

## 5. Transfers of major conventional weapons

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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> The trend indicator represents the volume of international transfers of both major conventional weapons and military technology for the foreign licensed production of these weapons. On the basis of the trend-indicator values, global arms transfers declined rapidly in the period 1986–94 but remained at a relatively stable level in 1995–99, as shown by the five-year moving averages presented in figure 5.1.<sup>2</sup> Global arms transfers declined again in 2000, by 26 per cent, owing mainly to the drop in deliveries by the United States.

Section II presents the dominant trends of individual arms suppliers and recipients and a discussion of US transfers of major arms to and related developments in countries in East Asia and the Middle East, two regions characterized by conflict in 2000. Transfers of small arms and major weapons to select countries in armed conflict are discussed in appendix 5F.

Section III gives a detailed account of SIPRI's estimate of the value of the global arms *trade* in 1999, based on the government and industry statistics on arms exports presented in appendix 5E.<sup>3</sup> The arms trade reveals the economic scale of the global arms export/import market. The sales price of weapons is based on several factors, some of which are discussed in this section.

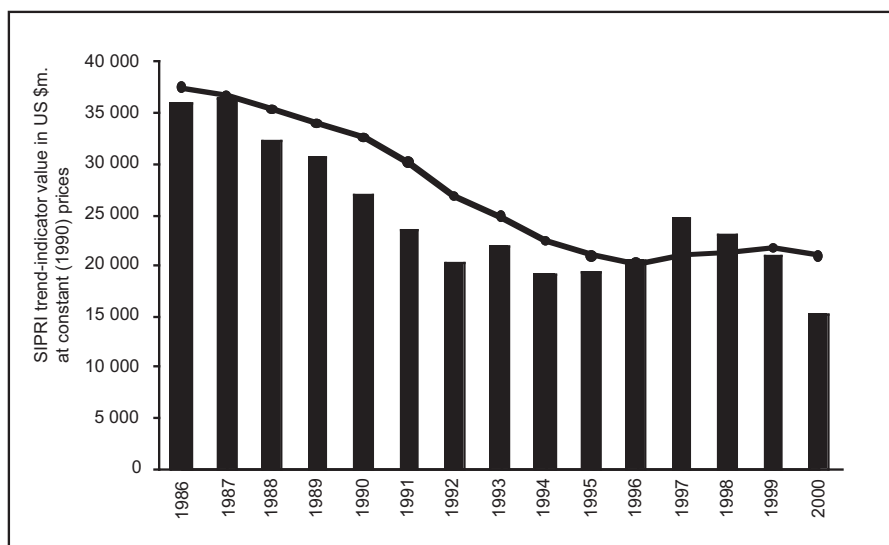
Section IV discusses changes in the global arms market from the perspective of the major and smaller arms producers/suppliers. A number of political decisions were taken in 2000 by leading European arms producers/suppliers and the USA that will affect both intra-European and transatlantic arms transfers.

Governments decide not only when to supply but also when not to supply weapons. Information on arms embargoes in force in the period 1996–2000

<sup>1</sup> SIPRI data on arms *transfers* refer to actual deliveries of major conventional weapons. To permit comparison between the data on such 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 5D. A more extensive description of the methodology used, including a list of sources, is available on the SIPRI Internet site, URL <<http://www.sipri.se/projects/armstrade/atmethods.html>>. The figures may differ from those given in previous SIPRI Yearbooks; 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 calculated as a more stable measure of the trend in arms transfers than the often erratic year-to-year figures.

<sup>3</sup> The value of the arms *trade* refers to the financial values of arms transfers; see section III.



**Figure 5.1.** The trend in international transfers of major conventional weapons, 1986–2000

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

that were decided collectively by international organizations or groups of nations is presented in section V.

Section VI reports on developments in 2000 in national and international transparency in arms transfers. The main findings are summarized in section VII.

## II. The suppliers and recipients

Table 5.1 and appendix 5A present data on the volume of transfers of major conventional weapons for the five-year period 1996–2000. There are four categories of suppliers: (a) the USA, the largest supplier and the sole country in this category, accounting for 47 per cent of global arms transfers; (b) Russia and France, each accounting for over 10 per cent of total transfers; (c) the UK and Germany, each accounting for between 5 and 10 per cent of the total; and (d) all the other suppliers, of which the seven largest are the Netherlands, Ukraine, Italy, China, Belarus, Spain and Israel, each with indigenous arms production and deliveries in every year of the period. Together, the five suppliers in the first three groups accounted for almost 85 per cent of all arms transfers; the remaining suppliers, those in the fourth group, together account for only about 15 per cent of global arms transfers in 1996–2000.

## The major suppliers and recipients

On the basis of the trend indicator, international arms transfers declined by 26 per cent from 1999 to 2000, with France, the UK and the USA accounting for 95 per cent of the decrease.

*The United States* was the largest supplier in the period 1996–2000—accounting for 47 per cent of the total—as well as for each of the five years (see table 5A.2). It is a supplier to all of the 10 major arms recipients except India and has by far the highest number of recipients of all the suppliers. In 2000 US arms transfers fell by 47 per cent, mainly because of the drop in US deliveries of aircraft. However, on the basis of the large order books of US companies and agreed US military transfers in the form of aid to Colombia, Egypt and Israel, the US slump is expected to be short-lived.

*Russia* increased its arms transfers in 2000 by 19 per cent and accounted for 15 per cent of the transfers in the period 1996–2000. It was the second largest supplier both for the period and for 2000. The increase in arms transfers by Russia in 2000 is mainly due to its deliveries of combat aircraft and ships to China, which also made China the world's leading arms recipient in 2000.

Steps are being taken to consolidate the Russian arms industry as well as the management of Russian arms transfers. A new government commission, chaired by President Vladimir Putin, was created in 2000 to deal with Russian arms exports. In addition, a new export company, Rosoboroneksport, was created through the merger of Promeksport and Rosvooruzheniye. The new company is expected to handle about 90 per cent of Russia's arms transfers.<sup>4</sup>

According to Russian Deputy Prime Minister Ilya Klebanov, deliveries of air defence systems and combat aircraft will raise the future level of Russian arms transfers.<sup>5</sup> However, there are doubts as to Russia's potential to support more than one combat aircraft company.<sup>6</sup> Not even the Director General of the Sukhoi Design Bureau foresees any newly designed combat aircraft coming off its production line in the near future. Instead, he regards the client-defined further developments of the Su-27 and Su-30 combat aircraft as the core of the company's activities for the next five years.<sup>7</sup> The year 2001 may mark the beginning of a major reorganization of Russia's arms-producing company structure, starting with the aviation industry and including a merger of the Sukhoi and MiG combat aircraft companies.<sup>8</sup>

<sup>4</sup> Komarov, A., 'Russia merges arms agencies', *Aviation Week & Space Technology*, 13 Nov. 2000, p. 35. The appointments which President Putin has made to these companies suggest that he would like to have individuals with a background in intelligence like his own at the top of the arms export hierarchy. 'New Russian arms official named', *Jamestown Monitor*, issue 219 (22 Nov. 2000). See also appendix 4E in this volume.

<sup>5</sup> Saradzhyan, S., 'Official says Russian defense exports make a blitz', *Defense News*, 12 June 2000, p. 18.

<sup>6</sup> Bolkom, C., *Russian Fighter Aircraft Industrial Base: Parallels with the United States?*, Report for Congress (Congressional Research Service: Washington, DC, 8 Nov. 2000); and appendix 4E in this volume.

<sup>7</sup> Mikhail Pogosyan, interviewed in *Defense News*, 27 Mar. 2000, p. 22; and Saradzhyan, S., 'Sukhoi builds up profits on back of export deals', *Defense News*, 10 July 2000, p. 16.

<sup>8</sup> Cottrell, R., 'Defence shake-up for Russia as arms exports recover', *Financial Times*, 23 Jan. 2001, p. 3. For government and industry figures on arms exports, see appendix 5E.

**Table 5.1.** Transfers of major conventional weapons to the leading recipients, 1996–2000

The table includes countries and non-state actors with aggregate imports of \$500 million or more for 1996–2000 from at least one of the five major suppliers. Figures are trend-indicator values expressed in US \$m. at constant (1990) prices. Figures may not add up because of the conventions of rounding.

Recipients	Five major suppliers					Other	Total
	USA	Russia	France	UK	Germany		
<b>Africa</b>	<b>213</b>	<b>886</b>	<b>188</b>	<b>36</b>	<b>28</b>	<b>1 864</b>	<b>3 215</b>
<b>Americas</b>	<b>1 458</b>	<b>629</b>	<b>449</b>	<b>1 257</b>	<b>548</b>	<b>2 505</b>	<b>6 846</b>
Brazil	199	—	116	565	246	220	1 346
Others	1 259	629	333	692	302	2 285	5 500
<b>Asia</b>	<b>18 001</b>	<b>10 566</b>	<b>5 828</b>	<b>1 744</b>	<b>898</b>	<b>5 950</b>	<b>42 987</b>
China	31	4 793	122	26	—	259	5 231
India	—	3 286	91	134	114	603	4 228
Indonesia	61	—	91	709	274	63	1 198
Japan	3 495	—	—	27	5	31	3 558
Kazakhstan	—	648	—	—	—	—	648
Malaysia	348	14	42	546	—	495	1 445
Pakistan	344	86	611	—	—	1 585	2 626
South Korea	3 635	563	293	195	463	185	5 334
Singapore	1 507	28	15	10	—	314	1 874
Taiwan	7 700	—	4 548	—	—	33	12 281
Thailand	776	—	12	12	40	931	1 771
Viet Nam	—	643	—	—	—	89	732
Other	104	505	5	85	—	1 362	2 061
<b>Europe</b>	<b>12 117</b>	<b>1 677</b>	<b>839</b>	<b>610</b>	<b>1 790</b>	<b>2 371</b>	<b>19 404</b>
Finland	2 537	206	16	3	—	25	2 787
Greece	2 022	544	97	38	670	294	3 665
Italy	824	—	32	215	19	—	1 089
Netherlands	742	—	205	3	93	60	1 103
Norway	626	—	83	74	11	236	1 030
Spain	864	—	137	130	67	121	1 319
Switzerland	1 566	—	45	—	—	1	1 612
UK	1 286	—	37	—	12	359	1 694
Other	1 650	927	913	147	918	550	5 105
<b>Middle East</b>	<b>16 889</b>	<b>1 930</b>	<b>3 487</b>	<b>3 275</b>	<b>2 241</b>	<b>2 226</b>	<b>30 048</b>
Bahrain	554	—	—	—	—	11	565
Egypt	3 265	143	3	—	11	197	3 619
Israel	2 076	—	50	—	765	—	2 890
Kuwait	1 224	73	354	346	—	66	2 063
Qatar	—	—	704	270	—	36	1 010
Saudi Arabia	5 821	—	144	2 010	—	387	8 362
Syria	—	784	—	—	—	21	805
Turkey	3 295	100	406	69	1 464	330	5 664
United Arab Emirates	205	336	1 714	157	4	567	2 983
Others	449	494	112	423	6	603	2 087
<b>Oceania</b>	<b>588</b>	<b>—</b>	<b>2</b>	<b>100</b>	<b>90</b>	<b>846</b>	<b>1 626</b>
Australia	545	—	—	100	90	213	948
Other	43	—	2	—	—	633	678
<b>Other<sup>a</sup></b>	<b>6</b>	<b>—</b>	<b>1</b>	<b>—</b>	<b>49</b>	<b>72</b>	<b>128</b>
<b>Total</b>	<b>49 271</b>	<b>15 690</b>	<b>10 792</b>	<b>7 026</b>	<b>5 647</b>	<b>15 849</b>	<b>104 275</b>

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

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*Source:* SIPRI arms transfers database.

How these changes will influence Russian arms transfers remains to be seen. According to official figures, Russian arms exports fell between 1996 and 1998 but seem in 2000 to have surpassed the 1996 figure.<sup>9</sup> It has been suggested that an increase in Russian exports can only be sustained by long-term investment in research and development (R&D), primarily to support Russia's own requirements.<sup>10</sup> Although there have been clear improvements in Russia's public finances, including the financing of the military, it is still uncertain what effect these improvements will have on military R&D because of the lack of transparency in data.<sup>11</sup>

Part of Russia's future military R&D funding could come from foreign investment.<sup>12</sup> In October 2000 Russia signed a military and technical cooperation agreement with India<sup>13</sup> and Russian officials seem to expect that, as a result, India's support of Russian military R&D will increase.<sup>14</sup> Sukhoi, for instance, is willing to jointly develop a new combat aircraft in India for use by both the Indian and Russian air forces.<sup>15</sup> In addition, in late December 2000 it was announced that Russia and Iran had agreed on a long-term programme of political and military cooperation after Russia had withdrawn from a 1995 agreement with the USA not to supply weapons to Iran after December 1999.<sup>16</sup> Russia is reported to be eager to tap into Iran's budget surplus.<sup>17</sup>

<sup>9</sup> Makienko, K., 'Preliminary estimates of Russian performance in military-technical cooperation with foreign states in 2000', *Ekspert Vooruzhenii*, no. 1 (Jan./Feb. 2001), p. 5.

<sup>10</sup> Opitz, P., 'The Russian defence industry: no Phoenix rising from the ashes', *Economic Bulletin*, vol. 37, no. 10 (2000), pp. 321–28.

<sup>11</sup> See appendix 4E in this volume.

<sup>12</sup> Hagelin, B., Wezeman, P. D. and Wezeman, S. T., 'Transfers of major conventional weapons', *SIPRI Yearbook 2000: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2000), pp. 343–44.

<sup>13</sup> 'Problems remain with indigenous as well as Russian deliveries', *Aviation Week & Space Technology*, 9 Oct. 2000, p. 29; and Gardner, D., 'India, Russia sign strategic partnership', *Financial Times*, 4 Oct. 2000, p. 8.

<sup>14</sup> Raghuvanshi, V., 'Long-time relationship with Russia fades as deals dwindle', *Defense News*, 9 Oct. 2000, p. 12.

<sup>15</sup> Rao, R., 'Sukhoi's big deal in India', *Interavia*, Jan. 2001, p. 12.

<sup>16</sup> Interview with Konstantin Makienko, Deputy Director of the Strategies and Technologies Analysis Center in Moscow, Interfax (Moscow), 'Iran important although risky arms market for Russia—expert', 10 Mar. 2001; 'Russia and Iran open "new chapter"', BBC News Online, 28 Dec. 2000, URL <<http://news.bbc.co.uk/1/hi/english/world/2000/12/280001113.shtml>>; and Interfax (Moscow), 'Russia: contracts suspended with Iran that could be renewed outlined', Foreign Broadcast Information Service (FBIS), *Daily Report—Central Eurasia (FBIS-SOV)*, FBIS-SOV-2000-1113, 23 Nov. 2000. See also chapter 9 in this volume.

<sup>17</sup> Abdo, G., 'Russia renounces ban on arms sales to Iran', *International Herald Tribune*, 29 Dec. 2000, p. 8.

*France* accounted for 10 per cent of the arms transfers in 1996–2000, ranking as the third leading supplier. For 2000 it ranked fourth, following the decline in French arms transfers from 1998 (table 5A.2). Taiwan was France's major recipient in 1996–2000. Although Turkey—the third largest recipient for the period 1996–2000—will not consider French equipment for some of its requirements after early 2001,<sup>18</sup> France will remain a major supplier because of the recent orders for Mirage-2000 combat aircraft by Greece, India and the United Arab Emirates (UAE) and for frigates by Saudi Arabia and Singapore.

*The United Kingdom* accounted for 7 per cent of the arms transfers in the period 1996–2000, ranking fourth, with a relatively stable level over the three years 1998–2000. It ranked as the fifth largest supplier for 2000. While deliveries of Hawk trainer/light attack aircraft have so far prevented a decline in British arms transfers, few new orders have been placed. There was also a gap between the end of production of the Tornado combat aircraft and the beginning of production of the Eurofighter/Typhoon after deliveries to Saudi Arabia—the UK's main recipient and the world's second largest recipient for the period 1996–2000—ended in 1998.<sup>19</sup> Another major deal with Saudi Arabia is being discussed, possibly involving up to 50 Eurofighter/Typhoon combat aircraft from the British production line and additional Hawk trainer aircraft.<sup>20</sup> If this deal goes through, it is likely to have a major impact on the future level of British arms transfers.

Some missile orders placed with France and the UK have created arms control controversies. Greece ordered Storm Shadow/SCALP air-to-ground cruise missiles in 2000 as part of an order for the Mirage-2000. Exports of these missiles, developed by a British–French company and marketed by both countries, may indicate a political willingness on the part of France and the UK to ignore the voluntary Missile Technology Control Regime (MTCR) transfer guidelines.<sup>21</sup> Although the effective range of the Storm Shadow/SCALP cruise missile is controversial—it has been reported as up to 600 km—British and French representatives argue that export versions are in compliance with the MTCR.<sup>22</sup> A July 2000 MTCR expert working group meeting noted that it is difficult to determine the performance limits of cruise

<sup>18</sup> Turkey will not consider French equipment because the French Parliament has stated that the Ottoman Empire's massacre of Armenians was an act of genocide. Anatolia (Ankara), 'Turkish foreign minister rules out military procurement from France', Foreign Broadcasting Information Service (FBIS), *Daily Report—West Europe (FBIS-WEU)*, FBIS-WEU-2001-0131, 31 Jan. 2001.

<sup>19</sup> 'BAE SYSTEMS says Nimrod, Hawk hit bottom line', Defence Systems Daily, 10 Jan. 2001, URL <<http://defence-data.com/current/page9579.htm>>.

<sup>20</sup> It was first reported in July 2000 that BAE SYSTEMS was discussing such a potential deal. Lorenz, A., 'BAE targets £6bn Saudi fighter deal', *Sunday Times*, 9 July 2000, business section, p. 1.

<sup>21</sup> See also Hagelin, B., Wezeman, P. D. and Wezeman, S. T., 'Transfers of major conventional weapons', *SIPRI Yearbook 1999: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1999), pp. 430–31. In the MTCR the greatest restriction is applied to what are known as Category I items. These items include complete rocket systems (including ballistic missiles, space launch vehicles and sounding rockets) and unmanned air vehicle systems (including cruise missile systems and target and reconnaissance drones) with capabilities exceeding a 300-km/500-kg range/payload threshold; production facilities for such systems; and major sub-systems (including rocket stages, re-entry vehicles, rocket engines, guidance systems and warhead mechanisms). See chapter 9 in this volume; and the SIPRI Internet site at URL <[http://projects.sipri.se/expcon/mtrc\\_documents.html](http://projects.sipri.se/expcon/mtrc_documents.html)>.

<sup>22</sup> Barrie, D. and Clark, C., 'Greeks acquire cruise missiles', *Defence News*, 4 Sep. 2000, pp. 1, 36.

missiles by their range and payload. The 1998 UAE order for the Black Shahine air-to-ground cruise missile was referred to as a 'case study in the MTCR regime's failure thus far to define cruise missile capabilities in a manner that provides clear guidance to exporters'.<sup>23</sup>

*Germany* accounted for 5 per cent of the arms transfers in 1996–2000, ranking fifth for the period and third for 2000. After a dip in 1997, the level of German arms transfers remained relatively stable in 1998–2000. Germany will remain a major arms supplier because of several recent large orders, including Greece's order for the Eurofighter/Typhoon combat aircraft from the German production line; Greek, Italian, South Korean and South African orders for submarines; and Chilean, Malaysian and South African orders for frigates. Turkey has remained Germany's major recipient in spite of its poor human rights record.<sup>24</sup>

The *European Union* (EU) members accounted for 28 per cent of the arms transfers in 1996–2000. Even if only the transfers from EU members to non-EU members are taken into account, the EU would still rank as the second largest supplier (appendix 5B), with 24 per cent of the world total. The six countries that signed the Framework Agreement Concerning Measures to Facilitate the Restructuring and Operation of the European Defence Industry in 2000—France, Germany, Italy, Spain, Sweden and the UK—accounted for 91 per cent of the EU's transfers of major conventional weapons and 26 per cent of global arms transfers.<sup>25</sup>

### The smaller suppliers

The most important countries among the smaller arms suppliers are those that have an established domestic arms industry and/or armed forces generating large stocks of comparatively modern surplus weapons that could be exported.<sup>26</sup> What keeps these suppliers small is their lower level of military R&D and technology sophistication and consequently their production of only a limited range of different categories of weapon. Since none of these suppliers has a real 'niche' market for its products, they all have to compete with other suppliers. In that competition they will in most cases lose to the major suppliers.

Three smaller suppliers that have attracted public attention are China, Belarus and Ukraine.

Arms exports from *China* have declined since 1995 and are not likely to show any considerable increase in the near future. Chinese weapons are gen-

<sup>23</sup> Barrie, D. and Clark, C., 'Cruise missile worries spark MTCR action', *Defense News*, 24 July 2000, pp. 1, 58; and Hagelin, Wezeman and Wezeman (note 21), p. 431.

<sup>24</sup> Agüera, M. and Barrie, D., 'Internal dissent muddies German export policy', *Defense News*, 25 Sep. 2000, p. 3; and 'Political storm over Turkey sale', *Defence Industry*, Oct. 2000, p. 4.

<sup>25</sup> The Framework Agreement is available at URL <<http://projects.sipri.se/expcon/loi/indrest02.htm>>; for a discussion of the agreement see section IV and chapter 9 in this volume.

<sup>26</sup> Countries such as Brazil, Egypt, India, South Korea and Turkey, with arms industries since the 1960s, were once seen as 'promising' new exporters. However, they account for only a very marginal share of 1–2% of total arms transfers for the period 1996–2000.



erally of simple, old designs and often not of competitive quality. Pakistan has been China's main recipient over the past 10 years, but the Pakistani Air Force Commander has publicly stated that the newest Chinese combat aircraft, the F-7MG, is only useful as a stopgap.<sup>27</sup> Pakistan and other clients of China are therefore looking for or have found new suppliers for aircraft of more modern designs. Cooperation with Russia in the development of new Chinese weapons may become important for China's domestic armed forces but may also complicate Chinese arms exports, since Russia has refused China the right to re-export certain Russian technology as a condition for its cooperation.<sup>28</sup>

*Belarus* and *Ukraine* became notable suppliers in the 1990s. They both seem to be willing to supply weapons to any recipient that is willing to pay. Many of the weapons supplied by Ukraine are either second-hand or, when newly produced, based on Soviet designs. Arms exports by Belarus consist of surplus weapons of at least 10-year-old designs. With stocks of surplus weapons getting older and, for Ukraine, low levels of R&D funding for new weapons, both countries may find it difficult to remain among the leading smaller suppliers.

### US transfers of major arms to regions of conflict

One of the motivations for national arms procurement—some of which is through imports—is to enhance national security. However, one nation's arms acquisitions for security reasons may be interpreted by another nation as creating insecurity. This is especially true in regions where there is military-political tension or armed conflict. The governments of most of the arms-supplier nations are aware of this and normally apply caution when considering transfers to recipients in such regions.

However, caution means only that governments take this factor, together with others, into consideration when they make arms transfer decisions. It does not mean that they always refrain from supplying weapons to countries in conflict. In fact, 4 of the 15 and 12 of the 50 leading recipients in 1996–2000 were involved in armed conflict in 2000.<sup>29</sup> Refraining from supplying weapons presents a particularly difficult political dilemma for suppliers that have formal or informal military relations with a foreign country. In the first case described below, the USA refrained in 2000 from supplying certain weapons to Taiwan—the world's largest recipient in the period 1996–2000—in order not to increase the military tension with China. In the second example, Israel

<sup>27</sup> 'PAF to purchase 100 F-7MGs from China, 8 Mirage Vs from France to be delivered in October', available on the Internet site of the Pakistan Institute for Air Defence Studies, URL <<http://www.piads.com.pk/users/piads/pafnews99c.html>>.

<sup>28</sup> Russia refuses to allow China to export Su-27 combat aircraft produced under licence in China or to produce the engines for the Su-27 and will not give China certain technical documentation that might help it to 'reverse engineer' the engine or use some of the technology for Chinese engines. *Jane's All the World's Aircraft 2000–2001* (Jane's Information Group: Coulsdon, 2000), p. 446; and *Jane's Defence Weekly*, 24 Feb. 1999, p. 16.

<sup>29</sup> These 12 countries are Algeria, Angola, Colombia, India, Indonesia, Iran, Israel, Myanmar, Pakistan, Peru, Sri Lanka and Turkey. For the armed conflicts in 2000 see chapter 1 and appendix 1A in this volume. For transfers of major weapons and small arms to countries in armed conflict see appendix 5F.



is a recipient to which the USA normally supplies weapons in order to keep it the strongest military power in the region.

Taiwanese–US relations also exemplify the USA's attempts to influence the arms transfer behaviour of another supplier state. There were other such cases in 2000. The USA, together with Russia, tried in 2000 to convince North Korea to stop its missile exports in return for financial and other types of compensation.<sup>30</sup> China pledged to the USA not to assist certain countries, including Iran, to develop missiles with ranges exceeding the MTCR limits; in exchange, China will not be penalized by the USA for its arms transfers to Pakistan in the 1990s.<sup>31</sup> Another successful attempt is described below, namely, Israel's decision not to export Phalcon airborne early-warning (AEW) radar systems to China because of political pressure from the USA.<sup>32</sup>

### *The USA–Taiwan–China*

Relations between China and Taiwan, on the one hand, and between China and the USA, on the other hand, continued to be tense in 2000.<sup>33</sup> China's acquisitions of ships and combat aircraft in particular have elicited mixed reactions because of the effect they may have on regional stability, as have acquisitions by Taiwan. Suggestions that there may be an action–reaction acquisition pattern which could result in heightened tension in East Asia were supported by *inter alia* Taiwan's acquisitions of surface-to-air, air-to-air and anti-ship missiles in reaction to China's acquisitions of ships and combat aircraft. The delivery of Russian Sovremenny Class destroyers to China has been countered by renewed requests by Taiwan to the new US Administration of George W. Bush for Kidd Class destroyers.<sup>34</sup> In addition, the prospect of a US theatre missile defence system covering Taiwan has been strongly opposed by China.<sup>35</sup>

The USA has taken on the role as the main guarantor of Taiwan's security through military strength. At the same time the USA tries to balance its Tai-

<sup>30</sup> Agence France-Presse (Kuala Lumpur), 'NKorea demands one billion dollars for halting missile exports', 12 July 2000, URL <<http://www.defense-aerospace.com/afp/>>.

<sup>31</sup> Agence France-Presse (Hong Kong), 'PRC Foreign Ministry spokesman slams "irresponsible" Pentagon weapons report', Foreign Broadcasting Information Service (FBIS), *Daily Report–China (FBIS-CHI)*, FBIS-CHI-2001-0111, 11 Jan. 2001.

<sup>32</sup> Some argue that suppliers are not able to influence other states but rather become dependent on recipients, thereby losing influence. See, e.g., Phythian, M., *The Politics of British Arms Sales* (Manchester University Press: Manchester, 2000), pp. 281–83.

<sup>33</sup> For a short overview of past and possible future developments see Dibb, P., *The Remaking of Asia's Geopolitics*, Working Paper no. 324 (Australian National University: Canberra, Aug. 1998). Dibb as well as several other analysts conclude that China is not in a position to pose a serious military threat to Taiwan at the moment. See also Kearsley, H. J., 'An analysis of the military threats across the Taiwan Strait: fact or fiction', *Comparative Strategy*, vol. 19, no. 2 (2000), pp. 103–16; and Kan, S. A. *et al.*, *China's Foreign Conventional Arms Acquisitions: Background and Analysis*, Report for Congress (Congressional Research Service, Washington, DC, 10 Oct. 2000). For a more alarming argumentation see, e.g., Sakhujia, V., 'Dragon's Dragonfly: the Chinese aircraft carrier', *Strategic Analysis*, vol. 24, no. 7 (2000), pp. 1367–86.

<sup>34</sup> Agence France-Presse (Taipei), 'Taiwan president appeals to Bush for sale of Aegis destroyers: report', 21 Jan. 2001.

<sup>35</sup> See chapter 6 in this volume; and Mathur, R., 'TMD in the Asia–Pacific: a view from China', *Strategic Analysis*, vol. 24, no. 8 (2000), pp. 1445–54.

wan policy with its policy towards China. The denial of the delivery of medium-range AIM-120 AMRAAM air-to-air missiles to Taiwan in 2000 was used by the USA as a tool in its attempts to retain the regional military balance with regard to air-to-air missiles.

In April 2000 the US Administration had decided not to deliver to Taiwan AIM-120 missiles, ships with the advanced Aegis combat system, long-range surface-to-air missiles, P-3 Orion maritime patrol aircraft or submarines in an attempt not to increase the tension with China. However, in September the USA did sell the AIM-120 to Taiwan. China protested strongly, even though the sale was made under the condition that the missiles would remain in US storage and that they will not be delivered to Taiwan unless other countries in the region acquire a similar capability.<sup>36</sup>

A major rationale for the US decision not to deliver the missiles was to delay or prevent Russia's delivery of AA-12 Adder (Russian designation R-77) air-to-air missiles to China. It may therefore be seen as an indirect unilateral attempt to influence the arms export behaviour of Russia or the arms import behaviour of China. It is questionable whether denying Taiwan delivery of the AIM-120 will have this effect because of previous US decisions; the AIM-120 was delivered to South Korea and has been sold, although not yet delivered, to Japan and Singapore.<sup>37</sup> A similar missile, the French MICA, was delivered to Taiwan in the 1990s.

By early 2001 no information had surfaced to indicate that China will not pursue acquisition of the AA-12 from Russia in response to US sales and French deliveries to Taiwan or that Russia will refuse to deliver AA-12s to China, one of its major recipients.

### *The USA—the Middle East*

The difficulties involved in attempting to promote regional security through arms transfers is also illustrated by the Middle East. Transfers by the USA, a major supplier to several countries in the region, may in fact create security problems for Israel, one of its most important recipients. Moreover, in 2000 the United States' policy towards China had consequences for Israel as an arms supplier.

Israel was the 11th largest recipient of major weapons in 1996–2000, importing mainly from the USA. The USA is also a major supplier to other countries in the Middle East. Egypt received F-16 combat aircraft and self-

<sup>36</sup> The missiles are reported to be stored on Guam. Minnick, W., 'Taiwan test-fires AA missiles', *Jane's Defence Weekly*, 29 Nov. 2000, p. 17; Sherman, J., 'China riled by proposed sale of US weapons to Taiwan', *Defense News*, 9 Oct. 2000, p. 20; and *Wen Wei Po* (Hong Kong), Xin Xi, 'US arms sales to Taiwan cause great harm', FBIS-CHI-2000-1014, 14 Oct. 2000. France was also criticized by China. 'French connection', *Aviation Week & Space Technology*, 23 Oct. 2000, p. 25. In Sep. Taiwan requested 200 AIM-120s from the USA. 'Proposed Foreign Military Sales to Taiwan', *Defence Systems Daily*, 29 Sep. 2000, URL <<http://defence-data.com/current/page8597.htm>>; and Finnegan, P., 'Critics blast US shift in policy regarding AMRAAMs in Asia', *Defense News*, 3 July 2000, p. 10. The decision was strongly criticized in Congress. See also McClaran, J. P., 'US arms sales to Taiwan: implications for the future of the Sino-US relationship', *Asian Survey*, vol. 40, no. 4 (July/Aug. 2000), pp. 622–40.

<sup>37</sup> 'AMRAAM goes to SE Asia', *Military Technology*, Oct. 2000, p. 113.

propelled artillery in 2000 and has on order additional F-16s, AIM-120s and Stinger surface-to-air missiles. Saudi Arabia has since 1997 received F-15S combat aircraft together with air-to-air and air-to-ground missiles, and the UAE has ordered F-16 combat aircraft. Israel has therefore suggested that the US Government more closely coordinate its arms sales to countries in the region in order not to erode Israel's military position. It requested US aid in order, paradoxically, to develop indigenous technologies for weapons capable of countering US weapons supplied to other nations in the region.<sup>38</sup>

### *The USA–Israel–China*

Israel was the 12th largest supplier in the period 1996–2000. In 1996 it signed a contract with China for the delivery of four Israeli-developed Phalcon AEW radar systems mounted on Russian Il-76 aircraft. The first aircraft was being prepared for delivery in 2000. Although the US Government did not strongly object to the deal in 1996, from 1999 it increased pressure on Israel not to supply the radar system. The US objections were initially not formal but rather based on what the USA considered the principles of US strategic interests, which it claimed Israel should understand and accept.<sup>39</sup>

For Israel, the change of US policy presented a dilemma between accepting the USA's conditions because of its dependence on US political and military support, on the one hand, and receiving economic benefits from its arms sales, on the other hand.<sup>40</sup> However, the Israeli Government was not prepared to jeopardize its relations with the USA and in July 2000 decided to break the contract with China. Reportedly, Israel will incur a commercial loss of at least \$250 million, to which should be added the political consequences for Sino-Israeli relations and perhaps also for perceptions of Israel's reliability as an arms supplier.<sup>41</sup> In return for breaching the contract with China, Israel is reportedly seeking at least \$1 billion in additional US aid to compensate for the loss of indigenous technology work.<sup>42</sup>

Israeli–US negotiations on the issue of closer Israeli coordination with the implementation of US arms transfer policy continued during 2000.<sup>43</sup> Israel's

<sup>38</sup> Rodan, S., 'Israel must first increase budget to win US aid', *Jane's Defence Weekly*, 29 Nov. 2000, p. 19; and Opall-Rome, B., 'Israel fears erosion of US-pledged edge', *Defense News*, 29 May 2000, p. 3.

<sup>39</sup> For a summary of Israeli and US arguments see Mark, C., *Israel's Sale of Airborne Early Warning Aircraft to China*, Report for Congress (Congressional Research Service: Washington, DC, 13 July 2000). In addition, in the US Congress the deal with China was negatively linked to a US aid package planned for Israel in return for a peace treaty with Syria. Orme, W. A., Jr., 'Israel rejects US criticism of aircraft deal with China', *International Herald Tribune*, 4 Mar. 2000, p. 3. As a result of Israel's decision, the US refusal to sell Tomahawk cruise missiles to Israel in 2000 may be changed.

<sup>40</sup> Opall-Rome, B., 'Barak mulls Phalcon for China', *Defense News*, 3 Apr. 2000, p. 4; and Rodan, S., 'USA insists that Israel limits arms exports', *Jane's Defence Weekly*, 23 Aug. 2000, p. 20.

<sup>41</sup> McGregor, R., 'China furious at US role in foiling Israel defence deal', *Financial Times*, 14 July 2000, p. 5. In 2000 Israel attempted to acquire US acceptance for the proposed sale of Phalcon AEW radar systems to India. 'Mixed signals', *Aviation Week & Space Technology*, 25 Sep. 2000, p. 19.

<sup>42</sup> Opall-Rome, B., 'Israel seeks US payback for failed Phalcon deal', *Defense News*, 24 July 2000, p. 14.

<sup>43</sup> Opall-Rome, B., 'Israeli lawmakers question benefits of aid', *Defense News*, 10 July 2000, p. 4. According to Israeli sources the USA slowed down its cooperation with Israel and in 2000 threatened to reduce its aid.

acceptance of consultations with the USA before signing contracts with China, India, Pakistan and Russia—4 of the 27 destinations initially proposed by the USA—was presented as a condition for granting Israel the status of a US strategic ally.<sup>44</sup>

### III. The international arms trade and the price of weapons

#### The value of the arms trade

The SIPRI trend indicator is designed to estimate the volume of international arms transfers. It cannot be used to assess the economic scale of the global arms market. For this purpose, data are needed on the financial value of international sales of weapons, here called the arms *trade*. Most of the major supplier governments release data on the value of their arms sales, although the coverage and type of data vary between countries. By adding these together, it is possible to arrive at a rough estimate of the total financial value of the global arms trade. The value of the global arms trade in 1999 is estimated at \$33–40 billion.<sup>45</sup> This is a rough estimate because the available data are not entirely reliable or comparable, as explained in appendix 5E.

The value of the global arms trade accounts for less than 1 per cent of total world trade, suggesting that the global economic impact of the arms trade is small.<sup>46</sup> The impact of the arms trade on the economy of individual countries, organizations, companies and individuals may nonetheless be important.

The end of the cold war resulted in a contraction of the arms market; there was reduced procurement in the major arms-producing countries and a political and industrial push for exports to compensate for reduced domestic markets. For the recipients, this created leverage and opportunities for obtaining both weapons and military technology at lower costs—in effect a buyer's market, putting recipients in a strong negotiating position in defining the conditions, including the price of imported weapons.

#### Factors influencing the price of weapons

The actual sales price of a major conventional weapon is based on several factors. Some are related to the costs for production of the weapon, including subsidies to the producer, taxes and duties, as well as the age and condition of the weapon. Other factors relate to circumstances influencing the negotiations between the supplier—whether the producer or the government—and the recipient, such as the competition with other suppliers and possibilities for the

<sup>44</sup> Opall-Rome, B., 'US, Israel near accords on exports, strategic ties', *Defense News*, 11 Sep. 2000, p. 3; and Stout, D., 'Israel shelves sale of radar to China', *Financial Times*, 14 July 2000, p. 1.

<sup>45</sup> The lower estimate is the aggregation of reported minimum values; the higher estimate is the aggregation of reported maximum values of delivered arms. For some smaller countries, only data on arms licences are available. When this is the case, these values have been used. For the 1998 values see Hagelin, Wezeman and Wezeman (note 12), p. 350.

<sup>46</sup> Total world exports for 1999 amounted to \$5587.8 billion. International Monetary Fund (IMF), *International Financial Statistics* (IMF: Washington, DC, Mar. 2001), p. 65.

supplier to receive export support from the government, which in turn may be related to the political and/or military importance of the recipient. Some of these factors influence the margin of profit that is acceptable to the producer as well as the kind of direct and indirect compensations that the producer might be prepared to offer the recipient. Some recipients are more successful than others in achieving 'more for less'. As a result, the actual price paid for identical or similar weapon systems may vary from one buyer to another.<sup>47</sup> Factors which influenced the price of weapons in deals in 2000 are presented below.

### *Competition and compensation*

The importance of *price competition* for the negotiating position of the recipient is illustrated by South Korea's plan to acquire new surface-to-air missiles. Reportedly, only the USA submitted a final offer, making the Patriot PAC-3 system the only alternative. Arguments were therefore made that South Korea should delay its decision so that it would not have to pay an exorbitant price or be subjected to an unfair selection procedure.<sup>48</sup>

This type of situation is not common, however. In most cases, as a result of the leverage gained by arms recipients when there are fewer producers/suppliers (i.e., more competition), competing suppliers are prepared to go a long way towards meeting the demands of potential recipients.<sup>49</sup> They may do this in several ways.

*Price reductions* or other financial favours are the primary means. In a deal with Greece, for example, the French producer substantially reduced the price for new Mirage 2000-5 combat aircraft and missiles and for the modernization of older aircraft.<sup>50</sup> In a deal for another Greek aircraft requirement, the French offer lost when Greece managed to negotiate a better deal for the European Eurofighter/Typhoon combat aircraft.<sup>51</sup> Because of the competition between Boeing and a joint Raytheon–Israeli Aircraft Industry venture, Turkey is reported to have managed to reduce by one-third the price of the AEW aircraft which it planned to acquire.<sup>52</sup>

A supplier may also accept *leasing* or *borrowing* arrangements. The Netherlands has borrowed AH-64A Apache helicopters while waiting for the

<sup>47</sup> Hagelin, Wezeman and Wezeman (note 12), pp. 350–56.

<sup>48</sup> 'Analysts question "fairness" in ROK SAM-X missile project selection process', *Choson Ilbo* (Seoul), Foreign Broadcast Information Service (FBIS), *Daily Report–East Asia (FBIS-EAS)*, FBIS-EAS-2000-1016, 16 Oct. 2000.

<sup>49</sup> Because of the, in most cases, competitive market, the large sums of money involved, the lack of public insight into the negotiations and signed deals, and the grey area between illegal financial transfers and legal fees paid by suppliers, controversies often arise. The effects of the political scandal resulting from India's purchase of Swedish howitzers in 1986 are still being felt. George, N., 'Sweden pressed on Bofors', *Financial Times*, 17 Oct. 2000, p. 10. In late 2000 at least 3 investigations into allegations of corruption in connection with major arms deals signed by South Africa in 1999 were either planned or under way. Engelbrecht, L., 'Parliamentary scrutiny of SA arms deals to start next week', *Defence Systems Daily*, 6 Oct. 2000, URL <<http://defence-data.com/current/page8684.htm>>.

<sup>50</sup> *Ta Nea* (Athens), 'Greece seen among best arms markets', FBIS-WEU-2000-0824, 19 Aug. 2000.

<sup>51</sup> *I Kathimerini* (Athens), 'Greece concludes agreement on Eurofighter purchase', FBIS-WEU-2000-1105, 2 Nov. 2000.

<sup>52</sup> *Sabah* (Istanbul), 'Turkish Treasury said unable to provide guarantee for AWACS purchase', FBIS-WEU-2000-1106, 6 Nov. 2000.

AH-64D version to be delivered from the USA. Greece has since February 2000 deployed three leased US Patriot PAC-2 surface-to-air missile systems while waiting for PAC-3s to be delivered in 2001.

In some cases weapons may even be offered *free of charge*. The USA offered KC-130 tanker/transport aircraft in addition to F-16 combat aircraft to meet Chile's requirement for new combat aircraft.<sup>53</sup> In February 2001 Saab–BAE SYSTEMS countered a US offer of F-16 aircraft to Hungary with an offer to lend it 24 Gripen combat aircraft free of charge for five years.<sup>54</sup> In addition to improving its competitiveness, the supplier may hope to profit from future upgrades of free and leased weapons if a lease results in a purchase.<sup>55</sup>

Arms suppliers also accept *compensation arrangements (offsets)* demanded by buyers in return for signing arms contracts. These are activities added to the procurement of expensive weapon systems and may take the form of a transfer of resources to and/or generation of business in the buying country, for instance, through industrial participation.<sup>56</sup> The offset is commonly set at a percentage of the purchase price, of which a part may involve national industrial participation. An increase in Greece's share of industrial participation seems to have been an important consideration in favour of the Eurofighter/Typhoon.<sup>57</sup>

Today it is not unusual for deals to include offsets of 100 per cent (see the comments column of table 5C.1, appendix 5C). Even compensations valued in excess of the deal itself are becoming common, as illustrated by offers made to the Czech Republic and Greece.<sup>58</sup>

A distinction is made between direct and indirect offsets. Direct offsets are directly related to the arms deal.<sup>59</sup> The result is often additional military trade

<sup>53</sup> Laureau, P. and Bombeau, B., 'Nouvelles propositions au Chili' [New proposals to Chile], *Air & Cosmos*, 17 Nov. 2000, p. 42.

<sup>54</sup> Eddy, K., 'Hungary move irks Saab–BAE', *Financial Times*, 12 Feb. 2001, p. 2. Hungary would only have to pay for the necessary modifications.

<sup>55</sup> A controversy developed in 2000 between the USA and Giat because of their different interpretations of what Giat had offered, free of charge, in a 1993 tank contract. 'Giat suspends UAE Leclerc deliveries', *International Air Letter*, 19 Jan. 2001, p. 5.

<sup>56</sup> Ahlström, M., *Offset Management for Large Systems: A Multibusiness Marketing Activity*, Linköping Studies in Management and Economics, Dissertation no. 46 (Linköping University: Linköping, 2000), p. 3.

<sup>57</sup> 'Greece concludes agreement on Eurofighter purchase' (note 51). In early 2001 Greece was trying to renegotiate the payment arrangements in order to be able to afford the deal. *To Vima* (Athens), 'Greek Government seen seeking renegotiation of Eurofighter contract', FBIS-WEU-2001-0127, 26 Jan. 2001.

<sup>58</sup> The Czech plan for acquiring new combat aircraft is said to involve 150% offsets. 'Czech mate?', *Aviation Week & Space Technology*, 22 Jan. 2001, p. 13. In the case of Greece, all 6 competitors have offered up to 40% local production and up to 250% offsets in their offers to supply 246 main battle tanks. 'Greece considers final bids for \$1.4b MBT competition', *Jane's Defence Weekly*, 28 Feb. 2001, p. 3.

<sup>59</sup> Indirect offsets involve military and/or civilian contracts with no direct relation to the equipment purchased. In the Norwegian frigate deal, 3 such agreements still benefit Norway's defence industry and are making new entries into the Spanish defence market: Spain's orders for surface-to-air missile systems, KDA Penguin anti-ship missiles and joint KDA–Bazan development of the combat system for Spain's next-generation submarine. 'Norwegian company starts to reap offset benefits despite cuts', *Jane's International Defence Review*, no. 8 (2000), p. 8. The KDA's involvement in aircraft offset arrangements also increases its chances of becoming involved in the engineering and manufacturing development of the US Joint Strike Fighter from 2001.



through *counter-trade arrangements*. For example, Norway has ordered Spanish frigates, and the Norwegian defence electronics contractor Kongsberg Defence & Aerospace (KDA) is a subcontractor to Lockheed Martin for the development of part of the combat system for these ships.<sup>60</sup> As a result of South Africa's purchase of Swedish Gripen combat aircraft, Saab and BAE SYSTEMS have reportedly secured parts from South Africa for their joint production of the Gripen.<sup>61</sup> In addition to making tail sections for the British Hawk trainer/light attack aircraft, South Africa's Denel company expects to manufacture parts for at least two other users of the Hawk.<sup>62</sup>

From the perspective of the supplier company, offsets are basically a necessary evil in order to stay in the competition.<sup>63</sup> Offsets are controversial since they involve competition over, for example, other products or services and add non-core commitments to the responsibilities of the winning company<sup>64</sup> without necessarily bringing major benefits.<sup>65</sup> Foreign production facilities created as a result of offset arrangements may become a second source of supply that is cheaper than domestic industry.<sup>66</sup>

Offsets may also create problems for the recipient. First, they involve long-term commitments that may in the end not be met.<sup>67</sup> It is reported that Saab and BAE SYSTEMS found it difficult to fulfil their offset promises to small and medium-size enterprises in connection with the sale of Gripen combat aircraft to South Africa. A South African company has therefore been contracted

<sup>60</sup> Janssen Lok, J., 'Norway's frigates to be first with new radar', *Jane's International Defence Review*, no. 9 (2000), p. 14.

<sup>61</sup> Pettersson, C. L., 'Motköpen lyfter i Sydafrika' [Offsets take off in South Africa], *Dagens Industri*, 13 Oct. 2000, p. 27.

<sup>62</sup> 'BAE SYSTEMS takes delivery of its first South African made Hawk tail', *Defence Systems Daily*, 27 Oct. 2000, URL <<http://defence-data.com/current/page8887.htm>>.

<sup>63</sup> This was one of the reasons for the creation of a Presidential Commission on Offsets in International Trade in 1999. The 2001 'status report' summarized the preliminary findings of the commission. 'Status report of the Presidential Commission on Offsets in International Trade', approved by the commission on 18 Jan. 2001, URL <[http://www.cfr.org/p/GeoEconomics/Geo\\_Report.html](http://www.cfr.org/p/GeoEconomics/Geo_Report.html)>. A US General Accounting Office report concludes that the commission may result in better agency coordination with regard to offset data collection, which has not been efficient. US General Accounting Office (GAO), *Defense Trade: Data Collection and Coordination on Offsets*, GAO-01-83R (GAO: Washington, DC, 26 Oct. 2000).

<sup>64</sup> In 1999 it was suggested that Sweden's offset and counter-trade policy be further studied as a means to support defence exports. *Statligt Stöd till Svensk Försvarsmaterielexport* [Government support for Swedish defence matériel export], Report to the Swedish Ministry for Defence, 4 Oct. 1999, p. 23. It has also been noted that, although it would augment efficiency if all nations abandoned the use of offsets, it is not in the interest of any single supplier to do so unilaterally. Sandler, T., 'Arms trade, arms control, and security: collective action issues', *Defence and Peace Economics*, vol. 11, no. 5 (2000), p. 542.

<sup>65</sup> Volvo Aero, the Swedish supplier of engines for the Gripen combat aircraft ordered by South Africa, claims that its financial margin has been reduced to nil after prices were reduced drastically. *Försvarsindustriföreningen*, 'Sydafrika dyrt för Volvo Aero' [South Africa expensive for Volvo Aero], *Defence Industry Association News* (Internet edn), Stockholm, 24 Nov. 2000, quoting *Dagens Industri*, URL <<http://www.defind.se/news.htm>>.

<sup>66</sup> This is an argument used by the US Marines in supporting a Turkish Bell AH-1Z KingCobra helicopter production facility. 'Turkey helicopter update', *Arms Sales Monitor*, no. 44 (Nov. 2000), p. 6.

<sup>67</sup> For a study of British, French and US offset programmes with Saudi Arabia see Matthews, R., 'Saudi Arabia's defence offset programmes: progress, policy and performance', *Defence and Peace Economics*, vol. 7 (1996), pp. 233–51.



to act as a contact between Saab and BAE SYSTEMS and such local companies.<sup>68</sup>

Second, low offsets may undermine the counter-trade element if the resulting industry commitments are too low to create any sizeable exports. This is reflected in a report by South Africa's Auditor-General on South Africa's acquisition of BAE SYSTEMS Hawk light combat aircraft.<sup>69</sup> If the acquisition costs increase because of inflation, exchange rates and/or bank loan costs—as has happened in the case of South Africa<sup>70</sup>—these difficulties could increase. The options for future new arms orders included in the South African contracts for Gripen and Hawk aircraft are actually used by the South African Government to pressure the suppliers to meet their offset obligations.<sup>71</sup>

However, a recipient may obtain technological and other sought-after benefits in other ways than through traditional compensation arrangements. In Australia, for example, foreign military suppliers may be selected on the basis of their long-term commitment to Australia's economy and strategic priorities, demonstrated through significant investment in local facilities and plants. Other important commitments that Australia requires include significant employment of Australian citizens, significant levels of R&D undertaken locally (including development of indigenous intellectual property and demonstrated independence of action from overseas parent companies), and the nurturing of small and medium-size Australian companies.<sup>72</sup> Thus, rather than adding offsets to a deal, substantial *direct industry investment* and other undertakings by a foreign supplier become integral parts of the acquisition policy. This has direct effects on national R&D and technology investment as well as on future prospects for exports. This alternative is in effect similar to foreign mergers with or acquisitions of domestic producers.

### *Government export credits*

Another aspect of the competitive market is the involvement of the government of the country where the supplier is located in actively supporting producers/exporters in their search for customers. This is a way for governments to help to compensate for the shrinking of the home market, which is a consequence of declining domestic procurement. Such support may involve participation in marketing and lobbying for arms sales as well as different kinds of financial assistance.

<sup>68</sup> Säll, O., 'Saab får hjälp med motköp' [Saab receives help with offsets], *Svenska Dagbladet*, 8 Sep. 2000, p. 16.

<sup>69</sup> 'The AG weighs South Africa's arms deals and finds some lacking', *Defence Systems Daily*, 3 Oct. 2000, URL <<http://defence-data.com/current/page8626.htm>>. The report also mentions how such commercial arrangements influence the technical evaluation of alternatives and claims of corruption in relation to subcontracts.

<sup>70</sup> Engelbrecht, L., 'South African MPs left cold by arms deal', *Defence Systems Daily*, 16 Oct. 2000, URL <<http://defence-data.com/current/page8764.htm>>.

<sup>71</sup> 'South African offset', *Defence Industry*, Oct. 2000, p. 4. For a listing of Gripen offsets see *Svenska Dagbladet*, 6 Dec. 2000, Näringsliv, p. 13.

<sup>72</sup> See, e.g., Statement by the Minister for Defence Industry, Science and Personnel, 'Defence & Industry—Strategic Policy Statement', Opening Address to the 1998 Defence Procurement Conference, National Convention Centre, Canberra, 2 June 1998.

Several arms-supplying countries, including the USA and the six European signatories of the Framework Agreement, have special agencies or programmes for granting export credits or export loan guarantees on favourable conditions.<sup>73</sup> The lack of financial arrangements in support of Russian arms transfers is expected to be partly overcome by agreements signed by the Russian Ministry of Industries, Science and Technology and two major Russian banks for credits to arms-producing companies.<sup>74</sup>

The US Government finances defence-related exports through the Export-Import Bank, the Foreign Military Financing Program (FMFP, since 1961), and the Defense Export Loan Guarantee Program (since 1996). Loans to Central European countries were first authorized under the FMFP in fiscal year 1997.<sup>75</sup>

In the UK, the Export Credit Guarantee Department (ECGD) has been criticized for its involvement in several controversial arms deals.<sup>76</sup> Defence business represents about 20 per cent of the ECGD's total export credit.<sup>77</sup>

India sought a bank guarantee from the French Government for 45 per cent of the advance payment necessary for the purchase of 10 Mirage-2000 combat aircraft. The deal, worth about \$325 million, was finalized in 2000 after the French Government decided to stand as financial guarantor for the deal.<sup>78</sup>

Organizations in different countries sometimes offer credits jointly, as in the case of the coordination between the UK's ECGD and Defence Export Service Organisation (DESO), on the one hand, and Sweden's Exportkreditnämnden (EKN, Export Credits Guarantee Board) in support of the Gripen combat aircraft sales, on the other hand.<sup>79</sup> While the British Government has long supported military exports, the Swedish Government's military export support was organized in 1993, when a special coordination and reference group (Koordinations- & Referensgruppen, KRG) was established for Gripen exports under the Ministry of Defence.<sup>80</sup>

<sup>73</sup> The export credit agencies and programmes are listed on the Internet site of the Organisation for Economic Co-operation and Development (OECD) at URL <<http://www.oecd.org/ech/act/xcred/ecas.htm>>.

<sup>74</sup> Saradzhyan, S., 'Russian defense firms to tap new line of credit', *Defense News*, 6 Nov. 2000, p. 20.

<sup>75</sup> US General Accounting Office (GAO), *Defense Trade: Status of the Defense Export Loan Guarantee Program*, Report GAO/NSIAD-99-30 (GAO: Washington, DC, Dec. 1998). However, the Export-Import Bank and Hermes Kreditversicherungs-AG, Germany's largest credit insurer, have put restrictions on the types of equipment that may be supported. In addition, Hermes does not guarantee arms deals with non-NATO countries.

<sup>76</sup> Denny, C., 'Export credit reform still leaves taxpayer footing bill for arms industry', *Guardian Weekly*, 3-9 Aug. 2000, p. 22.

<sup>77</sup> Personal communication with the authors from J. Willis, ECGD, 29 Jan. 2001.

<sup>78</sup> The conglomerate of Dassault Aviation, SNECMA and Thales (then Thomson-CSF) provided a letter from the French Délégation Générale pour l'Armement (DGA), the department of defence cooperation, guaranteeing the supply of the aircraft. 'French Govt lending hand to push Mirage sale to India', *Asian Age* (New Delhi), FBIS-WEU-2000-0829, 29 Aug. 2000.

<sup>79</sup> The EKN's outstanding liabilities in 2001 amount to SEK 16.6 billion (\$1.6 billion), most of which is for Gripen exports to South Africa. Personal communication with the authors from Å. Fexby, 5 Feb. 2001. See also Hagelin, B., 'Saab, British Aerospace and the JAS 39 Gripen aircraft joint venture', *European Security*, vol. 7, no. 4 (winter 1998), p. 105.

<sup>80</sup> This organization has since then also been involved in other defence export projects, such as Ericsson's Erieye airborne radar system from 1996 and, more recently, equipment from Hägglunds and SAAB/Bofors. 'Med världen i sikte: en studie av Sveriges internationella försvarsmaterielsamarbete'

International lending organizations supporting economic development in less developed countries have set informal rules in an attempt to limit government export support. In August 2000 representatives of the Group of Seven (G7) leading industrialized nations urged the Organisation for Economic Co-operation and Development (OECD) to stop the use of export credits to help low-income countries to buy non-productive items, including arms.<sup>81</sup>

#### IV. Changes in the arms market

Although all arms producers are heavily influenced by financial considerations, smaller producers are generally more severely affected by new military demands for advanced technology and other cost increases than are the larger producers. One consequence is a reduced capacity for military self-reliance especially in the smaller producer countries, illustrated below by India and Sweden.<sup>82</sup>

Among the major producers/suppliers, two decisions were taken in 2000 which will affect the internationalization of military production and acquisition and thus transatlantic arms transfers. The US Defense Trade Security Initiative (DTSI) is a national decision. The Framework Agreement is multi-lateral. Together with NATO's European Security and Defence Identity (ESDI) and the EU's European Security and Defence Policy (ESDP, supplementing the Common Foreign and Security Policy, CFSP), these are likely to change the forms and volume of intra-European as well as transatlantic arms transfers.<sup>83</sup>

#### The smaller suppliers

The largest arms-producing countries have been considered to be totally or nearly *self-reliant* in the production of military equipment. A high degree of military self-reliance implies a high share of indigenous development of major weapons and thus low levels of arms imports. Smaller suppliers, such as Swe-

[Aiming for the world: a study of Sweden's international defence *matériel* cooperation], Report 2000:46 (Statskontoret: Stockholm, 2000), p. 38. A 1999 report prepared for the forthcoming Swedish defence review suggested that more resources be allocated for export support to the ministries for foreign affairs and defence. Defence export support should, it was noted, be seen as part of Sweden's security and defence policy and be guided by a long-term strategic plan in cooperation with industry in order to support defence industry requirements. Although a 'Swedish DESO' was not proposed, the British organization for using its defence attachés abroad was suggested as a model for Sweden. 'Statligt stöd till svensk försvarsmaterielexport' [Government support for Swedish defence *matériel* export], Report to the Swedish Ministry for Defence, 4 Oct. 1999, pp. 20–23.

<sup>81</sup> de Jonquières, G., 'G7 calls for arms credits clampdown', *Financial Times*, Aug. 2000, p. 5. A proposal that included stronger measures against such practices and the publication of a report listing countries that permitted such credits was reportedly discussed in Nov. by the OECD export credits committee. Denny (note 76). The members of the G7 are listed in the glossary in this volume.

<sup>82</sup> Other countries may be selected for comparison, such as Belgium and Hungary. Struys, W., Mampaey, L. and Belázy, S. (eds), *The Hungarian and Belgian Defense Industries: A Bilateral Study* (Office for Official Publications of the European Communities: Luxembourg, 2000), European Commission document EUR 19232.

<sup>83</sup> See also chapter 3 in this volume.

den, have supported a high degree of self-reliance, illustrated by the continual successful development of new series of major weapons, including combat aircraft. Even countries that are mainly arms importers have tried to sustain or increase their level of self-reliance, as illustrated by India's attempts to develop the LCA combat aircraft and the Arjun main battle tank.

However, what appears to be self-reliance is for most countries not self-reliance in development capacity but in design and systems-integration capacity using foreign major sub-systems and components. With the increasing sophistication of weapons, achieving a high degree of self-reliance has become increasingly difficult and expensive. Instead, several countries deliberately aim at *limited self-reliance*, that is, the capability to support and repair, and perhaps also upgrade, weapon systems that are mainly imported or acquired through international cooperation. In the 1990s the Swedish Government, for example, accepted more arms imports and weapon development through multinational cooperation.<sup>84</sup> Preparations are also under way in Sweden to develop a combat aircraft in cooperation with other nations.<sup>85</sup> India's LCA aircraft made its maiden flight in January 2000, but it took 17 years to reach this stage and it is still uncertain when the aircraft can be introduced into the Indian Air Force.<sup>86</sup> In late 2000 a retired Indian Army Major General said that the Arjun tank was still in need of vast improvements.<sup>87</sup> The Indian Government seems to be aware that advanced self-reliance is a difficult and very costly endeavour.<sup>88</sup> To meet its requirements, India is importing combat aircraft from France, Russia and the UK as well as tanks from Russia.

The long-term trends in global arms transfers are influenced by two partly contradictory trends. First, a move away from attempts to develop major systems independently and towards limited self-reliance is likely to lead to an increase in the demand for sub-systems and components. Such equipment is needed in order to support and upgrade weapons that have been acquired. The ambition will be to use platforms for longer periods of time rather than acquiring new, advanced weapon systems. Such changes may in the long run have consequences for sustained R&D and production by, as well as arms transfers from, the major suppliers.

<sup>84</sup> Hagelin, B., 'Swedish for how long? The nation's defence industry in an international context', eds A. Eriksson and J. Hallenberg, *The Changing European Defence Industry Sector: Consequences for Sweden?*, Report ACTA B12 (National Defence College: Stockholm, 2000), pp. 125–38.

<sup>85</sup> *Riksdag & Departement* (Stockholm), no. 9 (2000), p. 23; and Cook, N., 'Stranded in mid-Atlantic', *Interavia*, Jan. 2001, p. 6.

<sup>86</sup> Donald, A., 'India tests prototype of first locally built fighter jet', *Financial Times*, 5 Jan. 2000, p. 6; Subrahmanyam, K., 'Self-reliant defence and Indian industry', *Strategic Analysis*, vol. 24, no. 7 (Oct. 2000), pp. 1221–34; and Rao, R., 'Airborne at last, but long road ahead for LCA', *Interavia*, Jan. 2001, p. 11.

<sup>87</sup> Raghuvanshi, V., 'Indian howitzer order again could snuff hopes for Arjun', *Defense News*, 18 Dec. 2000, p. 44.

<sup>88</sup> All the major indigenous projects of the Indian Defence R&D Organisation will be reviewed. Raghuvanshi, V., 'India panel raps indigenous efforts', *Defense News*, 8 May 2000, p. 28. The urgency was partly prompted by the conflict with Pakistan. Similarly, many countries in Asia have realized that self-sufficiency cannot be achieved without high costs. Foreign investments, international cooperation and subcontractual relationships are sought instead. Finnegan, P., 'Malaysia looking for European, American investors', *Defense News*, 24 Apr. 2000, p. 32.

Second, there might be a further reduction in the number of independent producers of major weapons (nations as well as companies) because of the growing international cooperation in the R&D and production of weapon platforms, coupled with company mergers and acquisitions. This development, which is clearly visible in the Euro-Atlantic region, may result in the existence of fewer suppliers.

Several initiatives, presented below, were taken during 2000. How they will succeed in finding a balance between competition and cooperation remains an open question.

## **Euro-Atlantic cooperation**

### *Political ambitions*

The US *Defense Trade Security Initiative*, approved in May 2000, applies to the US NATO allies, Australia and Japan. The main objective is to shorten the time needed to process US licences for these countries.<sup>89</sup> The DTSI is also said to create possibilities for foreign bids on US defence programmes, transatlantic company mergers, and military joint ventures involving US and European companies.<sup>90</sup> The greater involvement of multinational companies, whether in the form of joint ventures or as a result of mergers and acquisitions, may increase the possibility that both a foreign company and a foreign government could influence the acquisition policy of another government. This seems to be an element of several company strategies, such as Boeing's plans to increase its presence in Asia and Europe in particular and BAE SYSTEMS' effort to secure a foothold in the USA.<sup>91</sup> With a presence, the company becomes a direct player on the foreign market.

In 2000 the Australian and British defence ministries each signed bilateral *Statements of Principles for Enhanced Co-operation* with the USA. The US State Department had to give up its opposition to the deregulation of most non-classified arms sales to these two countries and allow exemptions similar to those that apply to Canada.<sup>92</sup> If accepted in the form suggested by the USA, the deregulation implies that there will be US influence over Australian and British arms export policies and behaviour since it is linked to US requests for

<sup>89</sup> The DTSI will create a new US International Trafficking in Arms Regulation (ITAR) exemption for more types of maintenance services and training. It will permit licence-free US export of technical data and defence services if authorized in a Letter of Offer and Acceptance and if the underlying contract is with a US firm. The DTSI will also permit US firms to export technical data and services in support of defence bid proposals without a licence. Svitak, A., 'UK, Australia face barriers to exemptions', *Defense News*, 11 Sep. 2000, p. 4.

<sup>90</sup> US Security Assistance Act of 2000, Public Law 106-280, 6 Oct. 2000; and Marquis, C., 'Washington loosens restrictions on sales of weapons to allies', *New York Times*, 24 May 2000, p. 1.

<sup>91</sup> Morrocco, J. D., 'Boeing looks to boost global presence', *Aviation Week & Space Technology*, 3 Apr. 2000, p. 37.

<sup>92</sup> One important difference between these 2 agreements and that with Canada is that, while they have roughly the same exemptions, the new agreements are not only government-to-government but also cover trusted companies. See interview with David Oliver, Principal Deputy US Under-Secretary of Defense for Acquisition, Technology and Logistics, in *Jane's Defence Weekly*, 4 Oct. 2000, p. 32.

specific export control regulations by these countries similar to those implemented by the USA.<sup>93</sup>

The UK's close defence relationship with the USA gives it a special European role. In July 2000 the UK signed the *Framework Agreement*, which deals with several issues related to the acquisition of and trade in military equipment, specifically equipment developed through European cooperation.<sup>94</sup> The aims of the agreement—which will become legally binding after it has been ratified by the signatories—include harmonizing, simplifying and reducing national export control procedures for (a) transfers among the signatories and (b) exports to other countries of military goods and technologies. The expressed long-term ambition is to establish an open free market for military goods between the signatories. This ambition applies in times of both peace and war, which makes the agreement another step in the defence and security policy transformation of Sweden, the only non-aligned country among the six signatories.<sup>95</sup>

While the arms trade ambitions are explicit in both the US DTSI and the European Framework Agreement, they are only implicit in NATO's ESDI concept and the EU's ESDP concept. Realization of the ESDP's military 'headline goals', defined in December 1999, will support the ESDI as well as the European rapid reaction/intervention force.<sup>96</sup> Transatlantic and European trade will be necessary in order to create such an international, interoperable force.<sup>97</sup> The balance between four main alternatives will influence the shape of the future transatlantic defence market. This balance will depend on how much of the equipment is: (a) produced nationally in Europe and then traded with other countries, including the USA; (b) produced in common European projects—thus supported by the implementation of the Framework Agreement and other multinational initiatives—and then traded with other countries, including the USA; (c) produced in and acquired from the USA—in this alternative the DTSI becomes important; and (d) produced in cooperation between European and US companies and acquired by both the USA and European countries.

<sup>93</sup> US Security Assistance Act of 2000 (note 90); 'Security Assistance Act: something for everyone', *Arms Sales Monitor*, no. 44 (Nov. 2000), p. 5; Svitak, A., 'US weighs interim export deals with UK, Australia', *Defense News*, 16 Oct. 2000, p. 4; and Barrie, D., 'Britain, US haggle over details of export relaxation', *Defense News*, 13 Nov. 2000, p. 8. The agreements, if finalized, will take the form of treaties requiring parliamentary ratification. Barrie, D. and Svitak, A., 'Australia, UK accept terms for US arms', *Defense News*, 18 Sep. 2000, p. 1.

<sup>94</sup> See note 25.

<sup>95</sup> During the 1990s this Swedish transformation included a move from unconditional to conditional neutrality in wartime and from military independence to explicit (mutual) interdependence. Although the Framework Agreement does not stipulate that the supply of military equipment in wartime is automatic—consultations are required—or free of charge, such planning in peacetime for the possibility of Sweden supplying as well as receiving military equipment in wartime has hitherto been unacceptable.

<sup>96</sup> NATO Parliamentary Assembly, Defence and Security Sub-Committee on Future Security and Defence Capabilities, 'Interim Report: The Defence Capabilities Initiative and NATO's Strategic Concept', Nov. 2000, URL <<http://www.naa.be/publications/comrep/2000/at-245-e.html>>; and Van Eekelen, W. (rapporteur), NATO Parliamentary Assembly, Defence and Security Sub-Committee on Transatlantic Defence and Security Co-operation, 'Interim Report: Building European Defence: NATO's ESDI and the European Union's ESDP', URL <<http://www.naa.be/publications/comrep/2000/at-247-e.html>>.

<sup>97</sup> 'European procurement spree on the horizon', *Interavia*, Jan. 2001, pp. 32–35.



Multinational rather than national development and production of major weapons is the strategy supported in Europe. Common European acquisition decisions in recent years include those for the European A400M transport aircraft, the Meteor air-to-air missile, the Tiger and NH-90 helicopters, a French–Italian agreement on the Horizon frigate, and a French–German agreement to re-initiate a previous reconnaissance satellite project.<sup>98</sup> If the Framework Agreement is implemented, this will support and most likely increase European cooperation and intra-European transfers. One industrial concern—that countries with more restrictive arms export policies may complicate the consensus principle<sup>99</sup>—may not be a realistic one. Repeated use of a veto will contradict the aim of the agreement, to which all six governments have committed themselves.<sup>100</sup> The need to consider industrial interests is indicated in the agreement, and the agreement itself is the result of political support for regional European arms production and trade.

The extent to which the DTSI will result in more European sales to the USA and/or the inclusion of more advanced US technologies in European systems remains to be seen. The US General Accounting Office (GAO) has in two recent reports pointed to critical uncertainties regarding the effects of the DTSI proposals on technology transfer and defence exports.<sup>101</sup> It suggested that US and European companies will continue to have strong and different views on how to organize international industry cooperation. It also pointed to the fact that the US Department of Defense does not consider factors that fall outside its sphere of influence but could still influence the DTSI, such as European defence and security policy ambitions. The decision regarding Meteor air-to-air missile illustrates this last point.

### *Political realities: the Meteor missile*

US attempts to win foreign competitions are not always successful, sometimes because of even stronger foreign national or regional ambitions. One such example is the May 2000 decision by the British Government to proceed with the Meteor air-to-air missile project. This is an example of the projects that fall under the Framework Agreement and may indicate that there will be problems finding the right balance between transatlantic and European acquisitions. A former Director for European Affairs in the US National Security Council has reported frequent lobbying of European governments by the White House to

<sup>98</sup> Taverna, M. A., 'Europe adding focus to joint force concept', *Aviation Week & Space Technology*, 26 June 2000, pp. 39–42.

<sup>99</sup> Barrie, D. and Clark, C., 'European industry calls export policy flawed', *Defense News*, 31 July 2000, pp. 1, 34.

<sup>100</sup> Non-governmental organizations, on the other hand, express the concern that the least restrictive common denominators will guide arms exports. *Arms Trade Bulletin* (Saferworld), no. 20 (Aug. 2000); and British American Security Information Council (BASIC), *European Accord Threatens to Lower Export Controls*, Paper no. 33, Aug. 2000, URL <<http://www.basicint.org/BP33.htm>>.

<sup>101</sup> US General Accounting Office (GAO), *Defense Trade: Analysis of Support for Recent Initiatives*, Letter report GAO/NSIAD-00-191 (GAO: Washington, DC, 31 Aug. 2000); and US General Accounting Office, *Defense Trade: Contractors Engage in Varied International Alliances*, Report GAO/NSIAD-00-213 to the Chairman and Ranking Minority Member, Subcommittee on Readiness and Management Support, Committee on Armed Services, US Senate (GAO: Washington, DC, Sep. 2000).



persuade them to purchase US weapons. He considered it unfortunate that in May the Clinton Administration described the British decision as a setback for transatlantic defence cooperation.<sup>102</sup>

Development of the Meteor missile was started by Matra–BAe in 1996 to meet the UK's requirement for a Beyond Visual Range Air-to-Air Missile (BVRAAM). However, the British decision to continue the project was important not only for the British Air Force but also for other countries since the missile was also planned to arm French, German, Italian, Spanish and Swedish combat aircraft.

A US Raytheon alternative missile proposal was a strong competitor to the British Meteor. In an attempt to increase the chances of the US offer being accepted and to respond to European criticism of US technology transfer restraints, the Department of Defense was prepared to ease US restrictions on export of the missile.<sup>103</sup> In addition, Raytheon offered BAE SYSTEMS access to all the technical data and participation in further development of its missile.<sup>104</sup> It also offered the Meteor partners (companies in France, Germany, Italy, Spain, Sweden and the UK) a 35 per cent share of the work on missiles sold outside the UK and the USA.

The British Government's decision to proceed with the Meteor missile was based on political and technological considerations after strong lobbying in Europe to sustain European air-to-air missile capabilities.<sup>105</sup> The Meteor producers were prepared to accept, and even increase, the risks involved in the Meteor project as a response to Raytheon's offers; if the Meteor is not available on time (by 2008), at the stipulated price and with the defined capabilities, the British Government will get its money back.<sup>106</sup>

## V. International arms embargoes

The arms market is also influenced by supplier governments' decisions, unilateral or multilateral, not to transfer arms to particular nations. The international embargoes—that is, embargoes decided and stated collectively by an international organization or group of nations (e.g., the embargo against

<sup>102</sup> Gardner, A., 'US should welcome European arms purchases', *Wall Street Journal Europe*, 31 May 2000, p. 29. In Sep. the NATO Assistant Secretary General for Defence Support stated that the UK's decision would support the protectionist lobby in the US Congress. Robert Bell, during a *Financial Times* aerospace and air transport conference in London, quoted in Odell, M., 'Europe warned over defence orders', *Financial Times*, 21 July 2000, p. 2.

<sup>103</sup> US General Accounting Office (GAO), *Defense Trade: Contractors Engage in Varied International Alliances*, GAO/NSIAD-00-213 (GAO: Washington, DC, Sep. 2000), p. 17.

<sup>104</sup> Cook, N., 'Raytheon locks on to UK's BVRAAM system', *Jane's Defence Weekly*, 28 Oct. 1998, p. 4; Barrie, D., 'Europeans battle trans-Atlantic missile option', *Defense News*, 9–15 Nov. 1998, pp. 1, 42; Morrocco, J. D., 'US offers UK joint missile deal', *Aviation Week & Space Technology*, 20 Sep. 1999, p. 34; and 'Raytheon comes out swinging for the RAF's BVRAAM contract', *Defence Systems Daily*, 24 Feb. 2000, URL <<http://defence-data.com/current/page6560.htm>>.

<sup>105</sup> Ratnam, G. and Svitak, A., 'Cost hike for missile may fuel MEADS foes', *Defense News*, 14 Aug. 2000, p. 4.

<sup>106</sup> The USA also agreed to share sensitive technology of the Patriot PAC-3 missile for the Medium Extended Air Defence System (MEADS) with the German and Italian partners. *World Aerospace & Defense Intelligence*, 7 Jan. 2000, p. 12.

**Table 5.2.** International arms embargoes, 1996–2000

Target	Entry into force	Lifted	Legal basis
<i>Mandatory UN embargoes</i>			
Afghanistan (Taliban)	19 Dec. 2000	—	UNSCR 1333
Angola (UNITA)	15 Sep. 1993	—	UNSCR 864
Eritrea	17 May 2000	—	UNSCR 1298
Ethiopia	17 May 2000	—	UNSCR 1298
Iraq	6 Aug. 1990	—	UNSCR 661
Liberia <sup>a</sup>	19 Nov. 1992	—	UNSCR 788
Libya	31 Mar. 1992	5 Apr. 1999	UNSCR 748
Rwanda	17 May 1994	16 Aug. 1995 <sup>b</sup>	UNSCR 918
Rwanda (rebels) <sup>c</sup>	16 Aug. 1995	—	UNSCR 1011
Sierra Leone	8 Oct. 1997	5 June 1998	UNSCR 1132
Sierra Leone (rebels) <sup>d</sup>	5 June 1998	—	UNSCR 1171
Somalia	23 Jan. 1992	—	UNSCR 733
Yugoslavia (SFRY)	25 Sep. 1991	1 Oct. 1996	UNSCR 713
Yugoslavia (FRY)	31 Mar. 1998	—	UNSCR 1160
<i>Non-mandatory UN embargoes</i>			
Afghanistan	22 Oct. 1996	—	UNSCR 1076
Eritrea	12 Feb. 1999	17 May 2000 <sup>e</sup>	UNSCR 1227
Ethiopia	12 Feb. 1999	17 May 2000 <sup>e</sup>	UNSCR 1227
<i>EU embargoes (non-mandatory)</i>			
Afghanistan <sup>f</sup>	17 Dec. 1996	—	96/746/CFSP
Bosnia and Herzegovina <sup>g,h</sup>	5 July 1991	—	—
China	27 June 1989	—	—
Croatia <sup>g</sup>	5 July 1991	—	—
DRC <sup>f</sup>	7 Apr. 1993	—	—
Eritrea <sup>f,g</sup>	15 Mar. 1999	—	1999/206/CFSP
Ethiopia <sup>f,g</sup>	15 Mar. 1999	—	1999/206/CFSP
Indonesia <sup>g</sup>	17 Sep. 1999	17 Jan. 2000	1999/624/CFSP
Iraq	4 Aug. 1990	—	—
Libya	27 Jan. 1986	—	—
Macedonia <sup>i</sup>	5 July 1991	26 Feb. 1996	—
Myanmar (Burma) <sup>f</sup>	29 July 1991 <sup>j</sup>	—	—
Nigeria <sup>f</sup>	20 Nov. 1995	1 June 1999	95/515/CFSP
Sierra Leone <sup>d,g</sup>	8 Dec. 1997	—	98/409/CFSP
Slovenia <sup>h</sup>	5 July 1991	26 Feb. 1996 <sup>k</sup>	—
Sudan <sup>f</sup>	15 Mar. 1994	—	94/165/CFSP
Yugoslavia <sup>i,g</sup>	5 July 1991	—	—
<i>Other international embargoes (non-mandatory)</i>			
Nagorno-Karabakh (Azerbaijan) <sup>l</sup>	28 Feb. 1992	—	—
Burundi <sup>m</sup>	6 Aug. 1996	23 Jan. 1999	—
Nigeria <sup>n</sup>	24 Apr. 1996	Nov. 1999	—

*Acronyms:* SFRY = Socialist Federal Republic of Yugoslavia (the former Yugoslavia); FRY = Federal Republic of Yugoslavia; CFSP = Common Foreign and Security Policy; EU = European Union; OSCE = Organization for Security and Co-operation in Europe; UNITA = National Union for the Total Independence of Angola; UNSCR = UN Security Council Resolution.

<sup>a</sup> Does not apply to deliveries to ECOMOG forces in Liberia.

<sup>b</sup> The arms embargo was suspended on this date and formally ended on 1 Sep. 1996.

<sup>c</sup> Does not apply to deliveries to government forces in Rwanda. The embargo is also on equipment for persons in neighbouring states if the equipment is for use in Rwanda.

<sup>d</sup> Does not apply to deliveries to government or ECOMOG forces in Sierra Leone.

<sup>e</sup> On 17 May 2000 the UNSC implemented a mandatory embargo.

<sup>f</sup> Does not apply to deliveries under existing contracts.

<sup>g</sup> The Central and East European countries associated with the EU, the associated country Cyprus and the EFTA countries (Iceland, Liechtenstein, Norway and Switzerland), members of the European Economic Area, have declared that they share the objectives of these embargoes.

<sup>h</sup> The embargo was modified on 17 July 1999 (99/481/CFSP) to exclude small arms for the police and demining equipment.

<sup>i</sup> Imposed as an embargo against the territory of the former Yugoslavia.

<sup>j</sup> A 'decision to refuse the sale of any military equipment' was made by the EU General Affairs Council on 29 July 1991. On 28 Oct. 1996 a decision confirming the embargo (96/635/CFSP) was made by the EU Council of Ministers for Foreign Affairs.

<sup>k</sup> On this date the embargo was changed to a case-by-case evaluation governed by the EU common criteria on arms exports adopted in 1991. The embargo was officially lifted on 10 Aug. 1998.

<sup>l</sup> OSCE embargo only on deliveries to forces engaged in combat in Nagorno-Karabakh (i.e., the local forces of Nagorno-Karabakh and those of Armenia and Azerbaijan in Nagorno-Karabakh).

<sup>m</sup> Embargo by the Democratic Republic of the Congo, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, Uganda and Zambia.

<sup>n</sup> Commonwealth embargo.

Source: SIPRI arms transfers archives.

Burundi by eight African states)—which were in force in 1996–2000 are listed in table 5.2.<sup>107</sup>

There were 37 partial or complete international embargoes (on 21 countries, 1 territory and 4 rebel groups) on arms transfers, military services or other military-related transfers at any time during the period 1996–2000.<sup>108</sup> At the end of 2000, 13 countries, 1 territory and 4 rebel groups were under international arms embargoes. Of these, 10 were under mandatory, legally binding UN Security Council embargoes.<sup>109</sup>

On 12 February 1999 the UN Security Council established a voluntary embargo on arms transfers to both *Eritrea* and *Ethiopia*, then involved in armed conflict. However, several countries, including Russia, a permanent member of the Security Council, continued to make deliveries during the embargo. On 17 May 2000 the UN Security Council imposed a mandatory one-year embargo on arms transfers, military equipment, training and arms

<sup>107</sup> For the EU embargoes see URL <<http://projects.sipri.se/expcon/euframe/euembargo.html>>.

<sup>108</sup> See chapter 1, appendix 1A and appendix 5F in this volume for presentations of some of the relevant conflicts.

<sup>109</sup> Since 1945 only the UN Security Council has imposed mandatory embargoes. All other embargoes have been of a voluntary nature.

industry support to both countries.<sup>110</sup> Russia, the main supplier to both parties, took until the end of August to legally implement the embargo.<sup>111</sup>

In June 2000 Eritrea and Ethiopia signed a ceasefire agreement, followed in December 2000 by a peace agreement. At the end of 2000 the USA and the Group of Non-Aligned Countries proposed to lift the embargo.<sup>112</sup> However, voting was delayed by Canada and the Netherlands—both major suppliers of troops to the UN peacekeeping forces deployed between Eritrea and Ethiopia, the United Nations Mission in Ethiopia and Eritrea (UNMEE)—which wanted to maintain the embargo until at least May 2001, as originally planned in the UN resolution establishing the embargo.<sup>113</sup>

On 19 December 2000 the UN Security Council adopted a mandatory embargo on arms transfers to *Afghan territory held by the Taliban* to force them to give up their support and training of ‘international terrorists’ and their harbouring of Usama bin Laden.<sup>114</sup> All the actors in Afghanistan had been under a voluntary UN embargo since 1996, but that embargo was meant as a signal of concern regarding the war in Afghanistan, while the war is not mentioned as a reason for the new mandatory embargo.

However, not even mandatory UN embargoes seem to have a decisive influence on the level of fighting in armed conflicts. Many media reports in 2000 claimed that there were continuing breaches of such embargoes; most of the reports focused on continuing deliveries mainly by East European countries, former Soviet republics and Libya to rebel forces in *Angola* (the União Nacional Para a Independência Total de Angola, UNITA—National Union for the Total Independence of Angola) and *Sierra Leone* (the Revolutionary United Front, RUF).<sup>115</sup> These reports were supported by UN experts reports, including the final report on the implementation of the UN sanctions against UNITA released on 21 December 2000.<sup>116</sup> It concluded that weapons were delivered to UNITA by Bulgaria, Romania and Ukraine, mostly covered by end-user certificates from Burkina Faso, Togo and Zaire. Shipments included small arms, ammunition and self-propelled guns. Criticism was levelled at the way end-user certificates were checked by the exporting countries, at the

<sup>110</sup> UN Security Council Resolution 1298, 17 May 2000. The 1-year time limit was included under pressure from France and Russia, which reportedly did not want a repetition of the unlimited sanctions against Iraq. ‘Embargo der Uno gegen Äthiopien und Eritrea’ [UN embargo on Ethiopia and Eritrea], *Neue Zürcher Zeitung*, 19 May 2000.

<sup>111</sup> ‘Russia bans Horn weapons export’, BBC News Online, 29 Aug. 2000, URL <[http://news.bbc.co.uk/1/hi/english/world/africa/newsid\\_901000/901931.stm](http://news.bbc.co.uk/1/hi/english/world/africa/newsid_901000/901931.stm)>.

<sup>112</sup> For the members of the Group of Non-Aligned Countries, also known as the Group of 21 (G-21), see the glossary in this volume.

<sup>113</sup> ‘Uitsel stemming VN over Eritrea’ [Delay of UN vote on Eritrea], *NRC Handelsblad* (Internet edn), 30 Dec. 2000, URL <<http://www.NRC.nl/W2/vandaag>>.

<sup>114</sup> UN Security Council Resolution 1333, 19 Dec. 2000. At that time the Taliban held about 90% of the territory of Afghanistan but were recognized as the government of Afghanistan by only 3 countries, while the old government still held the UN seat.

<sup>115</sup> Human Rights Watch, *Neglected Arms Embargo on Sierra Leone Rebels* (Human Rights Watch: Washington, DC, 15 May 2000).

<sup>116</sup> United Nations, Final Report of the Monitoring Mechanism on Angola Sanctions, UN document S/2000/1225, 21 Dec. 2000; and United Nations, ‘Report of the panel of experts appointed pursuant to UN Security Council Resolution 1306 (2000), paragraph 19 in relation to Sierra Leone’, Dec. 2000, URL <<http://www.sierra-leone.org/panelreport.html>>.

support some African governments gave to the illegal shipments and at the way brokers in Cyprus and Israel handled the shipments. The report repeated the conclusion of its preliminary report that a number of African countries lack either the will or the means to enforce the embargo on UNITA.<sup>117</sup>

## VI. Arms transfer reporting and transparency

### International transparency

#### *The UN Register of Conventional Arms*

For the UN Register of Conventional Arms (UNROCA) the year 2000 was an important, possibly crucial, but certainly disappointing year. The statistics on participation show stagnation; more or less the same about 80–90 countries responded in some way to the request for information, but there was little indication of an improvement of the data.<sup>118</sup>

The stagnation is also illustrated by the results of the meetings in 2000 of a group of government experts convened to study possibilities for expanding the scope of the register and developing transparency in weapons of mass destruction and related technology transfers.<sup>119</sup> As in 1994 and 1997, there was no consensus on the expansion or improvement of the register. Recommendations were limited to an appeal to countries to supply data and a few ideas for improving the visibility of the register. One of the major obstacles to progress was, as in 1994 and 1997, the insistence of some, mainly Arab, states that weapons of mass destruction be included in the register and the refusal of other, mainly Western, states to agree to this. The manner in which this issue has blocked any attempt at improvement leaves little hope for changes in the future. The data provided in the UNROCA are not sufficient to reach the main goal of the UNROCA—to provide early warning against possible destabilizing build-ups of weapons. Notwithstanding some valuable data which it has provided, mainly to researchers, and the impetus it has provided for regional and national discussions on transparency in arms transfers, it has basically failed to fulfil its initial objective.

#### *EU transparency*

On 4 December 2000 the EU for the second time published aggregate values of arms exports as submitted by its members within the framework of the 1998

<sup>117</sup> Hagelin, Wezeman and Wezeman (note 12), pp. 363–66, for a discussion of the earlier reports. UNITA and the RUF are also the target of an embargo on diamond sales. Both groups are very dependent on diamonds to provide funds for their arms acquisitions, and the UN Security Council has therefore banned the trade in diamonds from UNITA- and RUF-controlled areas.

<sup>118</sup> The 8th UN Secretary-General's report containing information received from governments on their arms export and/or imports was released on 15 Aug. 2000, by which time 64 countries had replied. UN document A/54/226, 15 Aug. 2000. This document and its addenda and corrigenda are available at URL <<http://www.un.org/Depts/dda/CAB/rep542261.pdf>>. Earlier UNROCA reports can be found at URL <<http://domino.un.org/REGISTER:NSF>>.

<sup>119</sup> UN General Assembly Resolution 53/77, 4 Dec. 1998, section V.

EU Code of Conduct for Arms Exports.<sup>120</sup> Austrian Government data on the value of export licences and Greek Government data on the value of arms exports were made available for the first time (appendix 5E).

The EU arms exports reports suggest that there is political intent to achieve greater transparency. However, a contradictory decision was made in 2000 with regard to matters related to defence and security policy. In August the European Union for the first time introduced a 'top secret' classification for documents dealing with EU security policy. Only Finland, the Netherlands and Sweden voted against this decision in July 2000.<sup>121</sup>

### *The Framework Agreement*

Part 8 of the Framework Agreement (Protection of Commercially Sensitive Information) stipulates the conditions for secrecy as well as when the restrictions on use and disclosure of information of commercial value or market-sensitive information shall not apply. While there is nothing to prevent the parties from agreeing to make implementation of this agreement transparent, there are no specific procedures for doing so. In addition, since the projects covered by the agreement are transnational, one party may veto transparency measures that are acceptable to other parties. With more arms projects becoming multinational rather than national, there is a risk that national transparency in transfers of arms and arms-related equipment will be reduced.

### **National transparency**

Government and industrial statistics of the 1999 aggregate annual value of arms exports for 32 countries are presented in appendix 5E. In 2000 France and Germany published their first comprehensive arms export reports. On request, Slovakia supplied SIPRI with a comprehensive report. Fifteen countries—these three plus Australia, Canada, Finland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the UK and the USA—have published values for their arms exports to individual countries. Denmark published its first arms export report in early 2001, but it did not give any details on the value of Danish arms exports.

Some of the existing reports have or will become more detailed. The US Security Assistance Act of 2000 mandates that the most comprehensive US arms export report, the '655 report', will provide more details. Such details pertain to the dollar value, the recipient, the quantity and a description of the items delivered by US arms suppliers under the authority of a commercial

<sup>120</sup> The Code of Conduct is reproduced in *SIPRI Yearbook 1999* (note 21), appendix 11D, pp. 503–505, and is available at URL <<http://projects.sipri.se/expcon/eucode.htm>> and <<http://ue.eu.int/newsroom/main.cfm?LANG=2>>.

<sup>121</sup> Nandorf, T., 'Öppenhetsprincipen i EU naggas i kanten' [The principle of public access to official records in the EU is being eroded], *Dagens Nyheter*, 27 July 2000, p. 9.

licence. It is also recommended that the State Department be required to report not only the licences it has issued but also which licences have resulted in contracts.<sup>122</sup>

The Annual Report on Strategic Export Controls, issued by the British Foreign and Commonwealth Office, Ministry of Defence and Department of Trade and Industry, is more detailed than in previous years.<sup>123</sup> For 1999 it includes the aggregate value of single licences issued to each destination and a breakdown of licences that were refused and revoked, by categories which broadly correspond to the British export licensing criteria. It also presents more user-friendly data on licences by presenting all decisions for each destination in one place. In addition, by using the same figures, the previous inconsistencies between this report and the UK Defence Statistics report were minimized.<sup>124</sup>

## VII. Conclusions

Global arms transfers fell by 26 per cent from 1999 to 2000. Three of the major arms suppliers accounted for almost all of the decrease. The leading suppliers of major conventional weapons in the period 1996–2000 were the USA, Russia, France, the UK and Germany. They accounted for nearly 85 per cent of total arms transfers, with the USA alone accounting for 47 per cent. Among them, Russia was the only country which showed a substantial increase in 2000. The leading recipients of major conventional weapons in the five-year period were Taiwan, Saudi Arabia, Turkey, South Korea and China. China was the leading recipient in 2000.

The strong supplier position of the United States is complemented by its attempts to influence the arms export behaviour of other countries in support of US policies. In 2000 the main countries which the USA tried to influence were Australia, Israel and the UK.

Transparency in national arms trade has increased. It is possible to estimate the magnitude of the international arms trade on the basis of the reports submitted by most major supplier governments. However, other developments in 2000, resulting from increasing international cooperation, may complicate national transparency in transfers of arms and arms-related equipment, such as the Framework Agreement and 'top secret' classification for documents on EU security policy. In addition, without a political breakthrough to support its further development the UN Register of Conventional Arms may have outlived its usefulness.

<sup>122</sup> US Security Assistance Act of 2000 (note 90); and *Arms Sales Monitor*, no. 44 (Nov. 2000), p. 5.

<sup>123</sup> *Annual Report on Strategic Export Controls 1999* (British Foreign and Commonwealth Office, Ministry of Defence and Department of Trade and Industry: London, 21 July 2000), URL <<http://files.fco.gov.uk/npd/annualreport3/fullreport.pdf>>.

<sup>124</sup> Hagelin, Wezeman and Wezeman (note 12), p. 438; and *UK Defence Statistics 2000* (British Government Statistical Service: London, 2000), URL <<http://www.mod.uk/index.php3?page=1959>>.



Attempts to sustain or increase regional stability through arms supplies, illustrated by countries in Asia and the Middle East, seem unlikely to be successful in the long term. In addition, whether under international arms embargoes—including mandatory UN embargoes—or not, recipients in conflict regions receive supplies of major conventional weapons. Of the 15 leading recipients in the period 1996–2000, India, Israel, Pakistan and Turkey were involved in armed conflicts in 2000.