

# 10. International arms transfers

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## I. Introduction

The SIPRI Arms Transfers Project identifies trends in international *transfers* of major conventional weapons using the SIPRI trend indicator.<sup>1</sup> Data for 2004 show an increase in the volume of global arms transfers over 2003. However, using five-year moving averages, the trend is one of decline between 2000 and 2004, after a slight upward trend in the late 1990s (see figure 10.1).<sup>2</sup>

Section II discusses the three main suppliers and the main recipients of major conventional weapons in 2000–2004. It addresses some of the major arms transfer-related issues that were important for Russia and the United States in 2004. For Russia, this includes concerns about retaining and finding markets. For the USA, relations with European clients and Taiwan and the ‘global war on terrorism’ are highlighted. Section III discusses international arms embargoes, including the European Union (EU) embargo on China. Section IV reports on developments in 2004 in national and international transparency in arms transfers, and section V presents the conclusions. Appendix 10A contains tables showing the volume of transfers of major conventional weapons, by recipients and suppliers, for 2000–2004. Appendix 10B lists details of the equipment that was delivered and received. Appendix 10C outlines the sources and methods used to compile the arms transfers data.

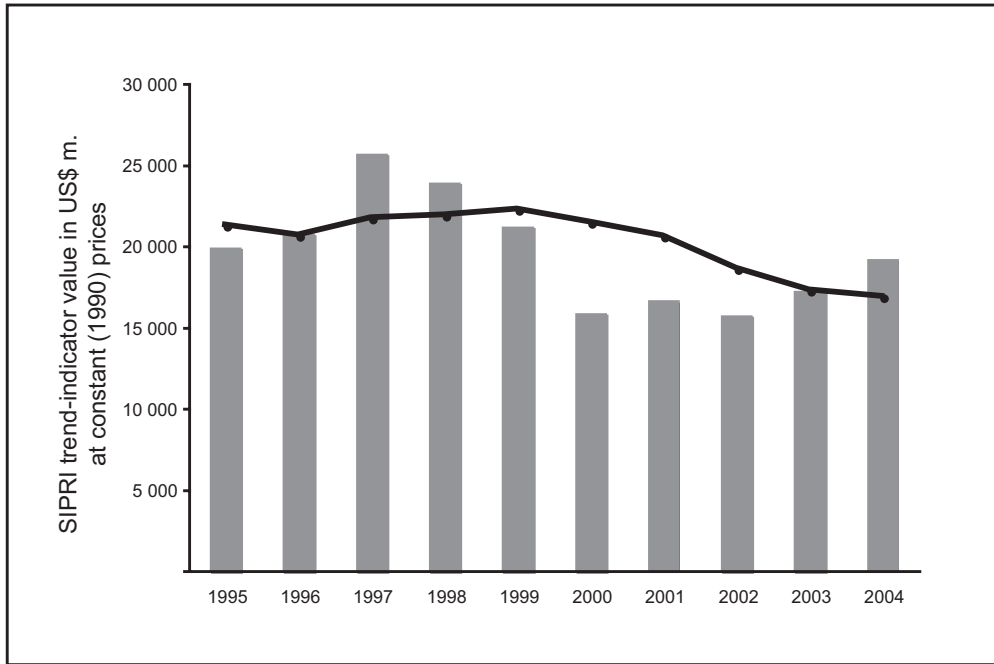
## II. The suppliers and recipients

There have been few significant changes in the ranking of the major suppliers in the past five years. The biggest change is that Russia is the largest exporter in the period 2000–2004, replacing the USA, which was the largest exporter in

<sup>1</sup> 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 identification of general trends, SIPRI uses a *trend-indicator value*. The SIPRI values are therefore only an indicator of the volume of international arms transfers and not of the actual financial values of such transfers. Thus they are not comparable to economic statistics such as gross domestic product or export/import figures. The method used in calculating the trend-indicator value is described in appendix 10C. A more extensive description of the methodology used, including a list of sources, is available on the project Internet site, URL <<http://www.sipri.org/contents/armstrad/atmethods.html>>. The figures may differ from those given in previous editions of the SIPRI Yearbook; the SIPRI arms transfers database is constantly updated as new data become available, and the trend-indicator values are revised each year.

<sup>2</sup> Five-year moving averages are a more stable measure of the trend in arms transfers than often erratic year-to-year figures.

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**Figure 10.1.** The trend in international transfers of major conventional weapons, 1995–2004

*Note:* The histogram 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.

the period 1999–2003. In order of size, Russia, the USA, France, Germany and the United Kingdom were the five largest suppliers of major conventional weapons in the period 2000–2004, together accounting for 81 per cent of all transfers (see table 10.1).

### Russia

Russia was the largest exporter of major conventional weapons in the period 2000–2004, accounting for 32 per cent of transfers, up from second place in 1999–2003. The high level of Russian exports, measured using SIPRI trend-indicator values, is mainly the result of exports of combat aircraft and ships. In both these categories Russia exported more units in the period 2000–2004 than any other exporter, and the exported equipment was usually from new production. In general, Russia is lagging behind, in comparison with the USA and Western Europe, in the development of new generations of weapons. However, Russian arms are competitive in terms of price and often in terms of performance.<sup>3</sup>

Until recently, there was widespread optimism in the Russian Government and among industry officials about the future of Russian arms exports. How-

<sup>3</sup> E.g., the Indian Su-30 combat aircraft displayed a surprising superiority over US F-15C aircraft in an Indian–US exercise in 2004. ‘Die Su-30 ist ein Exportschlager’ [The Su-30 is an export success], *Soldat und Technik*, July 2004, p. 60.

ever, there are indications that a peak may have been reached.<sup>4</sup> Sergei Chemezov, the head of Rosoboronexport, Russia's main export agency, announced in July 2004 that, while the sales target of \$4.1 billion for 2004 would be met, there would be no repeat of the record \$5.1 billion volume of sales in 2003.<sup>5</sup> In November 2004 the head of the defence industry department of the Ministry for Economic Development and Trade, Yuri Koptev, said that the 2003 export results were unlikely to be repeated in the foreseeable future.<sup>6</sup> These predictions proved slightly premature when Chemezov announced in early 2005 that Russian exports for 2004 amounted to \$5.7 billion. However, he acknowledged that a limit had been reached, that Russia is selling equipment that was developed in the 1970s and 1980s and for which there is no funding for development, and that Russia cannot offer 'modern military hardware'.<sup>7</sup>

According to a Russian source, the reasons behind Russia's impending decline in exports are the fact that China and India purchase fewer of the most expensive weapon systems—aircraft and ships—which now account for over half of Russian exports, and Russia's lack of any notable successes in selling such weapons on markets in South-East Asia and the Middle East.<sup>8</sup>

Russia's competitiveness is not helped by the fact that the quality of Russian weapons is lower than that of Western systems. Only about 1 per cent of Russian arms producers meet the international quality standard ISO 9000—the common standard for Western producers. Complaints from customers about the quality of Russian weapons have increased by '20 times' over the past 'several years'.<sup>9</sup>

In 2004 there were further signs of a Russian consolidation of arms producers in order to enable them to compete better on the export market.<sup>10</sup> Russian companies are reportedly joining forces, for example, to fulfil India's requirement for 125 combat aircraft—where Sukhoi and RSK-MiG formed a consortium for a joint bid.<sup>11</sup> RSK-MiG Director Valeriy Toryanin had earlier rejected a merger with Sukhoi. He argued that Sukhoi aircraft were too large and therefore too expensive for most buyers and that MiG would have to develop a light combat aircraft to compete with designs from China, India, the USA and Europe. Failure to do so could mean that Russia would lose up to 75 per cent of its aircraft export market after 2010. He also rejected cooperation with non-Russian companies on the grounds that MiG still had a techno-

<sup>4</sup> Russian optimism was not always shared by non-Russian analysts. See Hagelin, B., Bromley, M. and Wezeman, S., 'International arms transfers', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2004), pp. 453–54; and Cooper, J., 'The arms industries of the Russian Federation, Ukraine and Belarus', *SIPRI Yearbook 2004*, pp. 431–46.

<sup>5</sup> Nikolsky, A., 'Bureaucrats are to blame', *Vedomosti*, 7 July 2004, p. A2. These data are in US dollars not SIPRI trend-indicator values.

<sup>6</sup> Novosti, 'Russia's arms export earnings will decline', 5 Nov. 2004, URL <[http://en.rian.ru/rian/index.cfm?prd\\_id=160&msg\\_id=5053751&startrow=1&date=2004-11-05&doalert=0](http://en.rian.ru/rian/index.cfm?prd_id=160&msg_id=5053751&startrow=1&date=2004-11-05&doalert=0)>.

<sup>7</sup> TASS, 'Russia's Rosoboronexport arms sales reach limit', 9 Feb. 2005.

<sup>8</sup> Novosti (note 6).

<sup>9</sup> Even complaints from the Russian armed forces have increased tenfold. 'Quality of Russian weapons deteriorating', *Moscow News*, 6 Sep. 2004, URL <<http://www.mosnews.com/news/2004/06/09/weapons.shtml>>.

<sup>10</sup> On developments before 2004 see Cooper (note 4).

<sup>11</sup> 'India to replace MiG-21s', *Asian Defence Journal*, Mar. 2004, p. 45.

**Table 10.1.** Transfers of major conventional weapons from the 10 largest suppliers to the 38 largest recipients, 2000–2004

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

Recipient	Suppliers										Total	
	Russia	USA	France	Germany	UK	Ukraine	Canada	China	Sweden	Israel		Other
<b>Africa</b>	<b>2 671</b>	<b>174</b>	<b>178</b>	<b>22</b>	<b>10</b>	<b>608</b>	–	<b>80</b>	–	<b>17</b>	<b>1 370</b>	<b>5 130</b>
Algeria	1 064	89	–	–	–	130	–	33	–	–	263	1 579
Ethiopia	427	–	–	–	–	30	–	–	–	–	43	500
Sudan	549	–	–	–	–	–	–	–	–	–	26	575
Other	631	85	178	22	10	448	–	47	–	17	1 038	2 476
<b>Americas</b>	<b>295</b>	<b>1 343</b>	<b>536</b>	<b>296</b>	<b>1 673</b>	<b>50</b>	<b>1 167</b>	–	<b>146</b>	<b>444</b>	<b>982</b>	<b>6 932</b>
Brazil	–	184	472	–	4	–	16	–	80	–	132	888
Canada	–	232	1	69	1 235	–	..	–	–	–	138	1 675
Chile	–	32	32	–	210	–	–	–	–	64	166	504
Colombia	41	429	–	–	–	–	–	–	–	–	45	515
Mexico	97	217	–	–	–	–	9	–	16	168	103	610
USA	..	–	–	–	206	50	1 128	–	12	155	209	1 760
Other	157	249	31	227	18	–	14	–	38	57	189	980
<b>Asia</b>	<b>20 170</b>	<b>5 903</b>	<b>1 402</b>	<b>736</b>	<b>516</b>	<b>758</b>	<b>31</b>	<b>964</b>	<b>280</b>	<b>452</b>	<b>2 361</b>	<b>33 573</b>
China	11 112	–	33	–	–	409	–	..	–	36	87	11 677
India	6 649	40	303	88	65	173	–	–	–	179	1 029	8 526
Indonesia	272	–	125	98	78	–	–	–	–	–	89	662
Japan	–	953	6	–	–	–	–	–	–	–	13	975
Malaysia	101	16	19	165	113	–	–	–	12	–	271	697
Pakistan	180	113	510	–	–	–	–	900	20	–	295	2 018
Singapore	–	1 094	3	–	–	–	–	–	240	105	–	1 441
South Korea	116	1 680	400	253	150	–	–	–	–	19	137	2 755
Taiwan	–	1 562	–	–	–	–	–	–	–	9	–	1 571
Thailand	–	324	–	132	27	–	21	28	8	1	62	603
Other	1 740	121	3	–	83	176	10	36	–	103	378	2 648

<b>Europe</b>	<b>737</b>	<b>12 596</b>	<b>1 260</b>	<b>2 925</b>	<b>675</b>	<b>234</b>	<b>112</b>	—	<b>678</b>	<b>301</b>	<b>2 357</b>	<b>21 875</b>
Denmark	—	177	10	157	33	—	36	—	30	—	48	491
Finland	—	511	21	198	—	—	—	—	88	1	—	818
Germany	—	376	—	..	83	—	—	—	19	22	75	575
Greece	443	3 004	492	372	59	60	40	—	136	—	657	5 263
Italy	—	1 529	41	6	15	—	—	—	2	—	—	1 594
Netherlands	—	685	2	168	—	—	—	—	—	—	10	865
Norway	—	208	12	—	65	—	—	—	120	—	101	506
Poland	3	347	—	506	—	—	—	—	61	1	218	1 136
Spain	—	593	118	155	46	—	2	—	5	—	67	986
Turkey	—	1 840	399	505	34	—	—	—	—	190	330	3 298
UK	—	2 806	—	462	..	—	29	—	68	—	30	3 395
Other	291	520	165	396	340	174	5	—	149	87	821	2 948
<b>Middle East</b>	<b>3 057</b>	<b>4 905</b>	<b>2 966</b>	<b>725</b>	<b>996</b>	<b>472</b>	<b>195</b>	<b>393</b>	—	—	<b>807</b>	<b>14 517</b>
Egypt	—	2 581	1	152	—	30	—	249	—	—	90	3 103
Iran	1 678	—	—	—	—	150	—	54	—	—	38	1 920
Israel	—	1 108	—	571	—	—	—	—	—	..	—	1 678
Jordan	—	218	12	—	499	23	—	—	—	—	99	851
Saudi Arabia	—	171	1 212	—	22	—	195	—	—	—	72	1 672
United Arab Emirates	163	404	1 591	—	158	229	—	—	—	—	36	2 581
Yemen	796	—	—	—	—	40	—	—	—	—	300	1 136
Other	420	423	150	2	318	—	1	90	—	—	172	1 577
<b>Oceania</b>	—	<b>1 012</b>	<b>23</b>	<b>180</b>	<b>581</b>	—	<b>189</b>	—	<b>143</b>	<b>45</b>	<b>209</b>	<b>2 382</b>
Australia	—	937	23	180	581	—	105	—	143	45	163	2 177
Other	—	75	—	—	—	—	84	—	—	—	46	205
<b>Other<sup>a</sup></b>	—	—	—	—	—	—	—	—	<b>18</b>	<b>3</b>	<b>204</b>	<b>225</b>
<b>Total</b>	<b>26 925</b>	<b>25 930</b>	<b>6 358</b>	<b>4 878</b>	<b>4 450</b>	<b>2 118</b>	<b>1 693</b>	<b>1 436</b>	<b>1 290</b>	<b>1 258</b>	<b>8 155</b>	<b>84 491</b>

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<sup>a</sup> Includes the UN and NATO (as organizations, not as combinations of all member states) and unknown recipients.

*Source:* SIPRI arms transfers database.

logical edge.<sup>12</sup> MiG is hopeful that it can continue to play a major role in the export of combat aircraft. However, it can only offer the new MiG-AT trainer aircraft or upgraded versions of MiG-29 and MiG-31 combat aircraft.<sup>13</sup> Its main domestic competitor, Sukhoi, exported about 140 aircraft in 2002–2004 and accounted for around 30 per cent of total Russian arms exports in the same period.<sup>14</sup>

In the event, in late 2004 the Russian Government replaced Toryanin with Alexey Federov, who is also the head of Irkut, the producer of most of Sukhoi's designs and the most successful arms exporter in Russia. The move is a step to consolidate Russian aircraft producers—and possibly even to merge them into one company.<sup>15</sup>

Russia is increasing its efforts to diversify beyond its traditional customer base, offering competitive prices or technology transfers at higher levels than the USA and some European competitors. Several Latin American countries, notably Brazil and Venezuela, have been targeted for sales of Russian combat aircraft.<sup>16</sup> Several Russian companies are involved in indigenous South Korean development programmes, probably using the technology transfer issue as their main sales pitch. The Russian S-300PMU1 (SA-10d) surface-to-air missile (SAM) system is thought to be the basis of the South Korean KM-SAM system. Almaz, the Russian producer of the S-300, has received contracts worth \$110 million for work on the radar and the command system for the \$1.2 billion KM-SAM programme. Kolomna, another Russian missile design company, has been involved in the South Korean KP-SAM portable SAM project, providing components for the warhead in contracts worth \$31 million.<sup>17</sup>

### *Russian relations with China: facing Chinese competition*

In the five-year period 2000–2004, China was by far the largest recipient of major conventional weapons—accounting for 14 per cent of the global total. Russia has a near monopoly on transfers to China, supplying 95 per cent of China's imports, and China is Russia's most important market—accounting for 41 per cent of Russia's exports. This partly explains Russia's success as an exporter. There is little expectation that other suppliers will play an important role in the Chinese market in the near future (see below). However, there are also indications that Russia's position is changing. Russia's relations with China are moving in a direction that Russia tried to prevent in the early 1990s—Russia is being forced to give China access to its most advanced

<sup>12</sup> 'Interview [with Valeriy Toryanin]', *Jane's Defence Weekly*, 16 June 2004, p. 90.

<sup>13</sup> Ivanov, H., 'RSK MiG set to survive on its own', *Jane's Defence Weekly*, 5 May 2004, p. 18.

<sup>14</sup> 'Interview with Mikhail Pogosyan, general-director, Sukhoi company', *Asian Defence Journal*, Oct. 2003, p. 40.

<sup>15</sup> Ivanov, H. and Novichkov, N., 'Russia set to restructure aircraft industry', *Jane's Defence Weekly*, 6 Oct. 2004, pp. 23–25.

<sup>16</sup> 'Russia wants to swap fighters for Embraer jets', *Air Letter*, 20 Oct. 2004, p. 1; and 'Brazil denies Russian fighter jet-Embraer deal', *Air Letter*, 21 Oct. 2004, p. 5.

<sup>17</sup> Karniol, R., 'South Korea advances KM-SAM programme', *Jane's Defence Weekly*, 2 June 2004, p. 16.

weapon technologies. The original restrictions on the levels and types of technology that the Russian Government was willing to sell to China appear to have been relaxed. Russia is now selling systems to China that only a few years ago the Russian military establishment was hesitant to even discuss, for example the Klub-S (SS-N-27) anti-ship and land-attack cruise missile, an improved version of the Moskit (SS-N-22) anti-ship missile, and Tu-22M3 and Tu-95 strategic bomber aircraft.<sup>18</sup> In some cases, such as the Su-30MMK2 and the Su-30MKK3 combat aircraft, Russia has sold China more advanced weapons than those used by the Russian armed forces. With the possibility of more competition for the Chinese market from EU member states if the EU arms embargo is lifted (see below), the Russian Government may feel forced to authorize the export of even more sophisticated systems to China in order to retain its market share.<sup>19</sup>

There are also indications that China is learning from and copying imported Russian technology in order to establish a Chinese high-technology arms industry. China appears to be less interested in buying complete Russian systems than in buying Russian components for weapons developed in China. One source claims that Russia's current share of the technology transfers to China is about 30 per cent, as opposed to 70 per cent for transfers of complete systems.<sup>20</sup> However, China is seeking to increase its level of technology transfers to 70 per cent in its effort to become self-sufficient.<sup>21</sup> As an indication of how far Chinese arms production has developed, Russian arms industry sources have disclosed that China is close to mastering the complex skills required to build the AL-31 engine used in the Su-27 combat aircraft. If this is true, China will have used the Su-27 project to establish a total systems capability for advanced combat aircraft in little more than 10 years. Most observers had expected that this would take China much longer—especially in the case of tightly controlled key technologies such as engines.<sup>22</sup>

There are some hopes in Russia that this development may lead to joint Chinese–Russian weapon programmes and exports, including a fifth generation combat aircraft which Russian sources claim would cost over \$12 billion to develop and which Russia would find difficult to finance alone.<sup>23</sup> However, indigenous Chinese developments based on Russian technology, with less

<sup>18</sup> Litovkin, D., 'Russia may be squeezed out of Chinese arms market', *Izvestiya*, 20 Jan. 2004, quoted in US–China Economic and Security Review Commission, '2004 report to Congress of the US–China Economic and Security Review Commission', 108th Congress, 2nd session, Washington, DC, June 2004, p. 193, URL <<http://www.uscc.gov>>, p. 199; and Novichkov, N., 'Military exercises with China to promote Russian bomber potential', *Jane's Defence Weekly*, 26 Jan. 2005, p. 17.

<sup>19</sup> US–China Economic and Security Review Commission (note 18), p. 199.

<sup>20</sup> Kogan, E. for the Jamestown Foundation, '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>>.

<sup>21</sup> Kogan (note 20).

<sup>22</sup> Kogan (note 20).

<sup>23</sup> Jintao, J., 'Sukhoi completes delivery of fighter aircraft to China', *Jane's Defence Weekly*, 1 Sep. 2004, p. 15. This would be the equivalent of the US F-22 and F-35 aircraft.

input from Russian industry, seem more likely.<sup>24</sup> China has a long tradition of copying or using technology from weapons acquired from abroad. For example, the Chinese PL-11 (or FD-60), the first Chinese beyond-visual-range air-to-air missile (BVRAAM), is probably based heavily on the Italian Aspide missile delivered in the 1980s.<sup>25</sup>

Several recently developed Chinese weapons strongly resemble Russian weapons, some of the technology for which was reportedly transferred to China in recent years. A new Chinese infantry fighting vehicle (IFV), for example, has a turret with guns and missiles that are almost identical to that of the Russian BMP-3.<sup>26</sup> The turret, only recently developed in Russia and introduced in BMD-4 IFVs in 2004, appears to have been sold, along with advanced guided anti-tank missiles, to China for use on a Chinese-developed IFV.<sup>27</sup> In 2004 China unveiled a new conventionally powered submarine that combined the advanced hull design of the Russian Kilo Class submarine, several of which were acquired by China in the 1990s, with a Chinese fin and European technology.<sup>28</sup> The quality of Chinese radar systems has also improved dramatically in the past decade. Chinese airborne early-warning (AEW) radars, which were apparently developed in tandem with an order for A-50Eh airborne early-warning and control (AEW&C) aircraft from Russia, may be based on Russian technology.<sup>29</sup> Russian radar technology was probably also used to develop a radar for the Chinese indigenous J-10 combat aircraft. Pakistan has shown enough confidence in it to fit it in the new JF-17 combat aircraft. Previously, Pakistan had equipped combat aircraft imported from China with a non-Chinese radar.<sup>30</sup>

Notwithstanding these rapid developments in Chinese advanced weapons and components, Russia will still, at least in the short term, remain a major supplier of weapons to China. At least 10 major warships (8 Kilo Class submarines and 2 Sovremenny Class destroyers) and probably over 100 Su-27 and Su-30 combat aircraft are on order. In 2004 China signed an additional \$980 million contract for eight advanced S-300PMU2 (SA-10e) SAM systems.<sup>31</sup> According to Russian sources, China is still dependent on imported technology in key areas such as aircraft radar, where China is believed to be

<sup>24</sup> 'Die Zusammenarbeit mit China' [Cooperation with China], *Österreichische Militärische Zeitschrift*, vol. 42, no. 2 (Mar./Apr. 2004), p. 225; and Nivokov, N., 'Growth in Russian arms exports', *Asia-Pacific Defence Reporter*, vol. 29, no. 3 (May 2003), p. 35.

<sup>25</sup> Hewson, R., 'Chinese missile may be for Pakistan's F-16s', *Jane's Defence Weekly*, 21 Apr. 2004, p. 15.

<sup>26</sup> Foss, C. F., 'China develops powerful new infantry fighting vehicle', *Jane's Defence Weekly*, 18 June 2003, p. 22.

<sup>27</sup> Novichkov, N., 'Russia acquires BMD-4', *Jane's Defence Weekly*, 6 Oct. 2004, p. 13; and Foss, C. F. (ed.), *Jane's Armour and Artillery 2004-2005* (Jane's Information Group: Coulsdon, 2004), p. 288.

<sup>28</sup> Chang, Y. and Scott, R., 'New submarine picture presents Chinese puzzle', *Jane's Defence Weekly*, 4 Aug. 2004, p. 8.

<sup>29</sup> Hewson, R. and Streetly, M., 'New "mainstay" AEW&C aircraft flying in China', *Jane's Defence Weekly*, 21 Apr. 2004, p. 7.

<sup>30</sup> 'JF-17 Thunder', *Air Forces Monthly*, no. 200 (Nov. 2004), p. 19.

<sup>31</sup> Pronina, L., 'Report: \$900 m arms deal is close', *Moscow Times*, 20 Aug. 2004, URL <<http://www.themoscowtimes.com/stories/2004/08/20/042-print.html>>.



15 years behind, and aircraft engines.<sup>32</sup> However, in October 2004 Russian President Vladimir Putin failed to secure a guarantee from China that it would continue to buy Su-30 combat aircraft after the final deliveries are made under the existing contract, which ends in 2006.<sup>33</sup> In December 2004 there were reports that China had suggested an end to the licensed production of the older Su-27 version after delivery of 95 out of a planned 200 combat aircraft because it considered that the technology was becoming outdated.<sup>34</sup>

*Russia's relations with India: facing growing international competition*

In the period 2000–2004 India was the second largest recipient of major conventional weapons—accounting for 10 per cent of the global total. India is Russia's second most important arms buyer, accounting for 25 per cent of Russia's exports, and Russia is India's most important supplier—accounting for 78 per cent of India's imports in the period 2000–2004. In 2004 after 10 years of negotiations, India and Russia finally signed the contract for the sale of the Russian aircraft carrier *Admiral Gorshkov* for the price of its modernization, \$675 million, and a \$700 million contract for aircraft for the ship. India has probably also signed a lease with Russia worth \$700 million for two nuclear-powered Akula Class submarines. A new Indian Maritime Doctrine, published in April 2004,<sup>35</sup> mentioned officially for the first time the need for a submarine-based Indian nuclear deterrent, and the Akula Class submarines are reportedly to form the sea-based part of the Indian nuclear triad. Russian expertise in and technology for nuclear-powered submarines, particularly propulsion technology, are reportedly helping India to produce a nuclear reactor for the Indian ATV submarine, which is under development and may also function as the sea-based part of its nuclear triad. However, because development of the Indian Sagarika nuclear-capable missile has been delayed by technical problems, it is unclear which missiles would be carried by the Akulas or the ATV.<sup>36</sup>

India, like China, has a policy of self-sufficiency in weapons but, unlike China, appears to be more interested in joint programmes and has shown an interest in developing such programmes with Russia. The Brahmos anti-ship missile, based on the Russian Yakhont, is now ready for operational use and is likely to be installed on all Indian surface warships. India is also interested in

<sup>32</sup> Hewson, R., 'China's Su-27 may fall short in capability', *Jane's Defence Weekly*, 17 Nov. 2004, p. 32.

<sup>33</sup> 'Russia wants to swap fighters for Embraer jets', *Air Letter*, 20 Oct. 2004, p. 1.

<sup>34</sup> *Air Forces Monthly*, no. 201 (Dec. 2004), p. 19. China's growing desire to assert its independence from Russia in the defence sector is mirrored to a certain extent in the civil sector, where the potential for cooperation in the areas of civil aviation and space has decreased substantially since China realized that Russia is not as reliable a partner or supplier of advanced technology as, e.g., European Airbus or US Boeing. Kogan (note 20).

<sup>35</sup> Bedi, R., 'A new doctrine for the navy', *Frontline*, vol. 21, no. 14 (3–16 July 2004), URL <<http://www.flonnet.com/fl2114/stories/20040716002104600.htm>>.

<sup>36</sup> Official Indian pronouncements on the ATV are ambiguous and even its existence is sometimes denied. At the same time, there are indications that it could carry nuclear weapons. Bedi, R., 'Russians help India to solve SSN snags', *Jane's Defence Weekly*, 26 May 2004, p. 16; and Bedi, R., 'India outlines vision of future nuclear navy', *Jane's Defence Weekly*, 23 June 2004, pp. 30–31.

cooperating on the R-172 long-range air-to-air missile, which is being developed in Russia. Some sources claim that development of the R-172 is already financially and technically supported by India.<sup>37</sup>

Russia faces serious competition in the Indian market, however. Unlike China, India has the option of acquiring weapons from almost all arms-producing countries. In 2004 Russia lost several large procurement competitions in India. India chose Israeli radar systems in a \$1 billion order for three AEW aircraft, with Russia only marginally involved in modifying the aircraft, in preference to a complete Russian solution. A \$1.5 billion order for 66 trainer aircraft was won by BAE Systems, the producer of the British Hawk, which was chosen over the Russian MiG-AT or Yak-130.<sup>38</sup> India's choice of indigenous, instead of Russian, steel for the production of the first Indian ADS aircraft carrier was reportedly linked to problems with maintaining a regular supply and to financial complications. Surprisingly, the final design chosen for the carrier is based not on the Russian Kuznetsov but on an Italian design.<sup>39</sup>

Indian relations with European suppliers and with the USA are improving. As a reaction to the problems that India encountered after the EU and the USA embargoed it in 1998 (many Indian weapon systems were grounded for lack of spare parts), India now insists on unrestricted support for the equipment it purchases from European countries.<sup>40</sup> The UK has agreed to allow such support for the Hawk trainer aircraft for a period of at least 25 years.<sup>41</sup> The USA now regards India as a strategic partner and is willing to allow the transfer of a wide range of military equipment. US engines have been ordered for the Tejas (formerly LCA) combat aircraft and for the Shivalik Class frigate, which was developed from a design supplied only recently by Russia. The US engines will also be used on the ADS aircraft carrier.<sup>42</sup> In 2003 the US company United Defense offered India self-propelled guns and since then the US Government has authorized the offer of Patriot air-defence systems, P-3 ASW aircraft and even F-16 combat aircraft.<sup>43</sup> India's relationship with Israel may also lead to a distancing from Russia. Russia has supplied almost all the missiles imported by India. However, India prefers Israel's Arrow ABM system to Russian systems, and the development of missiles for the Indian

<sup>37</sup> 'India, Russia in talks for a new missile', *Asian Defence Journal*, no. 193 (Apr. 2004), p. 89.

<sup>38</sup> 'Indian Phalcon deal signed' and 'India finally signs Hawk deal', *Air Forces Monthly*, no. 194 (May 2004), pp. 4 and 5, respectively.

<sup>39</sup> Interview with Admiral Arun Prakash, Indian Chief of Naval Staff, *Jane's Defence Weekly*, 3 Nov. 2004, p. 34.

<sup>40</sup> E.g., as part of a competition for 125 combat aircraft India is demanding access to the technology and the software source codes as well as guaranteed support for the aircraft. *Air Forces Monthly*, no. 202 (Jan. 2005), p. 17.

<sup>41</sup> Bedi, R., 'India closer to buying Hawks', *Jane's Defence Weekly*, 24 Mar. 2004, p. 6; and Hotten, R., 'Protests loom over Hawk deal with India', *The Times* (Internet edn), 20 Mar. 2004, URL <<http://business.timesonline.co.uk/article/0,,8209-1044629,00.html>>.

<sup>42</sup> Bedi, R., 'India's air defence ship gains new momentum', *Jane's Defence Weekly*, 11 Aug. 2004, p. 12.

<sup>43</sup> Bedi, R., 'Cost issue hampers Arjun turret project', *Jane's Defence Weekly*, 18 June 2003, p. 6; *Aviation Week & Space Technology*, 13 Dec. 2004, p. 20; and 'India to replace MiG 21s', *Asian Defence Journal*, Mar. 2004, p. 45.

Navy is reportedly to be in cooperation with Israel, not with Russia.<sup>44</sup> Israel is rapidly becoming a major supplier of military equipment to India, second only to Russia.<sup>45</sup> India's ruling Congress Party announced a review of India's relationship with Israel at the end of 2004 but emphasized that it does not want to alter India's defence relationship with Israel.<sup>46</sup>

### The United States

The USA was the second largest exporter of major conventional weapons in the period 2000–2004 with 31 per cent of total deliveries, calculated using the SIPRI trend-indicator values. There are indications that the USA will increase its arms exports, particularly because there is a large backlog of deliveries of combat aircraft. In 2004 US deliveries and discussions on future transfers were affected by the war on terrorism, Euro-Atlantic relations and China–Taiwan relations.

#### *The global war on terrorism*

The war on terrorism has led to few US arms transfers that would not otherwise have been made. Since September 2001 anti-terrorism has been cited by the US Government as the rationale for arms transfers to countries that it sees as key allies in the war on terrorism. Some of the most notable were transfers to Pakistan and Yemen, both of which were banned from receiving US weapons before September 2001. How far the war on terrorism is being used in political rhetoric to justify the supply of weapons remains unclear. Certainly, the sale to Pakistan of P-3C anti-submarine warfare (ASW) aircraft and F-16 combat aircraft does not seem appropriate for use in the war on terrorism.

US sales and proposed sales to Pakistan in 2004 included 6 C-130E transport aircraft, 8 P-3C ASW aircraft, over 100 helicopters and 2000 TOW-2 anti-tank missiles. The USA argued that these were all specifically for use in anti-terrorist operations along the border with Afghanistan where semi-autonomous groups are believed to support the remnants of the Afghan Taliban and al-Qaeda. The total value of these sales is over \$1 billion.<sup>47</sup> In September 2004 the USA indicated that it might be willing to sell F-16 combat aircraft to Pakistan after many years of refusing such sales. The F-16s are presented as useful in fighting 'Islamist insurgents'.<sup>48</sup>

<sup>44</sup> Interview with Admiral Arun Prakash (note 39), p. 34; and Ben-David, A., 'More robust target to be used for Arrow test', *Jane's Defence Weekly*, 21 July 2004, p. 8.

<sup>45</sup> Blanche, E., 'Israel strengthens alliance with India', *Jane's Intelligence Review*, vol. 15, no. 10 (Oct. 2003), p. 4; and 'Sharon in Indien' [Sharon in India], *Österreichische Militärische Zeitschrift*, vol. 41, no. 6 (Nov./Dec. 2003), p. 808.

<sup>46</sup> Ben-David, A., 'Double jeopardy', *Jane's Defence Weekly*, 17 Nov. 2004, p. 20.

<sup>47</sup> US Department of Defense, Defense Security Cooperation Agency (DSCA), 'Pakistan: PHALANX close-in weapon systems', DSCA News Release, 16 Nov. 2004; and Bohari, F., 'Pakistan hopes FMS deal will herald F-16 sale', *Jane's Defence Weekly*, 24 Nov. 2004, p. 15.

<sup>48</sup> Baker, P., 'Bush: US to sell F-16s to Pakistan, reversal, decried by India, is coupled with fighter-jet promise to New Delhi', *Washington Post* (Internet edn), 26 Mar. 2005, p. A01, URL <<http://www>

In August 2004 the USA lifted a 10-year ban on arms sales to Yemen to reward and support its efforts in fighting terrorism.<sup>49</sup> According to government officials in Yemen, the USA provided roughly \$100 million to support the fight against terrorism, but most of this was in the form of spare parts and training.<sup>50</sup> However, Yemen's most recent weapon orders and acquisition plans are to be met by non-US systems, probably to avert any problems that a future US ban could bring.

Many of the USA's partners in the global war on terrorism had previously been much criticized by US officials and the US Congress for human rights violations. While scrutiny of the human rights situation seems to have been overtaken by anti-terrorism efforts, the debate over supporting the war on terrorism, on the one hand, and an emphasis on human rights, on the other, has not ended. Indonesia is regarded as a base for several 'terrorist' groups operating in Asia. However, US restrictions on arms transfers to Indonesia have not changed significantly since they were imposed in 1999 in reaction to Indonesian human rights violations in East Timor.<sup>51</sup> In mid-2004 an Indonesian court freed military officers who had been accused of abuses in East Timor in 1999. Coupled with a lack of Indonesian cooperation with the investigation into the murder in 2002 of two US teachers in Papua province, this led the USA to review its plans to lift its restrictions.<sup>52</sup> Indonesia seems to be reacting to the prolonged block on US exports by changing to other suppliers rather than changing its internal policies. Recent requirements have been met mainly by suppliers in Europe and by Russia. The Director General of Defence Strategy at the Indonesian Ministry of Defence, Major General Edi Sudrajat, announced that Indonesia would turn to 'Eastern European countries' for arms supplies because of the long-standing US military embargo.<sup>53</sup> There are also signs of an increased interest in supplies from China.<sup>54</sup>

### *US relations with Europe*

Relations between the USA and Europe, one of the USA's traditional markets, were in some difficulty in 2004. The USA was heavily criticized for its

washingtonpost.com/wp-dyn/articles/A800-2005Mar25.html>; and Kucera, J., 'US offers to sell F-16s to Pakistan', *Jane's Defence Weekly*, 22 Sep. 2004, p. 4. The F-16 is also regarded by many as a prime candidate to carry Pakistan's nuclear weapons.

<sup>49</sup> Deutsche Presse-Agentur, 'US lifts ban on arms sales to Yemen', 1 Sep. 2004; and 'Sale of military gear to Yemen ok'd', *Los Angeles Times* (Internet edn), 2 Sep. 2004, URL <<http://www.latimes.com/news/nationworld/world/la-fg-briefs2.5sep02,1,2597667,print.story>>.

<sup>50</sup> Willems, P., 'US lifts ban on arms sales', *Yemen Times* (Internet edn) 5 Sep. 2004, URL <<http://yementimes.com/article.shtml?i=770&p=front&a=4>>.

<sup>51</sup> Some spare parts for transport aircraft were exempted after the tsunami catastrophe of late 2004 and Indonesia was in early 2005 allowed to join the US International Military Education and Training Program. US Department of State, Press Statement, 'Indonesia: Secretary Rice's decision to certify international military education and training', Washington, DC, 26 Feb. 2005, URL <<http://www.state.gov/r/pa/prs/ps/2005/42752.htm>>.

<sup>52</sup> 'Debate reignites over US aid to Indonesia', *Christian Science Monitor*, 25 Aug. 2004; and 'US-Indonesian military ties on hold', *Far Eastern Economic Review*, 30 Sep. 2004.

<sup>53</sup> 'Defense expo pays off for embargoed Indonesia', *Jakarta Post* (Internet edn), 29 Nov. 2004, URL <<http://www.thejakartapost.com/misc/PrinterFriendly.asp>>.

<sup>54</sup> Agence France-Press, 'China, Indonesia look for ways to boost military ties', 5 Nov. 2004.

unwillingness to approve technology transfers as part of arms sales and, more importantly, as part of cooperative weapon development programmes—and for erecting barriers to participation by European industry in joint programmes.<sup>55</sup>

This criticism was most pronounced in connection with the F-35 Joint Strike Fighter (JSF) combat aircraft—the major joint programme between the USA and European and other countries.<sup>56</sup> It is also the most expensive weapon project ever, with total development and acquisition costs of over \$200 billion. Several non-US companies and governments have complained that their participation in the project is being frustrated. For instance, the Netherlands invested \$800 million to become a level-two partner, and Dutch companies hope for orders worth \$8–9 billion throughout the life of the programme. However, Dutch companies still have no clear information about the extent to which they will be included in the development and production of the JSF. At least one Dutch company has suggested that Lockheed Martin, the leading company in the programme, should involve them in other projects as compensation. However, this would contradict the idea that the JSF is not an offset programme but an open competition for components used in the aircraft. By mid-2004, Lockheed Martin projected that the Dutch industry's share of the programme would be \$5.5 billion, considerably lower than the original estimate.<sup>57</sup> However, by the end of 2004 Lockheed Martin had reassured the Netherlands about its involvement—predicting an \$11.2 billion share.<sup>58</sup> Apart from uncertainties about shares in the programme, European companies fear that they will be left out because of the US restrictions on information sharing. British and Italian companies complain that the USA is so restrictive that their involvement is rapidly becoming impossible.<sup>59</sup> Lockheed Martin rejects the criticism from Europe, claiming, for example, that Dutch industry participation is 'on or ahead of schedule'. However, commenting on Norway's criticism, Lockheed Martin said that everything was being done to ensure that Norwegian companies would be given their share, placing in doubt its 'best value' approach.<sup>60</sup>

<sup>55</sup> On the issue of technology transfers see Sköns, E., Bauer, S. and Surry, E., 'Arms production', *SIPRI Yearbook 2004* (note 4), section V; and appendix 17A in this volume.

<sup>56</sup> On the JSF programme and the 4 levels of 'membership' see Hagelin *et al.*, 'International arms transfers', *SIPRI Yearbook 2002: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2002), pp. 395–400. Other projects, e.g., MEADS, have similar problems particularly with technology transfers. Wall, R., 'Sharing the wealth', *Aviation Week & Space Technology* (Internet edn), 28 Mar. 2004, URL <[http://www.aviationnow.com/avnew/news/channel/awst\\_story.jsp?id=news/03294wha.xml](http://www.aviationnow.com/avnew/news/channel/awst_story.jsp?id=news/03294wha.xml)>.

<sup>57</sup> Janssen Lok, J., 'Netherlands set to win \$5.5b in JSF business', *Jane's Defence Weekly*, 16 June 2004, p. 72.

<sup>58</sup> Janssen Lok, J., 'Dutch confident in JSF business volume', *Jane's Defence Weekly*, 26 Jan. 2005, p. 23. For an overview of the JSF Programme, and specifically Dutch participation, see the JSF section of the AMOK Internet site, URL <<http://www.antenna.nl/amokmar>>.

<sup>59</sup> Janssen Lok, J., 'Frustration mounts among JSF partners', *Jane's Defence Weekly*, 24 Mar. 2004, pp. 16–17.

<sup>60</sup> Sirak, M., 'JSF partners are "on track" for long-term boom', *Jane's Defence Weekly*, 5 May 2004, p. 6.

Despite the fact that the JSF is meant to be a joint development programme, most of the sensitive technology will be US technology. There is still doubt about the level of technology transfers that the USA will be willing to allow, as well as about the exact specifications of the JSF export model.<sup>61</sup> The US Government is willing to ease some restrictions on technology transfer to 'US allies', but that willingness is not shared in Congress.<sup>62</sup> In 2004 non-US partners voiced concern on many occasions that they would receive an aircraft that they do not understand and cannot easily modify for their own needs, particularly if they do not have full access to the source codes for the software. Even Lockheed Martin admits that this is a serious problem.<sup>63</sup> It is not only the JSF that is troubled by US restrictions on software code transfers. In most modern weapon systems the software is more sophisticated than the hardware (or platform), and other possible US arms exports are facing the same problem.<sup>64</sup>

### *US relations with Taiwan*

In its annual report to Congress on Chinese military strategy and modernization, the US Department of Defense (DOD) stated that 'Beijing's military modernization program is eroding the spatial, temporal, and distance challenges that historically inhibited using force against Taiwan'.<sup>65</sup> The report also stated that the China-Taiwan balance of power is shifting in China's favour.<sup>66</sup> There is serious concern in the USA that China, with the aid of massive imports of weapons and technology from Russia, and possibly also from the EU (see below), will for the first time be able to use force successfully against Taiwan.<sup>67</sup> Relations between China and Taiwan have not improved with the re-election in Taiwan of President Chen Shui-bian, who is in favour of clarifying Taiwan's status with a constitution and a declaration of independence, and with the passage in China in March 2005 of the anti-secession law.<sup>68</sup>

The USA is willing to provide Taiwan with advanced weapons and other military equipment, including submarines and air-defence systems, worth over \$18 billion. The USA has also suggested to Taiwan that it should order a

<sup>61</sup> 'RAF may face JSF delays', *Air Forces Monthly*, vol. 194 (May 2004), p. 4; and Hobson, S. *et al.*, 'Not all JSF partners are reaping contract awards', *Jane's Defence Weekly*, 26 May 2004, p. 21.

<sup>62</sup> Alden, E., 'US threat to restrict arms sales to Europe', *Financial Times* (Internet edn), 13 May 2004, URL <<http://news.ft.com/servlet/ContentServer?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1083180493141>>.

<sup>63</sup> Spiegel, P., 'Aerial combat: why there are doubts for the US and its allies over this \$200bn jet', *Financial Times*, 31 Jan. 2005, p. 13.

<sup>64</sup> 'Navy, Boeing pitch Super Hornet for potential international sales', *Inside the Navy*, 4 Oct. 2004, p. 1; and Sariibrahimoglu, L., 'Turkey to boost naval warfare capabilities', *Jane's Defence Weekly*, 8 Dec. 2004, p. 15.

<sup>65</sup> US Department of Defense, FY 2004 Report to Congress on PRC Military Power, Pursuant to the FY 2000 National Defense Authorization Act, May 2004, URL <<http://www.defenselink.mil/pubs/d20040528PRC.pdf>>

<sup>66</sup> US Department of Defense (note 65).

<sup>67</sup> Minnick, W., 'Identity crisis', Country briefing: Taiwan, *Jane's Defence Weekly*, 30 June 2004, p. 25.

<sup>68</sup> 'Taiwan rallies against China law', BBC News Online, 26 Mar. 2005, URL <<http://news.bbc.co.uk/1/4382971.stm>>.

radar-equipped reconnaissance satellite to monitor Chinese movements.<sup>69</sup> The USA has made clear that failure on the part of Taiwan to approve the weapon purchases would be interpreted as a weakening of Taipei's commitment to its own self-defence. This, in turn, could lead to a reassessment of US commitments to defend Taiwan. The weapon package has become a test of the readiness of Taiwan to budget for enough military equipment to hold out against a Chinese attack until US help could arrive.<sup>70</sup> In October 2004 the US DOD Deputy Undersecretary for Asian and Pacific Affairs, Richard Lawless, stated that if the deal was not approved by the end of the year it would 'be regarded as a signal . . . as [to] the attitude of the legislature toward the national defense of Taiwan' and that there would be 'serious repercussions'.<sup>71</sup>

Despite US pressure, agreement on the deal has been difficult to achieve. The Taiwanese Government has proposed a special \$18 billion budget for the arms package but the Taiwanese Parliament opposes the deal.<sup>72</sup> Many commentators in Taiwan, including many retired military officers, warn that the plan risks forcing China and Taiwan into an arms race.<sup>73</sup> The Taiwanese Ministry of Defence stepped up its lobbying efforts, playing down the cost, but a decision on the plan was postponed until after the parliamentary elections in December 2004 when opposition lawmakers prevented it from being included in the pre-election parliamentary timetable.<sup>74</sup>

A US agreement to sell Taiwan eight conventionally powered submarines has led to specific problems related to price and, not least, the fact that the USA does not produce conventionally powered submarines. The price issue has led to heated debates in Taiwan. It is not clear how the price for the eight boats could be \$12.3 billion, since similar submarines were recently sold by France and Germany for \$300–450 million per boat—including support, training and armaments.<sup>75</sup> To some extent, the inflated price is related to Taiwanese insistence on an element of local construction to support the troubled state-owned China Shipbuilding Corporation. However, while this accounts for about \$3 billion, it still leaves the submarines overpriced.<sup>76</sup>

Problems with finding a producer may well halt the whole plan. The USA has not produced a conventionally powered submarine since the 1950s and European submarine designers are unwilling to design or build the boats for

<sup>69</sup> Minnick, W., 'Challenge to update Taiwan's SIGNINT', *Jane's Intelligence Review*, vol. 16, no. 2 (Feb. 2004), p. 9.

<sup>70</sup> Cody, E., 'Politics puts hold on Taiwan arms purchase: \$18.2 billion deal for US weapons stalled despite American warning of China threat', *Washington Post*, 10 Oct. 2004, p. 28.

<sup>71</sup> Cody (note 70).

<sup>72</sup> 'Taiwan debates US arms purchase', *Far Eastern Economic Review*, 15 July 2004, p. 11.

<sup>73</sup> 'Taiwan budget battle', *Defense News*, 27 Sep. 2004, p. 3; and Gluck, C., 'Arms plan sparks Taiwan protests', BBC News Online, 25 Sep. 2004, URL <<http://news.bbc.co.uk/1/3689110.stm>>.

<sup>74</sup> The Taiwanese Ministry of Defence argued *inter alia* that the price of the arms was equal to 1 cup of Taiwan's popular pearl, or bubble, tea per head of population over the next 15 years. Gluck, C., 'Arms plan sparks Taiwan protests', BBC News Online, 25 Sep. 2004, URL <<http://news.bbc.co.uk/1/3689110.stm>>; and 'Massive arms deal unlikely to be discussed before December polls', *China Post* (Internet edn), 3 Nov. 2004, URL <[http://www.chinapost.com.tw/i\\_latestdetail.asp?id=23922](http://www.chinapost.com.tw/i_latestdetail.asp?id=23922)>.

<sup>75</sup> See, e.g., transfers to Chile, Greece, South Korea and Malaysia in appendix 10B.

<sup>76</sup> 'Taiwan debates US arms purchase', *Far Eastern Economic Review*, 15 July 2004, p. 11; and 'Taiwan set to buy \$15 b of US arms', *Air Letter*, 17 Sep. 2004, p. 5.

Taiwan either directly or indirectly through the USA. In 2004 the US company Northrop Grumman offered a version of the 1950s-vintage Barbel Class, the last conventionally powered submarine designed in the USA, which would have been modernized in cooperation with the German company HDW. However, the offer was not made with the support of the German Government.<sup>77</sup> A possible solution would be for the USA to procure second-hand submarines and modernize them. There was an interesting twist in 2004 when it was reported that the USA would support, and fund, Taiwan's procurement of submarines from Russia—of the same type that Russia is supplying to China.<sup>78</sup> It is not clear what the Russian reaction was, but it seems likely that any attempt by Russia to sell military equipment to Taiwan would lead to serious losses in the Chinese market.

Two indirectly related issues complicated the discussion even further. In the USA, Navy officers opposed the production of conventionally powered submarines. They argued that any production, even for export, would inevitably lead in future to the replacement of some orders for expensive nuclear-powered submarines, priced at up to \$2.5 billion each, with a cheaper, conventionally powered alternative. Such a suggestion has already been made by some members of Congress and has possibly found support at the DOD.<sup>79</sup> Meanwhile, Israel has been lobbying for the USA to produce conventionally powered submarines for Taiwan in order to be able to buy such boats with US military aid.<sup>80</sup>

### The European Union

After Russia and the USA, France, Germany and the UK are among the top five exporters of major conventional weapons for the five-year period 2000–2004. While decisions on arms exports are still made by national governments in each EU member state, the EU guidelines of 1991 and 1992 and, more importantly, the 1998 EU Code of Conduct on Arms Exports have gained in importance.<sup>81</sup> Pan-European factors and industrial integration are increasingly

<sup>77</sup> Minnick (note 67), p. 27; and Koch, A. and Minnick, W., 'Taiwan–USA ship deals stalled', *Jane's Defence Weekly*, 26 May 2004, p. 7.

<sup>78</sup> In 2001 there were reports of a possible deal involving Russian Kilo Class submarines, the same type of boats sold to China. Bishop, M. C., 'The troubles over sub deals are more political than financial', *Taipei Times* (Internet edn), 23 July 2004, p. 9, URL <<http://www.taipetimes.com/News/edit/archives/2004/07/23/2003180088>>.

<sup>79</sup> 'US Navy nuclear advocates sabotage presidential move to aid Taiwan on submarines', *Defense & Foreign Affairs Daily*, 23 Sep. 2004; and Koch, A., 'Funding curb forces Virginia reality check', *Jane's Defence Weekly*, 26 Jan. 2005, p. 4.

<sup>80</sup> 'Israel lobbying for Taiwan submarine buy', *Worldtribune.com*, 30 Sep. 2004, URL <[http://216.26.163.62/2004/ea\\_israel\\_09\\_28.html](http://216.26.163.62/2004/ea_israel_09_28.html)>.

<sup>81</sup> For the EU guidelines see URL <[http://www.sipri.org/contents/expcon/eu\\_criteria.html](http://www.sipri.org/contents/expcon/eu_criteria.html)>, and for the Code of Conduct see Council of the European Union, European Union Code of Conduct on Arms Exports, document 8675/2/98 Rev. 2, Brussels, 5 June 1998, URL <[http://ue.eu.int/cms3\\_fo/showPage.asp?id=408&lang=en&mode=g](http://ue.eu.int/cms3_fo/showPage.asp?id=408&lang=en&mode=g)>. For a discussion of the 1992 EU guidelines and the Code of Conduct 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/contents/publications/policy\\_papers.html](http://www.sipri.org/contents/publications/policy_papers.html)>.



important to decision making on export licensing. The EU Code of Conduct is evolving and gaining in importance. The accession of 10 countries to the EU in 2004—including the Czech Republic, Poland and Slovakia, each of which has a significant arms industry—increases the importance of the EU as an arms exporter.<sup>82</sup> On the basis of the SIPRI trend-indicator values, the EU made 25 per cent of total deliveries in the period 2000–2004, making it the third largest exporter of major conventional weapons.<sup>83</sup>

The EU is also a major arms importer. For the period 2000–2004, the 25 countries that were EU members after 1 May 2004 accounted for 20 per cent of global imports, of which imports by EU members from non-EU suppliers accounted for 69 per cent. This picture may change because there is now a tendency for EU member states to consider European options first when looking to meet weapon requirements. This is partly because many larger European weapon systems are cooperative projects between several EU member states. European industries are still becoming more integrated, often making procurement from an EU company the equivalent of supporting domestic industry. US reluctance to share technology may increasingly become an important reason for EU member states to seek EU solutions for their weapon needs.

#### *EU relations with Turkey*

Several countries that aspire to join the EU have allowed this to influence their decisions on arms procurement. There are signs that Turkey, one of the larger arms markets globally and the fifth largest importer according to the SIPRI trend-indicator value for 2000–2004, is altering its arms procurement decisions as it moves towards EU membership. EU member states that had previously denied export licences to Turkey are now increasingly willing to grant them, and Turkey is increasingly leaning towards European suppliers in an attempt to smooth its path to membership. Turkey has declared that it would rather procure equipment from the EU than from the USA. Several large Turkish procurement projects (e.g., combat helicopters and tanks) where US equipment had been thought to be favoured were either cancelled or modified in 2004. However, this may also have been a tactic to persuade US companies to lower their prices or to persuade the US Government to allow more technology transfers.<sup>84</sup> Reports of a Turkish requirement for combat aircraft as ‘gap-fillers’ until the JSF is ready for delivery have been mentioned in this

<sup>82</sup> Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia joined the EU on 1 May 2004. See chapter 1 in this volume.

<sup>83</sup> This figure includes the combined deliveries of all 25 EU member states for the period 1 Jan. 2000 to 31 Dec. 2004. Exports by the EU member states to states outside the EU account for 75% of EU deliveries.

<sup>84</sup> E.g., Turkey wanted the price of 12 SH-60B helicopters to be reduced from \$440 million to \$380–\$400 million. At the same time, it made clear that its requirement for 46 transport helicopters would be opened to tender, instead of selecting the expected US S-70. Sariibrahimoglu, L., ‘Price wars stall Seahawk procurement’, *Jane’s Defence Weekly*, 17 Nov. 2004, p. 14; Bekdil, B. and Enginsoy, U., ‘Turkey leans towards Eurocopter for gunship deal’, *Defense News*, 1 Nov. 2004, p. 14; and Bekdil, B., ‘Tank deal awaits EU decision on Turk membership’, *Defense News*, 1 Nov. 2004, p. 14.

context, although a recent decision to modernize the Turkish F-16 combat aircraft seems to have superseded any plans for such acquisitions.<sup>85</sup>

### III. International arms embargoes

There were 23 international arms embargoes in force in 2004,<sup>86</sup> of which 8 were mandatory UN embargoes, 1 was a non-mandatory UN embargo and 14 were embargoes by smaller groups of states.<sup>87</sup> During the year, the UN embargo on Iraq was lifted and UN embargoes were established on Côte d'Ivoire and on entities and individuals in western Sudan.<sup>88</sup>

UN and other embargoes have not been successful at completely stopping the flow of arms to an embargoed country or group. Nor have they ended conflict in the embargoed areas. Supplier countries often make narrow interpretations of the equipment that is covered by an embargo. In other cases, the fact that embargoed countries have porous borders is misused, or the existence of the embargo is ignored for political or economic reasons. Many cases have come to light where individuals, either state employees or private business people, have been involved as sellers, brokers or smugglers of embargoed equipment.<sup>89</sup> These cases raise fundamental questions about the effectiveness of embargoes when enforcement is lacking.

#### UN embargoes

In mid-2004 a UN embargo on *Sudan* was suggested, primarily by the USA and EU member states, in reaction to atrocities carried out against non-Arab groups in the Darfur region by the Arab Janjaweed militia. The conflict has caused at least 70 000 deaths since 2003 and the Sudanese Government is accused of not acting to prevent the attacks as well as actively supporting the Janjaweed with weapons and even joining forces with them.<sup>90</sup> An arms embargo would be a strong political signal of disapproval but probably do

<sup>85</sup> Lake, J., 'Typhoon manoeuvres over Saudi Arabia', *Jane's Defence Weekly*, 16 June 2004, p. 8; Bekdil, B., 'Eurofighter group seeks market in Turkey', *Defense News*, 16 Sep. 2004; and Bekdil, B. and Enginsoy, U., 'Turkey picks F-16 upgrade over new fighters', *Defense News*, 25 Oct. 2004, p. 14.

<sup>86</sup> 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.

<sup>87</sup> These 14 include 11 EU embargoes and 1 OSCE embargo. For a full list of international arms embargoes see the SIPRI Arms Transfers Project page, URL <<http://www.sipri.org/contents/armstrad/embargoes.html>>.

<sup>88</sup> UN Security Council Resolution 1546, 8 June 2004, for Iraq; UN Security Council Resolution 1572, 15 Nov. 2004, for Côte d'Ivoire; and UN Security Council Resolution 1556, 30 July 2004, for Sudan.

<sup>89</sup> The UN usually establishes a sanctions committee to oversee the working of an embargo. Reports from these committees are available on the UN Internet site at URL <<http://www.un.org/Docs/sc/committees/INTRO.htm>>.

<sup>90</sup> MacKinnon, M., 'Russia's weapon sales to Sudan assailed', *Globe and Mail*, 12 Aug. 2004; and 'UN urges Darfur war crimes trials', BBC News Online, 1 Feb. 2005, URL <<http://news.bbc.co.uk/2/4225353.stm>>. See also chapter 2 in this volume.

little to stop the killing.<sup>91</sup> On 30 July the UN Security Council established an arms embargo against ‘non-governmental entities and individuals, including the Janjaweed’ operating in the Darfur region. The Security Council also gave the Sudanese Government 30 days to change its behaviour and threatened additional sanctions.<sup>92</sup> However, despite reports that the situation had not changed, the Security Council did not establish an embargo after the 30-day deadline had expired and, as of February 2005, no action had been taken. China and Russia, the two permanent members of the Security Council most opposed to sanctions against Sudan, stood to lose business, including arms sales, if an arms embargo had been established. Sudan reportedly notified Russia that it had \$3 billion to spend on military hardware.<sup>93</sup> Days before the deadline expired, and with sanctions becoming a distinct possibility, Russia delivered 12 MiG-29 combat aircraft ahead of schedule—despite strong US protests.<sup>94</sup> Belarus, China and Ukraine also supplied Sudan with weapons in 2000–2004. The USA has voiced concern that some states, in particular China, might be tempted to sell weapons to Sudan in order to gain access to Sudan’s oil reserves. China has a rapidly growing demand for energy and limited national oil reserves.<sup>95</sup>

*Côte d’Ivoire* became the target of a UN arms embargo on 15 November 2004. After agreements were reached on a ceasefire and a peace settlement in 2003, the Government of Côte d’Ivoire prepared for a resumption of hostilities *inter alia* by buying weapons.<sup>96</sup> The pattern of arms deliveries to Côte d’Ivoire is familiar from earlier conflicts in Africa—Central and East European countries, in this case Belarus and Bulgaria, and Israel, often acting through brokers, sell the hardware, which is delivered through neighbouring countries, in this case Guinea. The equipment is often operated by mercenaries, usually from the country that sold the weapons, who are under contract to small private military companies.<sup>97</sup> While the sales to Côte d’Ivoire were not illegal, they were clearly destabilizing. In November 2004 government aircraft, supplied by Belarus in 2003 and 2004, were used to attack French peacekeepers and rebels. This led within days to the implementation of a 13-month arms embargo by the UN Security Council.<sup>98</sup> The government remained defiant,

<sup>91</sup> The Janjaweed use mainly small arms and the reported attacks by Sudanese Government forces involve generally small numbers of simple low-tech weapons such as armed helicopters and transport aircraft used as bombers. Chamberlain, G., ‘Sudanese forces “directly involved in slaughter of civilians”’, *The Scotsman* (Internet edn), 4 Aug. 2004, URL <<http://thescotsmen.scotsmen.com/international.cfm?id=891422004>>.

<sup>92</sup> UN Security Council Resolution 1556, 30 July 2004.

<sup>93</sup> MacKinnon (note 90).

<sup>94</sup> ‘RSK MiG delivers fighters to Sudan’, *Jane’s Defence Weekly*, 11 Aug. 2004, p. 17; and ‘US protests against MiG sale to Sudan’, *Jane’s Defence Weekly*, 4 Aug. 2004, p. 11.

<sup>95</sup> Hill, J., ‘US report sees 10-year window to engage China’, *Jane’s Intelligence Review*, vol. 16, no. 8 (Aug. 2004), p. 53.

<sup>96</sup> ‘At war with the peacekeepers’, *Africa Confidential*, 19 Nov. 2004, p. 1. See also chapter 2 in this volume; and, on private security companies, Holmqvist, C., *Private Security Companies: The Case for Regulation*, SIPRI Policy Paper no. 9 (SIPRI: Stockholm, 2005), URL <[http://www.sipri.org/contents/publications/policy\\_papers.html](http://www.sipri.org/contents/publications/policy_papers.html)>.

<sup>97</sup> ‘At war with the peacekeepers’, *Africa Confidential*, 19 Nov. 2004, p. 2.

<sup>98</sup> UN Security Council Resolution 1572 (note 88).

stating that new weapons, including combat aircraft, had been ordered. If this is true, the embargo was broken within days.<sup>99</sup>

The UN embargo on arms supplies and other military assistance against armed groups in *the Democratic Republic of the Congo* (DRC), established in July 2003, was further extended for a period of 12 months until August 2005.<sup>100</sup> A UN-appointed group of experts reported in July 2004 that the embargo had not stopped the flow of military supplies and assistance to several armed groups.<sup>101</sup> The report specifically singled out Rwanda as having violated the embargo. In the past, Rwanda has been actively involved with troops in the DRC and has made no secret of its support for any group opposed to the Interhamwe militias in the DRC. To make the embargo more effective, the report recommended the creation of a verification mechanism by *inter alia* the UN Mission in the DRC (MONUC) and the African Union (AU), and the improvement of MONUC's capacity to monitor and intercept supplies and assistance, which *inter alia* would require additional surveillance systems.<sup>102</sup> By the end of 2004, there was little evidence that any of these recommendations had been implemented or that MONUC's capacity to monitor borders has improved.<sup>103</sup>

On 8 June 2004 the UN Security Council modified the arms embargo on *Iraq*, which was imposed in August 1990 after the Iraqi invasion of Kuwait, to allow the delivery of arms and related matériel to the Iraqi Government and to the Multinational Force.<sup>104</sup> These modifications followed changes made in May 2003, which allowed deliveries for internal security and border protection. The embargo remains in force for supplies to other recipients such as rebel groups.<sup>105</sup>

In April the USA had announced that it was dropping its ban on lethal military equipment for the Iraqi military and authorized the delivery of such equipment for use by the new Iraqi military and police forces.<sup>106</sup> On 23 July the EU also lifted its arms embargo on Iraq.<sup>107</sup>

Since 1990, there have been many alleged and proven breaches of the Iraq embargo. After the US-led coalition occupied Iraq in March 2003 it was possible to gain access to documents and equipment that gave additional

<sup>99</sup> 'Ivory Coast Air Force wiped out', *Air Forces Monthly*, no. 202 (Jan. 2005), p. 5.

<sup>100</sup> UN Security Council Resolution 1552, 27 July 2004.

<sup>101</sup> United Nations, Letter dated 15 July 2004 from the Chairman of the Security Council Committee established pursuant to Resolution 1533 (2004) concerning the Democratic Republic of the Congo addressed to the President of the Security Council, conveying the report of the group of experts, UN document S/2004/551, 15 July 2004, URL <<http://www.un.org/Docs/sc/committees/DRC/DRCselectedEng.htm>>.

<sup>102</sup> United Nations (note 101). UN Security Council Resolution 1533 gives MONUC the mandate to enforce the embargo.

<sup>103</sup> See chapter 3 in this volume.

<sup>104</sup> Cottey, A. 'The Iraq war: the enduring controversies and challenges', *SIPRI Yearbook 2004* (note 4).

<sup>105</sup> UN Security Council Resolution 1546 (note 88).

<sup>106</sup> 'Amendment to the International Traffic in Arms Regulations: denial policy against Iraq', *Federal Register*, vol. 69, no. 69 (9 Apr. 2004), p. 18810.

<sup>107</sup> 'EU lifts Iraq weapons embargo', *Deutsche Welle*, 23 July 2004, URL <<http://www.dw-world.de/dw/article/0,,1274516,00.html>>.

insights into the way the embargo was circumvented by a host of countries, companies and individuals. The September 2004 Central Intelligence Agency (CIA) report by the Special Advisor to the Director of Central Intelligence on Iraq's weapons of mass destruction, Charles Duelfer, gives extensive details of where and how the sanctions failed.<sup>108</sup> Offered lucrative contracts by Iraq, a surprisingly large number of arms suppliers and government officials ignored the UN restrictions, despite the fact that Iraq was more closely watched than any other embargoed country at the time.<sup>109</sup> The report demonstrates the relative ease with which Iraq was able after 1990 to acquire weapons—including engines and other components for ballistic missiles, spare parts for tanks, air-surveillance and night-vision equipment and probably anti-tank missiles—from or with the assistance of the governments of Belarus, North Korea, Syria, Yemen, the former Yugoslavia and possibly Russia, as well as from corrupt government officials and private companies in Europe, Asia and the Middle East.<sup>110</sup> The list of suppliers in the report includes companies and private individuals from Bulgaria, Poland and Ukraine—countries that later sent troops to Iraq to join the US-led military coalition.<sup>111</sup> The smuggled equipment included components for ballistic missiles—systems that were under extra scrutiny by the USA and its allies and by UN missions. The report notes that Iraq was designing missile systems on the assumption that prohibited material would be readily available.<sup>112</sup> The fact that the equipment was generally small made it easier to smuggle.

This illicit trade increased once it became clear that little action was taken against those who circumvented the embargo, and again when US military action against Iraq became more likely. The number of deals with countries and companies that were willing to undermine UN sanctions rose from approximately 5 in 1998 to over 15 in 2000 and more than 35 in 2002.<sup>113</sup> However, despite the loopholes, the embargo did prove effective in so far as the purchases were in no way large enough to allow Iraq to rebuild its conventional military arsenal or to create a viable chemical-, biological- or nuclear-weapon programme.<sup>114</sup>

## EU embargoes

In addition to the lifting of the EU embargo on Iraq, the EU also lifted its embargo on *Libya* on 11 October 2004. By that time several contracts for weapons and equipment were under discussion between Libya and British,

<sup>108</sup> US Central Intelligence Agency, 'Comprehensive Report of the Special Advisor to the DCI [Director of Central Intelligence] on Iraq's WMD', 30 Sep. 2004, URL <[http://www.cia.gov/cia/reports/iraq\\_wmd\\_2004](http://www.cia.gov/cia/reports/iraq_wmd_2004)>.

<sup>109</sup> US Central Intelligence Agency (note 108), p. 93.

<sup>110</sup> US Central Intelligence Agency (note 108), p. 93.

<sup>111</sup> US Central Intelligence Agency (note 108), p. 93.

<sup>112</sup> US Central Intelligence Agency (note 108), p. 11.

<sup>113</sup> US Central Intelligence Agency (note 108), pp. 93–94.

<sup>114</sup> US Central Intelligence Agency (note 108), p. 3.

French, Greek and Italian companies.<sup>115</sup> The lifting of the embargo had been driven mainly by Greece and Italy, albeit with little or no opposition from other EU member states, in order to help Libya improve its border patrol and maritime surveillance capabilities so that it could help reduce the number of illegal immigrants entering the EU through the Mediterranean.<sup>116</sup>

The EU reaffirmed its arms embargo on *Sudan*,<sup>117</sup> which dates from March 1994, and expanded it in January 2004 to include financing and brokering of arms sales and military technical advice, assistance and support.<sup>118</sup> The prohibition on brokering by EU nationals came at a time when British and Central and East European nationals were reportedly heavily involved as middlemen in the supply of weapons from Ukraine to Sudan. Most of the reported transfers (150 armoured vehicles, 42 pieces of artillery, 150 man-portable defence systems, MANPADS and other weapons) were halted by the new prohibition.<sup>119</sup>

#### *The EU arms embargo on China*

The embargo that received the most attention in 2004 was the EU arms embargo on *China*, imposed in 1989 as a reaction to Chinese human rights violations—in particular the 1989 Tiananmen Square massacre. EU leaders discussed the possibility of lifting the embargo on several occasions in 2004. Several EU member states, notably France and Germany, argued that the time was right to lift the embargo and to increase trade and cooperation with China.<sup>120</sup> The embargo on China was established by the European Community (EC) and it has the status of a political declaration by the EC Council of Foreign Ministers expressing the consensus of the then EC member states, some of which had already established ‘national embargoes’. Unlike later EU embargoes, which are grounded in the European Political Cooperation and are part of the EU Common Foreign and Security Policy, the declaration was not legally binding.<sup>121</sup> During a visit to China in December 2003, German

<sup>115</sup> ‘Libye’ [Libya], *Damoclès: la Lettre*, no. 107 (Sep. 2004), p. 2; and Kington, T., ‘EU eyes coastal patrol needs in sales to Libya’, *Defense News*, 11 Oct. 2004, p. 14.

<sup>116</sup> Kington (note 115). On 20 Sep. 2004 the USA ended its economic embargo on Libya but retained its ban on military sales.

<sup>117</sup> The USA also has in place trade restrictions on Sudan. However, in May 2004 the USA removed Sudan from its list of countries not cooperating with US anti-terrorism efforts, thereby opening the door for an easing of trade (including arms trade) restrictions. Lee, M., ‘US moves to ease arms embargo against Sudan, hints Libya may be next’, *Agence France-Press*, 18 May 2004.

<sup>118</sup> Common Position 2004/31/CFSP and Council Regulation (EC) no. 131/2004, available on the SIPRI Internet site at URL <[http://www.sipri.org/contents/expcon/eu\\_sudan.html](http://www.sipri.org/contents/expcon/eu_sudan.html)>.

<sup>119</sup> Leppard, D. and Winnett, R., ‘Briton supplies arms to Sudan’, *Sunday Times*, 5 Sep. 2004.

<sup>120</sup> Several countries proposed lifting the embargo in the 1990s. For a discussion of the history of the EU arms embargo on China see the SIPRI Internet site, at URL <<http://www.sipri.org/contents/expcon/euchiemb.html>>. For a complete list of EU embargoes and related EU documents see the SIPRI Internet site ‘European Union approach to arms embargoes’, URL <[http://www.sipri.org/contents/expcon/eu\\_embargo.html](http://www.sipri.org/contents/expcon/eu_embargo.html)>.

<sup>121</sup> The 10 states that joined the EU in May 2004 accepted as binding all EU decisions but not the political declarations made by the EC. The embargo on China thus applies only for 15 EU member states. See Grimmet, R. F., and Papademetriou, T., Library of Congress, Congressional Research Service (CRS), *European Union’s Arms Control Regime and Arms Exports to China: Background and Legal Analysis*, CRS Report for Congress RL32785 (US Government Printing Office: Washington, DC, 1 Mar.

Chancellor Gerhard Schröder said that Germany was in favour of ending the embargo.<sup>122</sup> During a visit to France by Chinese President Hu Jintao in January 2004, President of France Jacques Chirac said that the embargo ‘no longer corresponds with the political reality of the contemporary world’ and called for it to be ended.<sup>123</sup>

However, a number of EU member states, including Finland, the Netherlands and the UK, argued that China had not demonstrated sufficient improvement in the area of human rights to warrant the lifting of the embargo. EU sentiment on the embargo remained divided in 2004 and a meeting of EU foreign ministers in October failed to resolve the issue. At the meeting of the Council of the European Union on 16–17 December 2004, EU leaders declared their willingness to consider lifting the embargo in 2005 but at the same time committed themselves to not increase the quality or quantity of exports of military equipment to China.<sup>124</sup>

Proponents of lifting the embargo argue that it would be a mainly political signal in a process of ‘engaging China in dialogue’, that it would tidy up an outmoded legacy of the EC and that the EU Code of Conduct on Arms Exports could be interpreted in a restrictive manner in order to prevent an increase in arms sales to China. It is possible to argue that the EU Code of Conduct has overtaken the embargo and that if the embargo were lifted the code’s criteria on human rights, regional stability, the security of EU allies, and probably on the risk of diversion to third countries would still prevent major increases in the quantity and quality of exports to China. This view was expressed, for example, by British Foreign Secretary Jack Straw.<sup>125</sup> However, as a joint report of four select committees of the British House of Commons (the Quadripartite Committee) concluded, if the EU Code of Conduct has superseded the arms embargo on China, then it has presumably also superseded other EU arms embargoes, given that sales to any embargoed country could equally well be controlled under the EU Code of Conduct.<sup>126</sup>

No list of items covered by the term ‘arms’ was agreed when the EC imposed its embargo on China.<sup>127</sup> Interpretation of what is actually embargoed is left to individual EU member states, which continue to interpret the embargo in different ways. Only the UK and, to some extent, Italy have published their interpretations.<sup>128</sup> In 1995, the British Government clarified its

2005). For a more detailed account of the embargo on China and data on transfers of equipment from the EU to China see URL <[http://www.sipri.org/contents/armstrad/atchi\\_taidata.html](http://www.sipri.org/contents/armstrad/atchi_taidata.html)>.

<sup>122</sup> ‘Schroeder backs sales to China of EU weapons’, *Wall Street Journal*, 2 Dec. 2003.

<sup>123</sup> Agence France-Presse, ‘Chirac renews call for end of EU arms embargo on China’, 27 Jan. 2004.

<sup>124</sup> Council of the European Union, Presidency Conclusions, document 16238/1/04 Rev 1, Brussels, 1 Feb. 2005. Wall, R. and Taverna, M. A., ‘Chinese poker: US cites fear of shifting military balance in Asia if Europe lifts Chinese arms ban’, *Aviation Week & Space Technology*, 25 Oct. 2004, p. 82; and ‘Swedish PM faces backlash after support for lifting China arms embargo’, Agence France-Presse, 18 Dec. 2004.

<sup>125</sup> British House of Commons, Defence, Foreign Affairs, International Development and Trade and Industry Committees, *Strategic Export Controls: Annual Report for 2002, Licensing Policy and Parliamentary Scrutiny* (Stationery Office: London, May 2004), p. 39.

<sup>126</sup> British House of Commons (note 125), p. 39.

<sup>127</sup> For the agreed scope of later embargoes see the SIPRI Internet site (note 87).

<sup>128</sup> British House of Commons (note 125), p. 39.

interpretation of the arms embargo against China in response to a Parliamentary Question.<sup>129</sup> Italy apparently interprets the embargo as a ban on equipment designed for the maintenance of internal security. In mid-2004 Italy was in the process of ratifying a 1999 agreement on military equipment and technology cooperation with China. According to the sponsor of the bill to ratify the agreement, Marcello Pacini, it does not violate the arms embargo because 'military equipment' is defined under Italian law as naval vessels, aircraft, helicopters and related equipment, which are 'armaments pertaining to national defense and not specifically designed for internal repression or to restrict individual rights and freedoms'.<sup>130</sup>

The existence of the embargo has not prevented several EU member states from delivering military equipment or components to China.<sup>131</sup> In the 2003 annual report on the implementation of the EU Code of Conduct, for example, the Czech Republic, France, Germany, Italy and the UK reported licences for exports of goods on the EU Military List with a combined value of €416 million (\$475 million).<sup>132</sup> While it is possible to deduce from public sources that the equipment is either mainly for civilian use or 'non-lethal', the equipment is important for the modernization of the Chinese armed forces and for the production of Chinese weapon systems such as submarines, tanks and combat aircraft. China is keen to gain greater access to key European components. China is capable of developing relatively advanced weapon platforms but has serious problems with developing engines, transmissions, avionics and electronics—and is heavily dependent on foreign technology in these fields. Russia can provide some of these components but there is wide agreement that Russian technology either is or is rapidly becoming outdated. Almost all Chinese tanks and armoured vehicles are powered by German

<sup>129</sup> The British Government stated that: 'Since 7 June 1995 the United Kingdom has enforced an embargo on the sale to China of "weapons, and equipment which could be used for internal repression"'. The EU introduced a ban on arms sales to China on 26 June 1989 but the scope of that ban has, in the absence of agreement on a common interpretation, been left for national interpretation. In the interests of clarity we have decided that hence forward the embargo will include: lethal weapons such as machine guns, large calibre weapons, bombs, torpedoes, rockets and missiles; specially designed components of the above, and ammunition; military aircraft and helicopters, vessels of war, armoured fighting vehicles and other such weapons platforms; any equipment which is likely to be used for internal repression. All applications will be considered on a case-by-case basis in the light of these criteria as well as our usual criteria governing all defence exports'.

<sup>130</sup> Kington, T., 'Italy ponders arms sales to China', *Defense News*, 28 June 2004, p. 6.

<sup>131</sup> Hill, J., 'Europe considers ending Chinese arms embargo', *Jane's Intelligence Review*, vol. 16, no. 6 (June 2004), pp. 54–55. The UK, which has complained that other EU members were less restrictive on exports to China, granted licences for military equipment worth £76.5 million (\$139 million) in 2003. Lawrence, S., 'New cracks in the alliance', *Far Eastern Economic Review*, 12 Aug. 2004, pp. 24–26; and Lague, D., 'How a lifted embargo would help China', *Far Eastern Economic Review*, 12 Aug. 2004, p. 27. On EU exports to China see the SIPRI Arms Transfers Project Internet site at URL <[http://www.sipri.org/contents/armstrad/atchi\\_taidata.html](http://www.sipri.org/contents/armstrad/atchi_taidata.html)>.

<sup>132</sup> Council of the European Union, 'Common Military List of the European Union', *Official Journal of the European Union*, C314 (21 Dec. 2004), URL <<http://europa.eu.int/eur-lex/lex/JOhtml.do?uri=OJ:C:2003:314:SOM:EN:HTML>>. The value of actual deliveries from the Czech Republic and Italy was €1.7 million, only 1.3% of the value of licences granted by the 2 countries. France, Germany and the UK did not report on the value of deliveries. Council of the European Union, 'Sixth Annual Report according to Operative Provision 8 of the European Union Code of Conduct on Arms Exports', *Official Journal of the European Union*, C316 (12 Dec. 2004), p. 43, URL <[http://ue.eu.int/cms3\\_fo/showPage.asp?id=408&lang=en&mode=g](http://ue.eu.int/cms3_fo/showPage.asp?id=408&lang=en&mode=g)>.



engines, which are often produced under licence in China.<sup>133</sup> Chinese submarines are powered by French and German engines and equipped with French sonar systems.<sup>134</sup> China produces helicopters either under licence from France or making extensive use of French technology.<sup>135</sup>

The USA is putting pressure on EU member states to maintain the embargo, not primarily because of the events of 1989 but because Chinese access to European military technology, in addition to what it already receives from Russia, might help China to more rapidly improve its military performance and may partly replace its dependence on outdated Russian technology. This could lead to a destabilizing Chinese arms build-up in a region where the USA has troops and defence commitments.<sup>136</sup> The matter is seen as extremely sensitive in the USA, with some analysts suggesting that lifting the embargo could bring NATO close to collapse.<sup>137</sup> The Bush Administration has exerted constant pressure on the EU in an attempt to dissuade it from lifting the embargo, warning that such a move would be a significant obstacle to US defence cooperation with EU member states. It specifically identifies the issue of technology transfers and argues that EU military technology provided to China could be diverted to third parties or terrorists.<sup>138</sup>

Both houses of the US Congress have also argued against lifting the embargo. In June 2004 the influential US–China Economic and Security Review Commission warned that access to European technology would accelerate Chinese modernization and dramatically enhance Chinese military capabilities. Such a decision might also lead Russia to authorize the export of even more sophisticated systems to China in response to the increased competition.<sup>139</sup> The Commission recommended ‘that Congress urge the president and the secretaries of State and Defense to press strongly their EU counterparts to maintain the EU arms embargo on China’.<sup>140</sup> In May 2004 the US House of Representatives Committee on Armed Services agreed a bill that would restrict exports of arms and other sensitive technologies to any country exporting arms to China, as well as prohibit US government agencies from doing business with any company that sells arms to China, for five years.<sup>141</sup>

<sup>133</sup> See, e.g., the various entries for Chinese tanks and armoured vehicles in *Jane’s Armour and Artillery 2004–2005* (Jane’s Information Group: Coulsdon, 2004).

<sup>134</sup> *Jane’s Fighting Ships 2004–2005* (Jane’s Information Group: Coulsdon, 2004).

<sup>135</sup> *Jane’s all the World’s Aircraft 2004–2005* (Jane’s Information Group: Coulsdon, 2004).

<sup>136</sup> Lawrence, S., ‘New cracks in the alliance’ and Lague, D., ‘How a lifted embargo would help China’, *Far Eastern Economic Review*, 12 Aug. 2004, pp. 24–26 and 27; and Brookes, P., ‘Keep the pressure on China’, *Far Eastern Economic Review*, 26 Aug. 2004, p. 22.

<sup>137</sup> Hill, J., ‘China, France hold joint naval exercises’, *Jane’s Intelligence Review*, vol. 16, no. 6 (May 2004), p. 9.

<sup>138</sup> ‘US warns EU against arms trade with China’, *International Herald Tribune* (Internet edn), 7 Oct. 2004, URL <<http://www.ihf.com/bin/print.php?file=542527.html>>; and Sherman, J., ‘US to EU: think twice about China arms trade’, *Defense News*, 18 Oct. 2004, p. 3.

<sup>139</sup> US–China Economic and Security Review Commission (note 18), p. 193.

<sup>140</sup> US–China Economic and Security Review Commission (note 18), p. 22.

<sup>141</sup> Alden, E., ‘US threat to restrict arms sales to Europe’, *Financial Times* (Internet edn), 13 May 2004, URL <<http://news.ft.com/servlet/ContentServlet?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1083180493141>>.

## IV. Arms transfer reporting and transparency

### The 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.<sup>142</sup> In order to make such assessments, data are needed on the financial values of weapon sales, here called the arms trade. By aggregating data released by supplier governments on the value of their arms trade it is possible to arrive at a rough estimate of the financial value of this trade.<sup>143</sup> That value for 2003, the most recent year for which data are available, is estimated at \$38–43 billion (see figure 10.2), which accounts for 0.5–0.6 per cent of total world trade.<sup>144</sup> The figure is reported as a range because certain countries produce more than one set of data on the value of their arms exports. In particular, Sweden, the UK and the USA each produce at least two sets of such data.

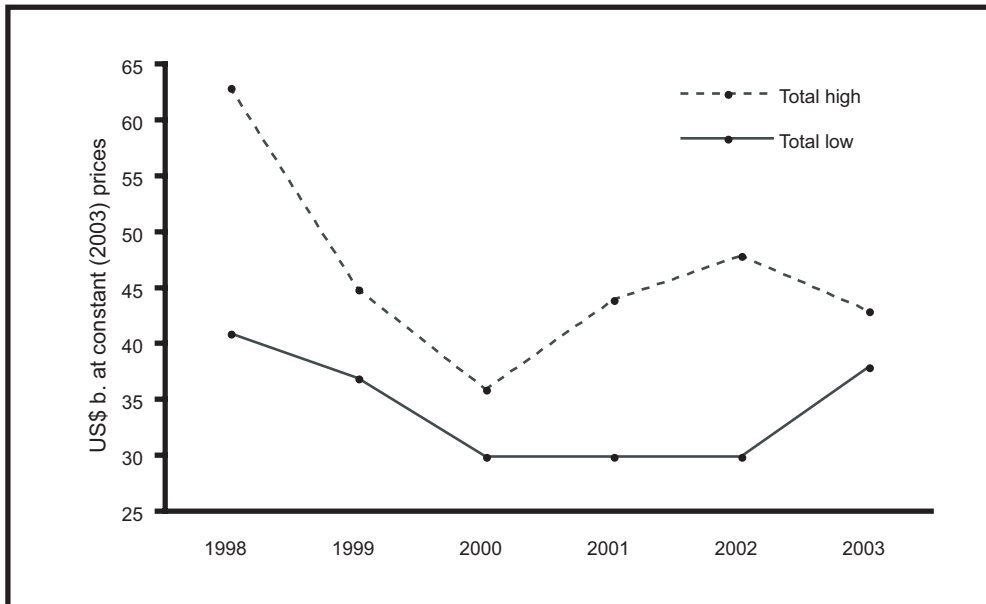
SIPRI's current estimate of the value of the arms trade in 1999–2003 is higher than that given in the *SIPRI Yearbook 2004*. In addition, the gap between the maximum and minimum estimates is more pronounced. In large part, this is because of revisions to the data on US arms exports contained in the 2004 US Congressional Research Service (CRS) annual report.<sup>145</sup> The values for US arms deliveries in 1997–2004 are substantially higher in the 2004 report compared to the figures given in previous reports. In particular, the 2003 report values US deliveries in 2002 at \$10.241 billion, while the 2004 report gives a value of \$23.872 billion for 2002. Similarly, the 2003 report values US deliveries in 2001 at \$9.530 billion while the 2004 report

<sup>142</sup> See note 1.

<sup>143</sup> SIPRI estimates that the countries that provide data on national exports account for over 90% of the total volume of deliveries of major conventional weapons. It can be assumed that these countries together account for a roughly similar percentage of total arms exports in financial terms. By aggregating national export values it is possible to arrive at a rough estimate of the total financial value of the annual global arms trade. Because some governments present several reports with different arms export data, this estimate can only be a range including the aggregates of the lowest and the highest reported values. Figures are in US dollars at constant (2003) prices. Conversion to US dollars is made using current values and current market exchange rates (MERs). Values are then converted into constant (2003) prices using the US consumer price index (CPI). It should be noted that government arms export data are not entirely reliable or comparable and are based on different methodologies and different definitions of what constitute 'arms' and 'military equipment'. 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. For some smaller countries, data on the value of arms export licences have been used because these are the only figures available. For certain countries and certain years official data are unavailable and estimates have been made on the assumption that the rate of change in an individual country for which data are missing is the same as the average in the sample as a whole. On the value of the global arms trade see the SIPRI Arms Transfers Project Internet site, URL <[http://www.sipri.org/contents/armstrad/at\\_gov\\_ind\\_data.html](http://www.sipri.org/contents/armstrad/at_gov_ind_data.html)>.

<sup>144</sup> Total world exports in 2003 amounted to \$7444 billion. International Monetary Fund, International financial statistics online, URL <<http://ifs.apdi.net/imf/>>.

<sup>145</sup> Grimm, R. F., Library of Congress, Congressional Research Service (CRS), *Conventional Arms Transfers to Developing Nations 1996–2003*, CRS Report for Congress RL32547 (US Government Printing Office: Washington, DC, 26 Aug. 2004).



**Figure 10.2.** The value of the international arms trade, 1998–2003

Source: The data used to compile these figures are available at URL <[http://www.sipri.org/contents/armstrad/at\\_gov\\_ind\\_data.html](http://www.sipri.org/contents/armstrad/at_gov_ind_data.html)>.

gives \$22.342 billion.<sup>146</sup> These increases are not reflected in either the values given for arms transfer agreements or the data on deliveries to the developing world in the 2004 report.

### International transparency

The two main international mechanisms for public transparency on arms transfers are the UN Register of Conventional Arms (UNROCA), introduced in 1992, and the Annual Report according to Operative Provision 8 of the EU Code of Conduct on Arms Exports, which has been produced since 1999.<sup>147</sup>

#### *The UN Register on Conventional Arms*

The number of UNROCA participating countries increased from an all-time low of 83 in 1998 to 121 reporting data for 2002 in 2004. By January 2005,

<sup>146</sup> Grimmett, R. F., Library of Congress, Congressional Research Service (CRS), *Conventional Arms Transfers to Developing Nations 1995–2002*, CRS Report for Congress RL32084 (US Government Printing Office: Washington, DC, 22 Sep. 2003); and Grimmett (note 145).

<sup>147</sup> This section covers developments in national and international transparency tools that increase public knowledge of arms exports. Intergovernmental exchanges of information, such as those which take place under the auspices of the Organization for Security and Co-operation in Europe and the Wassenaar Arrangement, are not discussed. On the OSCE information exchanges see chapter 15 in this volume. On the Wassenaar Arrangement see chapter 17 in this volume. International transparency is also part of a proposed 'Arms Trade Treaty', which gained the support of several governments, most notably the British and Finnish, by the end of 2004. The proposed treaty is meant to control the arms trade but recognizes that this can only be achieved if there is some level of international and national transparency on arms exports and imports. For more on the discussions around this treaty see URL <[http://www.controlarms.org/latest\\_news/steps-forward.htm](http://www.controlarms.org/latest_news/steps-forward.htm)>. For the text of the proposed treaty see URL <<http://www.armstradetreaty.com/fccomment.html>>.

112 countries had reported data for 2003. However, experience demonstrates that some countries report data much later.<sup>148</sup> In 2004 countries for the first time reported on artillery with a caliber of 75–100 mm and on MANPADS. Five countries clearly identified exports of artillery with a caliber of 75–100 mm. There were no reports of any imports. Four countries identified exports of MANPADS and two reported imports.<sup>149</sup> There has been no marked increase in the number of countries that provide information on their military inventories and their acquisitions from domestic sources. In the past three years, this total remained fairly constant at about one-third of all countries participating in the register.

The data submitted to the UNROCA are important because they are the only official data available on the arms exports and imports of many countries. However, the value of the data is difficult to assess. Many, if not most, of the reports from exporters do not match the corresponding reports from importers. One side often reports different numbers from the other and does not always include the systems reported by the other. Where both exporter and importer have submitted reports to the UNROCA for 2003, about 80 per cent of the entries do not match. Sometimes the difference is marginal but in 65 per cent of these cases one side has reported a transfer which is not reported by the other side.<sup>150</sup> Taking data from the UNROCA at face value is problematic and can lead to incorrect conclusions being drawn. Moreover, many importers do not seem interested in making submissions. In 2003, 26 countries identified from exporter reports as having received weapons did not submit reports.

### *The EU Code of Conduct on Arms Exports*

In December 2004 the EU published its sixth annual report on the implementation of the EU Code of Conduct on Arms Exports.<sup>151</sup> The accession of 10 new member states to the EU in May 2004 had a significant impact on the volume of statistical data included in the report.<sup>152</sup> All 10 incoming member states have agreed to abide by the operative provisions of the code, including those related to the provision of statistical data on arms exports.<sup>153</sup> However, because the sixth annual report covers export licences issued and actual exports in 2003 the 10 new member states were not obliged to submit data.

<sup>148</sup> A complete list of participating countries and their reports for the 12-year period 1992–2003 are available at URL <<http://disarmament2.un.org/cab/register.html>>. Data on participation exclude the Cook Islands and Niue.

<sup>149</sup> This figure does not include 1 MANPADS export report which is either a mistake or an import. In cases where countries have only reported numbers of items in the categories, without describing the systems, MANPADS and artillery below 100 mm may be included in the numbers.

<sup>150</sup> These statistics exclude reported transfers of systems that clearly fall outside the UNROCA definitions, such as Argentina's reported imports of TOW missiles and 40-mm grenade launchers. For further analysis see the SIPRI Arms Transfer Project Internet site, URL <[http://www.sipri.org/contents/arms\\_trad/unroca.html](http://www.sipri.org/contents/arms_trad/unroca.html)>.

<sup>151</sup> Council of the European Union, 'Sixth Annual Report' (note 132).

<sup>152</sup> See note 82.

<sup>153</sup> For a discussion of the obligations of the 10 new EU member states under the EU Code of Conduct see chapter 17 in this volume; and Bauer and Bromley (note 81).

Instead, they were invited to submit figures for 2003 if they were available,<sup>154</sup> which eight of them did.<sup>155</sup>

In a further enhancement of transparency, member states agreed that ‘break-downs of licences and actual exports by [EU] Military List category (if available) should also be included in the report’.<sup>156</sup> Of the 25 member states, 12 submitted data on the value of licences granted or actual exports by destination, disaggregated by the 22 categories of the EU Military List. The subsequent increase in the volume of statistical data led to the adoption of a new format for the sixth annual report, which contains nearly 200 pages of statistical data, compared to fewer than 40 pages in the fifth report.

Disaggregating financial data by the categories of the EU Military List allows a better informed analysis of the types of goods licensed and exported by EU member states. However, many of the Military List categories are defined broadly, making it difficult to identify specific items or weapon systems. In addition, since the annual report is meant to be a tool for evaluating states’ interpretation of the EU Code, and since the EU Code criteria are related mainly to the impact which weapons have on certain situations, a reporting system that focuses on the financial values of exports without giving details of the type or quantity of weapon exported is of relatively little use. It is worth noting that the UNROCA and the exchange of information within the OCSE, both of which share some of the aims of the EU Code, focus on the *type* and *quantity* of weapons exported, not on financial data.<sup>157</sup>

In 2004 the EU member states discussed making the submission of certain categories of data for the EU Code annual report compulsory. States had previously agreed that submissions should only be made if data were ‘available’.<sup>158</sup> The sixth annual report states that consensus has been reached on providing national data on the value of licences issued. However, additional data such as the value of actual exports will only be made available by those states that are able to do so.<sup>159</sup> As a result, there continues to be significant variation in the quantity of statistical data submitted, with some states submitting data on all possible categories and others submitting only the minimum required. This disparity continues to reduce the comparability of national data presented in the annual report.<sup>160</sup>

<sup>154</sup> Working Party on Conventional Arms Exports (COARM), Operational conclusions of the meeting of 22 June 2004.

<sup>155</sup> The Czech Republic, Estonia, Hungary, Latvia, Malta, Poland, Slovakia and Slovenia submitted data for the sixth annual report on either the number of licences issued, the value of licences issued, the value of actual exports or a combination of all 3.

<sup>156</sup> Council of the European Union, ‘Common Military List of the European Union’ (note 132); and Working Party on Conventional Arms Exports (note 154).

<sup>157</sup> For an analysis of the data submitted for the EU annual report see Bauer and Bromley (note 81).

<sup>158</sup> Council of the European Union, ‘Fifth Annual Report according to Operative Provision 8 of the European Union Code of Conduct on Arms Exports’, *Official Journal of the European Union*, C320 (31 Dec. 2004), p. 8, URL <[http://ue.eu.int/cms3\\_fo/showPage.asp?id=408&lang=en&mode=g](http://ue.eu.int/cms3_fo/showPage.asp?id=408&lang=en&mode=g)>.

<sup>159</sup> Council of the European Union, ‘Sixth Annual Report’ (note 132).

<sup>160</sup> Bauer and Bromley (note 81).

### National transparency

It had been anticipated that the total number of countries providing national annual reports on arms exports would increase after the enlargement of the EU. However, while the majority of new EU member states did submit data for its annual report, only *the Czech Republic* published a national annual report in 2004. The Czech report reproduced the data submitted to the EU annual report and contained additional information on the number and type of weapon systems imported and exported, along with a separate section on imports and exports of small arms and light weapons.<sup>161</sup> Among the new EU member states that failed to produce national annual reports, reasons cited include a lack of capacity and ongoing intra-governmental disputes over the competing needs of transparency and commercial confidentiality.

The number of annual reports produced by EU member states may increase as a result of a review of the EU Code of Conduct that was carried out in 2004.<sup>162</sup> A number of states sought to include a requirement for national annual reporting in the code review while the sixth EU annual report states that that ‘the code will be significantly reinforced by including several new elements in the text [including] national reporting’.<sup>163</sup> Meanwhile, according to the updated User’s Guide to the European Union Code of Conduct, each member state is required to ‘publish a national report on its defence exports, the contents of which will be in accordance with national legislation’.<sup>164</sup>

Apart from the Czech Republic, no state that had not previously done so produced a national annual report in 2004. However, the level of detail of the information provided by countries that had previously produced reports continues to improve. In March 2004 *Romania* produced its second national annual report, covering exports in 2002.<sup>165</sup> In an improvement on the 2003 report it includes the number of licences issued to each destination, the category of goods covered and whether the licences were for a complete weapon system, repairs and loans or spare parts. The annual report on exports in 2003 published by *Germany* lists the percentage of the total value of licences granted to each country that relate to exports of what Germany defines as ‘war weapons’.<sup>166</sup> The report also lists the value of exports of war weapons disaggregated by recipient countries. Previous German reports list only

<sup>161</sup> Ministry of Foreign Affairs of the Czech Republic, Export controls in the Czech Republic in 2003, Dec. 2004, URL <<http://www.mzv.cz/wwwo/mzv/default.asp?id=29913&ido=10459&idj=2&amb=1>>.

<sup>162</sup> For a discussion of the 2004 review of the EU Code of Conduct see chapter 17 in this volume.

<sup>163</sup> Council of the European Union, ‘Sixth Annual Report’ (note 132).

<sup>164</sup> Council of the European Union, ‘User’s guide to the European Union Code of Conduct on Exports of Military Equipment’, Brussels, 23 Dec. 2004, p. 22, URL <[http://ue.eu.int/cms3\\_fo/showPage.asp?id=408&lang=en&mode=g](http://ue.eu.int/cms3_fo/showPage.asp?id=408&lang=en&mode=g)>.

<sup>165</sup> Romanian National Agency for Export Controls, Raport: Privind Controlexporturilor de Arme 2002 [Report on arms export controls 2002], Bucharest, Mar. 2004, URL <[http://www.ancex.ro/raport\\_arme.php](http://www.ancex.ro/raport_arme.php)>.

<sup>166</sup> *Bericht der Bundesregierung über ihre Exportpolitik für konventionelle Rüstungsgüter im Jahre 2003* [Report of the Federal Republic of Germany on its export policy for conventional armaments 2003], Berlin, Dec. 2004, URL <<http://www.bmwa.bund.de/bmwa/generator/Navigation/Service/bestell-service,did=51910.html>>.

Germany's 10 largest recipients. The report from *Norway*, on exports in 2003, for the first time gives a description of the goods exported to each country and indicates whether the items are complete products or components.<sup>167</sup> In addition, the report gives the number of licence applications that were turned down and lists the intended destinations. In January 2005 the US Government Accountability Office published a report criticizing the collection and reporting of data on licences for commercial exports by the US State Department.<sup>168</sup>

There were several notable improvements in the provision of more timely and up-to-date statistics on arms exports in 2004. In July the UK released its first quarterly report on its arms exports, detailing licences granted from January to March 2004.<sup>169</sup> In November the Netherlands began publishing monthly reports on export licences granted after Dutch political parties and NGOs requested more up-to-date information. By January 2005 these monthly reports were providing information that was only three to four months old.<sup>170</sup> For several years Ireland published monthly reports detailing the category and destination of new export licences. However, the most recent update, covering licences issued in September 2003, was posted in January 2004 and no new information has been published since then.<sup>171</sup>

In 2004 the Netherlands and the UK began publishing information on the final destination of goods that will be re-exported by the recipient country, either as complete systems or as components integrated into a complete system. The Dutch monthly reports state whether an export licence refers to goods that will be re-exported to a third country and lists the country of final destination.<sup>172</sup> The British annual report on exports in 2003 identifies licences that have been granted for items that will be incorporated into a completed system and re-exported to a third country but does not list the country of final destination.<sup>173</sup> The UK's second quarterly report contains details of brokering licences, which the UK began issuing in May 2004. This information includes

<sup>167</sup> Norwegian Ministry of Foreign Affairs, *Eksport av forsvarsmateriell frå Norge i 2003* [Export of defence equipment from Norway in 2003], Oslo, 28 May 2004, URL <<http://odin.dep.no/ud/norsk/publ/stmeld/bn.html>>.

<sup>168</sup> US Government Accountability Office (GAO), *State Department Needs to Resolve Data Reliability Problems that Led to Inaccurate Reporting to Congress on Foreign Arms Sales*, GAO-05-156R (GAO: Washington, DC, 28 Jan. 2005). For more information see appendix 17A in this volume.

<sup>169</sup> British Foreign and Commonwealth Office, Official documents, 'Strategic export controls report 2004', First quarterly report, Jan.–Mar. 2004, 28 July 2004, URL <<http://www.fco.gov.uk/servlet/Front?pagename=OpenMarket/Xcelerate/ShowPage&c=Page&cid=1089131553823>>.

<sup>170</sup> Dutch Ministry of Economic Affairs, *Maandrapportages afgifte vergunningen militaire goederen* [Monthly reports on licences granted for exports of military products], Jan. 2005, URL <<http://minez.nl/content.jsp?objectid=27352>>.

<sup>171</sup> Irish Department of Enterprise, Trade and Employment, 'Military goods: monthly statistics concerning military export licences issues by the Irish authorities', 22 Oct. 2003, URL <<http://www.entemp.ie/trade/export/statistics.htm>>.

<sup>172</sup> Dutch Ministry of Economic Affairs (note 170).

<sup>173</sup> British House of Commons, Defence, Foreign Affairs, International Development, and Trade and Industry Select Committees, *Strategic Export Controls: Annual Report for 2003, Licensing Policy and Parliamentary Scrutiny* (Stationery Office: London, June 2004).

the origin of the goods, their destination and the number of licences issued, but does not give details of the type of equipment covered.<sup>174</sup>

## V. Conclusions

The volume of transfers of major conventional weapons increased in 2003 and 2004. However, it is too soon to judge whether this is a trend or just a fluctuation linked to a rush of deliveries.

Russia has established itself as the main supplier for the five-year period 2000–2004, followed by the USA. The EU as a whole formed the third largest supplier. It is probable that Russia will not be the largest supplier of major conventional weapons in the future—even in Russia there is pessimism about its future levels of arms exports. Russia is lagging behind in military research and development, and this is starting to influence procurement decisions by China and India—the largest customers for Russian weapons.

China was by far the largest recipient of major conventional weapons in 2000–2004, followed by India. Both countries are important markets for Russia but, while Russia has a near monopoly on the Chinese market, competition on the Indian market is fierce and appears to be growing.

Arms embargoes, both global UN embargoes and regional embargoes, have been found to be ineffective. Access to Iraqi documents has demonstrated that there were many breaches of the UN embargo by government and private actors, to the extent that Iraq counted on being able to obtain certain equipment. In the EU, discussion of the lifting of the arms embargo on China led to disagreements with the USA, partly because of what seems to be a misunderstanding about the purpose and status of the embargo and about the effectiveness of the EU Code of Conduct. It is clear, however, that the EU embargo has not stopped several European countries from supplying key military technology to China.

Levels of transparency increased slightly again in 2004. At the international level, MANPADS and light artillery were added to the UNROCA. At the national level, the amount of data available in the different, mainly European, national export reports increased slightly, largely because of the accession of 10 new countries to the EU and the consequent demand for such data under the EU Code of Conduct.

<sup>174</sup> British Foreign and Commonwealth Office, Official documents, 'Strategic export controls report 2004', Second quarterly report, Apr.–June 2004, 28 Oct. 2004.