

10. International arms transfers

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I. Introduction

The SIPRI Arms Transfers Project identifies trends in international transfers (i.e., deliveries) of major conventional weapons using the SIPRI trend-indicator value (TIV).¹ This makes it possible to describe changes in the international market for major weapons since 1950. According to five-year moving averages, the global downward trend was reversed in 2005 as a result of the continuous annual increase in deliveries from 2002 (figure 10.1).² The change in trend is also visible in the financial values of global arms exports according to national reporting (table 10.2).

One of the most marked aspects of major arms transfers over time is the stable composition of the group of major suppliers, with the Soviet Union/Russia and the United States comprising a category of their own. The volume of arms deliveries peaked in 1982, when the Soviet Union, the USA, France, the United Kingdom and Italy accounted for about 82 per cent of the world total (see figure 10.1). In 2005 the five largest suppliers—the USA, Russia, France, Germany and the Netherlands—still accounted for about 82 per cent of total deliveries, although the total global volume was only 51 per cent of that of 1982, reflecting the post-cold war decline in transfers of major weapons. The major suppliers and recipients are discussed in section II.

In contrast, the group of major recipients has varied more over the years. Relative to the major suppliers, the major recipients account for a small share of the total market owing to the large number of minor recipients. In 1982 the five largest recipients—Iraq, Libya, Egypt, Saudi Arabia and India—accounted for 30 per cent of total imports, while in 2005 China, the United Arab Emirates (UAE), India, Israel and Greece accounted for 41 per cent of all imports. This can be partially explained by a shift in major import markets from the Middle East to Asia.

¹ SIPRI data on arms transfers refer to actual deliveries of major conventional weapons. To permit comparison between the data on 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 values of such transfers. The method for calculating the TIV is described in appendix 10C and on the project website, URL <<http://www.sipri.org/contents/armstrad/atmethods.html>>. The figures in this chapter may differ from those given in previous editions of the SIPRI Yearbook as the arms transfers database is constantly updated.

² As the types and volumes of equipment delivered as well as delivery schedules vary over time, a single year is too short a period for reliable conclusions or comparisons. To reduce short-term fluctuations, SIPRI calculates a global 5-year average TIV.

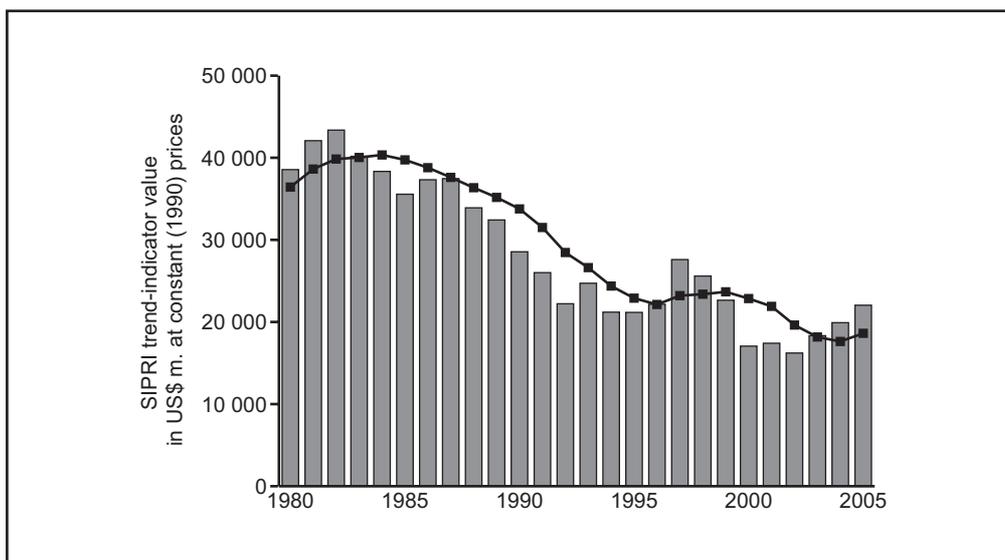


Figure 10.1. The trend in international transfers of major conventional weapons, 1980–2005

Note: The bar graph shows annual totals and the line graph denotes the five-year moving average. Five-year averages are plotted at the last year of each five-year period.

Some suppliers have a low TIV because they export goods that are not covered by the SIPRI database, such as most types of component. However, their arms exports may be financially significant, especially vis-à-vis certain recipients. Section II also discusses some smaller suppliers and includes a case study of Iraq as recipient. Section III surveys international arms embargoes in force during 2005, and section IV reports on developments in national and international arms transfer transparency.³ Section V is a summary of the conclusions.

It should be noted that the SIPRI Arms Transfers Project has modified its methodology. First, the calculation of the TIV for military equipment manufactured under a foreign licence has been revised, generally resulting in an increased TIV. Second, to capture one aspect of multinational cooperation in arms production—that many weapons include major components that are imported by the producing or recipient country—transfers of certain engines have been added to the database. The methodology and the changes to it are explained in more detail in appendix 10C. Appendix 10A contains tables showing the volume of transfers of major conventional weapons, by recipients and suppliers, for 2001–2005. Appendix 10B lists details of the equipment that was delivered and received.

II. International arms transfers

Major suppliers and recipients

The rank order of the five largest suppliers in the period 2001–2005 was Russia, the USA, France, Germany and the UK. *Russia* accounted for 31 per

³ See also chapter 6 in this volume.

cent of global transfers. Its position is partly the result of how the TIV is calculated, as Russia sells many weapons more cheaply than other major suppliers. Despite growing military expenditure in Russia, its arms industry remains dependent on exports.⁴ In the period 2001–2005 exports to China and India accounted for 43 and 25 per cent respectively of Russian deliveries (see table 10.1). These two countries are expected to remain Russia's major arms markets, not least owing to licensed manufacture,⁵ although deliveries are likely to reflect the general shift in Russian arms transfers towards naval equipment.⁶

The joint Russian military manoeuvres in 2005 with China and with India may be seen as 'operational marketing' of Russian weapons.⁷ However, during the past few years India has increasingly turned to Western suppliers.⁸ The new Indian Government, led by the Congress Party, cancelled several previous contracts with various countries in favour of international competition and announced a new acquisition policy from July 2005 that placed added emphasis on attaining military offsets.⁹ Continued Russian defence cooperation with India hinged on India signing a formal intellectual property rights agreement,¹⁰ which was finalized in December 2005.¹¹ This reflects another trend in Russian arms transfers—an increasing insistence on controlling technology transfers and being involved in after-sales support. The latter is the purpose of Rosoboronservice India Ltd, established in 2005 as a subsidiary of the main Russian arms export agency, Rosoboronexport.¹² Despite adminis-

⁴ Butowski, P., 'Drop in Russian aircraft sales to hit industry hard', *Jane's Defence Weekly*, 13 July 2005, p. 21. See also appendix 9C in this volume.

⁵ S. Chemezov, Director-General of Rosoboronexport, quoted in 'Russian official says India, China to remain top buyers', *Agentstvo Voyennykh Novostey*, 9 Feb. 2005, Translation from Russian, World News Connection, National Technical Information Services (NTIS), US Department of Commerce.

⁶ 'Rosoboronexport: volume of Russian arms exports to stay at 2004 level in 2005', *Agentstvo Voyennykh Novostey*, 18 Aug. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce; Novichkov, N., 'Chinese fighters to get Russian engines', *Jane's Defence Weekly*, 18 May 2005, p. 6; and Hewson, R., 'China boosts its air assets with Ilyushin aircraft', *Jane's Defence Weekly*, 21 Sep. 2005, p. 16.

⁷ 'Russia/China: Russia seeks to step up military cooperation with China', *Atlantic News*, 8 Sep. 2005, p. 2; 'Russia demonstrates arms of paratroopers at point exercise with India', ITAR-TASS, 11 Oct. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

⁸ Raghuvanshi, V., 'India OKs Russian royalty demands', *Defense News*, 9 May 2005, p. 22.

⁹ Raghuvanshi, V., 'New policy aims to boost India's exports', *Defense News*, 20 June 2005, p. 19; and Makienko, K., 'Financial results of Russian arms trade with foreign states in 2004', *Moscow Defense Brief*, no. 1, 2005, p. 11.

¹⁰ Sahay T. S., 'Russia trips over Indian defense ties', *Asia Times* (Internet edn), 26 Oct. 2005, URL <http://www.atimes.com/atimes/South_Asia/GJ26Df02.html>.

¹¹ Murphy, J., 'Russia, India sign accord on intellectual property', *Jane's Defence Industry*, vol. 23, no. 1 (Jan. 2006), p. 1; and 'IPR pact signed, India to push Russia on technology transfer', *Indian Express Online*, 22 Dec. 2005.

¹² Mathews, N., 'Wheels and deals', *Aviation Week & Space Technology*, 19 Sep. 2005, p. 45; and Raghuvanshi, V., 'Russian firm to focus on Indian needs', *Defense News*, 26 Sep. 2005, p. 14. The creation of an aircraft service centre in Malaysia reflects the same tendency. 'Ambassador says Russia-Malaysia warplane contract making good progress', ITAR-TASS, 28 Nov. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

Table 10.1. Transfers of major conventional weapons from the 10 largest suppliers to the 38 largest recipients, 2001–2005

Figures are trend-indicator values expressed in US\$ m. at constant (1990) prices. Figures may not add up to totals because of the conventions of rounding.

Recipient	Supplier										Total	
	Russia	USA	France	Germany	UK	Ukraine	Canada	Netherlands	Italy	Sweden		Other
Africa	2 551	209	244	569	152	524	4	15	62	–	948	5 278
Algeria	941	119	16	–	–	88	4	–	–	–	213	1 381
South Africa	–	7	50	407	143	–	–	3	26	–	–	636
Sudan	549	–	–	–	–	–	–	–	–	–	26	575
Other	1 061	83	178	162	9	436	–	12	36	–	709	2 686
Americas	215	1 512	716	197	1 363	50	1 464	227	613	127	1 145	7 629
Brazil	–	307	409	–	4	–	46	–	111	80	67	1 024
Canada	–	277	1	31	960	–	–	–	98	–	12	1 379
Chile	–	25	255	1	196	–	–	204	26	–	85	792
Colombia	41	454	–	–	–	–	–	–	11	–	46	552
Peru	157	100	–	–	–	–	–	–	343	–	3	603
USA	–	–	–	–	181	50	1 409	–	18	12	533	2 213
Other	17	349	51	165	12	–	9	23	6	35	399	1 066
Asia	22 333	6 933	1 355	833	505	912	60	190	395	139	3 164	36 819
China	12 535	–	62	79	82	489	–	–	3	–	93	13 343
India	7 339	56	289	48	94	299	–	75	36	–	1 119	9 355
Indonesia	272	24	109	72	–	–	4	14	–	–	115	610
Japan	–	1 432	11	–	70	–	–	–	16	10	–	1 539
Malaysia	67	45	18	312	147	–	5	–	62	–	172	828
Pakistan	180	189	459	–	–	14	–	–	254	19	950	2 065
Singapore	9	1 165	–	–	–	–	–	–	–	102	106	1 382
South Korea	164	1 639	340	195	43	–	–	–	–	–	63	2 561
Taiwan	–	1 927	55	–	–	–	51	66	–	–	–	1 982
Thailand	–	335	–	103	23	–	–	16	10	8	109	604
Viet Nam	724	–	–	16	–	–	–	–	–	–	36	776
Other	1 043	121	12	8	46	110	–	19	14	–	401	1 774

Europe	932	11 283	1 808	3 188	879	247	112	1 239	664	1 318	1 848	23 590
Czech Republic	251	134	—	—	7	—	36	—	105	387	—	883
Germany	—	392	—	..	38	—	—	197	—	16	38	681
Greece	455	2 857	1 146	276	45	60	40	609	239	184	169	6 105
Italy	—	1 369	30	125	75	—	—	—	..	7	1	1 606
Netherlands	—	635	—	201	40	—	—	..	12	—	—	890
Poland	2	220	—	505	—	—	—	5	6	99	218	1 121
Romania	—	67	12	125	415	—	21	227	—	—	61	907
Spain	—	576	93	213	—	—	18	—	91	4	37	1 032
Turkey	—	1 318	347	573	33	—	—	39	63	—	427	2 800
UK	—	2 374	—	425	..	—	—	30	—	73	25	2 927
Other	224	1 341	180	745	226	187	85	132	148	548	622	4 638
Middle East	2 956	7 233	4 279	524	546	496	105	157	77	—	1 247	17 620
Egypt	—	2 274	—	151	—	45	—	155	—	—	276	2 901
Iran	1 707	—	—	5	—	162	—	—	—	—	269	2 143
Israel	—	2 565	—	309	—	—	—	—	—	..	—	2 873
Jordan	—	227	—	12	415	—	4	—	—	—	106	764
Saudi Arabia	—	369	1 185	5	—	—	98	—	68	—	3	1 728
United Arab Emirates	—	1 516	3 034	38	4	226	—	2	—	—	47	4 867
Yemen	1 117	—	—	—	—	63	—	—	—	—	196	1 376
Other	132	282	60	4	127	—	3	—	9	—	351	968
Oceania	—	1 070	176	295	493	—	155	44	49	160	114	2 556
Australia	—	991	176	295	485	—	75	—	49	160	112	2 343
Other	—	79	—	—	8	—	80	44	—	—	2	97
Other^a	—	—	—	2	—	—	—	—	—	18	4	24
Total	28 982	28 236	8 573	5 603	3 933	2 226	1 971	1 868	1 858	1 760	8 506	93 516

Note: The SIPRI data on arms transfers refer to actual deliveries of major conventional weapons. To permit comparison between the data on such deliveries and identification of general trends, SIPRI uses a *trend-indicator value*, which is an indicator of the volume of international arms transfers and not of the actual financial values of such transfers. Trend-indicator values are not comparable to economic statistics such as gross domestic product or export figures.

^a Other recipients include the UN and NATO (as organizations, not as combinations of all member states) and unknown recipients.

Source: SIPRI Arms Transfers Database.

trative and other problems,¹³ sales of spare parts for Russian equipment are reported to have increased substantially in the past few years.¹⁴

China's interest in buying Russian weapons remains strong. It has ordered 38 Il-76 long-range transport and Il-78 tanker/transport aircraft via Russia (the aircraft are produced in Uzbekistan and fitted with Russian engines), and China and Russia are reported to be negotiating a renewal of Chinese licensed production of Sukhoi combat aircraft.¹⁵ Russia has offered Sukhoi Su-33 and Su-35 combat aircraft to China for use on aircraft carriers.¹⁶ The offer is significant because the aircraft are still in development, which suggests that Russia is willing to share its latest technology with China.

Both China and India have become all the more important to arms exporters as both countries are in a position to become economic powers and leaders in technology applications. Saturation of Russia's Chinese and Indian military markets may be expected in the long term,¹⁷ and Russia's other markets, such as Iran, Viet Nam and Yemen, are relatively small. In March 2006 it was reported that Russia had signed a series of contracts with Algeria with a potential value of \$7.5 billion; the deals are reputed to include combat aircraft, tanks and surface-to-air missiles (SAMs). Depending on how the deal evolves, it could have a major impact on the value of Russia's arms exports.¹⁸

Rosoboronexport has opened a new office in Brussels in an attempt to improve its sales in European markets.¹⁹ Russia is also making greater efforts to market its arms in South America,²⁰ as well as to other members of the Collective Security Treaty Organization and the Shanghai Cooperation Organization.²¹ Russia also has an ambition to become a main supplier to Iraq (see also section III below).²²

¹³ 'Russia should have one arms trader', Interfax, 24 Oct. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

¹⁴ 'Naval products now account for over half Russian arms exports', *RIA Novosti*, 4 Nov. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce; and 'Combat materiel, arms spare parts export increase five-fold in 3 years', Interfax-AVN, 11 Nov. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

¹⁵ 'Il-76/78 pour la Chine' [Il-76/78 for China], *Air & Cosmos*, 16 Sep. 2005, p. 18.

¹⁶ Butowski, P., 'La Chine s'intéresse au Su-33 embarqué' [China interested in ship-borne Su-33], *Air & Cosmos*, 16 Sep. 2005, p. 19.

¹⁷ Interview with A. Brindikov, Rosoboronexport representative, 'Russian arms exports are changing direction', *Izvestiya*, 19 June 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

¹⁸ 'Algerian arms deal brings Russia \$7.5 billion, gas market leverage', *Defense Industry Daily*, 3 Mar. 2006, URL <<http://www.defenseindustrydaily.com/2006/03/algerian-arms-deal-brings-russia-75-billion-gas-market-leverage/index.php>>.

¹⁹ Chemezov, S. V., General Director of Rosoboronexport, 'This is Rosoboronexport', *NATO's Nations and Partners for Peace*, vol. 50, no.2 (2005), p. 73.

²⁰ According to Rosoboronexport, sales of defence equipment to Latin America have been worth \$30–40 million a year. The firm hopes to raise this to \$100 million over the coming few years. See 'Venezuela and Peru shop for arms in Russia', *Latin American Security & Strategic Review*, Dec. 2004, p. 11.

²¹ Trefinov, D., 'Reversing decline', *Jane's Defence Weekly*, 8 June 2005, p. 27; 'Sergei Ivanov to discuss military contacts with Kyrgyzstan', ITAR-TASS, 19 Sep. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce; and 'Russia's Putin wants emphasis on arms trade with CIS countries', Interfax, 17 Oct. 2005, Translation from Russian, World News Con-

Many Russian industrialists are open about the problems facing Russia's arms industry. The risk of losing its position to Western competitors unless the quality improves, for instance through international cooperation, has been noted.²³ In 2005 an arms trade decree was issued aimed at introducing flexibility and liberalization for companies involved in what Russia defines as 'military-technical cooperation' (MTC).²⁴ However, attempts to restrict foreign investment in industries of strategic importance may prove counter-productive to such an ambition.²⁵

Alexander Denisov, first Deputy Director of the Federal Service for MTC, has described Russia's arms export policy in a way that can be understood as 'commercial pragmatism': as long as a country is not under a United Nations (UN) embargo, Russia will in the national interest permit arms exports.²⁶ His statement was made in view of the decision in January 2005 to forgive a large part of Syria's debt as a prelude to future arms deals.²⁷ President Vladimir Putin himself defended Syrian orders for vehicle-mounted SAMs during his visit to Israel in April 2005,²⁸ and it seems, although there were conflicting reports, that the deal went through.²⁹ If it was cancelled this could be an indication that Russia's policy is influenced by more than just international arms embargoes. However, in late 2005 Russia is reputed to have signed a \$1 bil-

nection, NTIS, US Department of Commerce. Members of the Collective Security Treaty Organization and the Shanghai Cooperation Organization are listed in the glossary in this volume.

²² 'Putin to allow Russian firms to sell weapons to Iraq', *Defense Aerospace*, Voice of America, issued 30 Aug. 2004, URL <http://www.newdefenceagenda.org/news_detail.asp?ID=238>; and 'The expert 400: the defense industry', *Gateway to Russia*, 17 Nov. 2004, URL <http://www.gateway2russia.com/st/art_257174.php>.

²³ Rapoport, B., Director-General of Alfa-Integrator in 'Company chief says Russian arms exporters face loss of world market share', *Agentstvo Voyennykh Novostey*, 16 Mar. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

²⁴ The decree is an updated version of a Dec. 2000 law. See 'Russian arms trade decree to be ready soon', *Interfax*, 7 Sep. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce. Rosoboronexport is likely to remain the main arms exporter, as other companies are mainly suppliers of parts and sub-systems. Ivanov, V., 'Arms can be sold, but only in parts', *Nezavisimaya Gazeta*, 9 Sep. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce; and interview with S. Chemezov, Director-General of Rosoboronexport, 'Arms trade is no business for dilettantes', *Military Technology*, no. 4, 2005, pp. 46-48.

²⁵ Vogel, B., 'Russia drafts laws limiting foreign investment in defence industry', *Defence Industry*, Nov. 2005, p. 5. See also chapter 9 in this volume.

²⁶ 'Russia not to cut arms sales to Syria, Iran', *Interfax*, 30 Nov. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

²⁷ Kahwaji, R., 'Russia, Syria revive ties with dept reduction', *Defense News*, 31 Jan. 2005, p. 10. Negotiations for SAM systems, anti-tank weapons and surface-to-surface missiles (SSMs) to Syria were reportedly ongoing with competition from China, Belarus, Iran, North Korea and the Czech Republic; and Hughes, R., 'Syria's dilemma', *Jane's Defence Weekly*, 7 Sep. 2005, pp. 34-36.

²⁸ In April 2005 Russia and Singapore discussed future arms sales. 'Russia: Singapore ambassador to discuss military-technical cooperation', *Interfax*, 5 April 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

²⁹ According to the head of Rosoboronexport, the deal was cancelled because it conflicted with a US-Russian agreement signed in Feb. 2005 on sharing information on and controlling man-portable air defence systems (MANPADs) sales. See 'Russian head of arms exports denies sale of Igla defence systems to Syria', Text of report by Russia TV, translated from Russian by BBC Monitoring International Reports, 2 Nov. 2005; 'Russia, US sign deal on shoulder-fired missiles', *Air Letter*, 26 Feb. 2005, p. 5. However, other sources state that the missiles were delivered. See Myasnikov, V., 'Rosoboronexport is doubling sales', Agency WPS (Internet edn), 10 Feb. 2006.

lion deal with Iran for SAMs despite criticism from the USA and the European Union (EU).³⁰

In the period 2001–2005 *the USA* accounted for 30 per cent of global deliveries of arms. With more relatively large foreign markets than Russia, the four largest recipients—Greece, Israel, the UK and Egypt—accounted for 36 per cent of US deliveries in 2001–2005.³¹ The year 2005 was important for US bilateral arms relations with three countries in particular—India, Israel and Japan.

US relations with India are today labelled ‘strategic’. The USA’s policy towards India is designed to keep India and Japan strong in order to offset China’s rising regional influence.³² While the present volume of US transfers of major weapons to India is low, the USA is prepared to offer advanced weaponry, such as the F/A-18E and an advanced version of the F-16 to meet the Indian requirement for 126 combat aircraft, and the Patriot SAM in its PAC-3 version.³³ US arms policy towards India may also embrace technology transfers, including the possible co-development of weapons ordered by India.³⁴ US helicopter producer Bell has offered technology transfers if it wins the competition for an order for 197 light helicopters. Should either the F-16 or the F/A-18E be selected, the USA seems willing to accept cooperation,³⁵ and India has expressed an interest in the new P-8A anti-submarine warfare/maritime patrol (ASW/MP) aircraft for which the USA would like to find partners for joint development.³⁶

However, India has been exposed to US arms embargoes that stopped the delivery of US weapons and US spare parts for non-US weapons, most recently in 1998. India reacted to this by demanding that its other suppliers do not use US parts. The USA will have to convince India that the risk of a future embargo is low or non-existent.³⁷ In addition, the USA’s willingness to supply

³⁰ Jahn, G., ‘EU decries Russia–Iran missile deal’, *Philadelphia Inquirer*, 16 Dec. 2005.

³¹ A 2005 report was very critical of US arms deliveries post 2001. See Berrigan, F., Hartung, W. D., and Heffel, L., *US Weapons at War 2005: Promoting Freedom or Fuelling Conflict?* (World Policy Institute: New York, June 2005), URL <<http://www.worldpolicy.org/projects/arms/reports/wawjune2005.html>>.

³² Ratnam, G., ‘US vows to make India “world power”’, *Defense News*, 4 Apr. 2005, p. 1; and Sirak, M., ‘US signs defence pact with India’, *Jane’s Defence Weekly*, 13 July 2005, p. 15. On US–Indian civil nuclear cooperation see appendix 13B in this volume.

³³ ‘Patriot pour l’Inde’ [Patriot for India], *Air & Cosmos*, 16 Sep. 2005, p. 18; *Air & Cosmos*, 25 Nov. 2005, p. 9; and Murphy, J., ‘India, Russia move to resolve IPR dispute’, *Jane’s Defence Weekly*, 26 Oct. 2005, p. 21.

³⁴ Competitors have offered technology transfers, licensed production and even marketing rights; e.g., France offers technology transfers and is willing to negotiate marketing rights as part of its offer of the Mirage 2000-5 to India for its planned acquisition of 126 combat aircraft. See Kaura, G. S., ‘France ready to give Mirage “marketing rights” to India’, *The Tribune*, 5 May 2005, URL <<http://www.tribuneindia.com/2005/20050505/main8.htm>>.

³⁵ Johnson, J., ‘Indians greet US declaration of strategic relationship with cynicism’, *Financial Times* (USA edition 2), 5 Apr. 2005, p. 2.

³⁶ Bedi, R., ‘New Delhi in talks to acquire USN maritime patrol craft’, *Jane’s Defence Weekly*, 17 Aug. 2005, p. 17.

³⁷ Mathews, N., ‘Edging closer’, *Aviation Week & Space Technology*, 8 Aug. 2005, p. 37; and Nayan, R., ‘Emerging frontiers of US dual-use export control laws’, *Strategic Analysis*, vol. 29, no. 1, (2005), pp. 143–45.

Pakistan with advanced weaponry may further undermine the USA's chances of securing large orders from India.³⁸

A long-running dispute between the USA and Israel over Israeli transfers to China reached a head in 2005 after Israel's sale of Harpy unmanned air vehicles (UAVs) to China in 2000 and follow-on sales of spare parts in 2002. The US Government claimed that it was not informed of the follow-on sales and feared that Israel might have modernized the UAVs instead of merely overhauling them.³⁹ This, in turn, would have given China military capabilities that could have posed 'a credible threat to other modern militaries operating in the region'.⁴⁰ In early 2005 the USA imposed sanctions on Israel's arms industry and withheld technical assistance and information sharing in relation to a number of projects, including the Joint Strike Fighter (JSF) combat aircraft.

Cooperation was partly restored following an August 2005 agreement under which Israel agreed to inform the USA of all its future arms export plans and to take the US position into account when formulating these plans.⁴¹ Specifically, Israel agreed to observe the 1996 Wassenaar Arrangement control list and to engage in 'a process for consultation' with the US Government on arms sales.⁴² The obligations on Israel to take account of US policy considerations are not limited to deliveries to China.⁴³ In October 2005, following US pressure, Israel froze a \$100 million contract with Venezuela to modernize its US-delivered F-16 combat aircraft.⁴⁴ (On Israeli arms transfers see also below.)

³⁸ Pakistan was granted the status of 'major non-NATO ally' in Mar. 2005. See Ratnam, G. and Raghuvanshi, V., 'Subcontinental tightrope', *Defense News*, 29 Mar. 2005, p. 1.

³⁹ Ben-David, A., 'US pressure threatens Israel-China trade', *Jane's Defence Weekly*, 12 Jan. 2005, p. 22.

⁴⁰ US Department of Defense, 'Annual report on the military power of the People's Republic of China 2005: FY04 report to Congress on PRC military power', Washington, DC, 2005, URL <<http://www.defenselink.mil/pubs/d20040528PRC.pdf>>.

⁴¹ Opall-Rome, B., 'Israel accelerates its export control drive', *Defense News*, 12 Sep. 2005, p. 6. See also Pomper, M. A., 'US, Israel reach China arms deal', *Arms Control Today*, Sep. 2005, p. 34.

⁴² US Department of Defense, Office of the Assistant Secretary of Defense (Public Affairs), 'US Department of Defense—Israeli Ministry of Defense joint press statement', DefenseLink, Press release, no. 846-05, 16 Aug. 2005, URL <<http://www.defenselink.mil/releases/2005/nr20050816-4442.html>>; Gertz, B., 'US to restart arms technology transfers to Israel', *Washington Times* (Internet edn), 17 Aug. 2005, URL <<http://www.washingtontimes.com/national/20050817-121710-1862r.htm>>; and Anthony, I. and Bauer, S., 'Transfer controls', *SIPRI Yearbook 2005: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2005), esp. pp. 705–707. On the Wassenaar Arrangement see chapter 16 in this volume.

⁴³ 'US-Israeli pact may hurt Turkish defense procurement', *Turkish Daily News* (Internet edn), 23 Aug. 2005, URL <<http://www.turkishdailynews.com.tr/article.php?newsid=21450>>. Reflecting the strong US political attitude against helping Chinese armament, the US House of Representatives International Relations Committee passed the 2005 East Asia Security Act including sanctions against any country or firm that sell arms to China. See Snyder, C., 'US House acts on China arms sales', *Taipei Times* (Internet edn), 2 July 2005, URL <<http://www.taipetimes.com/News/front/archives/2005/07/02/2003261859>>.

⁴⁴ 'US roadblocks re: the Venezuela-Israel F-16 upgrade: politics or protectionism?', *Defense Industry Daily*, 26 Oct. 2005, URL <<http://www.defenseindustrydaily.com/2005/10/us-roadblocks-re-the-venezuelaisrael-f16-upgrade-politics-or-protectionism/index.php>>. Israeli defence officials have claimed that US attempts to control Israel's arms exports are at least partly motivated by a desire to protect US markets. See 'Israeli officials accuse US of trying to "reserve" arms market', *Voice of Israel*, 21 Oct. 2005, Translation from Hebrew by BBC Monitoring Middle East.

US military relations with Japan are in a process of change, not only with regard to the presence of US forces and arms pre-positioning, but also as a result of changes in Japan's policy.⁴⁵ In December 2004 Japan decided to allow exports of military components to the USA in support of the development of US missile defence systems. This was the result of a revision of Japan's established defence policy since World War II that emphasized pacifism and effectively banned all arms exports. The review began during the 1990s as a result of Japan's increasing international engagement and insecurities created by the policies and conduct of China and North Korea.⁴⁶

Consequently changes could be seen in Japan's military policy on arms imports and exports. Japan will continue to have a unique relationship with the USA, but Japan is also likely to engage in military cooperation with India, given that limited Japanese deliveries of military equipment to countries other than the USA are permitted.⁴⁷ Imports of major combat equipment to Japan from non-US suppliers may increase because Japan cancelled plans for additional indigenous F-2 combat aircraft, meaning that it might purchase replacement aircraft from Europe.⁴⁸

The recent enlargement of the *European Union* has increased its importance as an arms exporter. The combined exports from EU countries accounted for 27 per cent of total global exports in the period 2001–2005 making it the third largest exporter of major conventional weapons.⁴⁹ In the same period, *France, Germany, the UK and the Netherlands* were the largest European exporters of major conventional weapons—accounting for 9, 6, 4 and 2 per cent of the global market, respectively—followed by Italy and Sweden.

Winning orders in today's competitive major arms market is not only a matter of financing but is increasingly linked to an ability to offer a package of platform, armaments and technology. France's offer to combine its Exocet anti-ship missiles with its Scorpene submarines was one of several factors in India's decision to order six submarines in 2005. The German competitor

⁴⁵ 'The sun also rises', *Armed Forces Journal*, Dec. 2005, pp. 14–23. See also chapter 6 in this volume; and Lachowski, Z., *Foreign Military Bases in the Euro-Asian Region*, SIPRI Policy Paper (SIPRI: Stockholm, forthcoming 2006).

⁴⁶ See, e.g., Deming, R., 'Japan's constitution and defense policy: entering a new era?', *Strategic Forum*, no. 213 (Nov. 2004); Karniol, R., 'Shifting gear', *Jane's Defence Weekly*, 23 Mar. 2005, pp. 27–29; and Cooney, K., 'Alternative visions of Japanese security', *Asian Perspective*, vol. 29, no. 3 (2005), pp. 127–54.

⁴⁷ 'Japanese general in India', *Defense News*, 19 Sep. 2005, p. 3; and Gregory, J., 'Japan looks at exporting missiles', *Financial Times* (Internet edn), 16 July 2005. For a critical review of Japan's 'no arms' export policy, see Ballantyne, R., 'Japan's hidden arms trade', *Japan Focus*, 'URL <<http://www.japanfocus.org/article.asp?id=459>>.

⁴⁸ 'JASDF F-4EJ replacement', *Air Forces Monthly*, Oct. 2005, p. 22.

⁴⁹ This figure includes the combined deliveries of all 25 EU member states for the period 1 Jan. 2001–31 Dec. 2005. The inter-EU market may change as EU members, through the European Defence Agency (EDA), have agreed on a voluntary code of conduct on defence procurement to reduce the impact of Article 296 of the Treaty on European Union, which allows states to buy military equipment without following the rules of an open EU market. See European Defence Agency, *The Code of Conduct on Defence Procurement of the EU Member States Participating in the European Defence Agency*, 21 Nov. 2005, URL <<http://www.eda.eu.int/reference/eda/EDA - Code of Conduct - European Defence Equipment Market.htm>>.

could not present such a ship–missile package since the appropriate missiles are not produced in Germany.⁵⁰

The year 2006 could be decisive for Europe's combat aircraft manufacturers. In 2005 France and the UK competed over a prospective deal to export almost 100 combat aircraft to Saudi Arabia—the UK offering the Eurofighter Typhoon and France the Dassault Rafale.⁵¹ France's recent loss of contracts for combat aircraft in South Korea, Singapore and Indonesia raised demands for a more concerted approach to supporting arms transfers.⁵² However, by the end of 2005 Saudi Arabia had selected the Typhoon, while France seemed to have received an agreement 'in principle' with Saudi Arabia on a border surveillance programme (Project Miksa) worth up to €7 billion.⁵³ Another major competition involving France, Sweden, Russia and the USA is the potential Indian order for 126 combat aircraft, mentioned above. Market analysts seem to regard European combat aircraft programmes as having a competitive edge because they are not exposed to the same uncertainties as the major US programmes.⁵⁴

Technology transfer controversies also inflamed transatlantic relations in 2005 as the US Congress continued to block the implementation of the US Government's International Traffic in Arms Regulations (ITAR) waiver policy, designed to speed up and simplify foreign purchases of unclassified US military equipment.⁵⁵ There were also indications that there would be complications in the technology transfers for the JSF project if the EU lifted its arms embargo on China, drawing concern from political and industrial interests, not least in the UK.⁵⁶ In 2005 the USA stated that it intended to prohibit the re-transfer of US technology used in C-295 transport aircraft that Spain was to sell to Venezuela.⁵⁷ Such decisions and threats strengthen European arguments for harmonization and cooperation in regional weapons-acquisition policies, including shared military research and development (R&D) in the

⁵⁰ Bombeau, B., 'SM-39 Exocet pour l'Inde' [SM-39 Exocet for India], *Air & Cosmos*, 14 Oct. 2005, p. 45; and Lewis, J. A. C., 'India to confirm Scorpene deal', *Jane's Defence Weekly*, 14 Sep. 2005, p. 32. An offer by the German producer to integrate Russian missiles was rejected by India.

⁵¹ 'Arabie Saoudite' [Saudi Arabia], *Air & Cosmos*, 14 Oct. 2005, p. 6.

⁵² 'More export support?', *Aviation Week & Space Technology*, 17 Oct. 2005, p. 13; Mathews, N., 'India market', *Aviation Week & Space Technology*, 17 Oct. 2005, p. 62; and Raghuvanshi, V., 'French, Indian leaders to discuss cooperation', *Defense News*, 12 Sep. 2005, p. 72.

⁵³ 'Saudi Arabia: Al Yamamah III', *Defence News Analysis*, 2 Jan. 2006, p. 1; 'Saudi Arabia commits to Eurofighter Typhoon', *Air Letter*, 23 Dec. 2005, p. 4.

⁵⁴ Dupont, J., 'Dans les serres de l'aigle Américain' [In the claws of the American eagle], *Air & Cosmos*, 28 Oct. 2005, pp. 18–31.

⁵⁵ Spiegel, P., 'UK denied waiver on US arms technology', *Financial Times* (Internet edn), 22 Nov. 2005; Interview with Lincoln Bloomfield, former US Assistant Secretary of State for Political–Military Affairs, *Defense News*, 31 Jan. 2005, p. 22.

⁵⁶ Mulholland, D., 'Dropping EU embargo may jeopardize JSF', *Jane's Defence Weekly*, 2 Mar. 2005, p. 20; Barrie, D., 'Goodbye, waiver', *Aviation Week & Space Technology*, 20 June 2005, p. 42; Anderson, G., 'UK's restricted access to JSF technology is a "very serious issue"', *Jane's Defence Industry*, Aug. 2005, p. 10; Sharman, A., Interview with Director General, UK Defence Manufacturers Association, *Jane's Defence Weekly*, 28 Sep. 2005, p. 29.

⁵⁷ 'US blocks Israeli arms sale to Venezuela—report', Reuters, 20 Oct. 2005, URL <<http://www.alertnet.org/thenews/newsdesk/L20659759.htm>>; and Mathews, W., 'US holds up sale of C-295s to Venezuela', *Defense News* (Internet edn), 24 Oct. 2005.

European Defence Agency (EDA). Some European acquisition decisions could, in response, go against US equipment, partly in order to avoid US export control considerations.

Minor suppliers

China has been notable for its exports of major weapons to countries that are considered by European countries and the USA to be controversial recipients. Israel's position as an arms exporter is due not so much to its transfers of major weapons as to its exports of components and modernization of foreign weapons. India, Brazil and South Africa hold long-standing ambitions to increase their arms export capacity. In recent years they have moved towards cooperation to regain or improve their respective shares of the international arms market.

China

In 1987 China was the third-largest exporter of major conventional weapons, accounting for 9 per cent of global deliveries. Its increase in arms transfers during the late 1980s was based largely on sales to both sides in the 1980–88 Iraq–Iran War. In common with other suppliers in the developing world that benefited from sales during this war, such as Brazil, China struggled to maintain its market share after the conflict ended. The demand for Chinese weapons also suffered when the 1991 Gulf War demonstrated the superiority of Western weaponry and because of the growing availability of cheaper, more advanced Russian weapons during the 1990s.⁵⁸ In the period 2001–2005 China accounted for less than 2 per cent of global major arms transfers.

However, reinforced by cooperation with Russia, various European countries and Israel (and extensive reverse engineering), China's military technical competence has advanced.⁵⁹ In April 2005 Pakistan signed a contract for four frigates estimated to be worth \$600–750 million,⁶⁰ and in September 2005 Nigeria bought 15 F-7 combat aircraft for \$251 million.⁶¹ Russia, however, has made it clear that it will not allow China to export certain combat aircraft with Russian engines, leaving the planned export of some 150 JF-17/FC-1 combat

⁵⁸ Byman, D. and Cliff R., *China's Arms Sales: Motivations and Implications* (RAND Corporation: Santa Monica, 1999), URL <<http://rand.org/publications/MR/MR1119>>, p. vii.

⁵⁹ Kogan, E., 'Russia–China aerospace cooperation', International Relations and Security Network: Security Watch, Center for Security Studies, Zurich, 6 Oct. 2004, URL <<http://www.isn.ethz.ch/news/sw/details.cfm?ID=9869>>. For more on China's recent development of military systems see Wezeman, S. and Bromley, M., 'International arms transfers', *SIPRI Yearbook 2005* (note 42), pp. 422–25.

⁶⁰ 'Pak-China deal on frigates after finalising loan modalities: CNS', *The News* (Karachi), 16 Sep. 2004, URL <<http://jang.com.pk/thenews/sep2004-daily/16-09-2004/main/main12.htm>>; 'Shaikh, S., 'Pakistan to buy four Chinese warships', *The News* (Karachi), 5 April 2005, URL <<http://www.jang.com.pk/thenews/apr2005-daily/05-04-2005/main/main4.htm>>; and 'Pak to get Chinese frigates by 2013', *The Nation* (Lahore), 8 July 2005, URL <<http://nation.com.pk/daily/july-2005/8/index9.php>>.

⁶¹ 'Nigeria spends \$251m for Chinese F-7 fighters after oil deals', *Defense Industry Daily*, 30 Sep. 2005, URL <<http://www.defenseindustrydaily.com/2005/09/nigeria-spends-251m-for-chinese-f7-fighters-after-oil-deals>>.

aircraft to Pakistan indefinitely deferred. Indeed, many advanced Chinese weapons include Russian major components, notably engines and electronics. A test of China's progress in developing and marketing advanced indigenous weapon systems will be the deployment of the J-10 combat aircraft. If and when the system is ready for export, China will be in direct competition with Russia for sales of advanced combat aircraft to middle-income countries.⁶²

China's arms sales policy, which in the cold war period was at least partly geared towards supporting revolutionary movements, is today a means of strengthening strategic relations with, for example, Pakistan, Iran and Egypt, the three largest recipients of exports from China in 2001–2005. China's economic growth has also led to an increasing dependency on imported raw materials, especially oil and gas, and recent Chinese arms sales to Cambodia, Nigeria and Sudan are seen as part of a policy to secure access to needed resources.⁶³

China's future role as an arms supplier is, as for many other suppliers including Russia,⁶⁴ based on a paradox. China's best chance of increasing its arms exports lies in exporting to countries that have been shunned by Western suppliers. At the same time, in order to develop weapon systems that can compare with Russian and Western equipment it is dependent on access to foreign technologies. This access may be refused if China exports to destinations that are under international embargoes or restricted by national export policies of Western suppliers.⁶⁵

Zimbabwe, which has been under EU and US arms embargoes since 2000, has been unable to secure spare parts for the five Hawk trainer/light combat aircraft that it bought from the UK in the early 1990s.⁶⁶ In April 2005 Zimbabwe announced that it was buying six K-8 aircraft, a Chinese aircraft similar to the Hawk aircraft.⁶⁷ In December 2005 the USA imposed sanctions on nine foreign companies, six of them Chinese companies that allegedly supplied military equipment or technology to Iran.⁶⁸

⁶² Donnan, S. and Dickie, M., 'Jakarta in missile deal with Beijing', *Financial Times* (Internet edn), 31 July 2005. Middle-income countries are listed in appendix 8A in this volume.

⁶³ Byman and Cliff (note 58), pp. 2–6.

⁶⁴ The use of foreign components in Russian armaments is increasing. See appendix 9C in this volume.

⁶⁵ Jones, S., 'China reforms its strategic exports control regime', *Jane's Intelligence Review*, Apr. 2005, pp. 30–34. See also Grimmett, R. F., Library of Congress, Congressional Research Service (CRS), *Conventional Arms Transfers to Developing Nations 1997–2004*, CRS Report for Congress RL33051 (US Government Printing Office: Washington, DC, 29 Aug. 2005), p. 9.

⁶⁶ 'Purchase of jets from China wise', *Africa News*, 1 July 2005.

⁶⁷ Hartnack, M., 'Mugabe buys fighter jets', *Mail and Guardian* (Internet edn), 13 April 2005, URL <<http://www.mg.co.za/articledirect.aspx?articleid=215053>>.

⁶⁸ Murphy, J., 'US imposes sanctions on companies alleged to have sold equipment to Iran', *Jane's Defence Industry*, Feb. 2006, p. 7. An unnamed Iranian diplomat is quoted as saying that Iran intends to meet its military aviation requirements from China and other friendly countries. See Vogel, B., 'Iran/China discuss aircraft purchase', *Jane's Defence Industry*, Feb. 2006, p. 7.

Israel

Although Israel has gained an international reputation in the field of military exports, the level of its performance is difficult to establish. In the period 2001–2005 Israel was a smaller supplier of major weapons than China. Most Israeli exports consist of small arms, ammunition, electronics and modernized weapons, for which there are no reliable data.⁶⁹ Exports are also difficult to identify because non-Israeli companies market Israeli-made goods or produce them under licence. Israeli companies establish partnerships with European companies, partly to penetrate protected markets, but also because buying weapons from Israel may be politically controversial. According to Rafael, the producer of the Spike anti-tank missile, it is ‘more comfortable for European customers to buy from Eurospike than from Israeli Rafael’. Finland, the Netherlands, Poland and Romania ordered Spike missiles from Eurospike, established in 1997 by Rafael and German Diehl and Rheinmetall.⁷⁰ Rafael also sells its Litening targeting system via Zeiss, a German company.⁷¹

As Israel has long experience of security threats similar to those faced by the coalition forces in Iraq, the ongoing conflict there has provided a number of export opportunities for Israel. Equipment such as armour and other protection for vehicles has proved lucrative: in 2004–2005, orders worth \$84 million were placed by the USA to protect infantry fighting vehicles (IFVs).⁷² Israel and Turkey also established close military cooperation during the 1990s, partly because Turkey felt exposed to insurgency threats. In 2005 Turkey placed several orders for Israeli equipment, including a \$183 million order for UAVs.⁷³

India is one of Israel’s main markets, especially since sales to China were blocked (see above).⁷⁴ According to the Indian Minister of Defence, Pranab Mukherjee, India and Israel have signed contracts worth \$2.76 billion over the past three years.⁷⁵ Sources claim that sales of missiles and modernization packages alone have been worth about \$900 million a year.⁷⁶ Included in bilateral discussions have been the Israeli Arrow anti-ballistic missile, Heron

⁶⁹ E.g., AMI has signed a \$300 million ammunition order with the USA. Ben-David, A., ‘Israeli government decides fate of IMI’, *Jane’s Defence Weekly*, 7 Sep. 2005, p. 22.

⁷⁰ Ben-David, A., ‘Partner power’, *Jane’s Defence Weekly*, 23 Nov. 2005, pp. 22–23.

⁷¹ Sariibrahimoglu, L., ‘Turkey to buy Litening III targeting pods’, *Jane’s Defence Weekly*, 13 July 2005, p. 13.

⁷² Ben-David, A., ‘Israel to supply extra ERA kits’, *Jane’s Defence Weekly*, 3 Aug. 2005, p. 20.

⁷³ Turkey has shown a renewed interest in several other large orders such as the modernization of Turkish combat aircraft and tanks, air-to-ground missiles and the Arrow-2 ABM system. See Ben-David, A., ‘Israeli industry is “back to business” with Turkey’, *Jane’s Defence Weekly*, 18 May 2005, p. 15.

⁷⁴ Pomper, M. A., ‘US, Israel seek to cut deal on China arms sales’, *Arms Control Today*, July–Aug. 2005, pp. 31–32; There are also a number of smaller Israeli markets. Viet Nam in autumn 2005 signed a deal for electronic warfare equipment while negotiations were ongoing for the sale of production technology for artillery shells with cluster sub-munitions. See Karniol, R., ‘Israel bolsters EW business in Vietnam’, *Jane’s Defence Weekly*, 5 Oct. 2005, p. 7. Unmanned surface vehicles (USV) are among Israel’s most exported products, and in 2004 Israel sold several Protector USVs to Singapore. See Scott, R., ‘Singapore reveals Protector USV buy’, *Jane’s Defence Weekly*, 25 May 2005, p. 5.

⁷⁵ This would make Israel the second-largest supplier to India after Russia. Bedi, R., ‘Indian conventional defence purchases soar’, *Jane’s Defence Weekly*, 14 Sep. 2005, p. 42.

⁷⁶ Russian sales to India are estimated at some \$1.5 billion per year. Bedi (note 75).

UAVs, laser target designators, anti-tank missiles and a joint development of an extended-range Barak SAM for India and Indian-made Dhruv helicopters.⁷⁷ The Dhruv is being jointly marketed by India and Israel.⁷⁸ Israel also cooperates with foreign—especially Russian and Ukrainian—companies that sell to or modernize weapons in India.⁷⁹

Indian arms acquisition policy is torn between pursuing domestic military production or increasing imports of arms. Many domestic projects have faced technical difficulties and been delayed. The Indian Government has stated that it might increase direct imports to quicken military deployment even though such a course runs contrary to its preference for a policy of self-reliance.⁸⁰ Should Israel become an increasingly important arms supplier and military–industrial partner to India—which is especially likely if it is acting in tandem with the USA—it is possible that Russia’s trade with one of its major arms markets will be drastically reduced.⁸¹

Brazil, South Africa and India—competition or cooperation?

Brazil was in the 1980s an important exporter, with reported exports per year of \$1.5 billion.⁸² Today this has shrunk to some \$400 million. In 2005 the Brazilian Government announced that it was a priority to increase the value of its arms exports, both for financial reasons and to support its aspirations to play a larger role in the world. The armed forces and private industries have drawn up a national defence industry programme designed to boost industrial capacity and increase exports with tax incentives, credits and joint research projects with universities and the private sector.⁸³

South Africa’s indigenous arms industry developed during the international embargo against the apartheid policy.⁸⁴ The country achieved moderate levels

⁷⁷ Ben-David, A. and Bedi, A., ‘Equipment deals strengthen Israel–India ties’, *Jane’s Defence Weekly*, 19 Jan. 2005, p. 7.

⁷⁸ Ben-David, A. ‘IAI and HAL pitch for US helicopter contract’, *Jane’s Defence Weekly*, 1 June 2005, p. 19.

⁷⁹ E.g., Israeli company Elbit joined Aviant of the Ukraine to modernize a large number of Indian An-32 transport aircraft for around \$70 million. Novichkov, N., ‘Aviant in line to upgrade Indian An-32s’, *Jane’s Defence Weekly*, 4 May 2005, p. 15.

⁸⁰ That statement was countered by a call from the Federation of Indian Chambers of Commerce and Industry to create more jobs by reducing imports. Anderson, G., ‘India may purchase globally in order to “counter security threats”’, *Jane’s Defence Industry*, July 2005, p. 5; and Anderson, G., ‘India faces calls to reduce military imports’, *Jane’s Defence Industry*, Aug. 2005, p. 11.

⁸¹ Blank, S., ‘Arms sales and technology transfer in Indo-Israeli relations’, *Journal of East Asian Affairs*, vol. 19, no. 1 (2005), pp. 200–41; and Menon, R. and Pandey, S., ‘An axis of democracy?’, *The National Interest*, no. 80 (2005), pp. 29–36.

⁸² Lehman, S., ‘Brazil plans comeback of its once-lucrative defense industry’, Associated Press, 7 Mar. 2005. However, according to SIPRI data, Brazil’s deliveries never exceeded \$250 million annually in the 1980s and were mostly based on sales to both sides in the Iraq–Iran War.

⁸³ ‘Brazil looks for weapons export gains’, *Jane’s Defence Weekly*, 4 May 2005, p. 10. In Mar. 2005 Air Force General Antonio Hugo Pereira Chaves, Director of the Brazil MOD Logistics Department, said that ‘a country without a strong defense industry is a country without a voice’. Lehman (note 82).

⁸⁴ Batchelor, P. and Willett, S., SIPRI, *Disarmament and Defence–Industrial Adjustment in South Africa* (Oxford: Oxford University Press, 1998).

of military deliveries in the 1980s and early 1990s. From the mid-1990s the main South African export products have been light and medium-weight armoured vehicles as well as new or modernized surplus equipment delivered to countries and organizations involved in peacekeeping operations.

In contrast to South Africa, *India* has not been successful in marketing its arms internationally. It has a large arms industry but imports over 70 per cent of its military equipment. A 2005 report by an independent committee set up in May 2004 by the new government made suggestions for improving Indian industrial performance, including a national offset policy, more private industries and increasing arms exports.⁸⁵

As part of a wider policy of cooperation, Brazil, India and Israel have sought to coordinate or even pool their arms industrial resources to increase their respective capacities and arms exports. The India–Brazil–South Africa Dialogue Forum (IBSA) was inaugurated with the Declaration of Brasília, signed in June 2003 by the countries' three foreign ministers. The initiative is designed to allow for an exchange of views on regional and international issues and promote cooperation.⁸⁶ The countries have declared their commitment to 'cooperation in defence production, co-development, trade and joint marketing', and 'to explore coordination among the defence research institutions in the three countries and of their respective defence industries to provide inputs for the identification of concrete cooperation projects.'⁸⁷ One example is Brazil's industrial involvement in South Africa's development of the A-Darter air-to-air missile, which was selected by the Brazilian Air Force in early 2006.⁸⁸

The prospects for the cooperation initiative were dealt a significant blow in October 2005 when India cancelled all contracts with South Africa's Denel company after a five-month investigation into allegations that the company had paid bribes to win Indian contracts.⁸⁹ Meanwhile, in all three countries domestic support for the principle of trilateralism seems limited. On the political left, the project's natural constituency, attitudes are divided between support, based on Southern solidarity, and strong resistance because of the project's advocacy of economic liberalization. In Brazil, right-wing parties, liberal camps within the Ministry of Foreign Affairs, and academics and representatives of business and agricultural sectors argue that the countries' inter-

⁸⁵ Bedi, 'Report urges kick-start to Indian defence sector', *Jane's Defence Weekly*, 20 Apr. 2005, p. 21.

⁸⁶ Alden, C., and Antonio Vieira, M., 'The new diplomacy of the South: South Africa, Brazil, India and trilateralism', *Third World Quarterly*, vol. 26, no. 7 (2005), pp. 1077–95.

⁸⁷ India–Brazil–South Africa (IBSA) Dialogue Forum Trilateral Commission Meeting, 'New Delhi agenda for cooperation and plan of action', URL <<http://www.southcentre.org/info/southbulletin/bulletin75/bulletin75-05.htm>>.

⁸⁸ 'Brazil picks A-Darter', *Flight International* (Internet edn), 14 Feb. 2006.

⁸⁹ Phasiwe, K., 'Denel bribe row deals blow to SA arms trade', *Business Day* (Internet edn), 4 Oct. 2005, URL <<http://www.businessday.co.za/PrintFriendly.aspx?ID=BD4A98377>>. The decision annulled a 3-year-old order for 400 anti-materiel rifles and a deal for the Bhim, a 155-mm tracked self-propelled gun, produced in India with Denel's support. The decision also affects Denel's involvement in the competition for 180 towed guns. See Helmoed-Römer, H., 'India backs off from Denel contracts', *Jane's Defence Weekly*, 12 Oct. 2005, p. 20.

ests would be better served by focusing on relations with the developed world.⁹⁰ In fact, the prospects for deeper cooperation are hampered by the fact that the defence industries of all three countries, particularly South Africa, cooperate with and sell military equipment to major arms-producing countries. For instance, in 2005 South African light armoured vehicles were sold in large numbers to Sweden, Italy and the USA. Some of these sales are the result of offset agreements tied to large South African arms imports. Others are a consequence of joint bidding on foreign contracts and transnational mergers and acquisitions involving South African and, not least, European companies.⁹¹

Iraq as recipient

Prior to the August 1990 Iraqi invasion of Kuwait, Iraq was among the most significant importers of major arms. Its five largest suppliers in the period 1970–90 were the Soviet Union, France, China, Czechoslovakia and Poland. After the invasion the UN Security Council (UNSC) put strict sanctions in place, banning countries from supplying Iraq with military equipment. With the revision of the arms embargo in June 2004, Iraq's government again became a legitimate customer. According to SIPRI data, Iraq was the 23rd largest recipient of major weapons in 2005, accounting for 1 per cent of the global volume. Despite this low figure, this brief survey of major orders and deliveries is warranted for two reasons. First, there is a good possibility that Iraq may regain its position as one of the region's largest importers of military equipment. Iraqi military forces are today almost exclusively reliant on arms imports, so a brief look at which companies and countries have been exporting weapons to Iraq since 2004 may give an indication of who might be the major suppliers in the future. Second, the USA's ability to fulfil its stated aim of withdrawing its forces from frontline combat and transferring security duties to Iraqi forces depends upon the development of adequately trained and equipped Iraqi forces.⁹²

Recent procurement

Aside from salvaging equipment from the large pre-2003 Iraqi inventories, Iraq has since June 2004 obtained military equipment in three main ways: through purchases made by the Multinational Force command; from donations made by other countries; and via contracts issued by the Iraqi Government.⁹³ Prior to the transfer of sovereignty on 28 June 2004 the Coalition Provisional Authority administered contracts for the purchase of military equipment for Iraqi forces. Following the transfer of sovereignty, the Project and Contracting Organization (PCO) within the US embassy has managed the \$18 billion in

⁹⁰ Alden and Antonio Vieira (note 86), p. 1091.

⁹¹ Heitman, H-R., 'Opportunity knocks', *Jane's Defence Weekly*, 3 Aug. 2005, pp. 24–29.

⁹² On the conflict in Iraq and the training of the Iraqi Security Forces see chapter 2 in this volume.

⁹³ Mroue, B., 'Iraqi military investigating bad purchases: officials open corruption probe', *Washington Times*, 10 Aug. 2005, p. 12.

assistance on behalf of Iraqi government agencies.⁹⁴ The Multinational Security Transition Command–Iraq (MNSTC–I) handles the task of training and equipping the Iraqi Security Forces.⁹⁵

Among the largest contracts issued by the USA was a \$259 million award in May 2004 to a Virginia-based company, Anham Joint Ventures, to equip and train the new Iraqi Army. The contract covered the delivery of various ground vehicles, handguns, and heavy and light machine guns.⁹⁶ In April 2005 it emerged that a consortium that had been awarded a \$174.4 million contract by the US Army to supply weapons and communications equipment to the Iraqi Army had, with US approval, awarded a \$29 million sub-contract to a Chinese state-owned company. In 1996 the same company was indicted in California in connection with the smuggling of 2000 AK-47 rifles into the USA.⁹⁷

In addition, the Iraqi Government has received military aid from many countries. The UAE has donated 44 M-3 APCs to the Iraqi Army and Jordan has given 16 UH-1H helicopters.⁹⁸ The Coalition Military Assistance Training Team (CMATT) agreed to pay for the aircraft to be refurbished. Announced in February 2005, among the largest donations from Europe has been a gift of 77 second-hand T-72 tanks from Hungary under the auspices of the NATO Training Mission–Iraq (NTM-I). The US company Defense Solutions subsequently agreed a \$3.4 million contract with the Iraqi Government to overhaul the tanks. The cost is likely to be covered by US military aid.⁹⁹

Following the transfer of sovereignty in June 2004 the Iraqi Government began issuing its own contracts for military equipment. Poland again seems to be one of the largest suppliers. As of July 2005 the Iraqi Ministry of Defence (MOD) had reportedly awarded the Polish company Bumar 35 contracts worth \$400 million.¹⁰⁰ These contracts included a \$120–132 million agreement for 20 W-3 helicopters and another for \$105 million covering the delivery of 24 second-hand Mi-8MTV helicopters.¹⁰¹ However, when it became clear that the delivery of the W-3 would take several years, the order was reduced to two

⁹⁴ Pappalardo, J., 'US moves to rearm Iraq', *National Defense*, Oct. 2004, URL <http://www.nationaldefensemagazine.org/issues/2004/oct/US_Moves.htm>, p. 14.

⁹⁵ MNSTC–I, URL <<http://www.mnstci.iraq.centcom.mil/mission.htm>>.

⁹⁶ Scully, M., 'US company wins \$259m deal to equip Iraqi army', *Defense News*, 31 May 2004, p. 22. According to press reports 'Ukrainian companies will supply 65 per cent of the contracted equipment, including some 1,500 16-soldier troop carriers and 2,000 six-soldier wagons'. See Warner, T., 'Ukraine will be main equipment supplier to army', *Financial Times*, 18 June 2004, p. 8; and 'Ukraine to supply 2,000 trucks to Iraq', Kiev Interfax-Ukraine, 14 July 2004, Foreign Broadcast Information Service (FBIS), FBIS-SOV-2004-0714, 14 June 2004.

⁹⁷ Landay, J. S., 'Chinese firm picked by US to arm Iraq tied to smuggling', *Pittsburgh Post-Gazette*, 28 Apr. 2005, p. A4.

⁹⁸ Baranuskas, T., 'Germany and the UAE helping equip new Iraqi military', *Forecast International Government & Industry Group*, 20 Dec. 2004, URL <<http://www.forecast1.com>>; and 'Air corps evolves from Jordan to back army in Iraq', *Jane's Defence Weekly*, 24 Mar. 2004, p. 14.

⁹⁹ Lockwood, D., 'Defense Solutions LLC to rebuild surplus Hungarian T-72 tanks for Iraq', *Forecast International Military Vehicles Forecast*, 10 May 2005; and 'UK supplies more equipment to Iraq', *Jane's Defence Weekly*, 8 June 2005, p. 18.

¹⁰⁰ Lockwood, D., 'Iraq orders armored vehicles from Poland', *Forecast International Military Vehicles Forecast*, 25 July 2005.

¹⁰¹ 'Iraq's shopping spree in Poland', *Jane's Defence Weekly*, 22 Dec. 2004, p. 7.

helicopters and a new order for 10 Mi-17 helicopters from Russia was placed via Bumar.¹⁰² During 2005 Poland also granted export licences for the sale of armoured personnel carriers (APCs) to Iraqi forces.

Poland's contracts with the Iraqi Government appear to be attributable in part to Poland's contribution of troops to the coalition forces stationed in Iraq.¹⁰³ Poland was largely unsuccessful in its attempts to win US-funded contracts for military equipment, which were mainly awarded to US-based companies. However, having a presence in the country and an experience of submitting bids gave Poland an advantage compared with its experience in 2004. Poland also reportedly benefited from the fact that the minister in charge of armaments in Iraq after the transfer of sovereignty, Ziad Cattan, had studied in Poland.¹⁰⁴

Main issues

The USA has played an instrumental role in dictating the size and make-up of the future Iraqi security forces via its close involvement in all three methods of procurement.¹⁰⁵ This control is particularly apparent in the issuing of contracts for military equipment and the modernization and shipping of weapons donated by other states. US influence is also evident in the contracts issued by the Iraqi Government, since many of these were signed by the interim administration, a body whose members were largely chosen by the USA.¹⁰⁶

Since the fall of Saddam Hussein's government the slow pace of the rearmament of Iraqi forces has been a consistent target of criticism.¹⁰⁷ According to Professor Andrew Terrill of the Strategic Studies Institute at the US Army War College, the USA was initially unwilling to transfer heavy equipment to Iraqi forces. The US plan was for an 'extremely weak Iraqi military' unable to threaten neighbours or to launch a coup against a US-backed Iraqi government.¹⁰⁸ However, many domestic issues influenced the creation of the Iraqi force, and by 2005 the initial fears had been overridden by an acknowledgement of the need to create an Iraqi force that was strong enough to survive a US withdrawal. Evidence of this was provided by the US-funded creation of an Iraqi heavy division, including two battalions of T-72 tanks, two of T-55

¹⁰² Nikolsky, A., 'Russia will make some money from the war in Iraq', *Vedomosti* (Internet edn), 2 Aug. 2005.

¹⁰³ 'Iraq contract ban angers US allies', *International Herald Tribune*, 11 Dec. 2003, p. 1.

¹⁰⁴ Baczynski, N. R., Bumar CEO, 'Polish businesses afraid of doing business in Iraq, one arms sector exception', *Polityka* (Warsaw), 13 Nov 2004, translated from Polish by BBC Monitoring.

¹⁰⁵ Pappalardo, J., 'US moves to rearm Iraq', *National Defense*, Oct. 2004, URL <http://www.nationaldefensemagazine.org/issues/2004/oct/US_Moves.htm>, p. 14.

¹⁰⁶ Cockburn, P., 'What has happened to Iraq's missing \$1bn?', *The Independent* (Internet edn), 19 Sep. 2005, URL <http://news.independent.co.uk/world/middle_east/article313538.ece>.

¹⁰⁷ Cordesman, A. H., *The Critical Role of Iraqi Military, Security, and Police Forces: Necessity, Problems, and Progress*, (Center for Strategic and International Studies: Washington, D.C., Oct. 2004), URL <http://www.csis.org/component/option,com_csis_pubs/task,view/id,1241>, p. 13.

¹⁰⁸ Grant, G., 'T-72s to bolster Iraqi military', *Defense News* (Internet edn), 24 Oct. 2005.

tanks and five of BMP-1 IFVs. The bulk of this equipment was taken from Iraqi stocks.¹⁰⁹

Even now there is a dearth of equipment, particularly of armoured vehicles, but the reasons for this are not clear. It might be a consequence of continued US resistance to supplying certain types of equipment,¹¹⁰ or it may stem from troubles at the Iraqi MOD. In mid-2005 it emerged that the Iraqi procurement process may have been beset by corruption resulting in the theft of funds and the acquisition of outdated, inappropriate or non-functioning equipment.¹¹¹ Most of the alleged corruption relates to money allocated to purchase arms from Pakistan and Poland.¹¹²

In August 2005 the Swiss Government froze a sale to the UAE of 180 second-hand M-113 IFVs that were to be donated to Iraq. The Swiss authorities stated that the deal could not proceed until Iraq guaranteed that the vehicles would not be used in combat operations.¹¹³ In October 2005 the UAE cancelled the deal, arguing that they could wait no longer for the delivery of the vehicles.¹¹⁴ There are signs of similar qualms in other West European governments over the export of weapons to Iraq, a country in a state of conflict whose government has been frequently accused of human rights abuses. As long as individual European countries are in control of their arms export policies, the largest military suppliers to Iraq might include Central and East European countries such as Poland.

III. International arms embargoes

There were 21 international arms embargoes in force in 2005,¹¹⁵ of which nine were mandatory UN embargoes and 12 were embargoes by smaller groups of states. Of these latter 12, nine were imposed by the EU, one by the Organization for Security and Cooperation in Europe (OSCE), one by the African Union (AU) and one by the Economic Community of West African States

¹⁰⁹ Grant (note 108).

¹¹⁰ In Aug. 2005 the commander of the Iraqi ground forces, General Abdul Qader Mohammed Jassim, was reported as stating that his troops needed helicopters and artillery, weapons that US authorities claimed they did not require. See Smith, C. S., 'US wary of supplying heavy weapons to Iraq', *New York Times*, 29 Aug. 2005, p. 5.

¹¹¹ Cockburn (note 106); 'Iraqi arms buying rife with corruption', Knight Ridder, 15 July 2005; Allam, H., 'Audit of Iraqi arms deals finds widespread fraud', *Philadelphia Inquirer*, 14 Aug. 2005.

¹¹² In Oct. 2005 the Iraqi Government issued arrest warrants for a former defence minister and 22 other current and former officials, accusing them of involvement in the misappropriation of funds. There was more confusion when one of the accused claimed that only 4 or 5 officials deserved to be indicted. According to the director of human resources at the MOD, Mumtaz al-Obeidi, the remaining warrants were part of a bid by the 2 main Shiite parties to seize key MOD positions from independents and Sunnis. See Martin, P., 'Iraq accuses 23, cites graft in defense deals', *Washington Times*, 12 Oct. 2005, p. 1.

¹¹³ 'Switzerland freezes armored vehicle deal with Iraq', *Defense News* (Internet edn), 15 Aug. 2005, URL <<http://www.defensenews.com>>.

¹¹⁴ 'Tanks-for-Iraq deal cancelled', *Swiss Information Service*, 6 Oct. 2005, URL <<http://www.defense-aerospace.com>>.

¹¹⁵ An international arms embargo is defined here as an embargo established by an international organization or a group of states. Embargoes imposed by single states are not discussed in this chapter.

(ECOWAS). The non-mandatory UN embargo on Afghanistan, established in 1996, has not been lifted, but it has not been observed since 2001.¹¹⁶

In 2005 ECOWAS and the AU for the first time established arms embargoes. On 19 February ECOWAS put in place a 'complete arms embargo' against *Togo* after Faure Gnassingbé, with the help of the armed forces, illegally became Togo's president following the death of his father.¹¹⁷ The Commission of the AU first asked members on 20 February 2005 to support the ECOWAS sanctions; the AU then adopted the embargo itself on 25 February 2005.¹¹⁸ The ECOWAS sanctions were lifted on 26 February, after Gnassingbé stepped down.¹¹⁹ However, the AU sanctions remained in force until 28 May after Gnassingbé won the presidential elections.¹²⁰ Since these embargoes lasted for only a short period, it is not possible to assess whether non-ECOWAS and non-AU members would have abided by them.

UN embargoes

In 2005 no new UN embargoes were imposed and none was lifted. In July the UN Security Council rejected calls by the AU and the Intergovernmental Authority on Development (IGAD) to lift the arms embargo against *Somalia*. The AU and IGAD wanted the embargo to be lifted to enable them to deploy an armed peacekeeping force. However, the Security Council wanted Somalia's Transitional Federal Government, established as part of the 2004 peace agreement, to present a detailed plan on the country's security before it would consider lifting the embargo.¹²¹ In the meantime, weapons were smuggled into Somalia. The president and head of the Transitional Federal Government boasted that he was procuring weapons for his forces, and the UN identified groups on the opposition side that were acquiring weapons, including larger systems such as anti-aircraft guns.¹²²

¹¹⁶ A full list of international arms embargoes is available at the SIPRI Arms Transfers Project web page, URL <<http://www.sipri.org/contents/armstrad/embargoes.html>>.

¹¹⁷ 'ECOWAS imposes sanctions on Togo', *Xinhuanet*, 19 Feb. 2005, URL <http://news.xinhuanet.com/english/2005-02/20/content_2595727.htm>.

¹¹⁸ 'Togo prepares elections, Gnassingbé stays in power', *Afrol News*, 21 Feb. 2005, URL <<http://www.afrol.com/articles/15678>>; 'AU calls for wider Togo sanctions', BBC News Online, 25 Feb. 2005, URL <<http://news.bbc.co.uk/2/4297183.stm>>; 'AU slaps Togo with sanctions', *IOL* (Internet), 25 Feb. 2005, URL <<http://www.iol.co.za>>; and 'African Union demands Togo guarantee fair elections after president resigns', Associated Press, 26 Feb. 2005, URL <<http://www.signonsandiego.com/news/world/20050226-1030-togo.html>>. The AU, however, does not have any formal announcement on the imposition of an arms embargo on its website.

¹¹⁹ 'Ecowas lifts Togo sanctions', *News24.com*, 26 Feb. 2005, URL <http://www.news24.com/News24/0,,2-11-1447_1668384,00.html>.

¹²⁰ Blunt, E., 'African Union lifts Togo embargo', BBC News Online, 27 May 2005, URL <<http://news.bbc.co.uk/2/4588281.stm>>. However, the 27 May communiqué from the AU does not explicitly mention lifting the AU sanctions. African Union, Communiqué of the 30th meeting of the Peace and Security Council, Addis Ababa, 27 May 2005, URL <http://www.africa-union.org/psc/30th/30thCommuniqué_Eng.pdf>.

¹²¹ Blanch, E., 'Renewed civil war feared in Somalia', *Jane's Intelligence Review*, vol. 17, no. 8 (Aug. 2005), p. 4; and Kucera, J., 'Somalia likely to get fewer peacekeepers', *Jane's Defence Weekly*, 5 Oct. 2005, p. 6.

¹²² Blanch (note 121).

The UN embargo on the *Democratic Republic of the Congo* (DRC) was, according to a Security Council expert group, repeatedly broken. The group's January 2005 report accused Uganda of having sold weapons in 2004 in exchange for minerals. Uganda denied supplying weapons to anyone in the DRC.¹²³ Evidence was also found of breaches of the embargo on *Côte d'Ivoire*, with a Danish-registered ship delivering 22 'military vehicles' for Ivorian forces. The UN forces confiscated the vehicles, but their origin was unclear.¹²⁴

EU embargoes

Nine EU embargoes were in effect in 2005.¹²⁵ On 14 November *Uzbekistan* became the target of an EU embargo after its government refused to allow an independent international investigation of the violent suppression of peaceful anti-government demonstrations in May 2005.¹²⁶

The heated inter-EU and Euro-Atlantic discussions about a possible lifting of the EU embargo against *China* cooled in 2005. There remained much debate in the first half of the year, with the USA arguing to keep the embargo and threatening to restrict exports of arms and other sensitive technologies to any country exporting arms to China, and to prohibit US Government agencies from doing business with any company that sells arms to China for five years.¹²⁷ However, by mid-2005 developments in UK and German domestic politics had more or less edged the issue from the EU agenda.

IV. Reporting and transparency in arms transfers

The financial value of the international arms trade

The SIPRI trend-indicator value was not developed to assess the economic magnitude of national arms markets or of the global market.¹²⁸ However, by adding financial data released by supplier governments it is possible to arrive at a rough estimate of the financial value of the global arms trade. That value for 2004, the most recent year for which data are available, is estimated at \$44–53 billion. This accounts for 0.5–0.6 per cent of total world trade.¹²⁹ The

¹²³ 'Operation Kisanja', *Africa Confidential*, 4 Feb. 2005, p. 5.

¹²⁴ 'Arms embargo breach threatens Ivory Coast truce', *Sunday Telegraph*, 17 July 2005, p. 27.

¹²⁵ The EU embargo against Bosnia and Herzegovina was lifted in Jan. 2006.

¹²⁶ Council of the European Union, 'Council Common Position 2005/792/CFSP of 14 November 2005 concerning restrictive measures against Uzbekistan', *Official Journal of the European Union*, L299 (16 Nov. 2005), URL <<http://europa.eu.int/eur-lex/lex/JOIndex.do>>.

¹²⁷ E.g., the US Department of Defense report on China's military power gave several arguments to keep the embargo, all related to military power, not to human rights. US Department of Defense (note 42); and Murphy, J., 'US warns EU over risks of lifting arms on China', *Jane's Defence Weekly*, 27 July 2005, p. 19.

¹²⁸ See note 1.

¹²⁹ Total world exports in 2004 amounted to \$9045 billion. International Monetary Fund, International financial statistics online, URL <<http://ifs.apdi.net/imf>>.

comparability of these national data is limited because of differences in data collection methodologies and conflicting definitions of ‘arms’ and ‘military equipment’.

For the first time in several years this chapter includes a table of government and industry data on the financial value of countries’ arms exports (table 10.2).

International transparency

The two main international mechanisms for public transparency in arms transfers are the UN Register of Conventional Arms (UNROCA), introduced in 1992, and the Annual Report according to Operative Provision 8 of the 1998 EU Code of Conduct on Arms Exports, produced since 1999.

The UN Register of Conventional Arms

The total number of UNROCA responses in 2005 was approximately 120, a similar figure to previous years.¹³⁰ The regions from which there was the lowest response were the same as in recent years: the Middle East (where almost no country reported), Africa, and North-East Asia, where China has not reported since 1998. North Korea has never reported, and the UN does not ask Taiwan to report.

The UNROCA showed large discrepancies in reported data between exports and imports. Furthermore, the criteria that different countries used to decide which weapons to report and how a ‘transfer’ is defined remain at variance. Some states, for example Australia and Sweden, continue to refuse to report the number of imported and/or exported Category VII items—that is, missiles and missile launchers, which since 2003 include man-portable defence systems (MANPADS)—or those in the national inventory. Others, such as the UK, reported numbers of at least some UNROCA-defined missiles and launchers, albeit not all and not always clearly specifying whether numbers of missiles or numbers of launchers were being reported.¹³¹

There are signs of political fatigue with regard to UNROCA reporting, visible even among some strong supporters of the principle of transparency in arms transfers. For instance, the British report was in several respects a return to less transparency.¹³² Private discussions between the authors and officials in several European countries revealed that many see limited value in transparency mechanisms like the UNROCA.

¹³⁰ Data reported to the UNROCA since 1992 are available at URL <<http://disarmament.un.org/cab/register.html>>.

¹³¹ The UK reported numbers of several types of missiles. The air-launched missiles it reported are known from other sources as those in use with the British Royal Air Force. Numbers of SAMs reported were for launchers only, not for missiles. The UK did not report ship-launched missiles in service (e.g., the Harpoon anti-ship missile or the BGM-109 land-attack missile).

¹³² No data were provided on imports, the export data were partly wrong (the delivery of 24 Hawk Mk-132 aircraft to India was noted, even though these aircraft had not been produced as of the end of 2005), and data on procurement from national production was noted as included but is actually missing.

Table 10.2. The financial value of arms exports according to national government and industry sources, 1998–2004

Figures are in US\$ m., at constant (2003) prices.

Country ^a	1998	1999	2000	2001	2002	2003	2004	2004	Stated data coverage
Australia	10	368	23	53	..	..	..	..	Shipments of military goods (covers 1 July to 30 June)
Austria	262	465	554	359	226	278	19	19	Licences for arms exports
Belgium	815	732	767	789	1 106	752	658	658	Licences for arms exports
Brazil	79	441	191	301	171	49	278	278	Defence exports
Canada	320	323	344	397	442	..	..	..	Shipments of military goods (excluding exports to the USA)
Czech Republic	115	106	86	56	74	94	109	109	Arms exports
Denmark	..	..	..	71	109	90	123	123	Licenses issued for weapons exports
Finland	39	47	23	37	52	55	51	51	Arms exports
France	7 422	4 457	2 671	2 947	4 265	4 854	8 667	8 667	Deliveries of arms and associated services
Germany	858	1 711	670	341	307	1 505	1 366	1 366	Exports of 'weapons of war'
Greece	..	51	21	47	50	126	18	18	Licences for arms exports
India	38	19	..	..	48	94	66	66	Military export earnings (covers 1 Apr. to 31 Mar.)
Ireland	25	71	31	50	35	40	33	33	Licences for arms exports
Israel	2 120	1 774	1 885	2 078	2 045	2 350	2 532	2 532	Defence export deliveries
Italy	131	1 043	595	515	470	711	581	581	Deliveries of military equipment
Korea, South	166	218	59	208	..	240	409	409	Arms exports
Lithuania	0	0	0	0	13	..	4	4	Licences for arms exports
Netherlands	542	431	411	605	434	1 299	755	755	Export licences for military goods
Norway	155	174	129	185	294	427	291	291	Actual deliveries of defence materiel
Pakistan	..	33	43	83	102	100	97	97	Arms exports
Portugal	19	13	13	10	6	28	18	18	Arms exports
Romania	63	74	41	26	45	70	41	41	Arms exports
Russia	2 933	3 744	3 931	3 849	4 929	5 400	5 629	5 629	Exports of military equipment
Slovakia	41	61	47	97	32	42	75	75	Licences granted for the export of military material
Slovenia	7	1	3	4	2	2	1	1	Arms export licences
South Africa	132	198	213	210	249	410	..	..	Export permits issued

Spain	206	166	136	215	265	432	491	Exports of defence materiel
Sweden	499	488	510	308	361	801	966	Actual deliveries of military equipment
	629	521	666	503	690	1 182	1 371	Exports of military and other goods, services and software to military users
Switzerland	166	171	135	159	182	281	315	Exports of war materiel
Taiwan	0	0	<1	<1	2	<1	<1	Weapons exports
Turkey	90	93	131	139	254	331	191	Arms exports
UK	3 676	1 753	2 781	2 292	1 444	1 621	2 481	Exports of military equipment
	11 264	7 515	7 121	6 302	6 317	7 427	9 208	Deliveries of defence materiel and other aerospace equipment and services
Ukraine	338	..	534	519	511	500	..	Arms exports
USA	19 428	19 947	13 855	10 049	10 528	13 327	18 071	Arms deliveries
	14 869	19 375	11 657	13 321	10 821	12 043	17 822	Foreign military sales deliveries added to licensed commercial exports (covers 1 Oct. to 30 Sep.)
World total^b	37 720–37 025–32 785–27 001–29 290–37 207–44 219–	48 789 45 202 35 589 33 897 38 407 43 041 53 271						

.. = No data available.

Note: Conversion to constant (2003) US\$ is made using the market exchange rates of the reporting year and the US consumer price index (CPI). National arms export data are not entirely reliable or comparable. Data are collected using different criteria: in certain cases, data are based on information supplied by industry on the value of their arms exports. In other cases they are based on the value of goods identified as military equipment that pass through customs in a given year. Secondly, the list of goods covered by the data collection mechanism can differ drastically. For instance, the German figure on the value of 'weapons of war' covers only a subset of licensed exports of military equipment from Germany.

^a Countries have only been included in the table if official data are available for at least 4 of the 7 years covered.

^b According to the SIPRI Arms Transfers Database, the countries covered in this table account for over 90% of the total volume of deliveries of major conventional weapons. By adding together the financial value of their arms exports it is possible to estimate the financial value of the global arms trade. Because certain countries release more than one figure on the value of their arms exports, this estimate can only be a range, including the aggregates of the lowest and the highest reported values. For certain countries and certain years official data are unavailable and estimates have been made on the assumption that the rate of change in a country for which data are missing is the same as the average in the sample as a whole. Before calculating the world total, all national figures have been converted to calendar years, assuming equal distribution during relevant years.

Source: Data are based on reports by, direct quotes from, or direct communication with, governments or official industry bodies. For certain countries data on the value of arms export licences have been used because these are the only figures available. For the list of sources used, and all available financial data on arms exports, see URL <http://www.sipri.org/contents/armstrad/at_gov_ind_data.html>.

The EU Code of Conduct on Arms Exports

In December 2005 the EU published its Seventh Annual Report on the implementation of the EU Code of Conduct on Arms Exports.¹³³ In 2004 member states agreed that ‘breakdowns of licences and actual exports by [EU] Military List category (if available) should also be included in the report’.¹³⁴ The number of states submitting data on the financial value of either licences granted or actual exports per destination, disaggregated by the 22 categories of the EU Common Military List, rose from 11 in the Sixth Annual Report to 20 in the Seventh Annual Report. Of those 20 countries, 13 submitted disaggregated data on both licences granted and actual exports while the rest submitted data on only one of the two categories.

The 10 states that joined the EU in May 2004 all submitted financial data on either the value of licences granted or the value of national exports, disaggregated by EU Military List categories and by country of destination. This is a notable achievement, given that this is only the second year that these states have been asked to submit data to the EU Annual Report and only the first year that they have been obliged to do so.¹³⁵ It is also a significant improvement in both the comprehensiveness and the comparability of national data in the EU Annual Report. Even so, the question remains regarding the usefulness of financial data, as opposed to descriptions of the goods involved, for assessing how states are interpreting and applying the criteria of the Code.¹³⁶

National transparency

In February 2005 *Estonia* published its first annual report on arms exports, detailing activities in 2004. The report, published in Estonian and English, provides information on licences granted for the import, export and transit of military equipment and dual-use goods. It details the category of the goods, their value and their destination.¹³⁷ In February 2005 *Bosnia and Herzegovina* published its first report on arms exports. Available in Bosnian with an English summary, the report provides information on licences granted for the import, export and transit of military equipment. The report gives the category

¹³³ Council of the European Union, ‘Seventh Annual Report according to Operative Provision 8 of the European Union Code of Conduct on Arms Exports’, *Official Journal of the European Union*, C328 (23 Dec. 2005), URL <<http://europa.eu.int/eur-lex/lex/JOIndex.do>>.

¹³⁴ Working Party on Conventional Arms Exports (COARM), Operational conclusions of the meeting of 22 June 2004.

¹³⁵ The Sixth Annual Report, released in 2004, covered export licences issued and actual exports in 2003. Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia, who joined the EU on 1 May 2004, were therefore not obliged to submit data. Rather, they were invited to submit figures for 2003 if they were available, which 8 of them did.

¹³⁶ See Bauer, S. and Bromley, M., *The European Code of Conduct on Arms Exports: Improving the Annual Report*, SIPRI Policy Paper no. 8 (SIPRI: Stockholm, Nov. 2004), URL <<http://www.sipri.org>>.

¹³⁷ Estonia Ministry of Foreign Affairs, ‘Strategic Goods Commission activity report year 2004’, 10 Feb. 2005, URL <http://www.vm.ee/eng/kat_153>. For this report and other national data on arms transfers see the SIPRI website, URL <http://www.sipri.org/contents/armstrad/atlinks_gov.html>.

of the goods, a brief description and their destination.¹³⁸ In June 2005 *Slovakia* passed a new arms export control law. The law gave the Ministry of Economy a mandate to produce an annual report on arms exports. The first report, covering activities during 2004, was released to the public in January 2006.¹³⁹

Ukraine also published its first report on arms exports in January 2006. The report, covering activities during 2004, is available only in Ukrainian. It reproduces Ukraine's submission to the UNROCA; provides details on the number of small arms and light weapons (SALW) exported worldwide, broken down by category and destination; and gives the total number of import, export and transit licences granted for military and dual-use goods.

As illustrated by the UK's case above, 2005 also provided evidence that advances made in national transparency in one year may be reversed and that maintaining existing levels of openness requires an ongoing commitment by governments.¹⁴⁰ In September 2003 the Government of *Belgium* transferred powers over granting export licences for military equipment from the federal level to the three regional governments (Wallonia, Flanders and Brussels).¹⁴¹ It also transferred responsibility for reporting on arms exports to these bodies, so there are now three separate reports on arms exports. In certain areas the change led to an increase in the level of transparency. For example, the Flanders report on arms exports is published more often than the Belgian national report was and includes more detail. However, the three reports do not cover the same time periods and use different methods of reporting. In addition, the Wallonian and Brussels reports are not as complete and informative as some Belgian national reports have been and are harder to access since they are not published on the Internet. It may therefore be concluded that there has been a decrease in the overall transparency of Belgian arms exports.

To increase comparability with the rest of Europe, the annual report of *Sweden* began classifying Swedish arms export data according to the EU Common Military List.¹⁴² However, the 22 categories of the EU List are far broader than the 36 categories of Sweden's Military Equipment Classification List, which the report previously employed. It has therefore become harder to identify which weapons are being licensed for export and are exported.

Canada has not published an annual report since that of December 2003, which detailed exports in 2002.¹⁴³ Similarly, *Australia* has not published an

¹³⁸ Bosnia and Herzegovina Ministry of Foreign Trade and Economic Relations. *Informacija o ozdatim dozvolama za izvoz/uvoz naoružanja i vojne opreme u 2004. godini* [Report on arms export control 2004]. This report, as well as all other national, regional and international reporting mechanisms, are available at URL <http://www.sipri.org/contents/armstrad/atlinks_gov.html>.

¹³⁹ Dlhopolcekova, J., Slovak Ministry of Economy, Communication with the authors, 26 Jan. 2006. Available at URL <http://www.sipri.org/contents/armstrad/atlinks_gov.html>.

¹⁴⁰ See chapter 6 in this volume.

¹⁴¹ Anthony, I. and Bauer, S., 'Transfer controls and destruction programmes', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2004), p. 750.

¹⁴² Swedish Ministry of Foreign Affairs, 'Sweden's export control policy in 2004', Government communication 2004/05:114, 17 March 2005, URL <<http://www.isp.se/sa/node.asp?node=528>>, p. 42.

¹⁴³ Canadian Export Controls Division, Export and Import Controls Bureau, Department of Foreign Affairs and International Trade, 'Export of military goods from Canada: annual report 2002', Dec. 2003, URL <http://www.dfait-maeci.gc.ca/trade/eicb/military/milit_tech-en.asp>.

annual report since February 2003.¹⁴⁴ In both cases, delays are a result of logistical rather than policy constraints and new reports are expected in 2006. However, in August 2005 it was revealed that the *South African* report on arms exports in 2003 and 2004 had been classified and released only to members of the South African Parliament's Portfolio Committee on Defence, 'because some contracting countries do not want their purchases publicised'.¹⁴⁵

V. Conclusions

For the past three years there has been an increase in the volume of major arms transfers as reflected in the SIPRI trend-indicator value and in arms exports according to aggregated national statistics. Russia and the USA in the period 2001–2005 each accounted for roughly 30 per cent of global deliveries of major weapons.

The experiences of Brazil, India and South Africa suggest that cooperation among minor suppliers to strengthen their international market positions is easier said than done. Deliveries of major weapons to Iraq further suggest that smaller suppliers outside Europe and North America have been unsuccessful in that market and may continue to be so. Poland, however, may remain an important European supplier to Iraq.

The search for new markets and the drive to maintain existing markets sharpen international competition. In some cases this supports 'commercial pragmatism' in national implementations of export policy, that is, markets that are not under international embargoes are open markets. Pragmatic attitudes may also be hardened by US attempts to make other arms suppliers accept its basic export control policy. Suppliers in Europe, Israel and China were in 2005 exposed to US re-export controls or sanctions.

There is evidence of political fatigue in some governments with regard to their commitment to transparency and the UNROCA mechanism. Moreover, the use of the categories of the Military List in national reporting by EU member states means that difficulties will remain in assessing how states interpret and apply the criteria of the Code of Conduct. It would be detrimental to developments in transparency if a tendency towards commercial pragmatism in national arms export policy should spread and reduce political willingness to report on national arms exports. There is also a danger that the ambition to achieve greater multinational harmonization in the format of reporting could inadvertently cloud understanding of the data reported.

¹⁴⁴ Australian Department of Defence, Defence Trade Control and Compliance Division, *Annual Report: Exports of Defence and Strategic Goods from Australia 2001/2002*, Feb. 2003, URL <<http://www.defence.gov.au/strategy/dtcc/reports.htm>>.

¹⁴⁵ According to Dumisani Dladla, acting director of the Conventional Arms Control Directorate, quoted in Honey, P., 'Arms sales kept "secret"', *Sunday Times* (Johannesburg, Online edn), 11 Aug. 2005, URL <<http://www.suntimes.co.za/zones/sundaytimesNEW/business/business1123753234.aspx>>.