
2. Trends in post-cold war international arms transfers

Ian Anthony

I. The new international environment and the arms trade

During the cold war the existence of an international market for conventional arms was most often—and most convincingly—explained by reference to the structure of the international system itself. In a system composed of sovereign states each government reserves the exclusive right to make and implement policies that affect the military security of the state.¹ Each government reached the conclusion that armed forces should be raised under state control as a central element of security policy. However, the technological and industrial capabilities to develop and produce equipment for use by these armed forces are not distributed evenly across the international system. Many states lack the capacity to meet their perceived requirements from their own resources. These states have tended to seek the equipment they require from states with more highly developed technological and industrial capacities.

While this observation explains the demand for arms transfers in a general sense, it does not offer guidance as to the specific factors which shape the market. Why are some governments willing or able to buy arms from a particular supplier while others are not? Why are some countries willing or able to sell arms to a particular recipient while other potential suppliers are not?

In addressing these questions, four ‘baskets’ of issues and the interaction between them are important. The baskets consist of politico-military issues, economic issues, industrial issues and technological issues.

The first are politico-military issues. In analysing patterns of arms trade it is not sufficient to consider only those elements that shape markets for civilian goods—such as price, quality and availability. In recipient countries the armed forces and other state agencies are usually the only legitimate recipients of military end-items. From the supplier perspective the development and manufacture of and trade in military items are always under some form of state regulation—although the systems of regulation vary widely between countries. State intrusion into the arms transfer market therefore occurs throughout the entire cycle of development, production and trade.

From a supplier perspective, when the possibility of an arms transfer arises it will be asked whether or not it is desirable to increase the military capabilities

¹ The definition of military security in this context is the ability to deter the threat or use of military force and the control of military force.

of the recipient in question. Answering this question requires a consideration of political and strategic factors.

From the perspective of a recipient which wants to introduce a certain capability, the question will be raised whether obtaining it from a given supplier could have political or military disadvantages—for example, whether this bilateral linkage could lead to a deterioration of relations with third parties or whether supplies of necessary spare parts and support will be assured in all conditions.

Although the price of equipment is not sufficient to explain given arms transfers, it is not an irrelevant factor. Since military end-items are bought by state agencies, levels of military expenditure do set limits on the overall value of the arms trade. The limit may not be defined by the military expenditure of the recipient country, however, since suppliers may be prepared under some conditions to offer military assistance to offset some or all of the costs of the transfer.²

Industrial factors may also be relevant in determining the pattern of arms transfers. The supplier may take into account a range of industrial policy questions in evaluating whether or not to allow a given export. For example, the ability to recover the costs of research and development (R&D) of the equipment in question and to maintain capacity utilization (and employment) in the defence industry may be relevant factors. From a recipient perspective the extent to which a supplier is prepared to assist with technology transfers, place orders for goods produced in the recipient country or make various other kinds of investment may have a strong bearing on the decision whether or not to go ahead with a particular programme.

Manufacturing companies may also be the recipients of technology and component transfers that can, under certain conditions, be considered to be arms transfers. The idea of defining the arms trade to include industry-to-industry sales is a relatively new one and is related to the changing nature of the defence industrial base. In the past there were cases where suppliers of defence equipment transferred production technologies to enable the recipient to produce the end-item rather than buying an item manufactured in the supplier country 'off the shelf'. These transactions would have required licences at least from the supplier state and were, in that sense, comparable to the transfers of manufactured items.

Recent trends may make the defence industry less homogeneous as the range of equipment armed forces require to carry out their activities grows. The importance of goods and technologies which are not in themselves military in their application—for example, in areas such as data processing, telecommunications and sensors—has increased relative to that of more traditional types of military equipment. International sales and cooperation between companies

² This kind of military assistance to other countries is normally recorded as military expenditure by the aid donor but not by the aid recipient.

which do not consider themselves to be part of the defence industry may contribute to the military capabilities of recipient states.³

From this brief discussion it is evident that there is no clear and universal definition of what constitutes the conventional arms trade. A definition can be attempted using one or both of two elements.

First, the definition may be based on the end-user of the goods or technologies traded. The end-user could be defined as the ministry of defence or could include all of the armed forces of a state (therefore including units such as border guards, paramilitary police or coastguards even if they are outside the control of the ministry of defence). One disadvantage of this approach is that the armed forces buy many items that are non-military in the course of their activities (such as fuel, electricity or paint). Another disadvantage is that it may be desirable to take into account purchases by buyers outside state control (for example, private industry or non-state armed factions).

A second alternative would be to use a definition based on the technical characteristics of the items traded. As noted above, the boundary between military and civilian technologies is becoming increasingly difficult to draw. A third alternative—which is the preferred approach of most data collectors—is to combine both end-user and technical characteristics. However, the precise choices about which end-users and which types of goods and technologies to include differ as between different agencies and institutes (each of which has its own interests, objectives and information-gathering capacities).

This chapter uses SIPRI estimates of international transfers of major conventional weapons to try to assess how the volume and distribution of these transfers have changed in the 1990s. In the final section the chapter considers whether the four baskets of issues described above are still adequate to describe the trends in the international market, whether the relative importance of these issues has shifted and, if so, how.

The SIPRI estimates are based on a weighted index that can be used to measure changes in the volume and distribution of weapon flows. The index cannot be taken as a proxy for expenditure.⁴ It is created by multiplying the number of units delivered in any calendar year by the trend-indicator value assigned to that unit. The trend-indicator value is the average programme unit cost in 1990 prices for those systems for which these data are available. In other cases the assigned value is based on comparisons of technical parameters (such as speed, range, weight and first year of production) between the system concerned and similar systems whose cost is known.⁵

³ This is particularly true of small and medium-sized companies in high-technology sectors which may be unaware of or unable to verify the nature of the activities of foreign customers or partners.

⁴ There is no data set which can measure aggregate revenue from arms exports or expenditure by governments on imported weapons. The data produced by the US Arms Control and Disarmament Agency (ACDA) are themselves a weighted index—although compiled according to criteria that are different from those of SIPRI. The data published by the United Nations in its COMTRADE database are supplied by national customs authorities. However, some important arms exporters and importers do not supply data to the UN and the most of the data are not disaggregated into military and civilian categories.

⁵ A longer discussion is contained in 'Sources and Methods for SIPRI Research on Military Expenditure, Arms Transfers and Arms Production', SIPRI Fact Sheet, Jan. 1995, available from SIPRI.

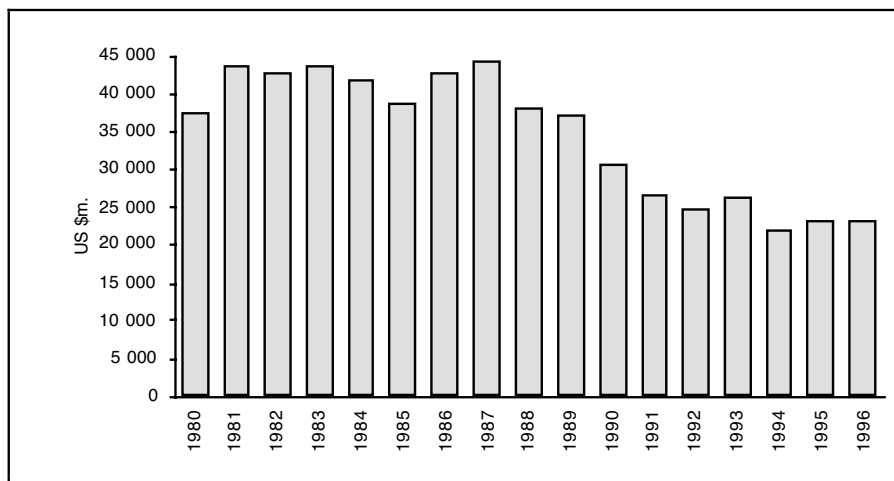


Figure 2.1. Deliveries of major conventional weapons, 1980–96

Source: SIPRI arms trade database.

If the aim is to evaluate the economic impact of the arms trade, this approach is inadequate. Since economic conditions are different in different countries, programme costs can also be expected to differ. In any specific transaction the purchase price will not only reflect production costs but also pricing methods (for example, whether or not R&D costs are recovered), the length of production runs, military aid, other forms of programme financing (for example, the use of credit or barter), excise taxes, and costs of transport and installation.

The following section uses the SIPRI estimates to describe changes since 1980 in international transfers of major conventional weapons.

II. The general market trends

Looking at the period 1980–96, the overall trend in the volume of deliveries of major conventional weapons has been downwards since 1987—a peak year for deliveries (see figure 2.1). The level of deliveries recorded for 1996 represented 52 per cent of the level of deliveries in 1987.

The reductions in the market have not been distributed evenly between suppliers. During the cold war the United States and the Soviet Union dominated on the supply side. Their combined share averaged over 65 per cent in the period 1980–96. Since the end of the cold war there has been a large increase in the US share and for the five-year period 1992–96 the USA alone accounted for over 50 per cent of all deliveries. This increased share reflects not a large increase in the total volume of US deliveries (which increased in the period 1991–93, reflecting deliveries to countries around the Persian Gulf following the war against Iraq, but has been broadly stable across the whole period since 1980) but a constant volume of deliveries in a shrinking overall market.

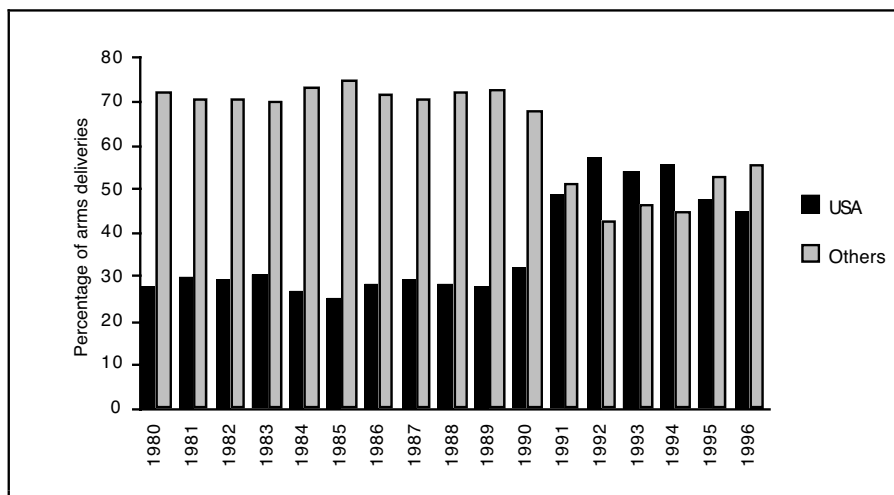


Figure 2.2. The US share of deliveries of major conventional weapons, 1980–96

Source: SIPRI arms trade database.

By contrast, the volume of Russian deliveries has fallen very significantly. In the period 1992–96 the average share of Russia in total deliveries was 13 per cent, compared with an average of 36 per cent recorded for the Soviet Union in the period 1980–91.

While the United States and the Soviet Union were the two most important suppliers for most of the period of the cold war, other suppliers taken together typically accounted for around 30 per cent of deliveries. However, within this group a small number of countries accounted for the overwhelming bulk of this 30 per cent. According to SIPRI estimates the 10 largest suppliers consistently account for 90 per cent of all deliveries.

Other than the United States and the USSR/Russia, the main arms suppliers since 1980 have been France, the United Kingdom, Germany and China. Others tend to occupy a market niche, with industries that specialize in making a narrower range of products and have a smaller customer base. At particular times countries such as Canada, the Netherlands and Sweden may increase their importance as suppliers on the basis of a single very large contract. Over time, however, they are relatively minor suppliers of major conventional weapons.

The United States seems certain to remain by far the most important supplier of major conventional weapons. A growing number of countries see it as the only external power able to offer a credible security guarantee.⁶ The ability to work effectively alongside US armed forces is important not only because of

⁶ This can often be true regardless of geography. For example, the Chief of the Directorate for European and North Atlantic Integration in the Romanian Ministry of Defence has observed that ‘we can say a lot of things about equality and so on, but we are convinced that the trans-Atlantic link is the most important thing for security in the area’. Cody, E., ‘Romania steps up efforts to secure spot in NATO’, *Washington Post*, 26 Aug. 1997, p. A11.

possible defence cooperation but also because the USA has played a leading role in recent multinational operations. The extent to which other powers will participate in such operations is currently subject to review.⁷ Between 1992 and 1996 the USA accounted for roughly 65 per cent of global military R&D expenditure.⁸ In addition, the accumulated effect of high levels of military expenditure over a long period has created in the USA a very large and powerful defence industry capable of contributing independent resources to R&D. The USA also has many products which have reached the stage at which R&D costs have been fully amortized and can be subtracted from the purchaser price.

For these reasons, US companies will be very formidable opponents in most acquisition programmes that are opened to international competitive tender in countries that are not subject to export restrictions under US law. It is even likely that in many cases the two strongest competitors in any tender involving large, complex weapon platforms will both be US companies.

Countries in Western Europe have some disadvantages in comparison with the United States: individual West European countries have fewer resources to devote to defence than the USA.

Two countries—France and the UK—use arms exports as part of the military element of a foreign and security policy which, even if it is no longer global, has extra-European dimensions. For both permanent membership of the UN Security Council creates a requirement for intelligence-gathering capabilities and military-to-military contacts with states outside Europe that other European countries do not share. For example, both countries deploy forces in the Persian Gulf and a large share of their arms exports is directed at this subregion. Other European countries (with limited exceptions such as Italy) do not have either the capability or the ambition to play a major strategic role outside Europe, and some countries—such as Germany and Sweden—have national arms export policies which are incompatible with those of France and the UK. For example, neither Germany nor Sweden permits sales of lethal items to countries located around the Persian Gulf. As a result, there is no integrated West European arms export policy and no realistic prospect of creating one in the immediate future.

In that part of the defence industry which manufactures less complex equipment it is unlikely that any country (including the United States) will be able to gain a very large share of the world market. Apart from suppliers in Western Europe, a significant number of countries continue to invest in maintaining their defence industries. Countries such as Bulgaria, China, the Czech Republic, Israel, North Korea, Poland, Romania, Singapore, Slovakia and Ukraine have the capacity to make armoured vehicles, artillery of various kinds and infantry weapons together with the spare parts and ordnance that this equipment

⁷ The French Government in 1997 decided to reduce the French military presence in Africa. In the United Kingdom, although the Labour Government elected in May 1997 has announced a full-scale defence review, the leadership has made clear that the British commitment to NATO and the maintenance of an independent nuclear force are not in question. Any reductions in commitment are therefore likely to fall on operations in other areas.

⁸ Arnett, E., 'Military research and development', *SIPRI Yearbook 1997: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1997), p. 219.

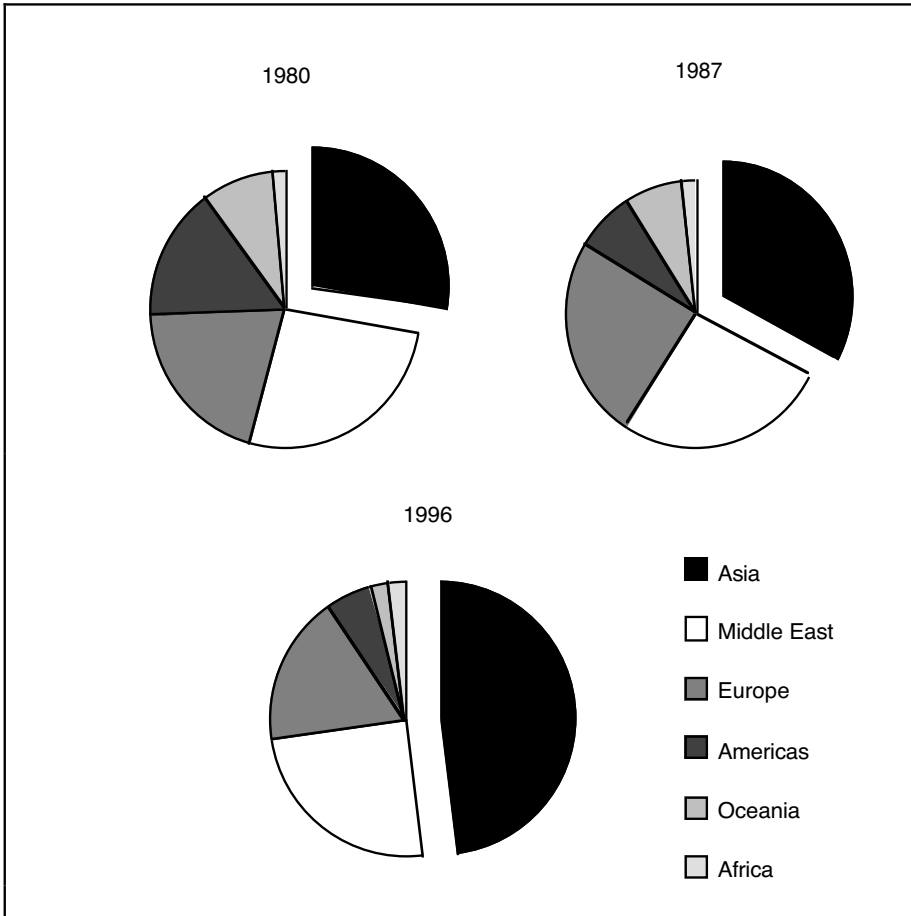


Figure 2.3. Regional shares of deliveries of major conventional weapons in 1980, 1987 and 1996

Source: SIPRI arms trade database.

requires. Several new suppliers of this type of equipment are beginning to enter the world market. South Africa, which has a significant defence industry, was excluded as a supplier by many countries for many years for diplomatic reasons. Other countries such as Egypt, South Korea and Turkey have developed capacities to produce equipment which they are offering for international sale.

Recipient perspectives

The international demand for major conventional weapons has also been fairly concentrated. The most important recipients have been located mainly in Asia,

Europe or the Middle East, but the relative importance of these regions as markets has changed.

A comparison of the shares of deliveries on a regional basis in 1980, 1987 and 1996 illustrates the changing importance of Asia, Europe and the Middle East over the period. Figure 2.3 illustrates the growing importance of Asian countries as recipients of major conventional weapons in the 1990s. Their share in total deliveries has grown, particularly since 1993. Moreover, within Asia demand has been concentrated particularly in the subregion of North-East Asia.

By 1996 four recipients—China, Japan, South Korea and Taiwan—accounted for 33 per cent of all deliveries of major conventional weapons.

China depended on its own defence industry to meet the needs of the People's Liberation Army (PLA) for many years after the Sino-Soviet split, the Soviet Union having decided to withdraw from all cooperation in 1960. After 1990 China and the Soviet Union renewed their military-technical cooperation, a relationship that has been strengthened by Russia.

For many years Taiwan depended for its security mainly on the guarantees contained in bilateral security arrangements with the United States. After the Carter Administration unilaterally abrogated these arrangements, Taiwan invested heavily in its own defence industry. At a time when it was considered an international pariah, Taiwan's international defence cooperation was confined to a small group of states—notably Israel and South Africa—which also found themselves fairly isolated diplomatically. More recently, as Taiwan has gained acceptance in the international community, more states have been prepared to sell Taiwan defence equipment. By 1996 Taiwan was receiving large amounts of equipment from France and the United States in particular.

Although Europe is one of the centres of global defence production, many European countries import a lot of the equipment that their armed forces require. In the past the United States has been a particularly important supplier: in the 1950s and 1960s many West European countries rebuilt their armed forces with US equipment. In the 1990s even countries which have historically invested significant resources in military R&D have not been able to maintain a production base for all types of major defence equipment. In these conditions not only small and medium-sized European countries but also France and the United Kingdom have turned to the United States for off-the-shelf purchases as solutions to some of their military requirements.⁹

The Middle East, a region of continuous high-intensity conflict, has been an important centre of demand for major conventional weapons. Between 1980 and 1988 the Iraq-Iran War created a high demand for arms and equipment from Iraq in particular. After 1990, the decision by the UN Security Council to impose a mandatory embargo on Iraq following its invasion of Kuwait removed Iraq as a market for arms and equipment. Libya is also subject to a mandatory UN arms embargo. Nevertheless, there are some Middle Eastern states that are

⁹ For example, the United Kingdom and France bought US E-3 airborne warning and control systems (AWACS); the UK and the Netherlands bought the US AH-64 Apache attack helicopter; and the UK bought the US BGM-109 Tomahawk cruise missile.

modernizing their armed forces. Saudi Arabia has been a large recipient of major equipment since the 1970s. Egypt and Kuwait have increased the volume of their major conventional weapon acquisitions in the 1990s.

Outside these three regions the demand for major conventional weapons has never been very high in Latin America and Oceania. In sub-Saharan Africa there have been periods when one country—for example, Angola in 1975 and Ethiopia in 1977–78—received relatively large amounts of equipment. These acquisition programmes have usually been associated with the conduct of high-intensity military operations. The low level of military expenditure and benign threat environment of Latin America makes it unlikely that this region will emerge as a large market for major conventional weapons. However, the fact that the economic and financial crises of the 1980s led to the delay or cancellation of many equipment programmes makes it likely that there will be some limited modernization of old equipment.

Africa's low level of military expenditure and low strategic salience from the perspective of major powers make it unlikely that this region will emerge as a large market for major conventional weapons. At the same time the persistence of conflicts in and between some African countries mean that both state and non-state actors in this region will continue to acquire simple, cheap weapons.

III. Changing economic conditions

The impact of changing economic conditions on the arms trade is not easy to evaluate. While there has certainly been a reduction in worldwide demand for defence equipment, it does not automatically follow that this will be translated into a reduction in the economic value of international sales.

As noted above, there is no adequate measure of the economic value of the arms trade and it is therefore not possible to state the trend in value with full confidence. It could be that reductions in total demand mainly affect domestic producers rather than international sales. It could also be that international transfers have not declined but have changed their form—and so are no longer being measured effectively by existing statistical indexes.¹⁰

In 1996 a study by the Fiscal Affairs Department of the International Monetary Fund (IMF) concluded that military expenditure has declined significantly since 1985.¹¹ Among the 130 countries on the IMF World Economic Outlook database, it was estimated that military expenditure dropped from 3.6 per cent of the value of global gross domestic product (GDP) in 1990 to 2.4 per cent in 1995. Other data sets—for example, the military expenditure data published by SIPRI—suggested even greater declines. Although the pattern of global military

¹⁰ Keeping instruments used for measurement in line with changing market practices is a general problem with foreign trade statistics and is not confined to defence equipment. However, the tendency of governments to treat transfers of defence equipment in a unique way makes the problem more difficult to address for these goods and services.

¹¹ Gupta, S., Schiff, J. and Clements, B., *Worldwide Military Spending, 1990–95*, IMF Working Paper WP/96/64 (International Monetary Fund: Washington, DC, June 1996).

expenditure is heavily influenced by spending in a small group of countries, the IMF found that ‘the decline in military spending has been widespread both geographically and by level of development’.¹² While military expenditure fell in industrial countries, it was also the case that the developing countries as a group reduced their military expenditure by almost 50 per cent between 1990 and 1995. From a regional perspective, only one region—Asia—increased its military expenditure levels during this period (although spending by Latin American countries was stable).

For most countries very little information is available about how aggregate military expenditure is distributed between different functions. This reduction in military expenditure therefore does not necessarily mean that there was less money spent on equipment—which would be a more important finding from the perspective of the impact on the arms trade. One group of countries—the members of the North Atlantic Treaty Organization (NATO)—does publish highly disaggregated data on military expenditure. As noted above, many NATO countries are themselves significant arms importers, so that the development of expenditure on equipment within the alliance will have some bearing on the overall global pattern of arms transfers.

A recent survey of NATO military expenditure concluded that almost all the allies made substantial reductions in defence expenditure after the late 1980s. Moreover, in spite of the improvement in the general economic climate in many of the larger members of NATO, most nations have continued to project a further decline or at best levelling off in real defence expenditure.¹³

Looking specifically at expenditure on equipment, the overall trend within NATO has been downwards since 1985. In the period 1987–96, expenditure on equipment by the NATO members other than France (which does not provide NATO with this breakdown of data) fell from \$121 billion to \$81 billion. However, reductions have not been distributed evenly between the allies. Some countries—for example, Germany and the United Kingdom—have recorded steep reductions in expenditure on equipment while others—most notably Turkey—have recorded sharp increases.

As a result of this uneven distribution, the overall net reduction in demand for defence equipment may not translate directly into reductions in international arms transfers. Reductions in expenditure in countries with large defence industries (such as Germany and the UK) might primarily affect domestic manufacturers (and incidentally increase the pressures on companies to export). At the same time increases in expenditure by countries with less developed defence industries may have the effect of sucking in imports.

This dynamic may also contribute to the development of new types of transaction in the market for defence equipment in cases such as that of Turkey,

¹² Gupta, S., Schiff, J. and Clements, B., ‘Drop in world military spending yields large dividends’, *IMF Survey*, May 1996, p. 183.

¹³ Presentation of Frank Boland, Head of Force Planning Analysis, NATO at the North Atlantic Cooperation Council Seminar on Economic Aspects of Defence Expenditures and Legislative Oversight of National Defence Budgets, Brussels, 14–15 Dec. 1995.

where the government has an ambition to develop its own defence industry. Imports may increasingly take the form of industrial cooperation rather than transfers of finished end-items.

There is some evidence of a growing tendency for countries to seek cooperation of this kind, known as offsets or counter-trade. Offsets are forms of industrial or commercial compensation required as a condition of purchase of defence articles and/or services, such as co-production, licensed production, sub-contractor production, overseas investment or technology transfer. Counter-trade is a generic term which embraces a number of trading arrangements by which some or all of the payments from arms buyers are compensated by the vendor purchasing goods and services and includes specific forms such as barter, counter-purchase or buy-back.

The practice of using offsets between industrialized countries began in the 1960s: offsets are as old as industrial collaboration in armaments production.¹⁴ However, while 20 years ago only about 20 countries (mostly within NATO) had offset policies, in 1997 the figure is *c.* 130.¹⁵ There is also evidence that industrialists in the United States, who were historically reluctant to engage in this kind of trade practice, are now more willing to consider technology transfers and licensing agreements.¹⁶

The changing supplier base

An additional issue to consider is the changing nature of the supplier base for defence forces worldwide. The issue can be illustrated using the example of signals and communications. However, there are other examples where certain goods and services may in future be available from suppliers which are not specialized in defence sales.¹⁷

Military signals and communications have always been an important element of any armed force. However, after the year 2000 it is expected that several of the major powers will make a very large investment to expand their strategic and tactical communications systems. Moreover, these programmes are likely to be based on digital communications technologies: communications that in the past were discrete and separate can in theory be integrated, allowing large amounts of information to be sent almost instantly across very great distances. These new technical possibilities have come to play a very important role in the discussion of military doctrine and how to apply force in support of foreign and security policy objectives after the cold war.¹⁸

¹⁴ Hammond, G. T., 'The role of offsets in arms collaboration', ed. E. Kapstein, *Global Arms Production: Policy Dilemmas for the 1990s* (Lanham Books: New York, 1992).

¹⁵ Wood, D., *Australian Defence Offsets Program, Proceedings of Defence Offsets Seminar* (Australian Department of Defence: Canberra, 1992).

¹⁶ See, e.g., the discussion of offsets by the US Aerospace Industry Association located at URL <http://www.access.digex.net/~aia/fp_tools.html>.

¹⁷ The possibility that high-resolution satellite images could be available from commercial suppliers and in close to real-time is another such example.

¹⁸ This discussion is building on thinking carried out in the United States in the 1970s and 1980s where the implications of these technological developments were already being discussed. E.g., *Discriminate*

The cost implications of transforming military organizations to take advantage of the new technical possibilities and the costs of investment in hardware and software needed to implement new programmes are difficult to assess. Communications programmes are spread between the different branches and agencies of the US defence establishment and some classified programmes in the budget almost certainly relate to communications. Moreover, a criticism of recent US budget decisions has been that too little attention has been paid to funding equipment programmes of this kind while too much funding has been concentrated on more traditional programmes—acquisition of platforms and weapons.¹⁹

These cost considerations are themselves likely to influence (and in fact are already influencing) defence industrial policies in both governments and companies in the larger countries of the Euro-Atlantic area.²⁰ Two possible consequences can be summarized.

First, an increase in the resources allocated to functions such as command, control and communications (C³I), intelligence gathering and precision-strike weapons is implied by the organizational and doctrinal changes noted above. This is likely to squeeze even further the resources available to more traditional defence suppliers (which have already been shrinking), thus accelerating the current trends within the defence industry towards concentration and a search for new markets.²¹ Second, acquisition strategies may be revised. This may lead ministries of defence to buy equipment from outside their traditional group of suppliers. Large companies such as Netscape or Sun Microsystems as well as many small and medium-sized companies which do not think of themselves as part of the defence industry may in future become very important suppliers to defence ministries.²²

The paths of development taken by different countries' armed forces may increasingly diverge. While the United States seems to be about to step across a technological threshold, which will have a major impact on the operations and equipment of its armed forces, it is an open question how many countries will follow. Other NATO countries as well as US allies in Asia are likely to

Deterrence, Report of the Commission on Long-Term Integrated Strategy (US Department of Defense: Washington, DC, 1988).

¹⁹ In some cases Congress has even allocated funds to acquire platforms that the Secretary of Defense has not requested.

²⁰ See, e.g., the article by an executive from the Raytheon company: Stein, R., 'US military technical requirements: views from the US defense industry', *Comparative Strategy*, vol. 13 (1994), pp. 93–100. Structural changes in industry, such as the decision by Siemens to create an integrated command, control and communications division in the company where both civil and military projects reside, are also relevant. *Siemens Annual Report 1995*.

²¹ Sköns, E., 'Arms production', *SIPRI Yearbook 1997* (note 8), pp. 239–44.

²² The Technology Reinvestment Program (TRP) in the United States is perhaps an early example of this kind of change. Under the programme the US military would enter into partnerships with private industry in which the same products that were developed to meet military requirements would also be marketable by private industry. This idea was praised by the Chairman of the Joint Chiefs of Staff, Gen. John Shalikashvili, as 'a great deal for the military and a great deal for the country'. For a discussion, see Lessure, C. A. and Krepinevich, A., *Technology Reinvestment Program: Potential Military Bargain* (Defense Budget Project, Washington, DC, 17 Feb. 1995). It is not yet known whether the types of idea sponsored under the TRP delivered the desired results.

incorporate some of the changes even if they will not be able to go as far as the USA. Most other armies seem likely to retain essentially the same structure that they currently have.

IV. Patterns of Russian arms exports

After this brief review of what seem to be some of the more important current trends, this section considers the pattern of Russian arms transfers since 1980. The data used are again mostly taken from the SIPRI arms trade database.

After 1985, under the influence of President Mikhail Gorbachev and Foreign Minister Eduard Shevardnadze, the foreign relations of the USSR underwent significant revisions. German unification in 1990 and the dissolution of the WTO in 1991 disrupted what had been a Soviet-dominated integrated production system. Soviet collaboration with the USA to resolve ongoing conflicts in Central America, Southern Africa and South Asia and greater attention to the record of payment of recipients of Soviet arms transfers (some of whom had accumulated large debts for earlier deliveries) also had an impact on arms transfer relationships with important clients including Afghanistan, Angola, Cuba, Libya, Nicaragua, North Korea, Syria and Viet Nam.

In late 1991, before the implications of these ongoing changes had been digested, the Soviet Union itself went through a monumental convulsion which led to its dissolution in December of that year. Although Russia hosted the largest part of the Soviet defence industrial base, the breakup of the Soviet Union created a severe crisis for the defence industry, which now found relations between enterprises disrupted at a time of dramatic reduction in demand for its products.

Deep-seated changes have been set in motion in Russia which will have very important long-term implications for the defence industry. Factors that will be of particular importance include: the outcome of military reforms prompted by Russia's changed geopolitical circumstances; the shape of a new Russian foreign and security policy; the continued pursuit of macroeconomic objectives through, among other policies, a dramatic reduction in military expenditure; and the conviction that the defence industrial base contained elements that could reduce Russia's economic dependence on the sale of raw materials for foreign exchange.

The impact of these changes is examined in section V below.

Table 2.1 shows the changing percentage share of the 25 largest recipients of Soviet and Russian arms in the period 1980–96. It underlines the traditional importance of two groups of recipient—members of the WTO and Arab countries of the Middle East—in overall Soviet arms exports. Seven of the 10 largest recipients listed in the table belong to one or other of these groups. It also shows that since 1994 the 25 largest recipients have accounted for only around half of all deliveries from Russia. This reflects the emergence of clients for Russian arms—notably Algeria, Malaysia and the United Arab Emirates—which either are new or in the past received low volumes of Soviet equipment.

Table 2.1. Shares of the 25 largest recipients of major conventional weapons from the Soviet Union/Russia, 1980–96^a
 Figures are percentages.

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
India	9	9	11	14	7	10	16	21	24	23	17	29	35	11	13	21	24
Iraq	12	9	12	11	19	13	17	19	6	10	5	0	0	0	0	0	0
Syria	11	8	12	17	14	14	6	9	10	3	0	0	0	0	0	0	0
Czech Republic ^b	5	12	7	8	8	9	8	8	6	9	2	3	0	0	0	0	0
German DR	3	4	8	10	10	7	5	6	7	5	6	0	0	0	0	0	0
Poland	4	4	2	4	5	5	10	8	9	9	4	2	2	1	1	0	0
Libya	14	12	9	3	3	6	5	1	0	4	0	0	0	0	0	0	0
Afghanistan	3	3	2	1	1	1	3	3	6	14	20	26	0	0	0	0	0
Bulgaria	4	8	7	5	5	8	5	1	2	1	5	9	2	0	0	1	2
Angola	1	1	2	5	7	5	6	10	8	0	7	0	0	1	4	0	0
Korea, North	0	0	0	1	5	7	6	4	9	9	6	1	0	1	2	0	0
Algeria	7	4	6	3	2	0	0	1	1	4	3	9	0	0	18	7	0
China	0	0	0	0	0	0	0	0	0	0	1	3	37	32	0	11	40
Cuba	0	4	6	6	3	3	2	0	1	1	2	3	0	0	0	0	0
Viet Nam	5	7	0	5	3	1	2	3	0	0	0	0	0	0	0	7	2
Yugoslavia ^c	4	3	4	1	0	1	1	1	4	4	3	1	0	0	0	0	0
Hungary	2	2	2	1	2	0	0	0	0	0	0	0	0	30	0	0	5
Romania	2	2	2	2	1	1	1	0	0	0	6	0	3	0	6	0	0
Iran	0	0	0	0	0	0	0	0	0	0	5	11	6	12	6	0	4
Yemen, South	4	3	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0
Ethiopia	1	1	3	0	0	1	1	0	1	0	0	0	0	0	0	0	0
Jordan	0	0	2	2	0	0	3	0	0	0	0	0	0	0	0	0	0
Nicaragua	0	0	0	0	1	1	1	2	0	1	2	0	0	0	0	0	0
Peru	0	1	0	1	0	1	0	1	1	0	1	0	1	0	0	0	1
Yemen, North	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Others	4	3	1	1	3	3	1	1	1	1	4	4	13	12	50	52	22

^a Countries are ranked by aggregate value of deliveries. ^b Prior to 1992 data refer to the former Czechoslovakia. ^c After Apr. 1992 the Federal Republic of Yugoslavia (Serbia and Montenegro).

Table 2.2. The 10 largest recipients of major conventional weapons from the Soviet Union/Russia, 1982–96

Rank	1982–86	1987–91	1992–96
1	Iraq	India	China
2	Syria	Afghanistan	India
3	India	Iraq	Hungary
4	Czechoslovakia	Poland	Iran
5	German Democratic Rep.	Czechoslovakia	Malaysia
6	Bulgaria	Korea, North	United Arab Emirates
7	Poland	Angola	Slovakia
8	Angola	Syria	Kazakhstan
9	Libya	German Democratic Rep.	Algeria
10	Cuba	Yugoslavia	Viet Nam

Source: SIPRI arms trade database.

This impression is confirmed by table 2.2.

Only two countries—India and Slovakia (formerly as part of Czechoslovakia)—appear in all three time-periods. Eight of the countries listed in the most recent period (1992–96) do not appear in either of the previous columns. In one case—Kazakhstan—this is because the country itself is new. However, the other cases reflect the reorientation of arms transfer policy during the late Soviet period and subsequently by Russia. In the most recent five-year periods (1987–91 and 1992–96) only five of the countries listed are WTO member states or Arab states. Moreover, the two Arab states listed for 1992–96 (Algeria and the United Arab Emirates) are not countries that historically received large quantities of Soviet weapons.

Table 2.3 illustrates the balance between different equipment categories of Soviet/Russian exports of major conventional weapons. As can be seen, two categories—aircraft and armoured vehicles—have consistently been the mainstays of exports. In the 1990s it is noticeable that exports of ships (a category which includes diesel-powered submarines) have made up a significant segment of Russian exports.

India as a recipient of Soviet/Russian weapons

The bilateral arms relationship with India has been the single most stable element in Russia's military–technical cooperation. India had a close arms transfer relationship with the Soviet Union after the mid-1960s and its armed forces depend heavily on equipment of Soviet origin. It is the single largest customer for Russian arms measured by number of licences issued.²³ India had a strong interest in the maintenance of stability in the Soviet Union.

²³ See chapter 6 in this volume; and Sergounin, A. and Subbotin, S., *Russian Arms Transfers to India: Incentives, Patterns and Implications* (University of Nizhniy Novgorod Press: Nizhniy Novgorod, 1996).

Table 2.3. Shares of different weapon categories in Soviet and Russian exports of major conventional weapons, 1980–96
 Figures are percentages.

Category	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Aircraft	58	53	50	48	49	50	53	52	44	58	56	33	52	60	46	64	48
Armoured vehicles	17	19	23	23	23	22	22	18	21	17	16	22	24	22	41	16	40
Artillery	5	4	5	4	3	3	3	4	4	2	2	4	0	0	5	1	0
Guidance and radar	9	13	8	11	13	10	5	7	4	2	1	4	1	4	4	0	1
Missiles	6	8	9	8	8	13	11	15	17	16	19	29	9	8	4	7	4
Ships	6	3	5	6	4	2	7	4	10	5	6	8	14	6	0	12	7

Source: SIPRI arms trade database.

The Indian Government was one of very few which sent messages of support to the group of conservative individuals that mounted a coup against President Gorbachev in August 1991 with the intention of restoring the pre-reform system of government of the Soviet Union. With the dissolution of the Soviet Union it was first necessary to establish what the nature of relations between India and the new Russian Federation would be. In spite of the poor start, the relationship has become extremely important to Russia both for foreign policy reasons and because of the changed nature of the payment system for weapons.²⁴

On a pragmatic level, India needed reassurance that the repair and maintenance of equipment supplied to it under previous agreements would not be compromised by changes in Russia. As Air Vice-Marshal S. Krishnaswamy of India noted with some understatement, there was a ‘hiccup’ in supply relations during 1991–92.²⁵

The issue of arms and technology transfers was raised at the highest level during Russian President Boris Yeltsin’s visit to New Delhi in June 1994 when then Prime Minister Narasimha Rao apparently requested approval for the transfer to India of additional MiG-29 fighter aircraft.²⁶ In July 1994 Air Chief Marshal S. K. Kaul and his deputy, Air Marshal S. R. Deshpande, visited Russia for discussions while Defence Secretary K. A. Nambiar visited Russia twice in 1994.

India and Russia have agreed at the highest political level that future military–industrial cooperation is desirable and after 1994 reports emerged that new agreements had been signed for transfers of major systems.²⁷ In the event, not all reported agreements appear to have materialized as of 1997. In 1995 India purchased 10 MiG-29 fighter aircraft to replace aircraft of the Indian Air Force that had been damaged. The agreement covered eight single-seater and two twin-seater aircraft. India also purchased 12 Tunguska air defence systems in 1995.²⁸

A long-expected decision by India to produce the MiG-29 fighter aircraft at facilities initially built to manufacture Soviet MiG-27 aircraft under licence has never materialized. This programme was expected to provide aircraft to replace MiG-21 fighter aircraft in the air defence role in the Indian Air Force. A decision to replace Vijayanta tanks with the Russian T-80 main battle tank also

²⁴ This economic dimension of the Russo-Indian arms transfer relationship is discussed in chapter 4 in this volume.

²⁵ For example, of 122 fighter aircraft engines sent to CIS countries for repair between July 1990 and Jan. 1992, only 79 were returned to India by June 1992. *Aviation Week & Space Technology*, 25 July 1994, pp. 49–50.

²⁶ *Defense News*, 27 June–3 July 1994, p. 28.

²⁷ Systems other than the MiG-29 and T-80 which figure consistently in press reports are the Su-35 fighter aircraft; the Ka-50, Ka-52, Mi-35 and Mi-28 attack helicopters; and 152-mm calibre self-propelled howitzers. *Aviation Week & Space Technology*, 25 July 1994, pp. 58–59; *Jane’s Defence Weekly*, 30 July 1994, p. 4; *Defense News*, 3–9 Oct. 1994, pp. 1, 36; *Defense News*, 17–23 Oct. 1994, p. 58; Foreign Broadcast Information Service, *Daily Report—Central Eurasia* (hereafter FBIS-SOV) FBIS-SOV-94-205, 24 Oct. 1994, p. 15; FBIS-SOV-94-207, 26 Oct. 1994, p. 12; and *Jane’s Defence Weekly*, 5 Nov. 1994, p. 1.

²⁸ *Military Technology*, Apr. 1995, p. 64; FBIS-SOV-95-205-S, 24 Oct. 1995, p. 50; *The Hindu*, 27 Nov. 1995, p. 1; *The Hindu*, 21 Feb. 1996, p. 14; and *Moscow News*, 31 Mar.–6 Apr. 1996, p. 5.

has not been taken. In each of these cases the Indian Government is waiting for an indigenous programme (the Light Combat Aircraft [LCA] and Arjun tank) to meet the requirement of the air force and army, respectively.²⁹

Discussions continued throughout 1995 regarding a programme to modernize 125 of India's fleet of MiG-21 aircraft as an interim measure, pending the production of the LCA. MiG has developed a retrofit package, the MiG-21-93, that involves installing new navigation and target-acquisition systems. This includes a radar which permits the aircraft to fire long-range air-to-air missiles which would be included in the package to India. It was reported that this agreement was signed on 1 March 1996.³⁰

In 1997 India has purchased 40 Su-30M Flanker fighter aircraft.³¹ It is also reported that India has ordered two additional diesel-powered submarines of Type 636 (the improved Kilo Class).³²

It is clear that Russia is willing to meet India's conventional arms requirements, subject to agreement on terms. The fact that not all anticipated new agreements have materialized appears to reflect the existence of obstacles at the Indian end of the relationship. These stem from India's approach to public expenditure and defence budgeting, the process of setting priorities between the requirements of different branches of the Indian armed forces and the balance between imports and domestic production in India's overall arms procurement.³³

V. An assessment of Russia's future in the world arms market

From this survey of the dominant trends in the international market for conventional arms and the pattern of Russian exports, what conclusions can be drawn about the future prospects for Russia in this market?

²⁹ Thomas, R. G. C., 'Arms procurement in India: military self-reliance versus technological self-sufficiency', ed. E. Arnett, SIPRI, *Military Capacity and the Risk of War: China, India, Pakistan and Iran* (Oxford University Press: Oxford 1997), in particular pp. 119–23.

³⁰ *New Europe*, 24–30 Mar. 1996, p. 9; and *Times of India*, 8 Oct. 1996, p. 13. The MiG-21-93 can also include an extensive re-build of the airframe and installation of a new engine, the RD-93. It is not clear if India has bought this full re-fit. *International Defense Review*, May 1994, p. 16; and *Defense News*, 6–12 June 1994, p. 12. It has subsequently been reported that the MiG-21 upgrade programme has been suspended for budgetary reasons. *Defense News*, 9–15 June 1997, p. 34.

³¹ The specific aircraft ordered by India exists currently only as a flight test prototype. The 8 aircraft delivered almost immediately to India by the Irkutsk Aircraft Production Organization (IAPO) were of the 'K' version. Under the terms of the agreement, these aircraft will subsequently be updated to 'M' versions. *Air Force Monthly*, Sep. 1997, pp. 14–15.

³² This appears to have been a framework agreement between the two governments or a memorandum of understanding rather than a negotiated contract. *Defense News*, 6–12 Jan. 1997, p. 22; *Times of India*, 8 Jan. 1997, p. 9; and *International Herald Tribune*, 9 Jan. 1997, p. 4.

³³ Over the next few years production of several systems assembled in India under Soviet licences will end and it is unclear whether production assets built up in India (such as the MiG-27 production line in Bangalore, the T-72 production line in Avadi and the BMP-2 production line in Shankarpally, Andhra Pradesh) will remain idle, close down, switch to production of equipment of Indian design or begin production of follow-on Russian equipment types. Recent discussions of Indian arms procurement programmes include Arnett, E., 'Military technology: the case of India', *SIPRI Yearbook 1994* (Oxford University Press: Oxford, 1994), pp. 343–65; and Arnett (note 29), pp. 253–57.

First, it is clear that Russia still has a range of large weapon-delivery platforms and weapons for which there is international demand. Russia continues to export equipment of a type that was traditionally the mainstay of Soviet arms exports: aircraft (including military helicopters), armoured vehicles and warships (including submarines).

There have been several cases of Russian suppliers teaming up with foreign companies in joint ventures aimed at sales to third parties.³⁴ In these programmes the role of non-Russian partners seems to be to supply advanced avionics (particularly navigation and communications systems) for integration into Russian weapon platforms. Since such systems rely heavily on data processing, this may point to a weakness in the Russian computer industry (both hardware and software).

Second, Russia's recent success in opening up new markets for this equipment suggests that potential recipients are satisfied with guarantees from the Russian state about the medium-term capacity of Russia's defence industry to continue to supply the spare parts and maintenance assistance necessary to keep this equipment in service.

As Russia has an inventory of mature designs that have proved their effectiveness and a stable group of clients that form the basis for its military-technical cooperation, it can be predicted that it will continue to be a significant arms supplier, probably at a level at least equivalent to the larger West European countries, over the medium term.

Long-term success as an arms supplier seems less certain because of the difficulty of predicting the outcome of domestic processes under way in Russia. The background processes driving Russian policy are still incomplete. There is uncertainty about the path of military reform, foreign and security policy, economic policy and defence industrial policy.

Military reforms

During the cold war the basis for Soviet strategy was the confrontation in East-Central Europe. Large numbers of Soviet forces were deployed far forward in support of prevailing doctrine. By the end of 1995 Russia had withdrawn over 700 000 personnel and 45 000 pieces of equipment from the Baltic states and East-Central Europe. Nevertheless, a large number of Russian troops and infrastructure to support them remain stationed outside the territory of Russia. Each of the major branches of the Russian armed forces (Ground Force, Air Force, Air Defence Force, Navy and Strategic Rocket Force) has drawn up a development plan that sets objectives for fundamental reform and reorganization that should be achieved by the early years of the next century. The government, notably the Defence Council (which is part of the presidential apparatus) and the staff of the Defence Minister, have been active in developing alternative

³⁴ For example, MiG-MAPO teamed up with the British company GEC Marconi to meet the Malaysian fighter aircraft requirement and with French company Thomson-CSF to meet the Indian requirement for upgraded MiG-21 fighter aircraft.

options for military reform. On 19 June 1997 President Yeltsin signed a plan for military reform. Subsequently, in late July, he issued a series of decrees which he described as the 'first steps' in a process of reform in Russia's overall force structure as well as related 'power-wielding departments' of the government.³⁵

As a result, it is not possible to state with any certainty what the main priorities and requirements of the Russian armed forces will be in the medium and long term.

Russian foreign policy

In the period between 1989 and 1993 the development of cooperative relations between the Soviet Union/Russia and Western countries (in particular the USA) was the central focus of foreign policy in Moscow. During this period far-reaching demilitarization and conversion, in particular in Europe, were also elements of Russian declaratory policy. In 1994–95 a more balanced view of Russian national interest began to predominate. While relations with the United States and Western Europe remain very important, greater weight is now given to other regions and actors. Particular attention has been focused on rebuilding relations with the countries of the CIS and to a lesser degree of East–Central Europe, consolidating relations with India and opening new relationships with states that were hostile to the Soviet Union such as China, Iran and Turkey. It is also seen as important for Russia to establish normal relations with as many states as possible, particularly in regions such as South-East Asia and Latin America, which are seen to offer important economic opportunities. Moreover, a by-product of the evolving debate about European security has been the emergence of a consensus in Russia that future foreign and security policy for Europe will include a significant military component.

Economic policy

After 1992 the Russian armed forces decisively lost the 'battle of the budget' as the Ministry of Finance successfully argued that the overriding priority of budget policy was control over inflation. With the dramatic reductions in the volume of state orders, the relative importance of arms exports to the defence industry has increased. This is true in spite of direct and indirect government support to the defence industry.³⁶

There is growing competition for those funds which are received by the Ministry of Defence. Maintaining manpower levels and training, implementing the reforms sketched above and ongoing operations of different kinds in Azerbaijan, Moldova, Tajikistan and Chechnya all have more immediate claims on

³⁵ Informationsnoye Agentstvo Ekho Moskvyy, 25 July 1997 (in Russian) in FBIS-SOV-97-217, 5 Aug. 1997; and Voice of Russia World Service, 22 Aug. 1997 (in English) in FBIS-SOV-97-236, 24 Aug. 1997.

³⁶ E.g., defence-related enterprises appear to have received significant direct and indirect subsidies under different budget headings. For a discussion, see George, P. *et al.*, 'World military expenditure', *SIPRI Yearbook 1995: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1995), pp. 399–408.

Ministry of Defence expenditure than the procurement of equipment. As a result, the armed forces were unable to place any orders in 1996 for some categories of equipment.

It is difficult to establish a clear picture of the pattern and trajectory of military R&D in Russia. Data returned to the UN by Russia in 1995 suggested that within Russian military R&D there is a continuing high priority on strategic forces and that new weapons are being developed for all three legs of the nuclear 'triad'.³⁷ Expenditure by the Russian Ministry of Defence on conventional arms (including the development of new platforms and tactical weapons) appears to be very low. There are reports that the ability of Russian design bureaux to develop new systems depends very heavily on how much revenue they receive from exports. The distribution of export revenues between design bureaux and production associations is itself contentious, with designers complaining that they do not receive adequate compensation for their contribution to exports. The attempt to create new industrial entities that combine research and production functions in financial-industrial groups is in part an effort by the Russian Government to address this problem. However, recent efforts by producers (such as the production associations in Irkutsk and Komsomolsk-na-Amure associated with the Sukhoi Design Bureau) to resist integration into such a group underline that this policy of state-mandated industrial integration has not been fully implemented and does not enjoy consensus support.³⁸

Restructuring the defence industrial base

It is now widely accepted that the Russian defence industry will have to be fundamentally restructured in the face of the dramatic decline in the demand for its products. However, how this restructuring will take place has been a subject of fierce disputes between different agencies of government in Russia. The State Committee on Defence Industries (Goskomoboronprom) was a successor to the Soviet sectoral ministries that had responsibility for defence production. It argued that it should have not just an executive function, carrying out policies determined elsewhere, but also a say in the fate of enterprises that fell under its umbrella. The prospect of Goskomoboronprom achieving this enhanced role seemed to improve when it was transformed into the Ministry of Defence Industry (Minoboronprom) in 1996. This meant that the minister, Zinoviy Pak, would have the status of a member of the cabinet and so participate directly in some of the most important decisions related to drafting the budget. However, in March 1997 the Ministry of Defence Industry was dissolved and most of its functions transferred to the Ministry of the Economy. The minister now

³⁷ Arnett (note 8).

³⁸ This issue is discussed in chapter 8 in this volume and in Kogan, E., *Are FIGs good for you? Russian Financial Industrial Groups and their Impact on the Aerospace Industry*, FOA Scientific Report R-97-00465-170-SE (Försvarets forskningsanstalt [Swedish National Defence Research Establishment]: Stockholm, Mar. 1997).

speaking on behalf of the defence industry in government discussions is not believed to be as sympathetic to its plight as Pak.

The State Committee for the Management of Property (Gosudarstvennyy komitet po upravleniu imushchestva, GKI) has overall responsibility for privatization and has argued that the defence sector should not be exempt from its programme. Individuals, including Anatoliy Chubais, who played a prominent role in the activities of the GKI have since taken positions of great importance in the Office of the President and in the government.

The Ministry of Defence also has a strong interest in the fate of at least parts of the defence industry. First Deputy Defence Minister Andrey Kokoshin has argued that relations with the defence industry should be regulated by contracts. This would effectively give the Ministry of Defence control over defence industrial policy through its power to award contracts, which would almost certainly be used to sustain those elements of the defence industry expected to contribute to modern and effective armed forces after the year 2000. However, as noted above, exactly what the expression 'modern and effective armed forces' means to the Russian Government in the present context is not yet clear.³⁹

In the last years of the Soviet Union and immediately after the creation of the Russian Federation a great deal of attention was paid to theoretical aspects of the conversion of the defence industry. However, even though a Law on Conversion was passed in 1992 and several state conversion plans were elaborated, relatively little was done to implement these documents. In July 1997 Russian Deputy Minister of Economics Vladimir Salo noted that, between 1995 and 1998, 4.2 trillion roubles had been allocated to conversion programmes in the budget but only around 10 per cent of these funds had actually been paid. As of July none of the funds contained in the 1997 budget for conversion had been released.⁴⁰ In 1997 there has been a revival of discussions of conversion. In July 1997 the State Duma drafted revisions modifying the existing Law on Conversion.⁴¹ However, whether these new initiatives will lead to any more effective measures than previous efforts is unknown.

For all these reasons it is not possible to make a confident prediction of how Russia's role as an arms supplier will evolve. Chapters 3–11 offer a more detailed picture of the pattern of Soviet and Russian arms exports.

³⁹ For an overview of the background to this issue, see Kile, S., 'Military doctrine in transition', ed. I. Anthony, *The Future of the Defence Industries in Central and Eastern Europe*, SIPRI Research Report no. 7 (Oxford University Press: Oxford, 1994).

⁴⁰ *Rossiyskaya Gazeta*, 26 July 1997, p. 9 (in Russian) in FBIS-SOV-97-209, 28 July 1997. By the mid-1990s it was noticeable in discussions with Russian specialists (and in particular with industrialists) that the use of the word 'conversion' was treated with scepticism and sometimes even hostility.

⁴¹ ITAR-TASS, 2 Aug. 1997 (in English) in FBIS-SOV-97-214, 2 Aug. 1997.