I. Global trends in arms transfers, 2019–23

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The volume of international transfers of major arms in 2019–23 was 3.3 per cent lower than in 2014–18 but 3.2 per cent higher than in 2009–13. [1] These figures indicate a trend of stable but high levels of arms transfers in the past 15 years (2009–23) that are substantially higher than in the 15 years before (1994–2008). The level in 2019–23 is the second highest since the end of the cold war (see figure 6.1), but was still around 35 per cent lower than the peak reached in the periods 1974–78, 1979–83 and 1984–88, at the height of the cold war.[2]

Despite a 12 per cent drop in imports of major arms by states in Asia and Oceania between 2014–18 and 2019–23, it remained the region with the highest volume of arms imports, as has been the case since 1989–93, and accounted for 37 per cent of the global total (see figure 6.2).[3]

The flow of arms to states in the Middle East also decreased by 12 per cent, between 2014–18 and 2019–23, but the region's share of 30 per cent of the global total remained among the highest of any of the seven successive five-year periods after 1983–87 and almost 80 per cent higher than 2003–2007 and 2008–12.

Arms imports to Africa (−52 per cent) and the Americas (−7.2 per cent) fell between 2014–18 and 2019–23, and these regions' shares of total global arms transfers decreased. For Africa, however, the level of imports in 2019–23 was still higher than in any of the four successive five-year periods between 1989 and 2008. In contrast, the level of imports for the Americas was the lowest of any of the eight successive five-year periods since 1984–88.

Imports of major arms by European states rose by 94 per cent between 2014–18 and 2019–23, largely driven by increased threat perceptions of the Russia Federation in most European states since 2014. The Russia–Ukraine war started to show its impact on the total volume of arms transfers in 2019–23.[4] Ukraine became within two years the fourth largest importer of

[1] In this chapter, the terms 'arms exports' and 'arms imports' are used to refer to international transfers of major arms, as defined by SIPRI. For that definition and a description of how the volume of transfers is measured see box 6.1.

[2] Except where indicated, the information on the arms deliveries and orders referred to in this chapter is taken from the SIPRI Arms Transfers Database. 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 differ from those in previous editions of the *SIPRI Yearbook* because the Arms Transfers Database is updated annually.

[3] For SIPRI's definition of the regions and subregions see SIPRI, 'Regional coverage', SIPRI Databases, [n.d.].

[4] On the Russia–Ukraine war see chapter 1, chapter 2, section I, and chapter 10, sections II and III, in this volume.

Box 6.1. 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 2023. 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 uncrewed 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 amphibious and support ships, and for most types of armoured vehicles; (*g*) guided missiles, torpedoes, and most types of 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 but similar systems have similar TIVs. Second-hand arms, 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.

Source: SIPRI, 'Sources and methods', SIPRI Arms Transfers Database, [n.d.].

major arms. In addition, most European states substantially increased their arms import orders in 2022–23 and announced plans for more orders in 2024 and subsequent years, firmly indicating a further growth of arms imports by states in Europe in the coming decade.

The five largest arms exporters in 2019–23, in descending order, were the United States, France, Russia, China and Germany, the same states as in 2009–13 and 2014–18, but in different orders (see section II). The five states that imported the most arms in the period, also in descending order, were India, Saudi Arabia, Qatar, Ukraine and Pakistan (see section III). Four of these were also among the five largest importers in 2014–18, while Qatar was new in this group.

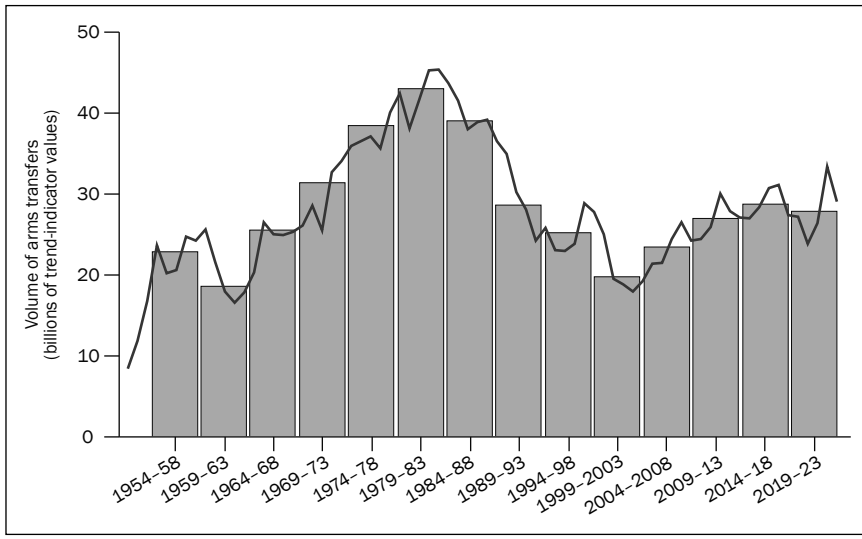

Figure 6.1. The trend in international transfers of major arms, 1950–2023

Note: The bar graph shows the average annual volume of arms transfers for 5-year periods from 1954 and the line graph shows the annual totals since 1950. See box 6.1 for an explanation of the SIPRI trend-indicator value (TIV).

Source: SIPRI Arms Transfers Database, Mar. 2024.

Increases and decreases, even large ones, in arms exports for individual suppliers measured over five-year periods are not uncommon and are generally a weak indicator of trends, especially for the medium and small suppliers. Such changes can often be linked to unpredictable markets with a relatively small group of possible buyers for large volumes of major arms and buyers' willingness to switch between suppliers. Competition within most major arms markets is intense and winning or losing one or a few large contracts can make a big difference. An example is the 47 per cent increase in France's exports between 2014–18 and 2019–23, which is largely due to France succeeding in gaining large orders for Rafale combat aircraft against competing designs (including the Typhoon offered by Germany, Italy, Spain and the United Kingdom) from other supplying states that had previously been more successful. However, Russia's decrease is more a long-term trend and less related to winning or losing one or a few larger orders. Exports by Russia, or its predecessor the Soviet Union, have never been so low since 1950, in either absolute volumes or in shares of the total global exports. See section II for detailed discussion of these changes.

The importance of long-range strike weapons

The ability to use conventional weapons to attack ground targets deep in enemy territory has long been part of military doctrines. Since World War I

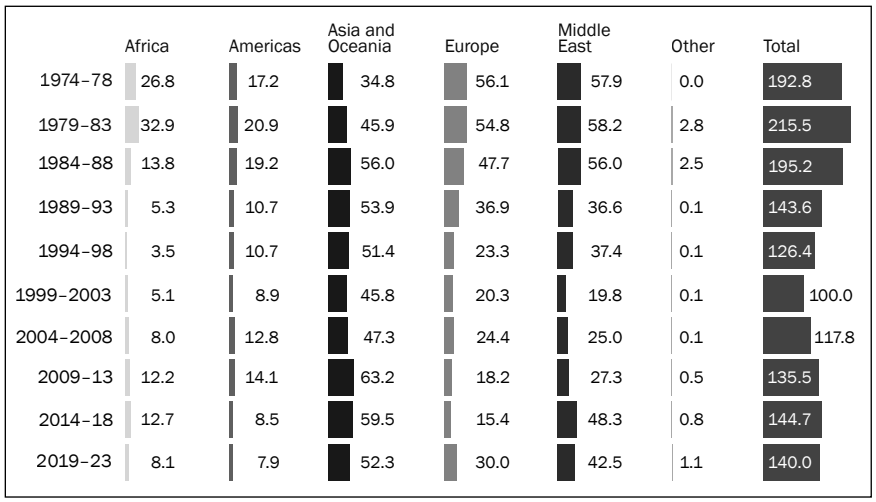

Figure 6.2. The trend in international transfers of major arms, imports by region, 1974–2023

Note: Figures are billions SIPRI trend-indicator values (TIVs). See box 6.1 in this section for an explanation of TIVs. For SIPRI's definition of the regions and subregions see SIPRI, 'Regional coverage', SIPRI Databases, [n.d.].

Source: SIPRI Arms Transfers Database, Mar. 2024.

aircraft have provided the main means for such attacks, supplemented by guided missiles since World War II. Despite continuous development of various weapons to defend against aircraft and missiles, both have been used regularly in war and remain key components of military inventories for long-range land-attack capabilities—which here refers to aircraft and missiles with an effective land-attack payload that have a range of at least 500 kilometres and are capable of penetrating into well-defended enemy air space—as well as for conventional deterrence. At the same time, there are concerns about the impact of aircraft and especially missile proliferation on international stability.[5]

Combat aircraft with long-range attack capabilities have accounted for a large share of global arms transfers since at least 1950. Since the 1990s their transfers have increasingly been combined with guided missiles and bombs that add precision as well as stand-off launch capabilities.

In 2004–13 a total of 1381 combat aircraft with long-range land-attack capabilities accounted for 22 per cent of the total volume of transfers of major arms.[6] In 2014–23 a total of 1451 aircraft accounted for 24 per cent. Advanced

[5] On missile proliferation and efforts to control it see chapter 10, section III, in this volume.

[6] Such combat aircraft are included in the SIPRI Arms Transfers Database as 'FGA aircraft' (fighter/ground-attack aircraft) and 'bomber aircraft'. However, not all aircraft in these two SIPRI categories have long-range land-attack capabilities. Those considered not to meet the criteria, which aside from range include capabilities to defeat advanced air defences, are not included in the figures presented here.

combat aircraft are expensive and difficult to develop and produce. In both periods only eight states (China, France, Germany, Italy, Russia, Sweden, the UK and the USA) delivered newly produced combat aircraft of indigenous design to foreign recipients, while one (Pakistan) delivered newly produced aircraft under licensed design (by China).[7] Several other states exported second-hand aircraft, but this generally only happens with the permission of the original producing state. In addition, the Republic of Korea (South Korea) is developing combat aircraft and has gained an export order for them. For the foreseeable future, combat aircraft remain in high demand: some 1700 are on order from eight states for delivery in the coming years to over 30 states, while many states have plans to place orders for such aircraft soon.

Transfers of long-range missiles, which here refer to those with a range of over 250 km, have been taking place since the 1950s (e.g. US deliveries of Thor to the UK around 1958, French deliveries of Jericho in the 1970s to Israel, and Soviet deliveries of large numbers of R-17, or Scud-B, from the 1960s to over a dozen states) but was limited mainly to land- or ship-based missiles with a low precision. Transfers of long-range missiles were low in the 1990s and early 2000s. However, the numbers transferred, and the numbers of recipients and of suppliers of such missiles, have grown notably during the past decade, and now include many air-launched missiles. This is particularly visible in trends in deliveries of land-attack missiles with a range of 250–999 km. In 2004–13, 12 states received such missiles from 7 supplier states, whereas 21 states and 1 non-state group received them from 12 supplier states in 2014–23. Data on the total numbers supplied is uncertain as often suppliers and recipients keep such data secret, but SIPRI estimates that in each period around 2200 missiles were delivered. In both periods, the USA was the main exporter of the missiles.

In the category of land-attack missiles with a range of 1000 km or more, an increase in demand is visible when the numbers of orders are compared for the two decades. The only delivery identified by SIPRI for such missiles in 2004–13 was to the UK, which imported 68 Tomahawk missiles from the USA, in addition to 85 delivered in the decade before. These missiles equip UK submarines and were used in strikes during military operations in Kosovo, Afghanistan, Iraq and most recently in 2011 in Libya.[8]

[7] The aircraft delivered by Germany, Italy, and the UK—the Typhoon, also sometimes called the Eurofighter—are a cooperative design involving these three states and Spain.

[8] British Royal Navy, 'Submarine service's Tomahawk missiles receive £265m revamp', Royal Navy News, 31 May 2022.

In 2014–23 eight states ordered or preselected missiles with a range of over 1000 km. The UK ordered another 20 Tomahawks for its submarines in 2014 and Poland ordered 60 air-launched JASSM-ER missiles in 2016. In 2023 Japan ordered 400 Tomahawks—for use from surface ships, submarines and possibly aircraft—and it also decided to acquire 50 JASSM-ERs. Australia ordered 220 Tomahawks, for surface ships, submarines and aircraft, and 80 JASSM-ERs; Germany ordered 75 JASSM-ERs; and Finland ordered 200 JASSM-ERs. Canada is in the process of acquiring Tomahawks for use from surface ships and the Netherlands is acquiring Tomahawks for surface ships and submarines and JASSM-ERs for aircraft, although the numbers involved are not known. All these orders are from the USA.

There has also been an increased demand for weapons as alternatives for expensive and difficult to operate combat aircraft or advanced long-range missiles. These include armed uncrewed aerial vehicles (UAVs) that can return to their bases, as well as one-way UAV-like weapons. The latter have technical characteristics similar to UAVs which are not always easy to determine based on public sources, and are often labelled 'loitering ammunitions', 'kamikaze drones' or 'suicide drones', but are in essence long-range but very slow, often small, propeller-driven surface-to-surface missiles that can be classified crudely as no more than 'flying bombs'.[9] Transfers of such weapons in 2023 with ranges of up to hundreds of kilometres included Ukraine receiving Bayraktar TB-2 armed UAVs from Türkiye for use against Russian forces, and Iran supplying at least over 1000 Shahed-136 UAV-like land-attack missiles to Russia for use against Ukraine. Armed UAVs have proliferated rapidly in recent years to states that would have problems finding the budget for combat aircraft or missiles. In 2023 alone, armed UAVs with a range of at least 250 km were delivered to 35 states, including 9 in sub-Saharan Africa. Most of these sub-Saharan African states use them against non-state armed groups, and for most they are the only means to deliver long-range strikes. While long-range armed UAVs and UAV-like missiles have made headlines in the context of various recent conflicts and have sometimes played an important but niche role (e.g. in Ukraine and in the Armenia–Azerbaijan conflict), in general their value in both monetary and military terms (and thus also in SIPRI trend-indicator values) remains well below those of combat aircraft and the more advanced long-range missiles. Hence, even the thousands that were delivered during 2014–23 account for only a tiny share of the volume of global transfers of major arms.

[9] The Shahed-136 is a typical example of the labelling of such weapons. It weighs 200 kg, including a meagre 40 kg warhead, and has a speed over *c.* 185 km/h. The range of the version Iran supplied to Russia is estimated to be 600 km but may be much more. Because of its characteristics, it is classified by SIPRI as a surface-to-surface missile.

Conflicts, tensions and arms transfers

Active armed conflicts and increasing tensions between states are arguably the main drivers of arms acquisitions for many states.[10] Most of the top 40 importers of major arms in 2019–23 and many of the other 130 importers used imported arms in military combat operations in that period. This included operations against other states (e.g. in 2023, in the Russia–Ukraine war, in cross-border attacks by India and Pakistan against each other, by Israel against Syrian government forces and Iranian forces in Syria; and in the war between Azerbaijan and Armenia). However, most use of major arms in 2019–23 took place in the context of intrastate conflicts, pitching state forces against non-state (rebel) groups on their own territory (e.g. in 2023, in Myanmar, Mali, Nigeria, Pakistan, India and Ethiopia). Many such intrastate conflicts are internationalized by an armed intervention in support of one or more of the conflict parties, resulting in more of the arms importers using their major arms in conflicts outside their own territory. Several of the top 40 importers of major arms in 2019–23 were involved in external interventions in support of other states against non-state armed groups (e.g. in 2023, Saudi Arabia and the United Arab Emirates (UAE) in Yemen, and Türkiye and the USA in Syria).

In many of these cases the states were heavily dependent on foreign suppliers for their major arms, often imported years or decades ago. This underlines the fact that major arms tend to have a long life and that decisions on supply continue to have an impact many years later.

Other importers, including 3 of the top 10 (China, Japan and South Korea), while not engaged in armed conflict, were nonetheless embroiled in interstate tensions of various levels of intensity—for example, in 2023, China in the South China Sea and against Taiwan, Japan and China in the East China Sea, China and India on their disputed border and the Indian Ocean, and Japan and South Korea against the Democratic People's Republic of Korea (DPRK, or North Korea). Many other importers are involved in interstate tensions, including in Europe where, since Russia's full-scale invasion of Ukraine in February 2022, most states perceive a major increase in the possibility of war with Russia.

The linkages between arms acquisition and conflict or tensions with other states are highly visible in many of the 170 states identified by SIPRI as recipients of major arms in 2019–23. Often, states specifically note that the acquisitions are to deal with actual or perceived threats from other states or non-state armed groups. However, it is also clear that there is not necessarily a direct correlation between the level of imports of major arms and the level

[10] For a list of all the states or territories involved in armed conflict in 2023 see chapter 2, table 2.8, in this volume.

of conflict or tension. For example, sub-Saharan Africa was the region with the highest number of states with active armed conflicts in 2019–23, and many others had internal and bilateral tensions during that period.[11] Many of these states make no secret of the fact that arms are acquired, almost always from abroad, for actual use against non-state groups. However, no state in sub-Saharan Africa was among the top 40 importers in that period and total arms imports by sub-Saharan Africa states were significantly lower in 2019–23 than in previous periods. This indicates less that the conflicts and tensions are of lower intensity than in other regions, and more that the states lack resources to acquire and use more major arms and that these conflicts are often fought primarily with small arms and light weapons.[12]

The relationship between arms transfers and conflicts or tensions is further highlighted in section III of this chapter. The only region relatively free from armed conflict is South America, where SIPRI data shows a significant decrease in arms imports by states in recent years. The main use of imported weapons is in police-type operations of the armed forces against criminal gangs. While such conflicts can be intense (in three states they were classified by SIPRI as active armed conflicts in 2023), the major arms used were mainly light armoured vehicles and helicopters, which together form only a very small part of the total imports of major arms globally or even by states in the region.[13]

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 military aid) even when their stated arms transfer policies and regulations include guidelines to restrain arms exports to regions or states with an active conflict or where there is a risk of exacerbating intrastate and interstate tensions. This is illustrated by the supplies of major arms to the conflict parties in the Russia–Ukraine and Israel–Hamas wars, as well as the civil war in Yemen, among others. These transfers are described in sections II and III.

Arms transfers and the Russia–Ukraine war

At least 30 states supplied major arms to Ukraine after the full-scale Russian invasion in February 2022, and for the year 2023 Ukraine was by some distance the world's largest arms importer. The USA supplied 39 per cent of Ukrainian arms imports in 2019–23, followed by Germany (14 per cent) and

[11] On armed conflict in sub-Saharan Africa in 2023 see chapter 2, section I, in this volume.

[12] See e.g. Varisco, A. E., Wezeman, P. D. and Kuimova, A., *Illicit Small Arms and Light Weapons in Sub-Saharan Africa: Using UN Reports on Arms Embargoes to Identify Sources, Challenges and Policy Measures*, SIPRI Policy Report (SIPRI: Stockholm, Dec. 2022); and Tar, U. A. and Onwurah, C. P. (eds), *The Palgrave Handbook of Small Arms and Conflicts in Africa* (Palgrave Macmillan: London, 2021).

[13] On armed conflict in the Americas in 2023 see chapter 2, section I, in this volume.

Poland (13 per cent). Most of the volume of major arms supplied to Ukraine in 2023 consisted of missiles, including artillery rockets, anti-tank missiles and missiles for air defence systems. To broaden Ukraine's military capabilities, suppliers began to re-evaluate their earlier reluctance to deliver certain types of weapons.[14] For example, in 2023 several states began supplying long-range systems, including combat aircraft and land-attack missiles. Poland and Slovakia delivered 27 second-hand MiG-29 combat aircraft, France and the UK supplied Storm Shadow/SCALP air-launched missiles with a range of 300 km, and the USA delivered ground-launched ATACMS missiles with a similar range. In addition, during 2023 Belgium, Denmark, the Netherlands and Norway also started to prepare over 50 second-hand F-16 combat aircraft for delivery from 2024.[15] In 2023 Ukraine also gradually received more types of advanced heavy weapons, such as 31 M-1A1 tanks from the USA, 14 Challenger-2 tanks from the UK, and a total of 50 Leopard-2 tanks in a variety of versions from seven countries. While deliveries in 2022–23 of various major arms to Ukraine and more deliveries promised for 2024 played or will play a major role in Ukraine's defence against the Russian invasion, they are also needed to rapidly fill gaps in Ukraine's inventory. One of the effects is that Ukraine has added to its own, mainly Soviet-standard, inventory a very wide variety of Western-standard types in most categories of major weapons, with a similar wide variety of ammunition, spare parts and other operational needs. Many of these are new for Ukraine, and this and the variety of types—for example, there are at least 11 different types of tanks, often in several versions—makes active use, maintenance and repair a difficult task.[16] In 2023 Ukraine invited foreign states and companies to join an 'Alliance of Defence Industries' to set up facilities in the country in cooperation with the still large domestic arms industry, to support the equipment supplied and to produce new weapons in Ukraine.[17] Several large companies have already started maintenance facilities in Ukraine and plan to start production in 2024 of new weapons of foreign design, including tanks and other armoured vehicles, artillery and ammunition.[18]

[14] See Wezeman, S. T and Wezeman, P. D, 'Global trends in arms transfers, 2018–22', *SIPRI Yearbook 2023*, pp. 213–14, 218–21.

[15] Dutch Ministry of Defence, 'Defence to make first 18 F-16 fighter aircraft available to Ukraine', News, 22 Dec. 2023.

[16] Data from SIPRI Arms Transfers Database (note 2); and International Institute for Strategic Studies (IISS), *The Military Balance 2024* (Routledge: London, 2024), p. 211.

[17] Zelensky, V., 'We are laying the foundation for the arsenal of the free world', Speech to the First International Defense Industries Forum, Kyiv, 30 Sep. 2023; 'Ukraine: Five Italian companies joined the Alliance of Defence Industries', Defence Industry Europe, 17 Nov. 2023.

[18] Rheinmetall, 'Rheinmetall: A powerful partner at Ukraine's side', 6 Feb. 2024; Vincent, E., 'French arms manufacturers seek to establish a status in Ukraine', *Le Monde*, 30 Sep. 2023; 'British arms maker BAE Systems sets up in Ukraine', *The Guardian*, 1 Sep. 2023; and Hrudka, O., 'Ukraine ramps up weapons production with US, Italian support', *Euromaidan Press*, 9 Dec. 2023. On arms production in Ukraine see chapter 5, section IV, in. this volume.

Most of the major arms supplied to Ukraine were directly as second-hand equipment from the stocks of the supplying country. Some major arms have been sources from new production diverted from orders for other states (e.g. in 2022 Canada supplied 39 LAV-6 ASCV armoured vehicles that were in production for itself) or specifically produced for Ukraine.[19] With few exceptions, the major arms delivered to Ukraine were provided as aid, financed by the supplier, or as the supply of arms by one state financed by other states or, through the European Peace Facility, by the European Union (EU). For example, by early 2024 the EU had made €6.1 billion available to pay for military equipment and services, including major arms but also other military equipment, ammunition and training.[20] As the conflict quickly became a war of attrition, Ukraine expended large amounts of ammunition for the major arms it already had before 2022 and for those delivered in 2022–23. Although the supply of such ammunition is not included in the SIPRI arms transfers statistics, it is noteworthy because it became a central part of the military support given to Ukraine and led to a major effort to increase production of ammunition in Europe and the USA.[21]

Russia relies primarily on its own industry for its major arms. However, in 2022–23 it imported at least a few armed Mohajer-6 UAVs and over 1000 Shahed-136 land-attack missiles (see above). In 2023 Russia also imported ballistic missiles from North Korea in violation of a United Nations arms embargo (which bans North Korea from both exporting and importing arms, as well as any state to import arms from North Korea).[22] Russia was also apparently running low on missiles and other ammunition, and the USA and allies at various times in 2022 and 2023 alleged that Russia was importing artillery shells and missiles from North Korea and that it was trying to acquire ballistic ground-to-ground missiles from Iran.[23] By the end of 2023, there was clear evidence of North Korean supplies reaching Russia and being used against Ukraine, but details on types and numbers remained unclear.[24] The Iranian Mohajer-6 UAVs and Shahed-136 missiles were also clearly identified as used by Russia in 2022–23. The Shahed-136 was used in large numbers (at least over 1000) and Russia even started production of a locally improved

[19] Butler, C., 'Canada to send 39 London, Ont.-made armoured vehicles to Ukraine to help war efforts', CBC News, 7 July 2022.

[20] Council of the European Union, 'EU action in support of Ukraine', Fact sheet, 16 Feb. 2024.

[21] On efforts to boost ammunition production see chapter 5, section IV, in this volume.

[22] On the arms embargo on North Korea see chapter 12, section II, in this volume.

[23] Gangitano, A., 'White House: North Korea has provided Russia with 1K containers of military equipment, munitions', *The Hill*, 13 Oct. 2023; and Mason, J. and Holland, S., 'White House: Iran may be considering providing ballistic missiles to Russia', Reuters, 21 Nov. 2023. On the use of missiles in the Russia–Ukraine war see chapter 10, section III, in this volume.

[24] Conflict Armament Research, 'Documenting a North Korean missile in Ukraine', Ukraine Field Dispatch, Jan. 2024. See also Herskovitz, J., 'North Korea appears to be sending its newest missiles to Russia', BNN Bloomberg, 5 Jan. 2024.

version.[25] However, Iran denied the supply of ballistic missiles and there was no independent public confirmation of such deliveries in 2022–23. Several sources, including unnamed Iranian officials, suggested that Iran started to deliver ballistic missiles only in January 2024.[26]

Arms transfers and war in the Middle East in 2023

Arms transfers to the Middle East continued to play a key role in the development of conflicts and tensions in the region.

The Israel–Hamas war that reignited on 7 October 2023, and the spillover to the ongoing conflict between Israel and Hezbollah, have had little impact on overall volumes of transfers of major arms for 2023, but are likely to have a greater impact in coming years.[27] (Arms transfers to Israel since the beginning of the war are explained in the subsection on the Middle East in section III of this chapter.) Hamas and Hezbollah used weapons, including major arms, that certainly came from foreign suppliers, but the sources of the transfers had not been verified by the end of 2023.

The conflict between Saudi Arabia and the Houthis, ongoing since 2015, has led those Gulf states in the Saudi Arabia-led coalition (including in 2023 Bahrain, Kuwait, Saudi Arabia and the UAE) fighting the Houthis to continue or increase their imports of major arms, with an emphasis on aircraft, missiles and armoured vehicles. Weapons imported by states in the coalition were used in Yemen against the Houthis, including combat aircraft such as the F-15, F-16, Mirage-2000-9 and Typhoon, and guided bombs and missiles for these aircraft.[28]

In recent years, the Houthis have publicly displayed many new weapons, especially various types of missiles, that often closely resemble Iranian designs.[29] The USA, Saudi Arabia and other states claim many of the major arms used by the Houthis have been supplied by Iran, a claim supported by multiple interceptions of unregistered and unflagged boats carrying various types of weapons, including light missiles and parts of larger missiles, presumably on their way from Iran to the Houthis.[30] The Houthi displays, the

[25] Bennett, D. and Ilyushina, M., 'Inside the Russian effort to build 6,000 attack drones with Iran's help', *Washington Post*, 17 Aug. 2023; and 'Russia has fired 7,400 missiles, 3,700 Shahed drones in war so far, Kyiv says', Reuters, 21 Dec. 2023.

[26] The immediate official Iranian response to these claims was that Iran had not supplied ballistic missiles, but that there were no legal restrictions on such sales. Hafezi, P. et al., 'Exclusive: Iran sends Russia hundreds of ballistic missiles', Reuters, 21 Feb. 2024; and 'Iran denies providing ballistic missiles to Russia', Reuters, 23 Feb. 2024.

[27] On the Israel–Hamas war see chapter 1, chapter 2, section I, and chapter 10, section II, in this volume.

[28] On the war in Yemen see chapter 1, chapter 2, sections I and II, and chapter 4, section III, in this volume. See also the Yemen Conflict Observatory, [n.d.]; and Campaign Against Arms Trade, 'UK arms used in Yemen', 13 July 2023.

[29] See e.g. Hinz, F., 'Little and large missile surprises in Sanaa and Tehran', IISS, 17 Oct. 2023; and 'Houthis showcase large arsenal of missiles, drones at Sana'a military parade', MEMRI TV, 21 Sep. 2023.

[30] Unites States Institute of Peace, 'Timeline: US seizures of Iranian weapons at sea', 15 Feb. 2024.

Table 6.1. Selected major arms on order or chosen for future orders from the 10 largest arms suppliers, for delivery after 2023

Figures are units of major arms.

Supplier	Combat aircraft[a]	Combat helicopters[b]	Major surface warships[c]	Sub-marines	SAM systems[d]	Tanks	Other armoured vehicles	Artillery
USA	1 071	390	5	3	35	561	>2 848	718
France	223	1	13	7	2	–	498	141
Russia	78	–	4	1	>16	464	8	–
China	94	–	–	8	2	566	1	>126
Germany	–	–	7	18	>37	241	1 314	31
Italy	52	31	8	–	–	98	1 757	–
UK	8	–	29	3	–	–	20	–
Spain	–	–	1	–	–	–	558	12
Israel	18	–	–	–	>30	19	>45	>95
South Korea	142	–	3	3	>10	972	>609	>1 233

– = no orders; SAM = surface-to-air missile.

[a] Combat aircraft include combat/trainer aircraft and anti-submarine warfare aircraft.

[b] Combat helicopters include anti-submarine warfare helicopters.

[c] Major warships include aircraft carriers, corvettes, destroyers and frigates.

[d] SAM systems include only land-based systems and exclude systems for portable/very short-range SAMs.

Source: SIPRI Arms Transfers Database, Mar. 2024.

claims and the interceptions indicate a likely substantial but difficult to prove flow of arms from Iran to the Houthis. However, many sources, including investigations by the committee overseeing the UN arms embargo on Yemen, have provided clear evidence that at least some major arms were supplied by Iran to the Houthis.[31] This included land-attack ballistic and cruise missiles, anti-ship missiles and surface-to air missiles, but it is unclear in what numbers these were delivered. From late 2023 the Houthis have used these anti-ship and land-attack missiles to attack merchant ships in the Red Sea, in response to the Israel–Hamas war.[32] These attacks raised fears of a wider conflict in the Middle East and impacted the global economy by disrupting transport through the Red Sea.[33]

[31] United Nations, Security Council, Panel of Experts on Yemen, Final report, S/2023/833, 2 Nov. 2023.

[32] 'Who are the Houthis and why are they attacking Red Sea ships?', BBC, 15 Mar. 2024; and 'Mapping the Red Sea attacks', Al Jazeera, [n.d.] (accessed 9 Apr. 2024).

[33] 'Mapping the Red Sea attacks' (note 32); and United Nations, 'Security Council strongly condemns Houthi attacks on Red Sea shipping', UN News, 10 Jan. 2024.

Estimates of future arms transfers based on known orders

While many states have recently placed orders for major arms or plan to make such orders soon, information remains limited in most cases. It is extremely difficult, therefore, to provide even rudimentary predictions of global trends in arms acquisitions, no matter whether these are near- or long-term forecasts. Nonetheless, there are 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)—that suggest that there will be more, rather than less, demand for major arms in the coming years.[34] Much of this demand will be met by arms imports, as many states are still unable to produce domestically all the major arms they believe they need.

While making trend predictions is difficult, data on orders can give a rough indication of which states will be among the largest exporters in coming years. The data on combat aircraft and major warships, which have a high military value, is particularly telling. As table 6.1 shows, the USA will almost certainly continue to be by far the largest exporter of major arms beyond 2023, especially as it will supply around 60 per cent of all combat aircraft currently on order. Russia, which was the third largest arms exporter in the world in 2019–23, has a relatively low number of pending deliveries and might soon be outperformed by other exporters. In particular, China, Germany, Italy and South Korea currently have more substantial orderbooks than Russia.

[34] On military spending trends see chapter 5 in this volume.