II. Developments among the suppliers of major arms, 2017–21

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SIPRI has identified 60 states as exporters of major arms in 2017–21.[1] The five largest suppliers of arms during that period—the United States, Russia, France, China and Germany—accounted for 77 per cent of all arms exports (see table 9.1). This is slightly higher than in 2012–16 and 2007–11, when the top five—the same five states—accounted for 74 per cent in both periods. US and French arms exports rose between 2012–16 and 2017–21, while Russian, Chinese and German arms exports fell.

The top 25 arms exporters supplied 99 per cent of the world's arms exports in 2017–21 (see table 9.1). Of these 25 states, 15 are in the Euro-Atlantic space (i.e. North America and Europe, including Russia), 4 are in Asia and Oceania, 4 are in the Middle East (including Turkey), 1 is in Africa and 1 is in South America.[2] States in North America (i.e. Canada and the USA) and Europe together accounted for 87 per cent of all arms exports in 2017–21. The top five West European arms exporters—France, Germany, Italy, the United Kingdom and Spain—supplied 24 per cent of total global arms exports in 2017–21, compared with 21 per cent in 2012–16. Three states outside Europe and North America were among the top 10 arms exporters in 2017–21: China, South Korea and Israel.

The concentration of suppliers in the Euro-Atlantic space has been a feature of the entire period covered by the SIPRI Arms Transfers Database (1950–2021). Many of the states listed in the top 25 for 2017–21 have also appeared in this list in previous periods: 23 were among the top 25 in 2012–16, 21 in 2007–11 and 20 in 2002–2006.

The two largest arms exporters, the USA and Russia, have long dominated the international supply of arms. However, the gap between the two states in terms of their shares of global arms exports continues to widen: the USA's arms exports were 108 per cent higher than Russia's in 2017–21, compared with 34 per cent higher in 2012–16 and 22 per cent higher in 2007–11. Known pending deliveries from the USA and Russia, and indications from plans for major arms acquisitions by many of the larger importers, strongly suggest that the gap will increase further in the coming years. For example, combat aircraft have in recent years made up the majority of US and Russian arms

[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.

[2] On SIPRI's regional coverage see the list of conventions in this volume and the SIPRI website.

exports, but by the end of 2021 the USA had pending deliveries for a total of 905 combat aircraft, while Russia had export orders for just 60 (see table 9.2). In addition, by the end of 2021, several states were very close to placing large orders for combat aircraft from the USA. Canada, for example, plans to order 88 combat aircraft and has expressed a preference for F-35s from the USA.[3] Having reportedly cancelled their orders for Russian Su-35 aircraft, Egypt and Indonesia are both likely to order equivalent combat aircraft from the USA (see below). For most other types of major arms, pending exports from the USA far outnumber those of Russia. Notably, France has a significantly higher number of combat aircraft awaiting delivery (188) than Russia and its pending exports of several other types of major arms are also far higher than those of Russia, raising the real possibility of France overtaking Russia to become the world's second largest exporter of major arms within a few years.

The rest of this section reviews the arms exports and arms export policies of the top three suppliers in 2017–21 and then provides an overview of arms exports by some of the other major suppliers in the period.

The United States

The USA's arms exports grew by 14 per cent between 2012–16 and 2017–21, increasing its global share from 32 per cent to 39 per cent. The USA delivered major arms to 103 states in 2017–21, far more than any other supplier. Aircraft were the USA's main arms export in 2017–21, making up 62 per cent of its total arms exports (see table 9.3), followed by missiles (17 per cent) and armoured vehicles (10 per cent). By the end of 2021, there was a long list of large contracts for US arms exports, with deliveries planned from 2022 to the end of the decade. Of these, the planned deliveries of a total of 905 combat aircraft, including 600 F-35s, to 23 countries are among the most significant.

The Middle East accounted for 43 per cent of total US arms exports in 2017–21 (see table 9.4), a slight drop on the 47 per cent share in 2012–16. A total of 33 per cent of US arms exports went to states in Asia and Oceania in 2017–21, compared with 34 per cent in 2012–16. US arms exports to Europe increased by 105 per cent, with European states receiving 18 per cent of total US arms exports in 2017–21.

The growth in US arms exports between 2012–16 and 2017–21 was largely due to increases in arms exports to Saudi Arabia, Australia, South Korea and Japan—the four main recipients of US arms exports in 2017–21. US arms exports to Saudi Arabia rose by 106 per cent and it alone accounted for 23 per cent of total US arms exports in the period. US arms exports to

[3] Canadian Government, Public Services and Procurement Canada, 'Canada moves closer to delivering 88 advanced fighter jets for the Royal Canadian Air Force as it begins negotiations with the top-ranked bidder, the US Government and Lockheed Martin, for the F-35', News release, 28 Mar. 2022.

Table 9.1. The 40 largest suppliers of major arms and their main recipients, 2017–21

Rank			Share of total global exports (%)		Change in volume (%) from 2012–16 to 2017–21	Main recipients (share of exporter's total exports, %), 2017–21					
2017–21	2012–16[a]	Exporter	2012–16	2017–21		1st		2nd		3rd	
1	1	United States	*32*	*39*	*14*	Saudi Arabia	*(23)*	Australia	*(9.4)*	South Korea	*(6.8)*
2	2	Russia	*24*	*19*	*−26*	India	*(28)*	China	*(21)*	Egypt	*(13)*
3	3	France	*6.4*	*11*	*59*	India	*(29)*	Qatar	*(16)*	Egypt	*(11)*
4	4	China	*6.4*	*4.6*	*−31*	Pakistan	*(47)*	Bangladesh	*(16)*	Thailand	*(5.0)*
5	5	Germany	*5.4*	*4.5*	*−19*	South Korea	*(25)*	Egypt	*(14)*	United States	*(6.1)*
6	7	Italy	*2.5*	*3.1*	*16*	Egypt	*(28)*	Turkey	*(15)*	Qatar	*(9.0)*
7	6	United Kingdom	*4.7*	*2.9*	*−41*	Oman	*(19)*	Saudi Arabia	*(19)*	United States	*(19)*
8	14	South Korea	*1.0*	*2.8*	*177*	Philippines	*(16)*	Indonesia	*(14)*	United Kingdom	*(14)*
9	10	Spain	*2.2*	*2.5*	*10*	Australia	*(51)*	Turkey	*(13)*	Belgium	*(8.6)*
10	9	Israel	*2.5*	*2.4*	*−5.6*	India	*(37)*	Azerbaijan	*(13)*	Viet Nam	*(11)*
11	11	Netherlands	*2.0*	*1.9*	*−12*	Indonesia	*(18)*	United States	*(16)*	Mexico	*(10)*
12	16	Turkey	*0.7*	*0.9*	*31*	Turkmenistan	*(16)*	Oman	*(16)*	Qatar	*(14)*
13	12	Sweden	*1.2*	*0.8*	*−35*	Pakistan	*(24)*	United States	*(24)*	Brazil	*(15)*
14	8	Ukraine	*2.5*	*0.7*	*−72*	China	*(39)*	Thailand	*(15)*	Russia[c]	*(13)*
15	13	Switzerland	*1.0*	*0.7*	*−35*	Australia	*(25)*	Denmark	*(12)*	France	*(8.7)*
16	21	Australia	*0.3*	*0.6*	*98*	Canada	*(33)*	Chile	*(29)*	United States	*(18)*
17	15	Canada	*0.8*	*0.5*	*−41*	Saudi Arabia	*(47)*	UAE	*(22)*	Australia	*(6.8)*
18	19	UAE	*0.3*	*0.4*	*17*	Egypt	*(31)*	Jordan	*(24)*	Algeria	*(15)*
19	20	South Africa	*0.3*	*0.3*	*−5.8*	UAE	*(26)*	United States	*(21)*	India	*(12)*
20	18	Belarus	*0.5*	*0.3*	*−42*	Serbia	*(34)*	Vietnam	*(25)*	Uganda	*(14)*
21	24	Brazil	*0.2*	*0.3*	*48*	France	*(23)*	Nigeria	*(13)*	Chile	*(11)*
22	17	Norway	*0.6*	*0.3*	*−57*	Oman	*(27)*	United States	*(21)*	Lithuania	*(14)*
23	31	India	*0.1*	*0.2*	*119*	Myanmar	*(50)*	Sri Lanka	*(25)*	Armenia	*(11)*
24	22	Czechia	*0.3*	*0.2*	*−36*	United States	*(28)*	Ukraine	*(26)*	Uganda	*(13)*
25	26	Jordan	*0.1*	*0.2*	*5.0*	United States	*(40)*	Egypt	*(36)*	Armenia	*(10)*

26	33	Belgium	*0.1*	*0.1*	*59*	Saudi Arabia	*(61)*	Indonesia	*(24)*	Argentina	*(5.9)*
27	38	Indonesia	*0.1*	*0.1*	*58*	Philippines	*(69)*	Senegal	*(19)*	Nepal	*(6.6)*
28	23	Finland	*0.2*	*0.1*	*–62*	Poland	*(56)*	United Kingdom	*(22)*	Portugal	*(6.2)*
29	28	Portugal	*0.1*	*0.1*	*–40*	Romania	*(95)*	Cabo Verde	*(2.5)*	Colombia	*(2.5)*
30	37	Serbia	*0.1*	*0.1*	*2.1*	Cyprus	*(40)*	Bangladesh	*(28)*	Turkmenistan	*(7.1)*
31	32	Denmark	*0.1*	*0.1*	*–28*	Portugal	*(29)*	Argentina	*(23)*	Malaysia	*(22)*
32	. .	Lithuania	. .	*<0.05*	. .	Angola	*(97)*	Ukraine	*(3.2)*	. .	. .
33	30	Bulgaria	*0.1*	*<0.05*	*–66*	Côte d'Ivoire	*(39)*	Saudi Arabia	*(25)*	Angola	*(20)*
34	57	Pakistan	*<0.05*	*<0.05*	*5 800*	Nigeria	*(92)*	Azerbaijan	*(3.4)*	Qatar	*(3.4)*
35	36	Austria	*0.1*	*<0.05*	*–41*	Latvia	*(42)*	Australia	*(23)*	Czechia	*(11)*
36	27	Poland	*0.1*	*<0.05*	*–76*	Ukraine	*(30)*	Germany/Nepal[b]	*(13)*	Lithuania	*(6.4)*
37	. .	Qatar	. .	*<0.05*	. .	Pakistan	*(64)*	Somalia	*(19)*	Burkina Faso	*(7.1)*
38	42	Slovakia	*<0.05*	*<0.05*	*15*	Azerbaijan	*(62)*	Senegal	*(26)*	Saudi Arabia	*(7.7)*
39	. .	Greece	. .	*<0.05*	. .	Canada	*(100)*	. .	. .	. .	. .
40	64	Colombia	*<0.05*	*<0.05*	. .	Guatemala/ Honduras[b]	*(42)*	Peru	*(17)*	. .	. .

. . = not available or not applicable; – = no deliveries; <0.05 = between 0 and 0.05; 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 suppliers in 2012–16 differs from that published in *SIPRI Yearbook 2017* because of subsequent revision of figures for these years.
[b] The two importers received the same volume of arms transfers from the exporter.
[c] This involved transport aircraft produced in Russia until 2018 under licences granted before Ukraine banned arms sales to Russia in 2014.

Source: SIPRI Arms Transfers Database, Mar. 2022.

Table 9.2. Selected major arms on order or chosen for future orders from the five largest arms suppliers for delivery after 2021

Figures are units of major arms.

	Supplier				
	USA	Russia	France	China	Germany
Combat aircraft	905	60	188	85	–
Helicopters	788	235	310	–	68
Transport aircraft	37	–	6	1	–
Major surface ships	4	4	14	3	14
Submarines	–	1	7	9	17
Tanks	654	500	–	174	44
Other armoured vehicles	2 633	238	540	–	1 390
Surface-to-air missile systems	32	16	3	–	21

– = no orders.

Note: Orders are as of 31 Dec. 2021.

Source: SIPRI Arms Transfers Database, Mar. 2022.

Australia increased by 78 per cent, while those to South Korea and Japan rose by 66 per cent and 173 per cent respectively.

These large increases were partly offset by decreases in exports to several states that have been among the largest recipients of US arms in previous periods. The United Arab Emirates (UAE), for example, was the 2nd largest recipient of US arms in 2012–16, but was only the 8th largest in 2017–21. Similarly, Turkey dropped from 3rd to 21st largest and Taiwan from 4th to 15th largest. In the case of Turkey, the decline was directly linked to a severe political rift with the USA and there were few pending US arms deliveries to Turkey by the end of 2021.[4] In contrast, based on known pending deliveries, US arms exports to the UAE are expected to remain high and arms exports to Taiwan are expected to increase significantly over the coming five years.

Developments in US arms export policy in 2021

Soon after the administration of President Joe Biden took office in January 2021, it started a review of US arms export policies and decisions.[5] In February 2021 President Biden announced that the USA was ending all support for offensive operations by the coalition led by Saudi Arabia involved in the war in Yemen, including relevant arms sales to Saudi Arabia.[6] The most important outcome of the ensuing review of US arms exports to Saudi Arabia appears to have been the suspension of the sale of an unknown quantity of guided

[4] Zanotti, J. and Thomas, C., *Turkey: Background and US Relations In Brief*, Congressional Research Service (CRS), Report for Congress R44000 (US Congress, CRS: Washington, DC, 30 Dec. 2021), p. 1.

[5] Blinken, A. J., US Secretary of State, US Department of State, Remarks to the press, Washington, DC, 27 Jan. 2021.

[6] White House, 'Remarks by President Biden on America's place in the world', 4 Feb. 2021. On the armed conflict in Yemen see chapter 6, section V, in this volume.

Table 9.3. Deliveries by arms category by the 10 largest suppliers of major arms, 2017–21

Figures are the percentage share of each category of major arms in the exports of the 10 largest suppliers in 2017–21.

	Supplier										
Arms category	USA	Russia	France	China	Germany	Italy	UK	South Korea	Spain	Israel	World[a]
Aircraft	62	48	56	28	12	43	39	12	44	6.8	47
Air defence systems	2.9	6.4	1.9	6.6	1.7	–	0.7	–	–	16	3.6
Armoured vehicles	10	11	2.5	21	15	6.1	0.8	0.9	0.9	0.5	10
Artillery	0.2	0.2	0.8	1.8	0.8	1.7	5.3	19	0.6	1.2	1.3
Engines	2.6	16	5.5	–	13	<0.05	13	–	–	–	6.2
Missiles	17	12	12	16	11	3.7	14	0.4		41	13
Naval weapons	0.9	0.6	0.3	0.2	–	2.6	–	–	–	0.5	0.6
Satellites	–	0.2	1.0	–	–	–	–	–	–	1.5	0.2
Sensors	2.8	1.1	4.3	2.9	8.6	5.2	2.8	–	2.7	17	3.8
Ships	1.3	4.5	15	23	38	37	7.1	68	52	9.9	13
Other	–	0.3	0.1	–	–	0.8	17	–	<0.05	5.7	0.9

– = no deliveries; <0.05 = between 0 and 0.05.

Notes: On SIPRI's categories of major arms see 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] 'World' is the share of each category for all suppliers globally.

Source: SIPRI Arms Transfers Database, Mar. 2022.

bombs, which had been agreed in 2020 by the administration of President Donald J. Trump.[7] The Biden administration also reviewed a letter of agreement for the sale of 50 F-35 combat aircraft to the UAE signed by the Trump administration in January 2021. In April 2021 it decided to proceed with the sale, but negotiations were eventually suspended by the UAE in December (see below).[8] In addition, the Biden administration worked on a new US Conventional Arms Transfer policy in 2021, which is expected to put more emphasis during the arms export decision-making process on the human rights conditions in potential recipient states.[9] This policy had not been finalized as at the end of 2021.

Based on the existing contracts at the end of 2021, it appeared that the Biden administration had not, by that point, altered US arms export policies

[7] Blanchard, C. M., *Saudi Arabia: Background and US Relations*, Congressional Research Service (CRS), Report for Congress RL33533 (US Congress, CRS: Washington, DC, 5 Oct. 2021), pp. 2, 28.

[8] Katzman, K., *The United Arab Emirates (UAE): Issues for US Policy*, Congressional Research Service (CRS), Report for Congress RS21852 (US Congress, CRS: Washington, DC, 28 Oct. 2021), p. 16.

[9] Kirshner, J., 'Will Biden's Conventional Arms Transfer policy be an evolution or a revolution?', Breaking Defense, 14 Jan. 2022; and Cohen, J., 'Biden's Conventional Arms Transfer policy review could be a turning point', CATO Institute, Commentary, 29 Nov. 2021.

Table 9.4. The 10 largest suppliers of major arms and their recipients, by region, 2017–21

Figures are the percentage shares of the supplier's total volume of exports of major arms delivered to each recipient region in 2017–21.

	Supplier									
Recipient region	USA	Russia	France	China	Germany	Italy	UK	South Korea	Spain	Israel
Africa	2.6	14	3.4	13	3.8	6.7	0.2	0.2	0.8	1.2
Americas	2.2	<0.05	5.0	<0.05	10	7.0	25	7.8	12	15
Asia and Oceania	33	61	47	79	40	16	21	63	56	57
Europe	18	5.5	4.9	0.4	18	7.4	10	24	13	26
Middle East	43	20	37	7.2	29	63	44	5.2	18	–

– = no deliveries; <0.05 = between 0 and 0.05.

Notes: Percentages below 10 are rounded to 1 decimal place; percentages over 10 are rounded to whole numbers. Figures may not always add up to 100% because of the conventions of rounding and because some suppliers exported small volumes of major arms to unidentified recipients or to international organizations that cannot be linked to a particular region.

Source: SIPRI Arms Transfers Database, Mar. 2022.

in a way that was likely to have a major effect on the total volume of arms exported by the USA in the short term. For example, by the end of 2021, pending deliveries to Saudi Arabia included 51 F-15SA combat aircraft—a type that has been used by Saudi Arabia to attack targets in Yemen—ordered in 2011.[10] In 2021 the USA also continued to sign major arms deals with states in all regions of the world. As was the case under previous administrations, the Biden administration generally presented its arms deals as being a key element of US foreign and security policy.

The USA has established policies and legislation aimed at limiting the global influence of China and Russia. These policies and laws continued to have an important effect on US arms trade relations in 2021, both in terms of the potential volume of arms involved and in terms of the USA's strategic interests.

One key piece of legislation in this area is the 2017 Countering America's Adversaries Through Sanctions Act (CAATSA), which, among other things, gives the US government the authority to restrict US arms exports to countries that buy arms from Russia.[11] In 2017–21 the act had a notable impact on US arms exports to Turkey—a long-term ally of the USA and member of the North Atlantic Treaty Organization (NATO). Invoking CAATSA, the USA halted deliveries of the first batch of up to 100 F-35 combat aircraft to Turkey

[10] See e.g. 'Yemen war: Democrats introduce bill to stop US support for Saudi air force', Middle East Eye, 2 Feb. 2022; and Naar, I., 'Saudi-led coalition begins air raids on Houthis in Yemen capital Sanaa', The National, 18 Jan. 2022.

[11] Countering America's Adversaries Through Sanctions Act, US Public Law 115-44, signed into law 2 Aug. 2017.

in 2019 after Turkey imported S-400 surface-to-air missile (SAM) systems from Russia. The USA imposed further related sanctions against Turkey under CAATSA in 2020.[12] The two states did not find a solution to the disagreement in 2021 and US arms exports to Turkey remained very low.

In 2018 India also ordered S-400 systems from Russia and the first batch was delivered in 2021. In contrast to its reaction to Turkey's acquisition of S-400s, the USA did not impose any specific restrictions on arms deliveries to India during 2021.[13] In 2017–21 India was the ninth largest recipient of US arms exports. The arms transfers made during the period are generally seen as an important part of efforts to strengthen strategic ties between the USA and India, especially considering that both states perceive China to be a major military threat. This possibly explains why the USA has so far declined to invoke CAATSA against India.

In December 2021 the UAE suspended negotiations on a contract for 50 F-35s that both the Trump and Biden administrations had already agreed to in principle. The decision was at least partly in reaction to US pressure on the UAE aimed at halting the UAE's planned acquisition of 5G telecommunication technology from China.[14]

Russia

Russia's arms exports fell by 26 per cent between 2012–16 and 2017–21, and its share of global arms exports decreased from 24 per cent to 19 per cent. Russia delivered major arms to 45 states in 2017–21. In contrast to the USA, Russia's deliveries in 2017–21 were more concentrated as four states—India, China, Egypt and Algeria—together received 73 per cent of total Russian arms exports. Asia and Oceania remained the largest recipient region of Russian arms, accounting for 61 per cent of total Russian arms exports, followed by the Middle East (20 per cent) and Africa (14 per cent). Aircraft were Russia's main arms export in 2017–21. They accounted for 48 per cent of its total arms exports, followed by engines, mainly for aircraft (16 per cent), and missiles (12 per cent).

The overall drop in Russian arms exports between 2012–16 and 2017–21 was almost entirely due to decreases in arms exports to Algeria, India and Viet Nam. While India remained the chief recipient of Russian arms in 2017–21, Russian arms exports to India fell by 47 per cent between 2012–16 and 2017–21. Arms exports to Viet Nam and Algeria, which were the second and third largest recipients of Russian arms in 2012–16, decreased by

[12] Zanotti and Thomas (note 4), pp. 7–9.

[13] Basu, N. and Philip, S. A., 'US unlikely to impose CAATSA sanctions on India for S-400, but other Russian deals won't be easy', The Print, 3 Dec. 2021.

[14] England, A. and Kerr, S., 'UAE suspends talks with US over purchase of F35 fighter jets', *Financial Times*, 14 Dec. 2021.

71 per cent and 17 per cent, respectively, between the two periods. The decline in Russia's arms supplies to these states appears to be largely attributable to demand-side factors. These include national procurement cycles, whereby high levels of deliveries of major arms are followed by lower levels as the new arms are integrated in the armed forces, and efforts by these states to diversify their respective arms supplier bases to fulfil their arms procurement plans (see section III).[15] Although a number of arms export contracts signed over the past 10 years had been completed by the end of 2021—including deliveries of 42 Su-30MKI combat aircraft to India and 42 Mi-28NE combat helicopters to Algeria—several large Russian arms deliveries are still pending. These include 8 S-400 SAM systems, 4 Talwar frigates and 1 Project-971I nuclear-powered submarine to India and a total of 28 combat aircraft to Algeria (22) and Viet Nam (6).

Substantial increases in Russia's arms exports to China (60 per cent) and Egypt (723 per cent)—which in 2017–21 became the second and third largest recipients of Russian arms, respectively—did not offset the other decreases in its arms exports. In 2017–21 both China and Egypt received SAM systems and combat aircraft from Russia.

Notably, the delivery status of several major Russian arms deals remained uncertain as at the end of 2021. Among these deals was the implementation of a contract, signed in 2019, for 24 Su-35 combat aircraft for Egypt. The reasons for the delay in implementing the Su-35 deal are unclear but may be attributed to a combination of factors, including disruption to Russia's planned production and delivery schedules arising from the Covid-19 pandemic, and pressure reportedly applied on Egypt by the USA that the deal risked triggering US sanctions under CAATSA.[16] In early 2022 multiple media outlets reported that the deal might have been cancelled.[17]

In 2017–21 Russia continued to be the main arms supplier to many states of the former Soviet Union. Russian deliveries of major arms in the period included eight Su-30MK combat aircraft to Kazakhstan and four Tor-M2 air defence systems to Belarus. Russia's military cooperation with Kazakhstan and Belarus, including through arms transfers, is aimed at maintaining the military potential of those states 'to prevent a military threat and repel

[15] Ybarra, M., 'The politics of selling weapons to Algeria', *National Interest*, 7 Mar. 2019; and Gady, F., 'India's Army approves "Emergency Purchase" of 240 Israeli anti-tank guided missiles', The Diplomat, 17 Apr. 2019.

[16] [Source: Russia started production of Su-35 for Egypt], TASS, 16 May 2020 (in Russian); and Cornwell., A., 'Egypt risks US sanctions over Russian fighter jet deal: US official', Reuters, 18 Nov. 2019.

[17] See e.g. Martin, T., 'Suspected collapse of Su-35 deal sees US agree Egyptian F-15 order', Shephard Media, 18 Mar. 2022; and Malyasov, D., 'Egypt, Algeria, Indonesia reject Su-35 fighter jet deals with Russia', Defence Blog, 4 Jan. 2022.

aggression in the common defense space'.[18] After a 26 per cent increase in Russian arms exports to Kazakhstan between 2012–16 and 2017–21, Kazakhstan became the sixth largest recipient of Russian major arms and the top importer of Russian arms among the states of the former Soviet Union. It accounted for 4.0 per cent of all Russian arms supplies in 2017–21. Russian arms exports to Belarus increased by 66 per cent between 2012–16 and 2017–21. Belarus received 2.7 per cent of total Russian arms exports in 2017–21.

Russia was also among the main arms suppliers to both Armenia and Azerbaijan in 2017–21. It supplied nearly all of Armenia's major arms and accounted for 22 per cent of Azerbaijan's arms imports. The arms deliveries to Armenia and Azerbaijan took place while the states were in conflict with each other, and played a major role in the full-blown war between the two states in 2020.[19] The war ended in November 2020 with a ceasefire brokered by Russia, which was supported by a Russian peacekeeping force.[20] Only one order for Russian major arms has been identified for either state since the ceasefire agreement: a pending delivery of four Mi-8 armed helicopters for Armenia.

France

In 2017–21 French arms exports accounted for 11 per cent of the global total after increasing by 59 per cent between 2012–16 and 2017–21. At the regional level, 47 per cent of French arms exports went to Asia and Oceania in 2017–21 and 37 per cent went to the Middle East. Aircraft were France's main arms export in 2017–21, making up 56 per cent of its total arms exports, followed by ships, accounting for 15 per cent.

France delivered major arms to 65 states in 2017–21, but the three largest recipients—India, Qatar and Egypt—together accounted for 56 per cent of French arms exports in that period (see table 9.1). With a 29 per cent share of French arms exports, India was by far the largest recipient. France has delivered major arms to India every year since 1961, but the volume of deliveries in 2017–21 was at its highest level for any five-year period since 1950 and was almost 11 times higher than in 2012–16. French arms export relations with Qatar and Egypt have not been as consistent as those with India. The volume of French arms deliveries to Qatar was more than 25 times higher in 2017–21 than its relatively low level in 2012–16. After a break of 11 years, French arms exports to Egypt resumed in 2012–16 and remained at a similar

[18] Belarussian Embassy in Russia, [Military cooperation with the Russian Federation], [n.d.] (in Russian); and Khrolenko, A., [What weapons does Russia supply to Kazakhstan], Sputnik Kazakhstan, 18 Mar. 2019 (in Russian).

[19] Smith, J., Wezeman, P. D. and Kuimova, A., 'Arms transfers to conflict zones: The case of Nagorno-Karabakh', SIPRI Topical Backgrounder, 30 Apr. 2021.

[20] On the interstate conflict between Armenia and Azerbaijan see chapter 5, section I, in this volume.

level in 2017–21. India (54), Qatar (30) and Egypt (18) together received a total of 102 Rafale and Mirage-2000-5 combat aircraft and associated equipment from France in 2017–21. These deliveries accounted for more than 70 per cent of the arms exports from France to each of these three recipients.

In 2021 France concluded export agreements for a total of 188 Rafale combat aircraft with Croatia (12), Egypt (30), Greece (24), Indonesia (42) and the UAE (80). Delivery of all 188 will probably take until at least the end of the 2020s. The fact that the Rafale does not include US components or technology and is thus not covered by US export rules—which for example led to restrictions on sales to Egypt after the 2013 coup—is probably one of the reasons why some states have ordered it instead of other types of combat aircraft.[21] France's willingness to provide credit arrangements for the costly acquisitions is another key reason. The Croatian, Egyptian and Indonesian orders were all largely paid for with loans from French banks guaranteed by the French state.[22]

Other major suppliers

China

In 2017–21 China accounted for 4.6 per cent of total global arms exports. Chinese arms exports decreased by 31 per cent between 2012–16 and 2017–21. A total of 79 per cent of Chinese arms exports went to Asia and Oceania in 2017–21. China delivered major arms to 48 states in 2017–21, but 47 per cent of its arms exports went to just one state, Pakistan, which is one of China's closest allies. Most of China's pending deliveries (see table 9.2) are also destined for Pakistan. Pakistan has become increasingly reliant on China for its arms supplies, partly because of the deterioration in its political relations with other exporters, most notably the USA. China has become one of the largest producers of major arms (including the relevant components), many of which are entirely of indigenous design. It now offers advanced systems, including submarines with air-independent propulsion and the J-10C combat aircraft, which has advanced sensors and missiles as well as a Chinese engine rather than the Russian engine used in the earlier J-10. Despite this, many of the world's largest arms importers remain very reluctant to order Chinese major arms, at least partly for political reasons.

Germany

German arms exports made up 4.5 per cent of the global total in 2017–21. They were 19 per cent lower than in 2012–16 and 49 per cent lower than in 2007–11.

[21] Seibt, S., 'With billions in new deals, France's Rafale fighter makes a comeback', France 24, 5 Dec. 2021.

[22] Oliver, D., 'Rafale success hits headwind over India', *Armada International*, 11 Jan. 2022.

Germany delivered major arms to 53 states in 2017–21. A total of 40 per cent of German arms exports went to states in Asia and Oceania, 29 per cent went to states in the Middle East and 18 per cent went to states in Europe. South Korea was by far the largest recipient of German arms exports in 2017–21, with Egypt becoming the second largest. The delivery of 4 Type-214 submarines and 239 Taurus KEPD-350 long-range (up to 400 kilometres) air-to-surface missiles from Germany contributed significantly to the military capabilities South Korea is accumulating as a response to the threat it perceives from North Korea. The delivery of 3 Type-209/1400 submarines accounted for the bulk of German arms exports to Egypt in 2017–21.

Ships were Germany's main arms export in 2017–21, accounting for 38 per cent of its total arms exports. This will most likely continue to be the case for at least the next few years as it has pending deliveries for 14 frigates and 17 submarines, most of which are scheduled for delivery by 2030.

Italy

Italy's arms exports in 2017–21 were 16 per cent higher than in 2012–16 and 33 per cent higher than in 2007–11. Italian arms exports amounted to 3.1 per cent of the global total in 2017–21. The Middle East accounted for 63 per cent of Italian arms exports in the period. The delivery of two frigates to Egypt accounted for 23 per cent of total Italian arms exports in 2017–21. The frigates were originally produced for the Italian navy and were already undergoing sea trials by the time they were sold to Egypt in 2020, meaning that they could be adapted to Egyptian requirements and delivered by early 2021.[23] Other major deliveries included 51 T-129B combat helicopters to Turkey and a Fincantieri-3000 frigate to Qatar. Based on known arms agreements with pending deliveries, Italy will remain a major exporter in the coming years. Deliveries planned for 2023–24, for example, include 28 Typhoon combat aircraft to Kuwait, 3 frigates to Qatar and the first of 6 FREMM frigates ordered by Indonesia.

The United Kingdom

The UK was the world's seventh largest arms exporter in 2017–21 and supplied 2.9 per cent of total global arms exports. Deliveries related to a deal with Saudi Arabia for a total of 72 Typhoon combat aircraft ended in 2017, leading to a 41 per cent fall in British arms exports between 2012–16 and 2017–21. The main orders with pending deliveries are for 24 Typhoons to Oman, which are likely to be delivered by 2025, and a total of 26 frigates to Australia (9), Canada (15) and Indonesia (2). The frigates were ordered in 2019–21 and are the first newly produced major warships ordered from the UK since 2007.

[23] Groizeleau, V., 'L'Italie livre en catimini une première FREMM à la marine égyptienne' [Italy secretly delivers a first FREMM to the Egyptian Navy], Mer et Marine, 5 Jan. 2021.

Deliveries will be spread over many years, with the final batch of ships scheduled for delivery in the 2040s.

South Korea

South Korea was the eighth largest arms exporter in 2017–21 with a 2.8 per cent share of the global total. Its arms exports were 177 per cent higher than in 2012–16. Asia and Oceania accounted for 63 per cent of South Korean arms exports in 2017–21, followed by Europe with 24 per cent. South Korea also further developed its arms export relations in other regions, especially the Middle East. In 2021, for example, Egypt selected artillery and the UAE selected SAM systems from South Korea for major military procurement projects.