNDDA) to the UN Office for Disarmament Affairs (UNODA) in 2007.
- 18 The national reports for both countries are available on the Small Arms Survey's *National Arms Export Reports* Web page, available at <<http://hei.unige.ch/sas/files/portal/issueareas/transfers/transam.html#be>>.
- 19 Also known as the Consolidated EU Report.
- 20 Whereas the 1999 EU Report stated only that Austria issued 1,605 arms export licences with a combined value of EUR 208,741,703, the 2007 report reveals that Austria issued, *inter alia*, one licence for the export to Afghanistan of 'smooth-bore weapons with a calibre of less than 20 mm, other arms and automatic weapons with a calibre of 12.7 mm (calibre 0,50 inches) or less' and/or accessories or components valued at EUR 51,185. The report also indicates that Austria exported EUR 51,185 worth of items from this category to Afghanistan in 2006 (CoEU, 2007, p. 9).
- 21 In the context of this chapter, 'mirror data' is defined as data on arms transfers from a specific exporter that is reported by the importing country. Often, mirror data is the only data available for exports from non-transparent countries. For example, mirror data from 17 countries reveals that in 2006 China exported USD 3.7 million worth of pistols and revolvers. Since China does not provide export data on pistols and revolvers to UN Comtrade, the mirror data from importers of Chinese weapons is the only data available.
- 22 An example of an export categorized under 9301909090 that is not a firearm is the Silent Guardian™ Protection System, a five-ton device that directs a beam of energy at the skin of its target, causing an 'intolerable heating sensation' (Raytheon, 2006) (correspondence with US State Department official, 21 October 2008).
- 23 Letter from Paul E. Herrick, Chief, Commodity Analysis Branch, Foreign Trade Division, US Census Bureau to author Matthew Schroeder, 24 December 2008.
- 24 The threshold for inclusion in the list of the 46 countries is USD 4 million or more in small arms and light weapons exports, as documented in UN Comtrade, in 2006. It should be noted that not all of these countries are major producers. For more information on firearms production, see Small Arms Survey (2001–04; 2007).
- 25 The list of countries differs slightly from the Small Arms Survey's list of major exporters (i.e. exporters who have exported—or are suspected of exporting—USD 10 million or more in a given year). Eight of the 53 countries assessed as part of this year's study are not among the major exporters listed in the Transparency Barometer in recent years, and one country included in the Transparency Barometer, Saudi Arabia, was not included in the list of 53 countries.

- 26 For a more complete list of sources, see Annexe 1.3.
- 27 Prior to 2002 trade data on military firearms was combined with data on artillery, rocket launchers, grenade launchers, and other weapons in a single commodity category (930100). The standard international customs categories reported to UN Comtrade were comprehensively revised in 2002, during which category 930100 was replaced with four sub-categories, including the one currently used for military firearms (930190). The other sub-categories were 'self-propelled [military weapons]', including anti-aircraft guns, anti-tank guns, howitzers, and mortars (930111); 'other' non-self-propelled artillery, including fixed artillery and artillery mounted on railway trucks (930119); and rocket launchers; flame-throwers; grenade launchers; torpedo tubes and similar projectors (930120). Note that a handful of countries continue to report under the pre-2002 nomenclature. Data from category 930100 was not used if the more specific information was available from another source, or if other sources indicated that the transfer included artillery. Category 930100 data was not used in the section entitled 'Analysis of firearms transfers in 2006'. It was used in the section entitled 'Framing the issues', but before using 930100 data, the authors consulted SIPRI records on transfers of artillery, and any transfers that corresponded with a reported transfer of artillery were deleted from the dataset.
- 28 For a detailed explanation of how the reliability of the data sources used in this chapter was evaluated, see Annexe 1.3.
- 29 For a detailed explanation of how the global average unit prices were calculated, see Annexe 1.3.
- 30 For a more detailed explanation of the methodology used in this section, see Annexe 1.3.
- 31 This total reflects a 33 per cent downward revision in the number of units recorded in US customs data (from 110,403 units to the current total of 74,089 units) in December 2008. The revision was prompted by the discovery of a reporting error regarding arms exports to Japan (see Box 1.2).
- 32 By 'little or no additional data', we are referring to countries in which the difference between the total value of firearms transfers recorded in UN Comtrade and those recorded in all assessed data sources was less than 1 per cent.
- 33 For more information, see Annexe 1.3.
- 34 Note: Ukraine does not produce sporting rifles, but exports old, surplus bolt-action rifles.
- 35 'Combat' shotguns are made to military specifications, and some are, for example, capable of fully automatic fire. A sniper rifle is a high-precision rifle that is used against a single target, often at long range, without using automatic fire. Such rifles can be designed to be used against personnel or matériel. A carbine is a lighter and shorter version of a rifle. It is easier to carry, but usually has reduced range compared to a rifle.
- 36 The chapter also substantiates the finding in previous editions of the Small Arms Survey yearbook (Small Arms Survey, 2003; 2004), i.e. that production of small arms and light weapons is located in over 90 countries.
- 37 For a detailed discussion of recent transfers of small arms and light weapons to Georgia, see Annexe 1.4.
- 38 Private communication, 5 January 2009.
- 39 In many countries in Latin America, for example, the types of handguns that civilians can possess are limited by the calibre of the weapon. In the 1980s and 1990s the civilian markets for .380 (9 mm short) calibre pistols expanded as the use of the 9 mm Luger and .45 became restricted to civilian users.
- 40 For example, since the late 1990s, the Brazilian state law enforcement forces have slowly been shifting from .38 revolvers to .40 S&W Taurus pistols. Similarly, the French national police force shifted from .38 Manurhin revolvers to SIG SAUER P2022 German-made pistols in 2003.
- 41 The above information on Ukraine was provided to field researcher Maxim Pyadushkin by the State Service of Export Control of Ukraine (Pyadushkin, 2008). According to the data, Ukraine exported a total of 147,135 units. No data on the value of the shipments was provided, so a deflated average unit price was calculated from observations of sporting rifle transfers in the period 2000–06 (NISAT, n.d.).
- 42 The revised Transparency Barometer, for example, awards points for reporting more than once a year.
- 43 In 2003 the UN formally expanded the UN Register's seven categories of conventional weapon systems to include man-portable air-defence systems and several light weapons (such as mortars, as well as recoilless rifles and guns that fired munitions of at least 75 mm in diameter). That same year it introduced voluntary reporting for international small arms and light weapons transfers. The new tool has garnered a growing number of adherents: 48 states submitted background information on international transfers of small arms and light weapons for 2007 to the UN Register (Holtom, 2009), compared with 36 submissions for 2006 and only five for 2005 (Holtom, 2008).
- 44 For instance, in previous editions of the Barometer, Belgium was not granted any points for regional reporting on arms exports. With the revised system, the Survey can analyse all three regional reports issued by Belgian regional authorities and the report by the Belgian Parliament on activities of the Belgian military and police. The new scoring system also takes account of the fact that Taiwan, although not a UN member (and therefore not able to report to the UN Register), can provide customs data (taken into account in this edition) and issue a national report.
- 45 <<http://www.smallarmssurvey.org/files/portal/issueareas/transfers/baro.html>>
- 46 EU member states report on their exports of military goods under the EU's *Annual Report According to Operative Provision 8 of the European Union Code of Conduct on Arms Exports* (e.g. CoEU, 2007; 2008). The first EU Report was published in 1999, and since then all member states have contributed to it. Data provided by 19 EU member states (Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, and the United Kingdom) is reflected in the 2009 scores.

- 47 Such institutes include the Federation of American Scientists (<<http://www.fas.org>>), the Groupe de Recherche et d'Information sur la Paix et la Sécurité (<<http://www.grip.org>>), the South Eastern and Eastern European Clearinghouse for the Control of Small Arms and Light Weapons (<<http://www.seesac.org>>), and the Stockholm International Peace Research Institute (<<http://www.sipri.org>>).
- 48 For the use of the name Serbia here, as opposed to the name Serbia and Montenegro used elsewhere in this chapter, see note 5, above.
- 49 While it is possible that transfers of small arms parts, accessories, and ammunition are also under-represented in UN Comtrade, the high number of countries that reported on these transfers in 2006 suggests that UN Comtrade is capturing most of them. The number of countries that reported on both categories of small arms ammunition (930630 and 930621), for example, was roughly equal to the number of countries that reported on pistol transfers.
- 50 Customs data on man-portable guided missiles is nearly impossible to disaggregate from data on other weapons, as the missiles are included in category 930690, which also includes large-calibre ammunition, bombs, and missiles classed as major conventional weapons.
- 51 Anecdotal information on recent sales of guided missiles suggests that even a few large sales could push the global dollar value total for light weapons ammunition into the billions. A single transfer of 2,675 Spike guided anti-tank missiles and 264 launchers in 2003, for example, was valued at USD 512 million (Small Arms Survey, 2008, p. 20).

ANNEXES

Online at (<http://www.smallarmssurvey.org/files/sas/publications/yearb2009.html>)

Annexe 1.1 Annual authorized small arms and light weapons exports for major exporters (yearly sales of more than USD 10 million), 2006

This annexe provides UN Comtrade data on transfers of small arms and light weapons from major exporters in 2006.

Annexe 1.2 Annual authorized small arms and light weapons imports for major importers (yearly imports of more than USD 10 million), 2006

This annexe provides UN Comtrade data on transfers of small arms and light weapons from major importers in 2006.

Annexe 1.3 Methodology

This annexe provides a detailed summary of the methodology used in Chapter 1, 'Sifting the Sources: Authorized Small Arms Transfers'.

Annexe 1.4 'Small Arms and Light Weapons Transfers to Georgia'

This annexe provides a detailed overview of data on transfers of small arms and light weapons to Georgia during the period 2001–07.

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Principal authors

Authorized transfers: Pablo Dreyfus (Viva Rio), Nicolas Marsh (PRIO) and Matt Schroeder (FAS)

Small Arms Trade Transparency Barometer: Jasna Lazarevic

Contributors

Authorized transfers: Kristina Aronson, Philip Gounev, and Maxim Pyadushkin; Marcelo de Sousa Nascimento (ISER); Natasha Leite de Moura and Júlio Cesar Purcena (Viva Rio)

Small Arms Trade Transparency Barometer: Helen Close