

I. Developments in arms transfers, 2013¹

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Over the past 10 years the trend in the volume of international arms transfers has been slowly increasing (see figure 5.1).² The volume in 2009–13 was 14 per cent higher than in the previous five-year period, 2004–2008. The longer-term trend is more dramatic: from the early 1980s the volume of transfers declined almost continuously until 2000–2004, when it was only 44 per cent of the volume in 1980–84. Between 2000–2004 and 2009–13, the volume of transfers increased by 30 per cent. The volume in the latter period was the highest since 1989–1993 (the end of the cold war). Compared to the peaks in 2011 and 2012, arms transfers fell in 2013. Such annual fluctuations are common, and experience has shown that they cannot be used to predict future developments in the longer-term trend.

Major supplier developments

The five largest suppliers of major weapons in 2009–13 were the United States, Russia, Germany, China and France. Together, they accounted for 74 per cent of the total volume of exports (see tables 5.1 and 5.2). The USA and Russia were by far the largest exporters, together accounting for 56 per cent of global exports. Between 2004–2008 and 2009–13 the composition of the five largest suppliers of arms changed: China narrowly surpassed France as the fourth largest supplier, France dropped to fifth position and the United Kingdom moved to sixth position. This cements China's position among a group of four to five second-tier suppliers.

Promoting and facilitating arms exports

In many of the arms-producing countries, military budgets have recently been, or are planned to be, reduced.³ To compensate for decreasing domes-

¹ Except where indicated, the information on arms deliveries and contracts referred to in this chapter is taken from the SIPRI Arms Transfers Database, <http://www.sipri.org/databases/arms_transfers>. The database contains data on transfers of major weapons between 1950 and 2013. The data on which this chapter is based is valid as of 17 Mar. 2014. The figures in this chapter may differ from those in previous editions of the SIPRI Yearbook because the SIPRI Arms Transfers Database is updated annually.

² SIPRI data on arms transfers refers to actual deliveries of major weapons, including sales, production under licence, aid, gifts and leases. SIPRI uses a trend-indicator value (TIV) to compare the data on deliveries of different weapons and to identify general trends. TIVs give an indication only of the volume of international arms transfers—based on an assessment of the arms' capabilities—and not of their financial values. Since year-on-year deliveries can fluctuate, a 5-year moving average is employed to provide a more stable measure for trends in transfers of major weapons. For a description of the TIV and its calculation, see 'Sources and methods' below.

³ See chapter 4, section I, in this volume.

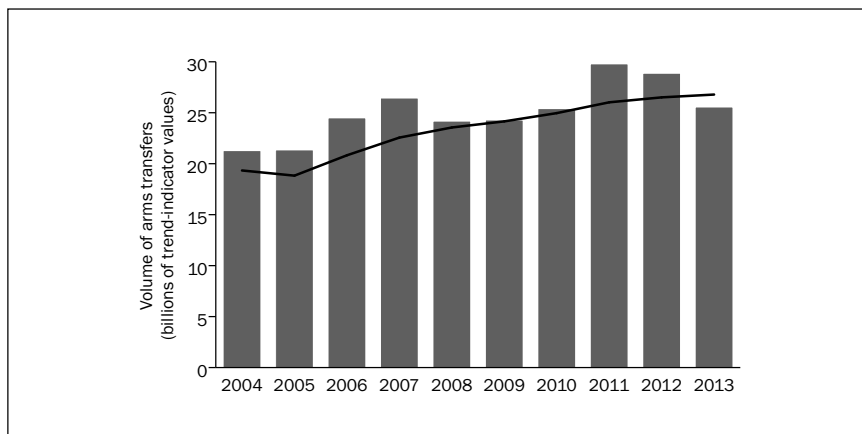


Figure 5.1. The trend in international transfers of major weapons, 2004–13

Note: The bar graph shows annual totals and the line graph shows the five-year moving average (plotted at the last year of each five-year period). See ‘Sources and methods’ below for an explanation of the SIPRI trend-indicator value.

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers/>>.

tic procurement budgets, industries in those countries are aiming to significantly increase the export share of their total arms sales. While governments have long supported arms exports by their national industry, many are introducing, or planning further, sales support in the form of promotion and facilitation of exports, or the relaxation of arms export restrictions.⁴

The US Government started its Export Control Reform Initiative in 2010. It aims to simplify the export licensing process by limiting the technologies and items that are classified as key military technologies and, therefore, most restricted for export.⁵ The US Department of State is planned to be the only agency responsible for deciding which technologies are key technologies and for approving export licences.⁶ At the same time several of the main US arms-producing companies have announced that they aim to significantly increase exports as a share of total arms production.⁷ Reduced

⁴ See also Jackson, S. T., ‘Key developments in the main arms-producing countries’, *SIPRI Yearbook 2013*, pp. 205–15.

⁵ US Department of State, ‘Export control reform’, Media note, 15 Oct. 2013, <<http://www.state.gov/r/pa/prs/ps/2013/10/215428.htm>>; and Greenwalt, B., ‘We haven’t won yet on export control reforms’, *Breaking Defense*, 21 Nov. 2013.

⁶ Wasserbly, D., Malenic, M. and Moores, B., ‘US Export Control Reform measures take effect’, *Jane’s Defence Weekly*, 23 Oct. 2013, p. 20.

⁷ Smith, M., ‘Lockheed Martin chief outlines focus on international markets’, *Jane’s Defence Weekly*, 13 Mar. 2013, p. 21; Jennings, G., ‘Boeing looks to ramp up BDS exports’, *Jane’s Defence Weekly*, 29 May 2013, p. 8; Wasserbly, D., ‘Interview with Thomas Culligan’, *Jane’s Defence Weekly*, 19 June 2013, p. 34; and ‘Boeing nears defence sales goal’, *Jane’s Defence Weekly*, 18 Dec. 2013, p. 22.

procurement budgets for its own and allied forces have also led Canada to focus more on new export markets, mainly to developing countries.⁸

Other governments are also looking into further developing tools to facilitate arms exports. The British Government announced in 2013 that arms exports are a top priority and, among other initiatives to promote further sales, it plans a government-to-government arms sales system similar to the US Foreign Military Sales (FMS) programme.⁹ France is also planning new arms export support instruments, including the creation of an FMS-like system.¹⁰ To increase arms exports to countries with limited funds for arms procurement, France is considering the option of leasing weapons (e.g. FREMM frigates to Greece).¹¹ The agency established by the Spanish Ministry of Defence in 2012 to support arms exports was given a more active sales promotion role in 2013, including sales of surplus equipment.¹² In addition, Spain started to offer the option of government-to-government agreements.¹³ Italy is also considering a similar option.¹⁴ In 2013 Switzerland also started a process to ease export controls, and in March 2014 it relaxed earlier regulations banning exports to states in conflict or with serious human rights abuses.¹⁵

As part of its work on a defence industrial policy for the European Union (EU)—which is mainly focused on reducing intra-EU competition—the

⁸ Berthiaume, L., 'Canada planning to sell guns and military equipment to developing countries to maintain domestic arms industry', *National Post* (Toronto), 5 Jan. 2014.

⁹ Norton-Taylor, R., 'Defence secretary: selling weapons abroad is priority for Britain', *The Guardian*, 10 Sep. 2013; Anderson, G., 'UK considers US-style FMS regime', *Jane's Defence Weekly*, 21 Aug. 2013; and Chuter, A., 'UK considers adapting FMS framework for its exports', *Defense News*, 18 Nov. 2013. In government-to-government sales, the buying government purchases the equipment or services from the selling government and the selling government handles the contracts with the industry. It has advantages in security and conditions of contracts. Normally, the selling government adds a 'fee' to the contract. However, there may be risks for selling government, mainly in cases where the buyer is cancelling the contract, where then the selling government may stand for the costs of cancellation.

¹⁰ 'La France va s'inspirer de la procédure des "Foreign Military Sales" pour favoriser ses ventes d'armes' [France will take inspiration from "Foreign Military Sales" to facilitate its arms sales], *Opex360.com*, 9 Oct. 2013, <<http://www.opex360.com/2013/10/09/la-france-va-sinspirer-de-la-procedure-americaine-des-foreign-military-sales-pour-favoriser-ses-ventes-darmes/>>.

¹¹ Valmas, T. L. and De Larrinaga, N., 'Greece requests lease of French frigates and MPAs', *Jane's Defence Weekly*, 27 Feb. 2013, p. 14; and Cabirol, M., 'Défense: comment la France souhaite vendre des armes en leasing' [Defence: how France wishes to sell weapons through leasing], *La Tribune*, 17 Sep. 2013.

¹² Spanish Ministry of Defence, 'Normas' [Standards], *Boletín oficial del ministerio de defensa*, 3 May 2013, pp. 9421–23.

¹³ Ing, D., 'Spain renews defence exports push', *Jane's Defence Weekly*, 8 May 2013, p. 21; and Spanish Law no. 12/2012 of 26 Dec. on urgent measures to liberalize trade and specific services, *Boletín Oficial del Estado*, no. 311, 27 Dec. 2012 (in Spanish).

¹⁴ Forrester, G., 'Minister confirms UK FMS regime under consideration', *Jane's Defence Weekly*, 27 Nov. 2013, p. 23.

¹⁵ 'Le Conseil des Etats soutient l'industrie de l'armement' [The Council of States supports the arms industry], *Le Matin* (Lausanne), 26 Sep. 2013; and Smith, R., 'Swiss step up arms exports, peacefully', *Inter Press Service*, 13 Mar. 2014, <<http://www.ipsnews.net/2014/03/swiss-step-arms-exports-peacefully/>>.

Table 5.1. The 10 largest suppliers of major weapons and their destinations, by region, 2009–13

Figures are the percentage shares of the supplier's total volume of exports delivered to each recipient region. Figures may not add up because of the conventions of rounding. For the states in each region and subregion see page xxi.

Recipient region	Supplier									
	USA	Russia	Germany	China	France	UK	Spain	Ukraine	Italy	Israel
Africa	3	14	<0.5	14	14	2	3	31	7	4
North Africa	3	11	-	4	13	2	-	2	5	4
Sub-Saharan Africa	<0.5	3	<0.5	10	1	<0.5	3	29	2	4
Americas	6	5	22	4	12	21	22	2	17	19
South America	4	5	12	4	6	3	18	2	9	13
Asia and Oceania	47	65	28	77	41	21	22	46	32	46
Central Asia	<0.5	1	-	-	-	-	1	2	1	1
East Asia	17	12	9	-	16	2	-	21	1	2
Oceania	10	-	1	-	5	2	12	-	<0.5	1
South Asia	12	40	2	60	2	12	<0.5	13	21	33
South East Asia	7	12	16	17	18	1	9	10	10	8
Europe	16	6	32	-	16	7	30	12	21	18
European Union	15	<0.5	31	-	13	5	9	<0.5	21	14
Middle East	28	10	17	5	17	50	23	9	23	13
Other	1	-	-	-	-	-	-	-	<0.5	1

- = no deliveries.

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers>>.

European Commission stated in July 2013 that it should also look at ways in which EU institutions could support EU arms industries on international markets.¹⁶ However, the UK opposed this idea, and by early 2014 the European Council had not yet taken any official steps on the issue.¹⁷

Even Japan—which has never been a major exporter of weapons and military technology, mainly due to strict self-imposed export restrictions—has adopted policies to support its arms industry, a significant producer of advanced weapons and components. In 2011 Japan changed its policy in order to allow exports of non-lethal military equipment such as engines and maritime patrol aircraft. The change also allowed cooperation with other countries in the development of new equipment and resulted for example in 2013 in an agreement with the UK for the potential joint development of unspecified equipment.¹⁸ Japanese propulsion systems may also be used in Australia's planned 12 new submarines.¹⁹

For a long time the Russian Government has actively supported arms exports through Rosoboronexport, the government agency that handles most of the country's arms exports. Russia is seeking to increase exports until 2016 and then stabilize them until 2020.²⁰ However, Rosoboronexport has often been allowed to sell equipment for export at lower prices than paid by the Russian Ministry of Defence. This has been a source of conflict within the Russian Government and in March 2013 the Russian Ministry of Defence and the Federal Service for Military-Technical Cooperation (FSMTC) agreed that military equipment sold abroad would not be priced lower than that acquired by the Russian Government.²¹

The United States

The USA was the largest exporter of major weapons in the period 2009–13, accounting for 29 per cent of the global volume of deliveries. US arms exports increased by 11 per cent between 2004–2008 and 2009–13. Signed

¹⁶ European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Towards a more competitive and efficient defence and security sector', 27 July 2013, COM (2013) 542, <http://ec.europa.eu/enterprise/sectors/defence/files/communication_defence_en.pdf>.

¹⁷ Norton-Taylor (note 9); and European Council, 'European Council, 19/20 December 2013, Conclusions', EUCO 217/13, Brussels, 20 Dec. 2013, <http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/140245.pdf>.

¹⁸ 'Japan is looking to develop an engine for main battle tank in collaboration with Turkey', Army Recognition, 7 Jan. 2014, <http://www.armyrecognition.com/january_2014_global_defense_security_news_industry/japan_is_looking_to_develop_an_engine_for_main_battle_tank_in_collaboration_with_turkey_0701143.html>.

¹⁹ Grevatt, J., 'Australia eyes submarine collaboration with Japan', *Jane's Defence Weekly*, 18 Dec. 2013, p. 15.

²⁰ 'Rosoboronexport to steady sales', *Jane's Defence Weekly*, 27 Nov. 2013, p. 23.

²¹ Anderson, G., 'Russia to curb discounted equipment exports', *Jane's Defence Weekly*, 20 Mar. 2013, p. 22.

Table 5.2. The 50 largest suppliers of major weapons, 2009–13

The table includes all countries and non-state actors that exported major weapons in the five-year period 2009–13. Ranking is according to 2009–13 total exports. Figures are SIPRI trend-indicator values (TIVs). Figures and percentages may not add up because of the conventions of rounding.

Rank		Supplier	Volume of exports (TIV, millions)		Share, 2009–13 (%)	Change since 2004–2008 (%)
2009– 13	2004– 2008 ^a		2013	2009–13		
1	1	United States	6 153	39 080	29	11
2	2	Russia	8 283	36 243	27	28
3	3	Germany	972	8 800	7	-24
4	8	China	1 837	7 379	6	212
5	4	France	1 489	7 211	5	-30
6	5	United Kingdom	1 394	5 515	4	6
7	10	Spain	605	3 986	3	81
8	12	Ukraine	589	3 503	3	72
9	7	Italy	801	3 480	3	29
10	9	Israel	773	3 155	2	39
11	11	Sweden	505	2 786	2	37
12	6	Netherlands	302	2 474	2	-31
13	15	South Korea	307	1 320	1	66
14	13	Switzerland	205	1 211	1	-21
15	14	Canada	199	1 199	1	-7
16	20	Belarus	338	735	1	110
17	22	Norway	64	684	1	153
18	17	South Africa	76	666	<0.5	21
19	30	Uzbekistan	-	627	<0.5	382
20	34	Australia	63	438	<0.5	306
21	18	Belgium	52	436	<0.5	-11
22	19	Finland	94	346	<0.5	-7
23	24	Turkey	82	296	<0.5	33
24	23	Brazil	36	288	<0.5	22
25	16	Poland	131	252	<0.5	-57
26	47	Romania	108	220	<0.5	412
27	29	Iran	12	197	<0.5	44
28	40	Jordan	1	152	<0.5	75
29	42	Singapore	1	145	<0.5	110
30	51	United Arab Emirates	43	119	<0.5	240
31	26	Austria	1	111	<0.5	-40
32	35	Ireland	1	78	<0.5	-22
33	25	Denmark	9	76	<0.5	-63
34	64	New Zealand	-	75	<0.5	7 400
35	21	Libya	-	60	<0.5	-78
36	53	Saudi Arabia	-	59	<0.5	228
37	45	Serbia	9	56	<0.5	2
38	27	Czech Republic	7	55	<0.5	-70
39	33	India	10	50	<0.5	-55
40	38	Portugal	-	46	<0.5	-54
41	56	Venezuela	-	40	<0.5	264
42	62	Syria	-	40	<0.5	1 233

Rank			Volume of exports (TIV, millions)		Share, 2009–13 (%)	Change since 2004–2008 (%)
2009– 13	2004– 2008 ^d	Supplier	2013	2009–13		
43	32	Bulgaria	6	35	<0.5	-72
44	43	Moldova	-	31	<0.5	-55
45	..	Brunei Darussalam	-	24	<0.5	..
46	31	North Korea	-	20	<0.5	-84
47	28	Montenegro	-	18	<0.5	-90
48	..	Taiwan	-	18	<0.5	..
49	..	Bosnia and Herzegovina	-	14	<0.5	..
50	48	Indonesia	-	4	<0.5	-90
		Others (28)	7	71	<0.5	..
Total			25 564	133 921	100	14

- = no deliveries.

Note: The SIPRI data on arms transfers relates to actual deliveries of major weapons. To permit comparison between the data on such deliveries of different weapons and to identify general trends, SIPRI uses a trend-indicator value (TIV). This value is only an indicator of the volume of international arms transfers and not of the financial value of such transfers. Thus, it is not comparable to economic statistics such as gross domestic product or export/import figures. The method for calculating the TIV is described in 'Sources and methods' below.

^a The rank order for suppliers in 2004–2008 differs from that published in *SIPRI Yearbook 2009* because of subsequent revision of figures for these years.

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers/>>.

contracts and deals agreed in principle or planned indicate that the USA will maintain its position as the largest exporter in the coming years.

Asia and Oceania received 45 per cent of US deliveries of major weapons in 2009–13, followed by the Middle East and Europe (see table 5.1). Deliveries to Asia and Oceania increased by 46 per cent between 2004–2008 and 2009–13. Moreover, four of the five largest recipients of US arms in 2009–13 were in Asia and Oceania: Australia (10 per cent of US deliveries), the Republic of Korea (South Korea, 10 per cent), Singapore (6 per cent) and Pakistan (5 per cent).

The Middle East was the second most important recipient region for US major arms, accounting for 28 per cent of total US deliveries in 2009–13. US deliveries to the Middle East were 21 per cent lower than in 2004–2008, but around 2015 the volume of such deliveries is expected to grow again. In recent years, the USA has agreed large orders of major weapons from Saudi Arabia, the United Arab Emirates (UAE) and other Gulf states. In 2013 it allowed the sale of long-range air-to-surface missiles to Saudi Arabia, which was the first sale of its kind to the region (see section II below). However, in October 2013 deliveries of some specific major weapons to Egypt were suspended after the military coup in July 2013. Egypt is a key ally of the USA in the Middle East, and US military aid to Egypt is also an

integral part of the Egypt–Israel peace agreement of 1979. Since 1983 the military aid has been around \$1.3 billion each year—mainly under the US Foreign Military Financing (FMF) aid programme.²² However, US law bans most of such aid to governments that have come to power through a coup d'état.²³ The USA announced that it would not deliver 'certain large-scale military systems', such as F-16 combat aircraft and M-1A1 tanks, but it would continue to deliver parts for equipment of US origin and aid to Egypt's counterterrorism and border-control efforts.²⁴ The Egyptian Government expressed surprise and criticism of the USA for taking the move 'at this critical time when Egypt is fighting terrorism'.²⁵ Israel also expressed concern about the aid suspension, fearing it might jeopardize the 1979 peace treaty.²⁶

Aircraft accounted for 61 per cent of the volume of US exports in 2009–13, and 252 combat aircraft made up the bulk of these deliveries. Future sales of the F-35 (Joint Strike Fighter) combat aircraft are likely to continue that trend. The first 5 F-35s for export have been delivered (to the UK and the Netherlands), and in 2013 updated production schedules for the F-35 were announced. They included around 70 units in financial year 2015 and around 100 units in each of the following years, including 30–40 annually for export.²⁷ However, the development programme continues to have technical problems, leading to cost increases and delays, while at the same time European customers are reducing procurement budgets. Several countries have cancelled, reduced or delayed their F-35 procurement plans or are considering doing so. For example, in 2013 the Netherlands decided that, mainly for cost reasons, it will only order 37–40 F-35As instead of up to 85, as originally planned.²⁸ However, after South Korea selected the F-35A for an initial order of 40 in 2013, a total of 590 had been ordered or selected by nine foreign buyers.²⁹

²² Sharp, J. M., *Egypt: Background and U.S. Relations*, Congressional Research Service (CRS) Report for Congress 7-5700 (US Congress, CRS: Washington, DC, 20 Jan. 2014), pp. 18–19, 49.

²³ Binnie, J., 'Egyptian coup threatens US military financing', *Jane's Defence Weekly*, 10 July 2013, p. 4; and Sharp (note 22), pp. 33–34.

²⁴ US Department of State, 'U.S. assistance to Egypt', Press release, 9 Oct. 2013 <<http://www.state.gov/r/pa/prs/ps/2013/10/215258.htm>>; Osborn, K., 'US cuts military aid to Egypt', DoD Buzz, 9 Oct. 2013, <<http://www.dodbuzz.com/2013/10/09/us-cuts-military-aid-to-egypt/>>; and Wasserbly, D., 'US cuts aid, suspends arms deliveries to Egypt', *Jane's Defence Weekly*, 16 Oct. 2013, p. 5.

²⁵ Allam, A., 'Egypt may look to Russia to counter US aid reduction', *Al-Monitor*, 14 Oct. 2013; and Fick, M., 'Egypt–U.S. relations in turmoil: Egyptian foreign minister', Reuters, 16 Oct. 2013.

²⁶ Lis, J., 'Washington cuts Egypt aid despite intense Israeli lobbying', *Haaretz*, 10 Oct. 2013.

²⁷ Lee, C., 'DoD looks to ramp up F-35 production to 70 jets in FY15', *Jane's Defence Weekly*, 6 Nov. 2013, p. 12.

²⁸ Outeren, E., 'Defensie wil 37 JSF-toestellen aanschaffen: extra ontslagen' [Defence wants to acquire 37 JSF aircraft: additional redundancies], *NRC* (Amsterdam), 17 Sep. 2013, <<http://www.nrc.nl/nieuws/2013/09/17/minimaal-34-jsfs-extra-ontslagen-bij-defensie/>>.

²⁹ Kim, T., 'Korea decides to buy 40 F-35s', *Korea Times*, 22 Nov. 2012.

Russia

Russia accounted for 27 per cent of the volume of global arms exports in the period 2009–13. The volume of Russia's arms exports increased by 28 per cent between 2004–2008 and 2009–13. States in Asia and Oceania received 65 per cent of Russian exports, followed by Africa and the Middle East. Russia exported to 52 states, but its exports were highly concentrated, with just two clients—India and China—accounting for half (see table 5.1).

India remains Russia's most important recipient. Deliveries in 2013 included an aircraft carrier (the *Gorshkov*, renamed *Vikramaditya*), after five years of delays and a price increase from \$947 million (agreed in 1994) to \$2.3 billion.³⁰ In 2013 India and Russia agreed on a 'renewed thrust to joint manufacturing in hi-tech areas' in which military equipment featured strongly. New joint ventures were announced for potential production in India of Ka-226 light helicopters and Il-112 medium-transport aircraft in the event that the Indian Government should choose those aircraft in ongoing tenders.³¹ Existing cooperative projects for the development and licensed production of the T-50 combat aircraft and Il-214 transport aircraft remained active.³² However, progress in both projects is slow and uncertain. India has not yet actually ordered the T-50, and it reduced the number of planned T-50s from 200 to 144 in 2012 and has delayed a decision to go ahead with the joint research and development (R&D) contract to at least 2014.³³ India also again delayed decisions to acquire Il-214 transport aircraft.³⁴

Russia's arms transfer relationship with China remains important for both countries but lacks transparency. Negotiations on a Chinese order of Su-35 combat aircraft have been reported on for some time. After reports in early 2013 that an agreement had been signed, it was later reported that it would only possibly be signed in 2014. The delay is supposedly caused by the offer price, Russia's unwillingness to sell more than 24 units and China's wish to include a maintenance centre for the Su-35 in the con-

³⁰ 'Russia passes refitted aircraft carrier to India after 5-year delay', RIA Novosti, 16 Nov. 2013, <http://en.ria.ru/military_news/20131116/184748992/>.

³¹ Competitors include several European and US designs. Grevatt, J., 'Russia, India explore defence links as aerospace JVs take shape', *Jane's Defence Weekly*, 2 Oct. 2013, p. 22; and Bedi, R., 'Go West: Indian lifters enter new era', *Jane's International Intelligence Review*, Oct. 2013, pp. 28–29.

³² The T-50 is also known as PAKFA in Russia and the FGFA in India; the Il-214 is called the MTA in India.

³³ Luthra, G., 'IAF decides on 144 fifth generation fighters', *India Strategic*, Oct. 2012; and Bedi, R., 'IAF chief plans more C-17s, admits FGFA delays', *Jane's Defence Weekly*, 16 Oct. 2013, p. 18.

³⁴ Bedi (note 31).

tract.³⁵ The status of other potential large orders, including Chinese interest in Russian conventional submarines, remains unclear.

Russia has had limited success in selling arms to the Middle East. Its main Middle Eastern client in 2009–13 was Syria.³⁶ Egypt was Russia's second largest client in the region. Russia has supplied limited amounts of major weapons to Egypt since the late-1990s, including Mi-17 transport helicopters and surface-to-air missile (SAM) systems. After the USA's suspension of arms transfers to Egypt in October 2013, Russia was quick to promote its weapons as an alternative and within a few months agreements in principle on new large Russian arms sales were reached. Russia offered Egypt additional helicopters and air defence systems, as well as combat aircraft and licensed production.³⁷ Russia and Egypt reportedly signed a \$3 billion deal for these weapons in early 2014.³⁸

Russia is also shoring up the military forces of several neighbouring allies. It continues to supply SAM systems to Belarus as part of efforts to build a joint air defence network. Russia is also concerned that the precarious security situation in Afghanistan—which is expected to deteriorate after the withdrawal of most foreign troops there in 2014—will lead to increasing instability in the region.³⁹ In addition to selling Mi-17 helicopters via the USA to Afghanistan, Russia continues to supply limited military aid to Afghanistan.⁴⁰ Russia will also supply, possibly in cooperation with other members of the Collective Security Treaty Organization (CSTO), helicopters and other military equipment to Tajikistan for the protection of its border with Afghanistan.⁴¹ Russia plans to provide \$200 million in military aid to Tajikistan and \$1.1 billion to Kyrgyzstan.⁴²

³⁵ 'Su-35 deal won't be signed this year: Russian contractor', *Want China Times* (Taiwan), 20 Nov. 2013; and Johnson, R. F., 'Reports of Su-35 sale to China met with scepticism', *Jane's Defence Weekly*, 18 Sep. 2013, p. 14.

³⁶ See chapter 1, section II, and chapter 10, section II, in this volume.

³⁷ 'Russia offers Egypt helicopters, air defense systems', RIA Novosti, 15 Nov. 2013, <http://en.ria.ru/military_news/20131115/184738028/Russia-Offers-Egypt-Helicopters-Air-Defense-Systems.html>.

³⁸ 'Russia, Egypt reach initial \$3 bln arms deal—report', RIA Novosti, 14 Feb. 2014, <<http://en.ria.ru/russia/20140214/187524953/Russia-Egypt-Reach-Initial-3-Bln-Arms-Deal--Report.html>>.

³⁹ 'NATO pullout from Afghanistan "too hasty"—Russian defense official', RIA Novosti, 14 Aug. 2013, <<http://en.ria.ru/world/20130814/182761135/NATO-Pullout-from-Afghanistan-Too-Hasty--Russian-Defense-Official.html>>; and Baizokova, Z. and McDermott, R., 'Neighbourhood watch', *Jane's Intelligence Review*, Dec. 2013, pp. 40–43.

⁴⁰ The USA acquired 86 Mi-17 for Afghanistan, but it decided in late-2013 that Afghan requirements had been met and cancelled plans for an order for 15 more. Lee, C., 'DoD reverses decision to buy more Mi-17s for AAF', *Jane's Defence Weekly*, 20 Nov. 2013, p. 8.

⁴¹ 'Russia-led bloc to help Tajikistan boost Afghan border defenses', RIA Novosti, 20 Nov. 2013, <<http://en.ria.ru/world/20131120/184810184/Russia-Led-Bloc-to-Help-Tajikistan-Boost-Afghan-Border-Defenses.html>>; 'Putin orders support of Tajik military after US pullout from Afghanistan', RIA Novosti, 1 Aug. 2013, <<http://en.ria.ru/world/20130801/182533633/Putin-Orders-Support-of-Tajik-Military-After-US-Pullout-From-Afghan.html>>; and Baizokova and McDermott (note 39), p. 14.

⁴² Baizokova and McDermott (note 39), pp. 40–43.

Germany

Between 2004–2008 and 2009–13 Germany's exports of major arms decreased by 24 per cent, although it remained the third largest exporter. Outstanding orders for, in particular, valuable naval weapons signed since 2000 indicate that Germany will remain among the top arms suppliers in the coming decade. Notably, Germany's is the world's leading exporter of submarines. During 2009–13 it exported 6 new and 2 surplus submarines. By the end of 2013 orders for 25 submarines were outstanding for delivery spread over the period 2014–20.

A constant factor in German arms exports has been that, while submarines and other naval vessels were sold to recipients throughout the world, tanks were primarily sold to countries in Europe and to members of the North Atlantic Treaty Organization (NATO). This changed notably in the period 2004–13, when Germany was the second largest exporter of tanks (after Russia) and delivered or agreed to supply tanks to Brazil, Chile, Indonesia, Qatar and Singapore. Germany had long refused to sell tanks to Arab states due to concerns about overall stability in the region and the potential use of these weapons against Israel. However, it is now arguing that the stabilizing role of the recipient state (in particular, Saudi Arabia) in the region and in relation to Iran should be a consideration when deciding about arms exports.⁴³ In this context, there were two notable developments in 2013: an order from Qatar for 62 Leopard-2A7 tanks and the continuation of negotiations with Saudi Arabia related to a German export licence for the sale of Leopard-2 tanks assembled in Spain.

The sale of tanks to, in particular, Arab states and Indonesia has been interpreted as an indication of a paradigm change in German arms export policy. Dubbed the 'Merkel doctrine', after German Chancellor Angela Merkel, arms export policy has been loosened and arms exports have become increasingly part of the foreign policy instruments of the German Government led by Merkel's Christian Democratic Union.⁴⁴ How this development will take shape after the forming of a new coalition government in 2013 is uncertain. The Social Democratic Party (Sozialdemokratische Partei Deutschlands, SPD), a minority partner in the new government, had promised in its 2013 election programme to push for a more

⁴³ On the evolution of the German policy regarding the exports of tanks: Simmel, V., 'Der Wandel in der deutschen Rüstungsexportpolitik' [The change in the German arms export policy], *Magisterarbeit, Geschwister-Scholl-Institut für Politikwissenschaft Lehrstuhl für internationale Beziehungen*, 13 Oct. 2013; and 'De Maiziere rechtfertigt Pläne für Waffenexporte' [De Maiziere justifies plans for arms exports], *Süddeutsche Zeitung*, 21 Sep. 2012.

⁴⁴ Brzoska, M., 'Waffen nach Mali und Saudi Arabien' [Weapons for Mali and Saudi Arabia], *Blätter für Deutsche und Internationale Politik*, Feb. 2013, pp. 52–60; and 'German weapons for the world: how the Merkel doctrine is changing Berlin policy', *Spiegel Online*, 3 Dec. 2012, <<http://www.spiegel.de/international/germany/german-weapons-exports-on-the-rise-as-merkel-doctrine-takes-hold-a-870596.html>>.

restrictive arms export policy; in early 2014 the first signs of possible change appeared when the SPD reportedly actively opposed the export of Leopard-2 tanks to Saudi Arabia.⁴⁵

China

Between 2004–2008 and 2009–13 Chinese exports of major arms increased by 212 per cent, and China's share of the volume of all arms exports increased from 2 to 6 per cent. This increase put China firmly in the same tier of arms exporters as France and Germany.⁴⁶

Several of China's most important arms recipients are its neighbours. Pakistan received 47 per cent of the volume of Chinese arms exports in 2009–13, Bangladesh 13 per cent and Myanmar 12 per cent. All three countries have large outstanding orders with China, a situation that has been perceived in India as an element of China's strategic encirclement of India and of China's efforts to improve its military access to the Indian Ocean.⁴⁷

China is steadily expanding its presence on the global arms market. In 2012 and 2013 it succeeded in winning several major arms contracts in direct competition with other suppliers, including Russia and other European countries. The largest order involved three F-22 frigates for Algeria. In late 2013 Turkey started negotiations with China on a contract for HQ-9/FD-2000 SAM systems. The Turkish deal was the first time that China succeeded in advancing that far in competition with suppliers from Europe and the USA for a deal involving a high-tech weapon system for a NATO member state. The USA tried to persuade Turkey not to choose the Chinese option because it was concerned that the deal could result in China's access to crucial NATO military technology.⁴⁸

Concerns over Chinese access to sensitive technology, but also general political and human rights considerations, are reasons for the USA and EU member states not to sell many types of military equipment to China. However, this does not prevent cooperation between companies in the EU and the USA with Chinese companies aimed at supplying weapons to third states. For example, over the past two decades China has exported F-7

⁴⁵ 'Ukraine-Vermittlung: Steinmeier lobt Russland' [Ukraine mediation: Steinmeier praises Russia], *Der Spiegel*, 22 Feb. 2014; and Sozialdemokratische Partei Deutschlands, 'Das Wir entscheidet: das Regierungsprogramm 2013–17' [The 'We' decides: the government programme 2013–17], <http://www.spd.de/95466/regierungsprogramm_2013_2017.html>, pp. 110–11.

⁴⁶ China is also a significant supplier of small arms and light weapons. See Bromley, M., Duchâtel, M. and Holtom, P., *China's Exports of Small Arms and Light Weapons*, SIPRI Policy Paper no. 38 (SIPRI: Stockholm, Oct. 2013).

⁴⁷ Krishnan, A., 'China shoots into top arms exporters club', *The Hindu*, 19 Mar. 2013; and Shivananda, H., 'Sino Myanmar military cooperation and its implications for India', *Journal of Defence Studies*, IDSA, vol. 5, no. 3 (July 2011), pp. 117–26.

⁴⁸ 'US-sanctioned Chinese firm wins Turkey missile defense system tender', Reuters, 26 Sep. 2013; 'Confusion over Turkey's Chinese missile choice', *Hurriyet* (Turkey), 3 Oct. 2013; and Kucera, J., 'Turkey working on Chinese T-Loramids dilemma', *Jane's Defence Weekly*, 20 Nov. 2013, p. 8.

combat aircraft equipped with Italian Grifo radars, K-8 trainer/combat aircraft with US engines and licensed-produced versions of French AS-365 helicopters. The three F-22 frigates ordered by Algeria in 2012 will be equipped with radar and other systems from the Netherlands.⁴⁹

France

Between 2004–2008 and 2009–13 France's exports of major arms decreased by 30 per cent, and it was narrowly surpassed by China as the fourth largest exporter.

In 2009–13 China was the largest recipient of French major weapons, accounting for 13 per cent of French deliveries. Most of these deliveries resulted from the production of French weapons under licence in China, often under agreements dating from the 1970s and 1980s. The most significant of this production is helicopters, which accounted for 71 per cent of French transfers to China in 2009–13. This included production of the AS-365 (under the Chinese designation Z-9), which has become the standard light helicopter for the Chinese armed forces and is considered 'China's most important military helicopter'.⁵⁰

Arms export support is a high priority for France. Promotion of the Rafale combat aircraft is of particular concern since France's own military expenditure plans for 2014–19 depend heavily on its export. France plans to procure 26 units in 2014–19, but the producer, Dassault, needs to manufacture at least 11 aircraft per year to sustain the production line, and the French Government is obliged by contract to make up the difference in case there are no foreign orders (40 aircraft in 2014–19).⁵¹ The Rafale lost in several recent procurement competitions, most recently when Brazil selected the Swedish Gripen-E in late 2013.⁵² In addition, although India has decided to procure 126 Rafales in 2012, a contract had not yet been signed by early 2014.⁵³

After taking office in May 2012, the French Minister of Defence, Jean-Yves Le Drian, implemented a renewed diplomatic strategy for arms sales negotiations through the development of 'strategic partnerships' with spe-

⁴⁹ Brief van de ministers voor buitenlandse handel en ontwikkelingssamenwerking en van buitenlandse zaken [Letter of the ministers of foreign trade and development cooperation and of foreign affairs], Dutch Second Chamber of Parliament, Document no. 22 054, The Hague, 13 Aug. 2013.

⁵⁰ Hewson, R., 'Unfulfilled ambitions: China's helicopter plans are yet to soar', *Jane's International Defence Review*, Oct. 2013, pp. 52–57.

⁵¹ Cabirol, M., 'Le Rafale ne viendra pas au secours du budget de la défense' [The Rafale will not rescue the defence budget], *La Tribune*, 24 Oct. 2012; and Ruello, A., 'Recettes exceptionnelles et exportation du Rafale : des paris à 10 milliards pour boucler le budget' [Windfalls and Rafale exports: gambles worth 10 billion to balance the budget], *Les Echos*, 2 Aug. 2013.

⁵² Saab, 'The Brazilian Government selects Gripen', Press release, 18 Dec. 2013, <<http://www.saabgroup.com/en/Air/Gripen-Fighter-System/Gripen-News/>>.

⁵³ Pandit, R. and Bagchi, I., 'Didn't ask for Rafale deal guarantee: France', *Times of India*, 1 Apr. 2014.

Table 5.3. The 10 largest recipients of major weapons and their suppliers, 2009–13

Figures are the percentage shares of the recipient's total volume of imports received from each supplier. Only suppliers with a share of 1 per cent or more of total imports of any of the 10 largest recipients are included in the table. Smaller suppliers are grouped together under 'Other'. Figures may not add up to 100 because of the conventions of rounding.

Supplier	Recipient									
	India	China	Pakistan	South Korea	Singapore	Algeria	Australia	USA	UAE	Saudi Arabia
Australia	<0.5	-	-	-	2	-	..	3	-	-
Belarus	-	3	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	1
Canada	<0.5	-	-	-	-	-	-	16	1	2
China	-	..	54	-	-	<0.5	-	-	-	1
France	1	15	1	3	16	3	7	5	8	6
Germany	1	<0.5	<0.5	12	11	-	2	12	1	4
Ireland	-	-	-	-	-	-	1	-	-	-
Israel	6	-	-	1	5	-	1	1	-	-
Italy	2	-	3	<0.5	4	1	-	6	6	1
Libya	-	-	<0.5	-	-	-	-	-	1	-
Netherlands	<0.5	-	-	<0.5	-	-	-	1	-	1
New Zealand	-	-	-	-	-	-	-	1	-	-
Norway	-	-	-	-	-	-	1	10	-	-
Poland	-	-	-	-	-	-	-	3	-	-
Russia	75	64	1	-	-	91	-	<0.5	12	-
South Africa	<0.5	-	-	-	-	<0.5	-	5	<0.5	<0.5
Spain	-	-	<0.5	-	-	-	10	<0.5	5	7
Sweden	-	-	6	1	5	-	1	<0.5	3	3
Switzerland	-	5	1	-	-	-	-	8	2	2
Turkey	-	-	1	-	-	-	-	-	<0.5	-
Ukraine	1	11	4	-	-	1	-	-	-	-
United Kingdom	3	3	-	-	-	2	3	22	1	44
United States	7	-	27	80	57	1	70	..	60	29
Uzbekistan	3	-	-	-	-	-	-	-	-	-
Other	-	-	1	-	<0.5	-	-	<0.5	<0.5	<0.5

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers>>.

cific prospective clients. In the Middle East, this strategy has been facilitated by the French Government adopting policies close to the views of Gulf countries over Iran's nuclear programme and the Syrian conflict.⁵⁴ The €700 million (\$930 million) 'Falcon Eye' contract for two reconnaissance satellites signed with the UAE in July 2013 exemplifies this improved relationship.⁵⁵ The order includes support from the French military to its UAE counterparts for analysing images and sharing intelligence.⁵⁶ Improved ties have had effects on the Saudi arms negotiations as well. In 2013 Saudi Arabia awarded French companies the 'LEX' contract, for the modernization of four Saudi frigates and two support ships.⁵⁷ A Saudi deal for French VL Mica SAM systems was also signed in 2013.⁵⁸ However, despite major efforts by the French Government, the large 'Mark 3' contract for the modernization of Saudi Shahine SAM systems had yet to be signed by the end of 2013, although hopes were high after signing a contract for maintenance of Crotale SAMs during the year.⁵⁹

Major recipient developments

In 2009–13 Asia and Oceania was the largest recipient region of major weapons, accounting for 47 per cent of global imports. The next largest recipient region was the Middle East (19 per cent), followed by Europe (14 per cent), the Americas (10 per cent) and Africa (9 per cent). Compared to 2004–2008, notable share increases occurred for Asia and Oceania (up from 40 per cent in 2004–2008) and Africa (up from 7 per cent). Europe's share decreased significantly (down from 21 per cent). The volume of transfers to the Middle East and the Americas increased in absolute terms but

⁵⁴ Cabiro, M., 'La France au Moyen-Orient (1/5) : quand la diplomatie va, tout va... mieux' [France in the Middle East (1/5): when diplomacy is well, all is well], *La Tribune*, 22 Nov. 2013; Guibert, N., 'Armement et politique étrangère : relations au beau fixe entre Paris et Ryad' [Arms and foreign policy: Paris and Ryad's relationship in good shape], *Le Monde*, 8 Oct. 2013; UPI, 'After scuttling Iran deal, France could clinch arms deals', 12 Nov. 2013; and Ayad, C., 'La France, meilleure alliée de l'Arabie saoudite, au Liban comme en Syrie' [France: Saudi Arabia's best ally in Lebanon as in Syria], *Le Monde*, 28 Dec. 2013.

⁵⁵ De Selding, P. B., 'Long-anticipated UAE spy sat contract goes to Astrium, Thales Alenia', Spacenews, 22 July 2013, <<http://www.spacenews.com/article/military-space/36389military-space-quarterly-long-anticipated-uae-spy-sat-contract-goes-to>>.

⁵⁶ Cabiro, M., 'Comment la France a vendu deux satellites d'observation hyper sophistiqués aux Emirats Arabes Unis' [How France sold two hyper-sophisticated observation satellites to the United Arab Emirates], *La Tribune*, 23 July 2013.

⁵⁷ 'Le contrat LEX officialisé' [The LEX contract officialized], *Mer et Marine*, 10 Oct. 2013, <<http://www.meretmarine.com/fr/content/arabie-saoudite-le-contrat-lex-officialise>>; and Tran, P. and Cavas, C. P., 'France, U.S. work toward Saudi Navy deals', *Defense News*, 29 Oct. 2012.

⁵⁸ Cabiro, M., 'MBDA renforce sa position de champion européen' [MBDA reinforces its position as European champion], *La Tribune*, 27 Nov. 2013.

⁵⁹ Cabiro, M., 'Thales remporte un nouveau contrat de support de missiles Crotale en Arabie saoudite' [Thales obtains a new Crotale missile support contract in Saudi Arabia], *La Tribune*, 26 Mar. 2013.

Table 5.4. The 50 largest recipients of major weapons, 2009–13

The table includes all countries and non-state actors that imported major weapons in the five-year period 2009–13. Ranking is according to 2009–13 total imports. Figures are SIPRI trend-indicator values (TIVs). Figures and percentages may not add up because of the conventions of rounding.

Rank		Recipient	Volume of imports (TIV, millions)		Share, 2009–13 (%)	Change since 2004–2008 (%)
2009– 13	2004– 2008 ^a		2013	2009–13		
1	2	India	5 581	18 564	14	111
2	1	China	1 534	6 581	5	-51
3	10	Pakistan	1 002	6 426	5	119
4	3	United Arab Emirates	2 245	5 777	4	-18
5	18	Saudi Arabia	1 486	5 231	4	154
6	7	United States	759	5 074	4	45
7	11	Australia	303	5 027	4	83
8	4	South Korea	188	4 753	4	-30
9	14	Singapore	142	4 439	3	76
10	12	Algeria	336	4 221	3	55
11	8	Turkey	604	3 976	3	25
12	65	Morocco	43	2 596	2	1 154
13	34	Viet Nam	369	2 359	2	182
14	19	Venezuela	476	2 327	2	20
15	9	Egypt	501	2 293	2	-27
16	20	United Kingdom	438	2 284	2	23
17	27	Iraq	203	2 220	2	83
18	61	Afghanistan	216	2 190	2	805
19	49	Azerbaijan	921	2 179	2	378
20	24	Malaysia	113	2 098	2	35
21	5	Greece	66	2 049	2	-57
22	30	Indonesia	774	1 901	1	93
23	36	Myanmar	362	1 677	1	120
24	17	Japan	145	1 622	1	-30
25	22	Norway	53	1 555	1	-8
26	50	Syria	361	1 549	1	240
27	40	Portugal	27	1 512	1	132
28	25	Taiwan	633	1 470	1	-5
29	33	Brazil	254	1 407	1	65
30	13	Chile	53	1 237	1	-54
31	32	Netherlands	252	1 156	1	20
32	54	Bangladesh	672	1 153	1	217
33	28	Germany	129	1 070	1	-8
34	26	Canada	191	1 052	1	-27
35	52	Colombia	163	1 052	1	142
36	60	Thailand	373	1 046	1	315
37	6	Israel	348	1 017	1	-78
38	23	Spain	120	1 012	1	-38
39	..	Qatar	71	903	1	..
40	41	Sudan	345	842	1	35
41	43	Jordan	100	806	1	38
42	21	Italy	52	805	1	-54

Rank			Volume of imports (TIV, millions)		Share, 2009–13 (%)	Change since 2004–2008 (%)
2009– 13	2004– 2008 ^d	Recipient	2013	2009–13		
43	91	Uganda	20	770	1	1 228
44	15	Poland	152	765	1	-68
45	42	Oman	490	752	1	24
46	51	Mexico	76	736	1	62
47	16	South Africa	2	654	<0.5	-72
48	56	Sweden	52	559	<0.5	68
49	46	Finland	212	445	<0.5	-21
50	77	NATO ^b	-	442	<0.5	281
		Others (108)	1 563	10 310	8	..
Total			25 564	133 921	100	14

– = no deliveries; NATO = North Atlantic Treaty Organization.

Note: The SIPRI data on arms transfers relates to actual deliveries of major weapons. To permit comparison between the data on such deliveries of different weapons and to identify general trends, SIPRI uses a trend-indicator value. This value is only an indicator of the volume of international arms transfers and not of the financial value of such transfers. Thus, it is not comparable to economic statistics such as gross domestic product or export/import figures. The method for calculating the TIV is described in 'Sources and methods' below.

^a The rank order for recipients in 2004–2008 differs from that published in *SIPRI Yearbook 2009* because of subsequent revision of figures for these years.

^b Deliveries to international organizations include only deliveries to the organization, not the aggregate of deliveries to all member states.

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers/>>.

less than the global average of 14 per cent. Their shares of the total volume in 2009–13 therefore decreased slightly.

Three of the five largest recipients of major weapons were in Asia—India, China and Pakistan (see tables 5.3 and 5.4). Several East and South East Asian countries have figured high in the list of importers in the past few years—China, South Korea and Singapore were among the top 10 importers in 2009–13—and many Asian countries have either significantly increased their arms acquisitions or plan to do so in the coming years, often through imports. A particular driver of acquisitions is the increasing tension in the maritime domain in the South and East China seas between China and other littoral states.⁶⁰ Tensions increased in 2013 as China started using its new aircraft carrier (supplied by Ukraine and commissioned in 2012) and unilaterally declared an 'air defence zone' covering maritime territories also claimed by Japan and South Korea.⁶¹ Prior to this, Japan and the USA

⁶⁰ Wezeman, S. T., 'The maritime dimension of arms transfers to South East Asia, 2007–11', *SIPRI Yearbook 2012*. See also chapter 4, section III, in this volume.

⁶¹ See Holtom, P. et al., 'Developments in arms transfers, 2012', *SIPRI Yearbook 2013*, p. 259; and chapter 4, section III, in this volume.

had demonstrated a greater willingness to supply weapons and aid to countries in East and South East Asia. Since 2012 the USA has promised \$156 million in ‘maritime security assistance’ to South East Asia, including \$18 million for five patrol craft for Viet Nam’s coastguard.⁶² It also includes \$40 million promised to the Philippines, which the country intends partly to use for acquisition of two frigates from the USA.⁶³ In 2013 Japan sold 10 large patrol craft to the Philippine coastguard, financed with a ‘soft loan’ from the Japanese Government.⁶⁴ A similar deal for 10 patrol craft for Viet Nam was discussed in 2013 and agreed in 2014.⁶⁵

The UAE and Saudi Arabia returned to the list of top-five importers, Saudi Arabia for the first time since 1997–2001. Many of the countries in the Middle East—especially Iraq and the Arab states of the Gulf (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and the UAE)—have placed significant orders in recent years and more are planned.

The 53 per cent increase in African imports was largely the result of deliveries to North Africa, which increased by 122 per cent. Deliveries to sub-Saharan Africa were slightly higher in 2009–13 than in 2004–2008. However, deliveries to several states in East Africa and the Horn of Africa increased more, while Nigeria, with a growing internal conflict and increasing oil revenues, has started to fulfil plans for large acquisitions.

The decrease of deliveries to European states in 2009–13 (25 per cent below the volume for 2004–2008) can be seen largely as a result of the financial crisis and resulting budget constraints.⁶⁶ While many European states have significant plans to acquire new weapons, many of these plans have been delayed, reduced in size or cut for financial reasons.

⁶² Lee, M. and Pennington, M., ‘US ups security aid to Southeast Asia, criticizes China’, Associated Press, 17 Dec. 2013.

⁶³ ‘Philippines seeks more US navy ships amid China threat’, Agence France-Presse, 15 Jan. 2014.

⁶⁴ Esplanada, J. E., ‘Patrol boats from Japan to start arriving in 2015’, *Philippine Daily Inquirer*, 31 Mar. 2014.

⁶⁵ Cheney-Peters, S., ‘Japan to provide Vietnam patrol boats next year’, USNI News, 2 June 2014, <<http://news.usni.org/2014/06/02/japan-provide-vietnam-patrol-boats-next-year>>.

⁶⁶ See chapter 4, section I, in this volume.

Sources and methods

The SIPRI Arms Transfers Programme maintains the SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers/>>, which contains information on deliveries of major weapons to states, international organizations and non-state armed groups from 1950 to 2013. Data collection and analysis are continuous processes: the database is updated as new data becomes available and a new set of data is published annually. Thus, data from several editions of the SIPRI Yearbook or other SIPRI publications cannot be combined or compared.⁶⁷ Revisions of coverage are applied retroactively for the whole period covered by the database.

Sources and estimates

Data on arms transfers is collected from a wide variety of sources. The common criterion for all these sources is that they are open; that is, published and available to the public. Such open information cannot, however, provide a complete picture of world arms transfers. Sources often provide only partial information, and substantial disagreement between them is common. Since publicly available information is inadequate for the tracking of all weapons and other military equipment, SIPRI covers only what it terms major weapons. Order and delivery dates and the exact numbers (or even types) of weapons ordered and delivered, or the identity of suppliers or recipients, may not always be clear. Exercising judgement and making informed cautious estimates are therefore important elements in compiling the SIPRI Arms Transfers Database.

Types of transfer

SIPRI's definition of an arms transfer includes sales of weapons, including manufacturing licences, as well as aid, gifts and most loans or leases. The recipient of the arms must be the armed forces, paramilitary forces or intelligence agencies of another country, a non-state armed group, or an international organization. In cases where deliveries are identified but it is not possible to identify either the supplier or the recipient with an acceptable degree of certainty, transfers are registered as coming from an 'unknown supplier' or going to an 'unknown recipient'.

Types of weapon: major weapons

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

The transferred item must have a military purpose. In cases where a sensor, turret or refuelling system (items *d*, *i* and *k*) 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 than that of the platform.

The SIPRI trend indicator

SIPRI has developed a unique system to measure the volume of transfers of major conventional weapons using a common unit, the trend-indicator value (TIV). The TIV is based on the known unit production costs of a core set of weapons and is intended to represent the transfer of military resources rather than the financial value of the transfer. Weapons for which a production cost is not known are compared with core weapons based on: a comparison with core weapons using size and performance characteristics (weight, speed, range and payload); type of electronics, loading or unloading arrangements, engine, tracks or wheels,

⁶⁷ Readers who require time-series TIV data for years prior to 2009 should contact the SIPRI Arms Transfers Programme via <<http://www.sipri.org/>>.

armament and materials; and, finally, the year in which the weapon was produced. A weapon that has been in service in another armed force is given a value 40 per cent of that of a new weapon; a used weapon that has been significantly modernized or modified by the supplier before delivery is given a value of 66 per cent of the value when new.

SIPRI calculates the volume of transfers to, from and between all parties using the TIV and the number of weapon systems or subsystems delivered in a given year. This quantitative data is intended to provide a common unit to allow the measurement of trends in the flow of arms to particular countries and regions over time. Therefore, the main priority is to ensure that the measurement system remains consistent over time, and that any changes introduced are back-dated.

SIPRI TIV figures do not represent sales prices for arms transfers. They should therefore not be compared with gross domestic product (GDP), military expenditure, sales values or the financial value of export licences in an attempt to measure the economic burden of arms imports or the economic benefits of exports. They are best used as the raw data for calculating trends in international arms transfers over periods of time, global percentages for suppliers and recipients, and percentages for the volume of transfers to or from particular states.