III. Developments among the recipients of major arms, 2017–21

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SIPRI has identified 163 states as importers of major arms in 2017–21.[1] The top five arms importers—India, Saudi Arabia, Egypt, Australia and China—together received 38 per cent of total arms imports in 2017–21 (see table 9.5). India, Saudi Arabia and China were also among the top five importers in 2012–16, and India and China were among the top five importers in 2007–11. At the regional level, Asia and Oceania accounted for 43 per cent of arms imports in 2017–21 (see table 9.6), followed by the Middle East (32 per cent), Europe (13 per cent), Africa (5.8 per cent) and the Americas (5.5 per cent).

In addition to the 163 importing states, two international organizations—the North Atlantic Treaty Organization (NATO) and the African Union—and non-state rebel forces in Libya, Sudan (Darfur), Syria and Yemen received major arms in 2017–21. Of these, only NATO received a significant volume (0.5 per cent of the global total).

This section reviews significant developments among the main recipients of arms in each region in turn.

Africa

Between 2012–16 and 2017–21, imports of major arms by African states decreased by 34 per cent. Russia was the largest supplier to Africa, accounting for 44 per cent of arms exports to the region, followed by the USA (17 per cent), China (10 per cent) and France (6.1 per cent).

The overall drop in African arms imports was mainly driven by decreases in imports by Algeria and Morocco—the two largest arms importers in the region.

Algeria and Morocco

In 2017–21 Algeria accounted for 44 per cent of total African arms imports. This amounted to 2.6 per cent of global arms transfers, making it the 11th largest arms importer in the world. Its regional rival Morocco received 17 per cent of African arms imports, equivalent to 1.0 per cent of the global total. It was the 25th largest arms importer in 2017–21. Despite the ongoing tensions between the two states, particularly with regard to the conflict in

[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 section I of this chapter. The figures here may differ from those in previous editions of the SIPRI Yearbook because the Arms Transfers Database is updated annually.

Western Sahara, their arms imports decreased significantly between 2012–16 and 2017–21.[2]

Algeria's arms imports fell by 37 per cent between 2012–16 and 2017–21. In recent years it has attempted to diversify its arms supplier base but continued to rely heavily on imports of Russian arms in 2017–21. Although the volume of Algeria's arms imports from Russia decreased by 17 per cent between 2012–16 and 2017–21, Russia remained the largest arms supplier to Algeria and accounted for 81 per cent of all Algerian arms imports in 2017–21. Germany, the second largest arms exporter to Algeria, accounted for 6.4 per cent of Algerian arms imports over the same period.

Morocco's arms imports dropped by 27 per cent between 2012–16 and 2017–21. It received major arms from several arms exporters in 2017–21, but its arms supplier base became more concentrated compared with the previous five-year period. The USA remained Morocco's main supplier of major arms and its share of Moroccan arms imports increased from 42 per cent in 2012–16 to 76 per cent in 2017–21. China (14 per cent) had the second largest share, followed by France (8.4 per cent).

The arms transfer relations between the USA and Morocco, which is a key ally of the USA in Africa, are likely to continue to grow in importance in the coming years as both states signed an agreement in 2020 intended to further enhance defence cooperation between them through 2030.[3] This new level of cooperation can already be illustrated by the fact that Morocco has several large pending deliveries of major arms from the USA—including for 24 F-16 Block-72 combat aircraft and 24 AH-64E combat helicopters—that are expected to be implemented in the coming five years.

Sub-Saharan Africa

States in sub-Saharan Africa accounted for 2.0 per cent of total global arms imports in 2017–21. Taken together, their arms imports were 35 per cent lower in 2017–21 than in 2012–16. In 2017–21 the five largest arms importers in the subregion were Angola, Nigeria, Ethiopia, Mali and Botswana. In 2017–21 Angola, Nigeria, Ethiopia and Mali all had a diversified supplier base, receiving major arms from West European states as well as China, Russia and the USA, while Botswana received arms only from West European states and the USA. Angola received 62 per cent of its major arms imports in 2017–21 from Russia, but none of the other four states received more than 49 per cent of their major arms from a single supplier.

In 2017–21 Angola's arms imports were 2.6 times higher than in the previous five-year period and accounted for 0.4 per cent of the global total. Deliveries

[2] On tensions in Western Sahara see chapter 6, section IV, in this volume.

[3] Garamone, J., 'US, Morocco chart defense cooperation through 2030', US Department of Defense, News release, 2 Oct. 2020.

included 12 Su-30MK combat aircraft from Russia and 12 K-8W light combat/trainer aircraft from China as well as a total of 134 second-hand pieces of artillery from Belarus and Bulgaria—which was more than four times the volume of artillery imports of all other sub-Saharan states combined.

Amid ongoing external and domestic security challenges, including attacks by armed Islamist groups such as Boko Haram, Nigeria received major arms from 13 suppliers in 2017–21. Deliveries included 272 tanks and other armoured vehicles from China, 7 Mi-35M combat helicopters from Russia, 3 JF-17 combat aircraft from Pakistan, 12 Super Tucano light combat aircraft from Brazil (via the USA) and 9 patrol craft from France. Some of these recently delivered arms were put to use almost immediately in counter-insurgency operations.[4]

Ethiopia received air-defence equipment from Russia and Ukraine during the first three years of the period 2017–21. While no transfers of major arms from these states have been identified for 2020–21, several transfers by other suppliers are known to have taken place in that period, including deliveries of multiple rocket launchers from China and unmanned aerial vehicles (UAVs) from Turkey. A number of media outlets reported that Ethiopia may have also received some other UAVs, possibly produced by Iran and by China.[5] However, information on the actual supplier states, the delivery dates and the number of units transferred to Ethiopia remained uncertain as at the end of 2021.[6]

Ongoing armed conflict in the Sahel region coincided with increased arms imports by Mali—which is a member of the Joint Force of the Group of Five for the Sahel—between 2012–16 and 2017–21. In 2017–21 Mali received 130 armoured vehicles from the United Arab Emirates (UAE) and 4 light combat aircraft from Brazil. South Africa also supplied 102 armoured vehicles, of which at least 70 were paid for by Germany as military aid. The largest arms supplier to Mali in 2017–21 was Russia, which delivered 4 armed transport helicopters and 4 combat helicopters.

Botswana, the fifth largest arms importer in the subregion, accounted for 0.1 per cent of the global total in 2017–21. Although it was not involved in any open conflict during this period, its arms imports increased more than fivefold from 2012–16. In 2017–21 deliveries to Botswana included 45 infantry fighting vehicles from Switzerland and surface-to-air missile (SAM) systems from France.

[4] Lake, J., 'Now there's Thunder in the Nigerian sky', Times Aerospace, 12 Jan. 2022; and Malyasov, D., 'Nigerian anti-terrorism operation marks combat debut of Chinese VT4 tank', Defence Blog, 12 Jan. 2021. On the armed conflict in Nigeria see chapter 7, section II, in this volume.

[5] Zwijnenburg, W., 'Is Ethiopia flying Iranian-made armed drones?', Bellingcat, 17 Aug. 2021; and Zwijnenburg, W., 'Are Emirati armed drones supporting Ethiopia from an Eritrean air base?', Bellingcat, 19 Nov. 2020.

[6] Mwai, P., 'Tigray conflict: What do we know about drone strikes in Ethiopia?', BBC News, 31 Jan. 2022. On the armed conflict in Ethiopia see chapter 7, section IV, in this volume.

Table 9.5. The 50 largest recipients of major arms and their main suppliers, 2017–21

Rank			Share of total global imports (%)		Change in volume (%) from 2012–16 to 2017–21	Main suppliers (share of importer's total imports, %), 2017–21					
2017–21	2012–16[a]	Importer	2012–16	2017–21		1st		2nd		3rd	
1	1	India	*14*	*11*	*–21*	Russia	*(46)*	France	*(27)*	United States	*(12)*
2	2	Saudi Arabia	*8.2*	*11*	*27*	United States	*(82)*	France	*(5.1)*	United Kingdom	*(5.0)*
3	9	Egypt	*3.2*	*5.7*	*73*	Russia	*(41)*	France	*(21)*	Italy	*(15)*
4	10	Australia	*3.2*	*5.4*	*62*	United States	*(67)*	Spain	*(24)*	Switzerland	*(3.3)*
5	4	China	*4.4*	*4.8*	*4.1*	Russia	*(81)*	France	*(9.1)*	Ukraine	*(5.9)*
6	22	Qatar	*1.3*	*4.6*	*227*	United States	*(46)*	France	*(36)*	Italy	*(6.1)*
7	13	South Korea	*2.3*	*4.1*	*71*	United States	*(63)*	Germany	*(27)*	France	*(7.8)*
8	8	Pakistan	*3.2*	*3.0*	*–11*	China	*(72)*	Sweden	*(6.4)*	Russia	*(5.6)*
9	3	UAE	*4.5*	*2.8*	*–41*	United States	*(61)*	France	*(6.2)*	Russia	*(5.3)*
10	26	Japan	*1.0*	*2.6*	*152*	United States	*(98)*	United Kingdom	*(1.7)*	Sweden	*(0.7)*
11	5	Algeria	*3.9*	*2.6*	*–37*	Russia	*(81)*	Germany	*(6.4)*	France	*(3.7)*
12	21	United Kingdom	*1.4*	*2.5*	*74*	United States	*(77)*	South Korea	*(16)*	Germany	*(3.2)*
13	12	United States	*2.5*	*2.4*	*–9.6*	United Kingdom	*(23)*	Netherlands	*(13)*	France	*(12)*
14	17	Israel	*1.5*	*1.9*	*19*	United States	*(92)*	Germany	*(6.9)*	Italy	*(1.0)*
15	14	Indonesia	*2.1*	*1.7*	*–24*	South Korea	*(23)*	United States	*(23)*	Netherlands	*(19)*
16	49	Norway	*0.3*	*1.6*	*343*	United States	*(83)*	South Korea	*(10)*	Italy	*(4.0)*
17	7	Turkey	*3.2*	*1.5*	*–56*	Italy	*(30)*	United States	*(22)*	Spain	*(21)*
18	16	Singapore	*1.6*	*1.4*	*–20*	France	*(54)*	United States	*(22)*	Germany	*(7.9)*
19	40	Netherlands	*0.6*	*1.3*	*116*	United States	*(94)*	Germany	*(5.0)*	Australia	*(0.3)*
20	11	Viet Nam	*2.9*	*1.3*	*–56*	Russia	*(56)*	Israel	*(19)*	South Korea	*(6.6)*
21	6	Iraq	*3.4*	*1.2*	*–66*	Russia	*(44)*	United States	*(35)*	Italy	*(10)*
22	25	Italy	*1.0*	*1.2*	*15*	United States	*(72)*	Germany	*(17)*	Israel	*(5.8)*
23	31	Thailand	*0.9*	*1.1*	*20*	South Korea	*(28)*	China	*(20)*	Ukraine	*(9.9)*
24	18	Bangladesh	*1.5*	*1.0*	*–35*	China	*(71)*	Russia	*(9.2)*	United Kingdom	*(5.2)*
25	24	Morocco	*1.3*	*1.0*	*–27*	United States	*(76)*	China	*(14)*	France	*(8.4)*
26	28	Afghanistan	*0.9*	*0.9*	*–4.1*	United States	*(97)*	Brazil	*(2.0)*	Belarus	*(1.1)*

27	23	Oman	*1.3*	*0.9*	*−34*	United Kingdom	*(63)*	Turkey	*(16)*	Norway	*(8.1)*
28	29	Kuwait	*0.9*	*0.9*	*−6.3*	United States	*(56)*	France	*(26)*	Italy	*(9.4)*
29	52	Philippines	*0.3*	*0.9*	*142*	South Korea	*(53)*	United States	*(16)*	Israel	*(8.7)*
30	27	Canada	*1.0*	*0.9*	*−14*	United States	*(43)*	Australia	*(23)*	Israel	*(12)*
31	37	Kazakhstan	*0.7*	*0.8*	*8.1*	Russia	*(91)*	Spain	*(2.2)*	China	*(2.1)*
32	38	Jordan	*0.6*	*0.7*	*11*	United States	*(37)*	Netherlands	*(17)*	UAE	*(14)*
33	33	Brazil	*0.8*	*0.7*	*−17*	United Kingdom	*(19)*	Sweden	*(18)*	France	*(17)*
34	15	Taiwan	*1.9*	*0.7*	*−68*	United States	*(99)*	Germany	*(0.4)*	Italy	*(0.3)*
35	32	Myanmar	*0.9*	*0.6*	*−32*	China	*(36)*	Russia	*(27)*	India	*(17)*
36	41	Poland	*0.6*	*0.6*	*3.4*	United States	*(35)*	Italy	*(12)*	South Korea	*(12)*
37	20	Azerbaijan	*1.4*	*0.5*	*−63*	Israel	*(61)*	Russia	*(22)*	Belarus	*(6.6)*
38	115	NATO[b]	*0.0*	*0.5*	*1 991*	France	*(69)*	United States	*(26)*	Spain	*(3.7)*
39	56	Belarus	*0.3*	*0.5*	*62*	Russia	*(100)*	China	*(0.1)*	. .	. .
40	58	France	*0.2*	*0.5*	*97*	United States	*(42)*	United Kingdom	*(16)*	Brazil	*(15)*
41	65	Angola	*0.2*	*0.4*	*161*	Russia	*(62)*	Lithuania	*(10)*	China	*(9.5)*
42	53	Denmark	*0.3*	*0.4*	*21*	United States	*(57)*	Switzerland	*(21)*	Germany	*(15)*
43	55	Chile	*0.3*	*0.4*	*15*	Australia	*(48)*	Germany	*(17)*	United States	*(13)*
44	46	Malaysia	*0.4*	*0.4*	*−13*	Turkey	*(23)*	China	*(16)*	South Korea	*(15)*
45	35	Mexico	*0.7*	*0.4*	*−53*	Netherlands	*(52)*	United States	*(34)*	France	*(9.8)*
46	48	Nigeria	*0.4*	*0.4*	*−7.2*	China	*(29)*	Russia	*(22)*	Pakistan	*(11)*
47	133	Serbia	*<0.05*	*0.3*	*3 207*	Russia	*(61)*	Belarus	*(32)*	Germany	*(4.3)*
48	39	Turkmenistan	*0.6*	*0.3*	*−47*	Turkey	*(45)*	Italy	*(31)*	France	*(6.8)*
49	63	Romania	*0.2*	*0.3*	*86*	United States	*(49)*	Portugal	*(25)*	Israel	*(13)*
50	30	Greece	*0.9*	*0.3*	*−66*	United States	*(37)*	United Kingdom	*(12)*	Israel	*(3.5)*

. . = not available or not applicable; <0.05 = between 0 and 0.05; NATO = North Atlantic Treaty Organization; UAE = United Arab Emirates.

Notes: Percentages below 10 are rounded to 1 decimal place; percentages over 10 are rounded to whole numbers.

[a] The rank order for recipients in 2012–16 differs from that published in *SIPRI Yearbook 2017* because of subsequent revision of figures for these years.
[b] The data is for imports by the organization itself, not the total imports by NATO member states.

Source: SIPRI Arms Transfers Database, Mar. 2022.

Table 9.6. Imports of major arms, by region and subregion, 2012–16 and 2017–21

Figures for volume of imports are SIPRI trend-indicator values (TIV).

	Volume of imports (TIV)		Change in volume from 2012–16 to	Share of total imports (%)	
Recipient region	2012–16	2017–21	2017–21 (%)	2012–16	2017–21
Africa	11 995	7 949	*−34*	*8.4*	*5.8*
North Africa	7 794	5 211	*−33*	*5.5*	*3.8*
Sub-Saharan Africa	4 196	2 735	*−35*	*2.9*	*2.0*
Americas	11 773	7 537	*−36*	*8.3*	*5.5*
Central America and the Caribbean	1 449	666	*−54*	*1.0*	*0.5*
North America	4 928	4 394	*−11*	*3.5*	*3.2*
South America	5 371	2 419	*−55*	*3.8*	*1.8*
Asia and Oceania	61 662	58 734	*−4.7*	*43*	*43*
Central Asia	2 066	1 898	*−8.1*	*1.4*	*1.4*
East Asia	13 960	16 705	*20*	*9.8*	*12*
Oceania	4 746	7 531	*59*	*3.3*	*5.5*
South Asia	27 401	22 335	*−18*	*19*	*16*
South East Asia	13 489	10 265	*−24*	*9.5*	*7.5*
Europe	14 850	17 654	*19*	*10*	*13*
Central Europe	1 503	2 737	*82*	*1.1*	*2.0*
Eastern Europe	3 331	2 078	*−38*	*2.3*	*1.5*
Western Europe	10 016	12 840	*28*	*7.0*	*9.4*
Middle East	42 108	43 305	*2.8*	*30*	*32*
Other [a]	104	131	*26*	*0.1*	*0.1*

Notes: The SIPRI TIV is an indicator of the volume of arms transfers and not their financial value. The method for calculating the TIV is described in box 9.1 in section I of this chapter. Percentages below 10 are rounded to 1 decimal place; percentages over 10 are rounded to whole numbers.

[a] 'Other' refers to unidentified recipients or to international organizations that cannot be linked to a particular region.

Source: SIPRI Arms Transfers Database, Mar. 2022.

The Americas

Arms imports by states in the Americas decreased by 36 per cent between 2012–16 and 2017–21. This followed a decrease of 21 per cent between 2007–11 and 2012–16. The USA and Canada were the largest importers of major arms in the Americas in 2017–21, accounting respectively for 43 per cent and 15 per cent of the regional total.

The fall in arms imports to the Americas was largely due to a 55 per cent reduction in arms imports by South American states between 2012–16 and 2017–21. In 2017–21 arms imports by South American states were lower than in any five-year period in the past half century. The sharp drop in Venezuelan arms imports between 2012–16 and 2017–21 was one of the key reasons for the overall subregional decrease. Venezuela was the largest arms importer in South America in 2012–16 and accounted for 39 per cent of total arms transfers to the subregion. Venezuela has been badly affected by a severe economic crisis since 2013, which has had an impact on its arms procurement. Venezuela's arms imports in 2017–21 were 96 per cent lower than in 2012–16 and its share of the subregional total fell to 3.8 per cent. Arms transfers to several other large importers in South America also decreased: Brazil's fell by 17 per cent, Colombia's by 67 per cent and Peru's by 54 per cent. In contrast, Chile's arms imports increased by 15 per cent, mainly due to the delivery of two second-hand frigates from Australia.

Brazil and Chile were the largest arms importers in South America in 2017–21, accounting respectively for 37 per cent and for 21 per cent of arms deliveries to the subregion. Brazil is the only state in South America with substantial pending deliveries of arms. These include over 1100 armoured vehicles mainly from Italy, 5 submarines (including one with nuclear propulsion) from France, 4 frigates from Germany and 31 combat aircraft from Sweden. These pending deliveries dwarf those of all other South American states and, while several of these states have plans to acquire new combat aircraft, submarines or frigates, none had placed, or even appeared close to placing, such an order by the end of 2021.

Asia and Oceania

Arms imports by states in Asia and Oceania decreased by 4.7 per cent between 2012–16 and 2017–21. This followed a 25 per cent increase between 2002–2006 and 2007–11, and a further 9.3 per cent increase between 2007–11 and 2012–16. Asia and Oceania remained the largest recipient region, accounting for 43 per cent of global arms imports. Of the 10 largest importers in 2017–21, 6 are in Asia and Oceania: India, Australia, China, South Korea, Pakistan and Japan. The USA accounted for 30 per cent of arms imports by states in the region, followed by Russia with 26 per cent and France with 12 per cent.

For many states in Asia and Oceania, a growing perception of China as a threat is the main driver of arms imports.[7] This at least partly explains why Asia and Oceania has been by far the largest recipient region over the past 30 years as well as the particularly high levels of arms imports by India and many states in East Asia, South East Asia, and Oceania. Current known orders indicate that arms imports by states in Asia and Oceania will remain at a high overall level for at least the coming five years. There is one state in the region, however, that is likely to see a sharp reduction in its arms imports. Afghanistan was the 26th largest arms importer in the world in 2017–21, accounting for 0.9 per cent of the global total, with most of its supplies coming from the

[7] On geopolitical tensions in East Asia see chapter 4, section II, in this volume.

USA in the form of military aid. Since the return to power of the Taliban in August 2021, the USA and other Western suppliers have stopped deliveries of major arms to Afghanistan. It is doubtful that the new government would be able to fund significant acquisitions of major arms within the next few years, but even if it could, it seems unlikely that any of the world's main suppliers would be willing to deliver such arms to the Taliban.[8]

India and Pakistan

Arms imports by India decreased by 21 per cent between 2012–16 and 2017–21. Despite this, India was the world's largest importer of major arms in 2017–21 and accounted for 11 per cent of total global arms imports in the period.

Russia was the largest supplier of major arms to India in both 2012–16 and 2017–21, but India's imports of Russian arms dropped by 47 per cent between the two periods as several large programmes for Russian arms wound down. This, combined with India's increased efforts to diversify its arms supplier base, meant that Russia's share of total Indian arms imports fell from 69 per cent to 46 per cent. In contrast, India's arms imports from France increased more than tenfold, making it India's second largest arms supplier in 2017–21.

Because of perceived growing threats from Pakistan and China and because of significant delays in the production of its own major arms, India has large-scale plans for future arms imports. The drop in India's arms imports is, therefore, probably a temporary result of its slow and complex procurement process as well as its shift in suppliers.

Arms imports by Pakistan decreased by 11 per cent between 2012–16 and 2017–21, but it remained the eighth largest importer globally in 2017–21. Pakistan's political rift with the USA, which dates back to around 2007, has resulted in a significant reduction in US arms supplies to Pakistan, either as aid or in sales, over the past decade.[9] US arms deliveries in 2012–16 were 65 per cent lower than in 2007–11 and dropped by another 92 per cent between 2012–16 and 2017–21. This brought the share of US deliveries to only 1.4 per cent of total arms imports by Pakistan in 2017–21. The USA's unwillingness to supply arms has caused Pakistan to rely even more heavily on imports from China. China accounted for 67 per cent of Pakistan's arm imports in 2012–16 and for 72 per cent in 2017–21. In 2021 the USA refused to allow the export of engines of US design intended for combat helicopters Pakistan had ordered from Turkey, whereupon Pakistan cancelled the order and opened

[8] See also Kuimova, A. and Wezeman, S. T., 'Transfers of major arms to Afghanistan between 2001 and 2020', SIPRI Topical Backgrounder, 3 Sep. 2021. On the armed conflict in Afghanistan see chapter 4, section III, in this volume.

[9] Kronstadt, K. A., 'Pakistan–US relations', In Focus, Congressional Research Service, 8 July 2021.

negotiations with China for an alternative combat helicopter.[10] While the USA restricted almost all arms exports to Pakistan in 2017–21, several West European states continued to deliver major arms. These included Sweden and Italy, which accounted for 6.4 per cent and 5.3 per cent of Pakistan's arms imports, respectively.

India and Pakistan are embroiled in a long-standing conflict with each other over territorial claims to Kashmir, and their acquisitions of major arms often follow an action–reaction pattern.[11] For example, in 2017 India acquired 36 Rafale combat aircraft from France. One reason why India chose the Rafale was because it was supplied with the Meteor air-to-air missile, which has better capability than the US and Chinese missiles Pakistan used on its combat aircraft at that time. Pakistan had acquired the US and Chinese missiles some years before as they had better capability than the Russian missiles deployed on Indian combat aircraft at that time.[12] In 2021 Pakistan ordered 25 J-10C combat aircraft from China in response to India's acquisition of Rafales.[13] Notably, the J-10C can use the PL-15 air-to-air missile, which reportedly has the same range as, or possibly an even longer range than, the Meteor.[14]

Australia

Arms imports by Australia rose by 62 per cent between 2012–16 and 2017–21, making it the fourth largest arms importer globally in 2017–21. The USA accounted for 67 per cent of Australia's imports of major arms, followed by Spain with 24 per cent. The most significant imports included a total of 50 F-35A and EA-18G combat aircraft as well as 11 P-8A anti-submarine aircraft from the USA, and 3 Hobart destroyers from Spain.

Australia also has several large orders with pending deliveries, mostly from the United Kingdom and the USA. Notably, in 2021 Australia cancelled an order of up to 12 conventionally powered (i.e. not nuclear-powered) submarines from France. The decision came as Australia expanded its security cooperation with the UK and the USA under a trilateral agreement (AUKUS

[10] Bekdil, B. E., Ansari, U. and Gould, J., 'Pakistan extends delayed T129 helo deal with Turkey—again', *Defense News*, 15 Mar. 2021; and Herschelman, K., 'Pakistan cancels attack helicopter project with Turkey, opting for China', Janes, 6 Jan. 2022.

[11] On the armed conflict in the Kashmir region, including tensions between India and China, see chapter 4, section III, in this volume.

[12] 'Why IAF is counting on 1 missile on the Rafale fighter to counter China', *The Week*, 30 June 2020; and 'Rafale "game changer" SCALP and Meteor missiles give India a formidable edge', *Economic Times*, 18 Dec. 2020.

[13] 'Pakistan acquires J-10C fighter jets from China to counter India's rafale', *Daily Times*, 30 Dec. 2021.

[14] 'Pakistan officially inducts Chinese-built J-10C fighter jets', Airforce Technology, 14 Mar. 2022; Bronk, J., *Russian and Chinese Combat Air Trends: Current Capabilities and Future Threat Outlook*, Whitehall Report 3-20 (Royal United Services Institute, RUSI: London, Oct. 2020), p. 36; and Chuanren, C., 'New Chinese weapons seen on J-10C fighter', AIN Online, 20 July 2017.

agreement), directed mainly against China. As part of the AUKUS agreement, Australia ordered or selected several types of long-range (400–900 kilometres) land-attack missile from the USA. In addition, the UK and the USA offered to supply at least eight nuclear-powered submarines to Australia.[15] The details of the proposed submarine deal had not been defined as at the end of 2021.

The changes to Australia's submarine programme are an example of how arms acquisition plans can sometimes change rapidly as well as the long time frame between selection and final delivery of major arms. Australia originally planned to replace 6 existing submarines with 10 to 12 boats for delivery from 2026 at a cost of around US$20 billion. In 2014 Australia appeared to favour a submarine of Japanese design. However, in 2016 it signed an agreement with France for 12 submarines at a cost of US$38 billion, with delivery planned for the early 2030s. By early 2021, the cost had increased to around US$70 billion and the start of delivery had been delayed until 2033 or 2034. The new nuclear submarine programme under the proposed deal with the UK and the USA is for much larger boats with more armaments, but at a higher cost—one estimate for the eight submarines was around US$120 billion. If the proposed deal is agreed, delivery would most likely start only in the 2030s or even the 2040s.[16]

East Asia

East Asia accounted for 12 per cent of global imports of major arms in 2017–21. Arms imports by East Asian states rose by 20 per cent between 2012–16 and 2017–21, reflecting the increasing tensions in the subregion. Of the 6 states in East Asia, 3 (China, South Korea and Japan) were among the 10 largest arms importers in 2017–21, despite all 3 having arms industries that can produce indigenous designs covering much or even most of their demands for major arms.

Chinese arms imports remained stable between 2012–16 and 2017–21 and mainly came from Russia in both periods. However, China's arms imports are likely to decrease in the next few years as its industry is now capable of producing all types of major arms and their components. Engines from Russia for Chinese J-10, J-15, J-20 and H-6K combat aircraft and Y-20 transport aircraft make up a significant proportion of China's arms imports. These engines accounted for 39 per cent of total Chinese arms imports in 2017–21. The imports were needed because China's development of indigenous

[15] Australian Department of Defence, 'Australia to pursue nuclear-powered submarines through new trilateral enhanced security partnership', Joint media statement, 16 Sep. 2021; and LaGrone, S., 'CNO Gilday: Developing, building Australian nuclear submarine could take decades', USNI News, 23 Sep. 2021.

[16] LaGrone (note 15); and Nicholls, A., Dowie, J. and Hellyer, M., *Implementing Australia's Nuclear Submarine Programme* (Australian Strategic Policy Institute: Canberra, Dec. 2021).

alternatives was beset with technical problems during most of this period. However, by 2021 it appeared that China had mastered series production of indigenous engine designs and Chinese production of combat and transport aircraft progressed to versions with Chinese engines.[17]

Arms imports by South Korea grew by 71 per cent and those by Japan rose by 152 per cent. The USA was the main supplier to both states in 2017–21. While both South Korea and Japan have large arms industries that are capable of developing many of the most advanced major arms and from which the bulk of their respective acquisitions is sourced, they continue to be partly reliant on foreign suppliers, especially for advanced ('fifth generation') combat aircraft, long-range air defence systems and helicopters. South Korea received, among other major arms, 36 F-35A combat aircraft, 8 Patriot SAM systems and 18 AH-64E combat helicopters from the USA, and 4 Type-214 submarines from Germany. Japan's imports included 27 F-35As and 38 helicopters from the USA. Many of the imports by South Korea and Japan involve production under licence or local production of some components. Both states have active programmes to develop their own advanced combat aircraft, air defence systems and helicopters, and South Korea commissioned its first indigenous submarine in 2021.[18]

Taiwan's arms imports were 68 per cent lower in 2017–21 than in 2012–16. However, its arms imports will increase in the coming five years based on recent orders signed with the USA for 66 F-16V combat aircraft, 108 M-1A2 tanks, and coastal defence systems with Harpoon anti-ship missiles. The US arms sales to Taiwan came as China continued to ramp up pressure on Taiwan, including through increased military activity around and directed towards Taiwan.[19] China not only protested against the sales, as it has done after similar USA–Taiwan deals, but also started to target US companies involved in the sales. In 2020 several major US arms companies were named by China as being sanctioned over sales to Taiwan.[20]

Myanmar

Compared with some other arms-importing states in Asia and Oceania, Myanmar received a relatively low volume of arms deliveries during the

[17] Farley, R. and Lovell, J. T., 'Why China struggles to produce an indigenous jet engine', *National Interest*, 2 Sep. 2021; and Lendon, B., 'China has upgraded its best stealth fighter jet with domestic-made engines', CNN, 29 Sep. 2021.

[18] Manaranche, M., 'ROK Navy commissions her first KSS III submarine', Naval News, 13 Aug. 2021. All submarines acquired by Japan since the mid 1950s have been of indigenous design. See e.g. *Jane's Fighting Ships*, various issues.

[19] Brown, D., 'China and Taiwan: A really simple guide to a growing conflict', BBC News, 12 Jan. 2022.

[20] McDonald, J., AP News, 'China to sanction Boeing, Lockheed and Raytheon over Taiwan arms sales', *Defense News*, 26 Oct. 2020; and AP News, 'China sanctions Raytheon, Lockheed over Taiwan deal', *Defense News*, 22 Feb. 2022.

past decade. Its arms imports decreased by 32 per cent between 2012–16 and 2017–21. Nevertheless, Myanmar accounted for 0.6 per cent of total global arms imports in 2017–21, despite the widespread criticism of its violent military campaign against the Rohingya minority since 2016 and the repression of citizens by the military after the coup in February 2021. Imported major arms were employed by the military in both cases and continue to be used for such purposes.[21] China, Russia and India were Myanmar's main arms suppliers in 2017–21. Deliveries included 30 combat-capable aircraft, with 20 Yak-130s coming from Russia and a total of 10 JF-17s and K-8s coming from China. India delivered 1 submarine and its armaments.

Europe

In 2017–21 arms imports by European states were 19 per cent higher than in 2012–16. The USA accounted for 54 per cent of the region's arms imports in 2017–21, followed by Russia (7.9 per cent) and Germany (6.2 per cent). The increase in European arms imports coincided with rising tensions between most European states and Russia, particularly with regard to Ukraine since 2014.

The three largest importers of major arms in Europe in 2017–21 were the UK, Norway and the Netherlands. All three increased their arms imports significantly between 2012–16 and 2017–21, ranging from 74 per cent for the UK to 116 per cent for the Netherlands and 343 per cent for Norway. They imported a total of 71 F-35 combat aircraft from the USA, which accounted for the bulk of their respective arms imports in 2017–21.

Other European states are also expected to increase their arms imports significantly over the coming decade, based on recent orders for major arms. Poland, for example, made several notable arms procurement decisions in 2017–21. Although its national arms industry will supply part of Poland's armament requirements, most of the new procurement programmes will involve arms imports, in particular from the USA. By the end of 2021, Polish arms procurement agreements with the USA included deals for 32 F-35s, 70 JASSM-ER long-range (1000 km) air-to-ground missiles, 250 M-1A2 tanks, 20 HIMARS multiple rocket launchers with 30 ATACMS ballistic missiles, and 4 Patriot SAM systems.

While the overall volumes of arms imported remained relatively small compared with much larger European states, the three Baltic states (Estonia, Latvia and Lithuania) increased their arms imports significantly between

[21] See e.g. United Nations, Human Rights Council, Enabling Atrocities: UN Member States' Arms Transfers to the Myanmar Military, Conference room paper of the Special Rapporteur on the situation of human rights in Myanmar, A/HRC/49/CRP.1, 22 Feb. 2022. On the armed conflict in Myanmar see chapter 4, section IV, in this volume.

2012–16 and 2017–21. These increases ranged from 113 per cent for Latvia to 119 per cent for Estonia and 152 per cent for Lithuania.

As at the end of 2021, several states in Western Europe had large orders of major arms with pending deliveries. The most significant of these are for aircraft and naval vessels. Examples of pending deliveries of aircraft include a total of 331 F-35s, which will be supplied by the USA to the UK (112), Finland (64), Italy (45), Switzerland (36), Belgium (34), the Netherlands (22) and Norway (18). The USA will also deliver 4 P-8A anti-submarine aircraft to Norway, 5 to Germany and the last aircraft from an order of 9 to the UK. In the naval domain, pending transfers mainly involve contracts between European states. Examples include planned deliveries from Germany of four Type-212 submarines to Norway and two to Italy, and a planned delivery from France of four Gowind-2500 frigates to Romania.

Four states in Europe imported major arms from Russia in 2017–21. Belarus, Russia's closest ally, received almost all of its major arms from Russia, while Armenia received 82 per cent of its major arms from Russia. The other two states—Azerbaijan (which received 22 per cent of its major arms from Russia) and Serbia (61 per cent)—were less reliant on Russia for their arms imports.

Ukraine

Despite the armed conflict in the east of the country with rebel forces supported by Russia that continued throughout 2017–21 and its inventory of generally older types of major arms that are in many cases coming to the end of their useful lives, Ukraine's imports of major arms were very limited in 2017–21 and accounted for only 0.1 per cent of total global arms imports in the period.[22] Most of the deliveries of major arms to Ukraine in 2017–21 had more of a political than military significance and were mainly intended to show support for Ukraine as tensions with Russia intensified. The transfer to Ukraine with potentially the largest military impact on its conflict with the rebel forces on its eastern flank was Turkey's delivery of 12 Bayraktar TB-2 armed UAVs in 2019–21. These were a new capability for Ukraine and were reportedly first used against rebel forces in 2021. Additional deliveries of UAVs from Turkey were pending as at the end of 2021.[23] As the tensions between Russia and Ukraine worsened in late 2021, raising the spectre of a Russian invasion, the USA sent additional military aid—such as deliveries of Javelin light, but advanced, anti-tank missiles—and agreed to make further supplies in 2022, including another 300 Javelin missiles. In addition, Estonia

[22] For further detail on Ukraine's inventory of major arms see e.g. International Institute for Strategic Studies, *The Military Balance 2022* (Routledge: Abingdon, Feb. 2022), pp. 211–15. On the armed conflict in Ukraine see chapter 5, section II, in this volume.

[23] 'More Bayraktar TB2 UCAS for Ukraine', Scramble, 17 Jan. 2022; and Jennings, G., 'Ukraine conflict: Turkey airlifts additional TB2 UCAVs to Ukraine', Janes, 2 Mar. 2022.

agreed in December 2021 to supply around 50 Javelin missiles to Ukraine as aid.[24]

Czechia was the main supplier of major arms to Ukraine in 2017–21, accounting for 41 per cent of total Ukrainian arms imports and delivering 87 BMP-1 infantry fighting vehicles and 56 self-propelled guns—all second-hand equipment of Soviet origin. The USA was the second largest supplier, accounting for 31 per cent. US deliveries, mainly as aid, included 540 Javelin missiles. France, Lithuania, Poland and Turkey were Ukraine's only other suppliers of major arms in 2017–21.

The low level of arms transfers to Ukraine in 2017–21 is partly explained by its limited financial resources.[25] It also has a local arms industry capable of producing some major arms and a large, albeit ageing, inventory of military equipment. In addition, up until the Russian invasion in February 2022, several European Union (EU) member states, including Germany, had been reluctant to provide Ukraine with military equipment due to concerns that transfers of major arms could contribute to conflict escalation or hinder a dialogue with Russia on a peaceful solution.[26]

The Middle East

Arms imports by states in the Middle East were 2.8 per cent higher in 2017–21 than in 2012–16. This followed an 86 per cent increase between 2007–11 and 2012–16. Four of the top 10 arms-importing states in 2017–21 are in the Middle East: Saudi Arabia, Egypt, Qatar and the UAE. The USA accounted for 53 per cent of arms imports by states in the region, followed by France (12 per cent) and Russia (11 per cent).

The Gulf region

As the conflict in Yemen continued and tensions between several states and Iran remained high, arms imports played an important role in security developments in the Gulf region in 2017–21.[27] Saudi Arabia, for example, increased its arms imports by 27 per cent between 2012–16 and 2017–21.

[24] 'State planning artillery, missile system supply to Ukrainian armed forces', ERR.ee, 31 Dec. 2021. Many NATO and EU member states decided to supply weapons, including major arms, to Ukraine in early 2022—just before or after the start of the Russian invasion of Ukraine on 24 Feb. 2022. This included states that had previously been reluctant to supply weapons. The data presented here covers decisions and deliveries until 31 Dec. 2021. The decisions and deliveries made in 2022 are thus not included.

[25] For further detail on Ukraine's military expenditure see chapter 8, section II, in this volume.

[26] Minzarari, D. and Stewart, S., 'The logic of defence assistance to Ukraine: A strategic assessment', SWP Comment no. 42, German Institute for International and Security Affairs (SWP), 9 July 2021; Neukirch, R., 'Germany's position on weapons for Ukraine makes no sense: Balderdash from Berlin', *Der Spiegel*, 28 Jan. 2022; and Kurmayer, N. J., 'Germany rejects military aid to Ukraine, prefers political solution', Euractiv, 2 June 2021.

[27] On the armed conflict in Yemen see chapter 6, section V, in this volume.

It received 11 per cent of total global arms imports, making it the second largest arms importer in the world, just behind India. The USA accounted for 82 per cent of Saudi Arabian arms imports in 2017–21. US arms supplies included 97 F-15SA combat aircraft, a type used by Saudi Arabia in the war in Yemen, and 8 Patriot air defence systems, a type used against missiles fired by Houthi rebels in Yemen. The USA also supplied thousands of guided bombs, although further deliveries of such bombs were reportedly suspended in 2021 by the administration of President Joe Biden. Several other states have restricted arms exports to Saudi Arabia partly because of its military operations in Yemen. For example, Germany maintained in 2021 significant restrictions on arms exports to Saudi Arabia, which were first imposed in 2018.[28] Nevertheless, such restrictions had only a limited effect on the overall capacity of Saudi Arabia to import major arms and, by the end of 2021, several deliveries from other states were pending. These included 51 F-15SA combat aircraft from the USA, 5 Avante-2200 frigates from Spain and hundreds of LAV-700 armoured vehicles from Canada.

During 2017–21, the UAE was active in the war in Yemen as well as in the war in Libya. Despite this, its arms imports dropped by 41 per cent between 2012–16 and 2017–21, taking it from the third largest to the ninth largest arms importer globally. Based on pending deliveries under current contracts, however, the volume of arms imports by the UAE is likely to remain at a high level in the coming five years. The largest of these deals, for 80 Rafale combat aircraft from France, was agreed in 2021 and deliveries are expected to start in 2027.

Some major arms-supplying states have restricted arms exports to the UAE because of its role in the war in Yemen but, as with Saudi Arabia, these restrictions appear to have had only a limited impact on the UAE's ability to acquire arms. For example, in 2019 Italy restricted exports of arms to the UAE (and Saudi Arabia) that might be used in Yemen. However, in July 2021, after the UAE threatened to limit its military and trade relations with Italy, the restrictions were significantly loosened.[29]

Qatar's arms imports grew by 227 per cent between 2012–16 and 2017–21, propelling it from being the 22nd largest arms importer to the 6th largest. For the large-scale expansion of its armed forces that began in around 2010, Qatar has turned to several of the world's major arms suppliers. In 2017–21 Qatar received 46 per cent of its arms imports from the USA and 36 per cent from France. By the end of 2021, Qatar had large deliveries of major arms pending from the USA, France, Italy and the UK.

[28] 'Saudi-Arabien kritisiert deutschen Rüstungsexportstopp' [Saudi Arabia criticizes German arms export ban], *Der Spiegel*, 23 Feb. 2022.

[29] Amante, A., 'Italy eases curbs on arms sales to Saudi Arabia and UAE', Reuters, 6 July 2021.

Kuwait was outside the top 25 arms importers in 2017–21. However, it will probably be among this group in future years as it has pending deliveries scheduled for 2021–23 for 28 F/A-18E combat aircraft and 109 tanks from the USA and 26 Typhoon combat aircraft from Italy.

Iran's arms imports remained at a very low level in 2017–21 (at less than 0.05 per cent of global arms imports, compared with 0.3 per cent in 2012–16). Although the United Nations lifted its decade-long arms embargo on Iran in 2020, there was no publicly available evidence, as at the end of 2021, that Iran had since ordered or received notable volumes of major arms from abroad.[30]

Egypt

Egypt was the third largest arms importer in the world in 2017–21. Its arms imports accounted for 5.7 per cent of the global total and were 73 per cent higher than in 2012–16. The USA, which has been giving military aid to Egypt since 1978, was the largest arms supplier to Egypt in every five-year period between 1977 and 2016. However, arms imports from the USA fell by 70 per cent between 2012–16 and 2017–21. The USA accounted for only 6.5 per cent of Egyptian arms imports in 2017–21, making it the fifth largest supplier of major arms to Egypt.

Partly because of frictions with the USA since Egypt's military coup in 2013, Egypt has intensified its efforts to diversify its arms supplier base. Following the USA's decision in 2013 to suspend temporarily its military aid and arms deliveries to Egypt, Russia and France were among the first arms exporters to reaffirm their willingness to supply major arms to Egypt.[31] In 2017–21 Russia emerged as Egypt's largest supplier and accounted for 41 per cent of Egyptian arms imports, followed by France (21 per cent), Italy (15 per cent) and Germany (11 per cent).

Given that Egypt remains one of the USA's most important strategic partners in the Middle East, it seems likely that US arms exports to Egypt will start to grow again in the near future—even despite the concerns raised repeatedly by various civil society organizations and US politicians over Egypt's record of human rights violations.[32] The restrengthening of arms trade relations between the two states can be illustrated by the ongoing negotiations between Egypt and the USA for the purchase of F-15EX combat aircraft.[33] The F-15EX is very similar in capabilities to the Su-35 produced

[30] On multilateral arms embargoes see chapter 14, section II, in this volume.

[31] '3.2 billion euros of Egypt–French arms deal financed by loan from Paris: Sisi', Reuters, 1 Mar. 2015; and 'Russia, Egypt seal preliminary arms deal worth $3.5 billion: Agency', Reuters, 17 Sep. 2014.

[32] O'Brien, C., 'Senate rejects bid to block $2B sale of military planes to Egypt', Politico, 10 Mar. 2022; and US Department of State, 'US relations with Egypt', Bilateral Relations Fact Sheet, 5 Jan. 2021. On the armed conflict in Egypt see chapter 6, section IV, in this volume.

[33] Jennings, G., 'US to supply F-15s to Egypt', Janes, 16 Mar. 2022.

by Russia and this development suggests that Egypt's order for Su-35s from Russia may have been suspended or cancelled (see section II).

Israel

Israeli arms imports increased by 19 per cent between 2012–16 and 2017–21. The USA accounted for 92 per cent of Israeli arms imports in 2017–21, which included 31 F-35 combat aircraft and thousands of guided bombs supplied as military aid. The F-35, Israel's most advanced combat aircraft, has since 2018 been used in air strikes on targets in Gaza, Lebanon and Syria.[34] It is also widely considered to be a key component of Israel's capacity to potentially attack targets in Iran.[35] Pending arms imports by Israel include 17 F-35s and 2 tanker aircraft from the USA, and 4 MEKO frigates, 1 Dolphin submarine and 3 Dakar submarines from Germany.

[34] Pfeffer, A., 'Hamas in Gaza, Iranians in Syria: Israel's F-35 strikes carried message to both enemies and allies', *Haaretz*, 24 May 2018.

[35] Lewis, O., 'Netanyahu says Israel "mightier" as first F-35 fighter jets arrive', Reuters, 12 Dec. 2016; and Gross, J. A., 'In first, Israeli F-35s train in Italy with Iran in their sights', *Times of Israel*, 6 June 2021.