

I. Developments in arms transfers, 2017–21

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The volume of international transfers of major arms in 2017–21 was 4.6 per cent lower than in 2012–16, but was 3.9 per cent higher than in 2007–11 and 30 per cent higher than in 2002–2006 when arms transfers were at their lowest volume for any five-year period since 1952–56 (see figure 9.1).¹ However, the total volume in 2017–21 was still around 35 per cent lower than the peak reached in the periods 1977–81 and 1982–86, at the height of the cold war.

Despite a 4.7 per cent drop in imports of major arms by states in Asia and Oceania between 2012–16 and 2017–21, Asia and Oceania remained the region with the highest volume of arms imports and accounted for 43 per cent of the global total. Arms imports to Africa (–34 per cent) and the Americas (–36 per cent) also fell over the same period and these regions' shares of total global arms transfers decreased. In contrast, the flow of arms to states in the Middle East increased by 2.8 per cent between 2012–16 and 2017–21, and the region's share of the global total rose from 30 per cent to 32 per cent. This is a higher share than in any of the seven other consecutive five-year periods since 1982–86. There was also a marked increase (of 19 per cent) in arms transfers to states in Europe, raising the region's share of the global total from 10 per cent in 2012–16 to 13 per cent in 2017–21.

The five largest arms exporters in 2017–21 were the United States, Russia, France, China and Germany (see section II). The five states that imported the most arms in the period were India, Saudi Arabia, Egypt, Australia and China (see section III).

While many states have recently placed orders for advanced major arms or plan to make such orders in the near future, the information available remains limited in most cases. This makes it extremely difficult to provide even very rough predictions of global trends in arms transfers, no matter whether these are near- or long-term forecasts. Nonetheless, the indications—especially the perception among many states that security threats are increasing (which acts as a driver of arms transfers) and the continued growth in military spending (which acts as an enabler)—suggest that there will be more, rather than less, demand for major arms in the coming years. Much of this demand will be met

¹ Except where indicated, the information on the arms deliveries and orders referred to in this section is taken from the SIPRI Arms Transfers Database. For a definition of 'major arms' and a description of how the volume of transfers is measured see box 9.1 in this section. Since year-on-year deliveries can fluctuate, SIPRI compares consecutive multi-year periods—normally five-year periods. This provides a more stable measure of trends in transfers of major arms. The figures here may differ from those in previous editions of the SIPRI Yearbook because the Arms Transfers Database is updated annually.

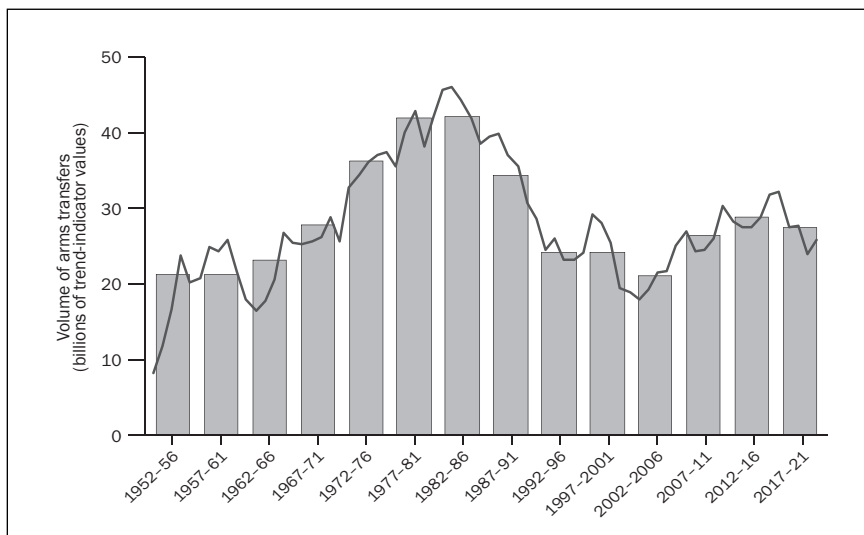


Figure 9.1. The trend in international transfers of major arms, 1952–2021

Note: The bar graph shows the average annual volume of arms transfers for five-year periods and the line graph shows the annual totals. See box 9.1 in this section for an explanation of the SIPRI trend-indicator value.

Source: SIPRI Arms Transfers Database, Mar. 2022.

by arms imports as many states are still unable to produce domestically all the major arms they believe they need.

Key developments in 2021 related to arms transfers

As was also the case in 2020, the Covid-19 pandemic had some direct and indirect effects on arms transfers in 2021.² For example, several exporters, importers and producers reported delays in some arms programmes as supply chains were disrupted or deliveries were rescheduled due to travel restrictions.³ However, these problems seem to have had only a marginal impact on arms production and arms transfers in 2020 and 2021. One important reason for this is that most major arms delivered or planned for delivery in 2020–21 were ordered years earlier and in most cases production was well under way before the pandemic hit.

The indirect impact of the pandemic on arms transfers is less easy to determine. The pandemic led to a global economic downturn in 2020–21, but

² See also Wezeman, S., Kuimova, A. and Wezeman, P., 'International arms transfers and developments in arms production', *SIPRI Yearbook 2021*.

³ See e.g. Capaccio, A., 'Lockheed reduces planned F-35s for 2022, citing Covid's impact', *Bloomberg*, 27 Sep. 2021; Nanuam, W., 'Navy chief will drop his submarine fund request', *Bangkok Post*, 7 Jan. 2022; and Manaranche, M., 'Australia delivers Austal-built Guardian-class patrol boat to Kiribati', *Naval News*, 18 June 2021.

this seems to have had only a limited effect on arms acquisitions.⁴ Notably, despite the fact that the USA reportedly lowered its annual production targets for the next few years for the F-35 combat aircraft due to both the direct and indirect effects of the pandemic, the targets remained at a higher level than in previous years.⁵ Thailand's postponement of an order for two submarines from China, valued at around US\$700 million, was one of the few clear cases of a significant pandemic-related change to a planned acquisition.⁶ Many states, by contrast, made major decisions about new arms import contracts in 2020 and 2021 (see section III).

Agreements or even orders for major arms do not, however, always lead to actual deliveries. This phenomenon was highlighted by several cases in 2021 where agreements for large orders of major arms were cancelled. These included an agreement between the United Arab Emirates (UAE) and the USA for F-35 combat aircraft, an Australian order for submarines from France, and Egyptian and Indonesian orders for Su-35 combat aircraft from Russia. In all these cases, the importer opted instead for similar types of arms from another supplier (see section III for more detail on all four cases).

The Australian case is notable for several reasons. The decision to cancel the order for French submarines and start negotiations with the USA and the United Kingdom for the acquisition of nuclear-powered submarines was at least partly aimed at strengthening Australia's alliance with those two states. It also raised issues related to the risk of nuclear proliferation since the submarines will probably use highly enriched uranium (HEU) as fuel. HEU can be used in nuclear weapon programmes. Australia does not plan to produce the nuclear fuel or process it after use; the reactors will instead have fuel installed to last for the lifetime of the submarines. Australia plans to keep the fuel under international safeguards to prevent diversion. However, other non-nuclear states may now perceive that the path is clear to follow the Australian example and acquire their own nuclear-powered submarines but with an indigenous and potentially unsafeguarded HEU fuel capability.⁷

⁴ For further detail on military expenditure, including arms procurement spending, in 2021 see chapter 8 in this volume.

⁵ Tirpak, J. A., 'New F-35 Lot 15-17 deal hung up on inflation, Covid-19 mitigation costs', *Air Force Magazine*, 26 Jan. 2022; and Lockheed Martin, 'Pentagon and Lockheed Martin agree to F-35 production baseline', News release, 27 Sep. 2021.

⁶ Nanuam (note 3).

⁷ Carlson, J., 'AUKUS nuclear-powered submarine deal: Non-proliferation aspects', Asia-Pacific Leadership Network, Commentary, 17 Sep. 2021; Tilemann, J., 'Nuclear submarines: Mitigating the proliferation impacts', Asia-Pacific Leadership Network, 22 Sep. 2021; Acton, J. M., 'Why the AUKUS submarine deal is bad for nonproliferation: And what to do about it', Carnegie Endowment for International Peace, Commentary, 21 Sep. 2021; and Center for Arms Control and Non-proliferation, 'Low-enriched uranium for naval reactors', Fact sheet, 8 Nov. 2021. For further detail on global stocks of HEU see chapter 10, section X, in this volume.

Box 9.1. Definitions and methodology for SIPRI data on international arms transfers

The SIPRI Arms Transfers Database contains information on deliveries of major arms to states, international organizations and non-state armed (i.e. rebel) groups from 1950 to 2021. A new set of data is published annually, replacing the data in earlier editions of the SIPRI Yearbook or other SIPRI publications.

Definitions

SIPRI's definition of 'transfer' includes sales, manufacturing licences, aid, gifts, and most loans or leases. The item must have a military purpose: the recipient must be the armed forces or paramilitary forces or intelligence agency of another country, a non-state armed group, or an international organization.

The SIPRI Arms Transfers Database only includes 'major arms', which are defined as (a) most aircraft, including unmanned aerial vehicles; (b) air defence missile systems and larger air defence guns; (c) air refuelling systems; (d) most armoured vehicles; (e) artillery over 100 millimetres in calibre; (f) engines for combat-capable aircraft and other larger aircraft, for combat ships and larger support ships, and for most armoured vehicles; (g) guided missiles, torpedoes, and most guided bombs and shells; (h) larger sensors (radars, sonars and many passive electronic sensors); (i) most ships; (j) larger ship-borne weapons (naval guns, missile launch systems and anti-submarine weapons); (k) reconnaissance satellites; and (l) most gun or missile-armed turrets for armoured vehicles.

In cases where an air refuelling system, engine, sensor, naval gun or other ship-borne system, or turret (items c, f, h, j and l) is fitted on a platform (vehicle, aircraft or ship), the transfer only appears as a separate entry in the database if the item comes from a different supplier from that of the platform.

The SIPRI trend-indicator value

SIPRI has developed a unique system for measuring the volume of transfers of major arms using a common unit, the trend-indicator value (TIV). The TIV is intended to represent the transfer of military resources. Each weapon has its own specific TIV. Second-hand and second-hand but significantly modernized arms are given a reduced TIV. SIPRI calculates the volume of transfers by multiplying the weapon-specific TIV with the number of arms delivered in a given year. SIPRI TIV figures do not represent the financial values of arms transfers.

Conflicts and tensions as drivers of arms transfers

Active armed conflicts and increasing tensions between states are arguably the main drivers of arms acquisitions by states. At least 5 of the top 10 importers of major arms in 2017–21 (India, Saudi Arabia, Egypt, Pakistan and the UAE) were engaged in armed conflicts in 2021. In some cases the conflicts were internal against rebel groups (e.g. Egypt and India), while others were either external in support of other states against rebel groups (e.g. Saudi Arabia and the UAE) or external against other states (e.g. India and Pakistan). All these conflicts involved the use of major arms, most of which were imported. Three other members of the top 10 (China, Japan and South Korea) were embroiled in intrastate tensions in 2021 where major arms were used as a show of force to indicate resolve (e.g. China in the South China Sea, and Japan and China in the East China Sea).

The link between arms acquisition on the one hand and conflict and tensions on the other is visible not just for the largest importers; most of the 163 states identified by SIPRI as recipients of major arms in 2017–21 were directly involved in an armed conflict or in tensions where imported major arms played a role. From the list of importers, it is also clear that the level of imports of major arms does not necessarily correspond to the level of conflict or tensions. For example, sub-Saharan states are generally among the smallest importers globally, often importing less advanced arms in very limited numbers; however, many of those states are involved in armed conflict in which the imported major arms play an important role. This is highlighted in section III in this chapter on arms importers. The only region relatively free from armed conflict and major intrastate tensions is South America, and SIPRI data shows a significant decrease in arms imports by states in that region in recent years.

Arms-exporting states are often direct or indirect participants in the conflicts or tensions affecting the states to which they supply major arms. This partly explains why some arms exporters are willing to supply arms (sometimes as aid) even when the supply may seem to contradict the exporter's stated arms export policies. Section II in this chapter on arms exporters provides several examples.