Multiplying the Sources

For the victims of armed violence, it does not really matter who produced the gun that causes their injury or death. Yet, for those seeking to prevent such violence, the producer is extremely important. New information presented in this chapter indicates that anywhere from 60 to 80 per cent of all military rifles, assault rifles, and carbines—the weapons most frequently used in modern armed conflict—are manufactured by producers that acquired the necessary technology from others.

Licensed production occurs in virtually all areas of the modern economy. The motives behind it are numerous, ranging from the anticipated increase of market share and returns on investment in research and development on the part of the licensor company, to the wish to develop domestic industry and decrease import dependence on the part of the licensee country. Licensed production agreements can involve many different juridical and organizational arrangements. In some cases manufacturing technology is acquired without the knowledge of its original owner, i.e. production takes place without a licence. Bangladesh and Pakistan, for example, produce weapons under a licence from China, which had previously copied the product without licence from the former Soviet Union (USSR).

Production know-how, once transferred, cannot be retrieved.



Both licensed and unlicensed production involves the acquisition of production technology by a manufacturer that did not previously possess it. While this need not lead to an overall increase in the number of weapons produced, it does involve the dissemination of weapons production know-how to a greater number of actors. As this knowledge becomes more widespread, the risk that small arms end up in the wrong hands increases. Simple solutions to this problem are not an option. Production know-how, once transferred, cannot be retrieved.

This chapter examines the impact of licensed and unlicensed production on the proliferation of small arms and light weapons, along with measures that reduce the risk of diversion and misuse. Its most important findings include the following:

• States that originally own technology are easily outnumbered by those that acquire it. The Russian Federation (notably firearms producer Izhmash), Germany (mainly Heckler & Koch), and Belgium (FN Herstal) are the technology owners most frequently involved in licensed or unlicensed production of small arms. China (Norinco) and Bulgaria (mainly Arsenal JSC) most frequently engage in technology acquisition.

A mujahideen soldier squats with a Russian-type, though Chinese-made, machine gun in Kabul Province, Afghanistan, in November 1991. © Mervyn Patterson/Panos Pictures

- Most original owners are themselves acquirers of production technology. The exceptional cases where technology owners do not acquire any manufacturing know-how are Austria, Belgium, the Russian Federation, South Africa, and Switzerland.
- Only 57 per cent of weapons produced by technology acquirers are produced under licence.
- Man-portable air defence systems (MANPADS) technology is now quite strictly controlled, even though there is still some unlicensed production.
- Production based on USSR technology represents a disproportionate share of unlicensed production worldwide.
- Every year, 530,000 to 580,000 military rifles, assault rifles, and carbines are produced under licence or as unlicensed copies, representing 60 to 80 per cent of total annual production.
- An effective counter-proliferation strategy, among other things, targets the diversion and export of the manufacturing know-how needed for licensed and unlicensed production.

The chapter finds that most licence agreements are for the production of military rifles, assault rifles, carbines, side-arms, and machine guns. Licensed production of ammunition and light weapons is relatively rare. This is because ammunition is usually of very limited complexity, requiring low research and development costs that may be easily exceeded by royalties and the price for a licence. Moreover, economies of scale can be reached in a short time. For light weapons, on the other hand, enormous research and development costs are necessary, development takes a long time, and economies of scale are not likely. For most countries, therefore, licensed or unlicensed production is the only way to access this technology, especially in the case of MANPADS.

Figure 1.3 Proportion of weapons types among the 96 current cases of licensed production, excluding the USSR/Russian Federation, to August 2006



The chapter also reveals that production arrangements tend to follow the logic of the arms trade and, accordingly, require similar control measures. But while any strategy designed to curb global small arms proliferation needs to address the issue of licensed production, regional and international instruments explicitly regulate this activity only exceptionally.

The chapter outlines a range of options and best practice for the regulation of licensed production at the company, national, and multilateral levels. It emphasizes that the most effective measures in curbing weapons proliferation are those that directly target diversion and strengthen control over the initial transfer of manufacturing technology. In Germany, for example, manufacturing technology cannot be transferred to countries that are involved in armed conflict or face an imminent outbreak of conflict. At the regional level, the *EU Code of Conduct* forbids member states from granting production licences to countries that have previously been denied such a licence by another EU state. Initiatives designed to strengthen the enforcement of intellectual property rights, though potentially beneficial to the technology owner, have only a limited impact on proliferation.

Seventeen states own small arms manufacturing technology while 52 have acquired it.

Existing instruments for the control of MANPADS, such as the 2006 guidelines of the *Wassenaar Arrangement*, offer a useful model for more concerted efforts to grapple with the problem of licensed production, as they require the signatories to treat exports of manufacturing know-how in the same way as exports of finished weapons. New and existing measures must be effectively applied and enforced, especially at the national level, where the main power of regulation resides.