

# The Armaments Sector

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There is one similarity between declining and developing countries and that is the level of militarisation, that is to say the size of military expenditure in relation to total resources. As a share of GNP, developing countries spend around 6 per cent on armaments, NATO European countries excluding Britain spend around 3½ per cent, while Britain spends around 5 per cent on armaments<sup>1</sup>. It seems that only the most advanced fast-growing capitalist nations can do without high military spending, such as mid-nineteenth century Britain, America before World War II and modern Japan. But there the resemblance ends. The functions of militarisation in declining and developing countries, in what one might call underdeveloped and overdeveloped countries, are altogether different.

There are two main characteristics of the armaments sector in developing countries. The first is that of dependence. Third World countries import most of their arms and even those that are attempting to develop an indigenous arms industry, such as Egypt, Iran, Brazil or India, are heavily dependent on foreign technology, foreign capital equipment, components and materials, and foreign specialists<sup>2</sup>. They also import military advice and military training—in effect, a total

military structure, generally based on a Western model.

The second characteristic of the armament sector in Third World countries is its role in the mobilisation of resources. Evidently, the armaments sector in Third World countries absorbs resources which could, *a priori*, be better used for non-military purposes. But also, the armaments sector plays a key role in drawing peripheral economies into the international system, in shifting the pattern of development to meet global requirements, in imposing a world division of labour. According to one school of thought, this is the consequence of the 'modernising' role of the army. On account of its Western ways, the armaments sector can promote growth by creating infrastructure—roads, bridges, etc., stimulating industrial demand, and inducing 'modern' skills and attitudes, etc. (See, for example, Pye 1962, Benoit 1973). But there is also a much more significant aspect of the armaments sector. This is the role of the military as an organised force and as an instrument of repression. It can be argued that Western-type armies are inclined to use that power in order to assert Western-style 'development', that is to say, to impose a social and political structure which can generate a sufficient surplus for Western-type industrialisation, in which the distribution of income is such

Table 1—Resources Devoted to Research and Development as a Share of GNP, 1967 and 1971

	1967				1971			
	Total	Military	Civil	Military Civil %	Total	Military	Civil	Military Civil %
United States	3.1	1.1	2.0	34.1	2.5	0.7	1.8	38.8
United Kingdom	2.4	0.6	1.8	24.3	2.3	0.5	1.8	27.8
France	2.3	0.5	1.8	23.5	1.8	0.3	1.5	19.4
West Germany	2.0	0.2	1.8	10.7	2.1	0.1	2.0	5.0
Netherlands	2.1	—	2.1	1.9	2.0	—	2.0	1.9
Switzerland	1.8	—	1.8	2.2	2.0	—	2.0	.....
Japan	1.8	—	1.8	1.1	1.6	—	1.6	0.6
Sweden	1.8	0.4	1.4	24.9	1.6	0.2	1.4	14.3
India	0.4	—	0.4	10.5	.....	.....	.....	.....

Sources: *Patterns of Resources Devoted to Research and Experimental Development in the OECD Area, 1963-1971*, OECD, Paris, 1975; *Resources Devoted to Military Research and Development*, Stockholm International Peace Research Institute, Stockholm, 1972.

— Negligible

..... Not available

<sup>1</sup> Based on 1975 figures (US ACDA, 1976). Even this statement needs qualification. There are wide differences between the poorest agricultural economies, like much of Africa and Central America, which spend little on armaments, and the more advanced industrialising countries like Brazil, Egypt, India or the oil-rich Middle Eastern States.

<sup>2</sup> Since World War II, ex-German scientists and technicians have played an important role in the establishment of arms industries in several Third World countries.

as to transfer resources from consumption to investment and from countryside to town. (See U. Albrecht *et al* 1976, Kaldor 1976). This is

<sup>3</sup> As in the case of certain industrial 'latecomers', e.g. Meiji Japan or Tsarist Russia, where the military were used for external protection associated with mercantilism as well as repression.

not to say that high military spending brings about development, in the sense of raising standards of living and laying the basis for future expansion. Precisely because the armaments sector is a dependent sector, organised force cannot be used to protect indigenous industrialisation<sup>3</sup>. Standards of living remain low and even in some cases decline. The armaments sector does bring about change, in the sense of increased dependence and 'Westernisation' or 'modernisation' of a small privileged sector, but this does not, of course, mean progress.

In Britain, in contrast, the armaments sector is indigenous and traditionalising. Britain is the second most science-intensive economy in the West, measured by the share of GNP devoted to R & D expenditure. But a rather large proportion of scientific and technical resources is engaged in military work and related projects like Concorde or nuclear energy. This is shown in Table 1 which includes the eight top R & D spenders in OECD countries together with India, the only developing country for which information about civil and military R & D is readily available. It is worth noting that the science intensity of the Indian economy was several orders of magnitude lower than that of developed countries, including Britain. The heavy concentration of scientific and technical talent in the British armament sector has resulted in the development of important new military technologies: for example, the new

Rapier surface to air missile which can pursue low flying aircraft through microwaves; the new plastic reinforced Chobham armour for tanks; the Harrier vertical Take-off and Landing fighter aircraft, and various fast missile firing patrol boats. Britain is the fourth largest arms exporter in the world after the United States, the Soviet Union and France, and in some categories of armaments, for example, warships, it is the world's leading exporter. Britain's dependence on imports is low compared with other developed countries like Germany or Switzerland, let alone with developing countries. Table 2 shows the contrast in the pattern of world arms trade between Britain and the developed countries, on the one hand, and developing countries, on the other. The table includes some of the more industrialised developing countries since these might be considered more appropriate for comparison with Britain.

The resource absorbing effect of this highly developed indigenous armaments sector seems to be more important than the resource mobilising effect. Table 1 shows that the civilian science intensity of Germany, the Netherlands and Switzerland had overtaken Britain and the United States by 1971. Since the war, civilian innovation in Britain has consistently lagged behind civilian innovation in other developed countries. New ideas, known as 'spin-off', do result from the heavy concentration of resources—the highly

Table 2—Arms Trade as a Share of Total Trade for Selected Countries and Regions, 1974, \$ million, current prices

	Arms Exports	Total Exports	Arms Total %	Arms Imports	Total Imports	Arms Total %
United States	4160	97,144	4.3	116	107,112	0.1
United Kingdom <sup>1</sup>	1070	38,639	2.8	73	54,142	0.1
France <sup>1</sup>	1390	45,852	3.0	23	52,992	—
West Germany	223	90,590	0.2	470	70,241	0.7
Netherlands	18	32,810	0.1	33	32,629	0.1
Switzerland	23	11,788	0.2	38	14,421	0.3
Japan	10	55,536	—	91	62,110	0.1
Sweden	37	15,937	0.2	16	16,455	0.1
Latin America	0	51,270	—	408	52,820	0.8
Africa	2	37,444	—	382	25,092	1.5
Middle East	80	97,566	0.1	3050	25,378	12.0
		[4,330 <sup>3</sup> ]				
Asia <sup>2</sup>	3	45,670	—	1756	52,960	3.3
Brazil	0	7,952	—	71	14,168	0.5
Egypt	4	1,516	0.3	118	23,48	5.0
Israel	22	1,734	1.3	636	41,79	15.2
Iran	36	24,001	0.1	870	56,72	15.3
India	3	3,906	0.1	129	49,71	2.6
South Africa	0	4,977	—	46	72,26	0.6

Notes: 1 Arms exports figures are taken from official sources.

2 Excludes China and Japan and Taiwan.

3 Excludes petroleum.

— negligible.

Sources: United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1966-75*, Washington DC, 1976, United Nations Department of Economic and Social Affairs, *Statistical Yearbook 1975*, New York, 1976; UK House of Commons *Official Report of Debates (Hansard)*, 10 March, 1977, written answers to questions; France, Assemblée Nationale, session 1975-76, Commission des Finances, Rapport no. 1916 annex no. 49, *Défense*.

successful McClaren Baby Buggy is one example. But, in general, the economic condition of civilian industry combined with the profitability of military innovation has inhibited their development<sup>4</sup>.

economy (Rothschild, 1973). It is widely considered that military priorities in the shipbuilding and engineering industries during the early 1950s lost Britain an important place in the world market. A plausible account of the relationship

**Table 3—Investment and Military Expenditure, Western Countries, 1974**

Country	Military expenditure <sup>a</sup> (US \$ × 10 <sup>6</sup> )	Military Expenditure as percentage of GNP <sup>a</sup>	Investment as percentage of GDP <sup>b</sup>	Average annual growth rate in GNP 1963-73, per cent <sup>c</sup>
United States	85900	6.15	18	3.9
United Kingdom	10100	5.24	20	2.7
France	10600	3.63	25	5.7
West Germany	13800	3.58	22	4.7
Netherlands	2320	3.45	22	5.4
Sweden	1780	3.10	22	3.4
Norway	671	3.13	32	4.7
Italy	4630	2.93	23	4.8
Belgium	1460	2.77	22	4.8
Denmark	728	2.37	22	4.5
Canada	2790	2.05	23	5.2
Switzerland	856	1.91	27	4.0
New Zealand	237	1.75	26	3.4
Finland	255	1.31	29	4.9
Austria	292	0.91	28	5.2
Luxembourg	18	0.87	26	3.4
Japan	3670	0.83	34	10.5

Sources:

- a* US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1965-1974* Washington DC, US Government Printing Office (1976)
- b* United Nations Department of Economic and Social Affairs Statistical Office, *Statistical Yearbook, 1975* New York, United Nations (1976)
- c* US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1963-1973* Washington DC, US Government Printing Office (1974)

More important than the absorption of scientific and technical resources, perhaps, have been the overall resource absorbing consequences. Table 3 shows a clear inverse correlation between military spending and domestic investment among Western developed countries. The correlation has also been shown to hold over time in Britain (Smith 1977). (There is no observable similar relationship for developing countries: if anything, as implied above, military spending and investment may be positively correlated.) The direction of causation has not been firmly established. Some argue that high military spending is a response to slow economic growth and low investment; others that it is the cause. Among the second group, some attribute the relationship to the stability of consumption and welfare, to a socially determined "social wage" (Smith 1977). And others hold that military spending induces short-term bottlenecks in important export and capital intensive sectors, for example, machinery and transportation, which have serious long-term consequences for the

between military spending, investment and growth might combine these explanations. My own view is that military spending can be viewed as a dynamic element in a process of decline, representing a Government response to decline—to unemployment or to threatened bankruptcy, which generates an internal momentum, which in turn absorbs resources which might otherwise have contributed to investment and economic growth (Kaldor, 1977). Military spending does keep less profitable industries alive; in Britain, it accounts for 20 per cent of mechanical engineering output, half of shipbuilding output and three quarters of aerospace output (UK Central Statistical Office, 1975). In developing countries, this might be considered beneficial because the industries in question have a future potential—the infant industries' argument. But in Britain, these are industries which have passed their prime and whose existence inhibits the development of new dynamic sectors—in other words the senile industries' argument. It can be argued, therefore, that military spending in Britain postpones economic crisis and collapse but it also prevents change.

The contrast between military and civilian spheres is reflected in international military relationships

<sup>4</sup> It is interesting to note that automobile manufacture was a 'spin-off' from the military sector. In 1906, Armstrong had a plan to mass produce 6,000 cars which was rejected by the Directors on the grounds that "the profit on 6,000 cars was inferior to that on a single river gunboat". (Trebilcock, 1969.)

among advanced industrial nations. Britain is, of course, a member of NATO, and 90 per cent of the British military budget represents NATO costs (compared with 60 per cent for the United States, excluding extra-European NATO costs). Membership in NATO could be said to represent membership in a developed countries' club and to signify a commitment to the liberal world economy; in that sense, as for other developed European nations, it involves a kind of dependence. But it is worth noting that by the criteria of military power accepted within NATO, Britain is the second strongest nation after the United States and has retained a relatively independent role, particularly for the navy. Indeed, it is stressed by both British and American leaders, though probably quite wrongly, that military power, and particularly the presence of troops in Germany, is an important bargaining counter in negotiations about economic and political matters.

This apparently privileged position is, however, threatened. The co-existence of a highly advanced military sector and a decaying civilian economy cannot be sustained for ever. Indeed the situation has already led to a series of economic and military crises, to the paring of the armaments sector. As the military sector becomes more advanced it becomes at once more expensive and difficult to finance. And as economic and political divisions emerge among the Western countries, there are increasing attempts to use the military alliance system to suppress them; to establish a structure of military dependence under NATO, i.e. American, or European, i.e. German, command. In effect, Britain is poised in two directions. Scientific and technical talent can be transferred abroad, to Germany or America, and this is already happening to some extent. America is developing the Harrier because Britain cannot afford it; America and Germany have adopted Chobham armour for their new tanks before Britain; the Multi-Role Combat Aircraft and other Anglo-German collaborative projects are regarded in arms industry circles as a way of developing the German arms industry to the disadvantage of Britain. There are substantial pressures, expressed in the NATO language as 'integration' and 'standardisation', to move further in this direction. Britain would thus lose its military independence, dissipate its own efforts, and become more like a developing country.

The alternative is demilitarisation—a positive policy aimed at reversing the process of decline. Unlike a developing country, Britain possesses in its armaments sector an enormous reserve of skill and talent which could be used for indigenous civilian innovation, for redevelopment.

Such redevelopment would not, of course, come about automatically through reductions in military spending. After all, military spending was a consequence as much as a cause of the failure of the civilian economy and the anarchy of industrial organisation. It would have to be part of a wider industrial strategy in which direct intervention in the economy channelled investment into dynamic, socially productive sectors. Awareness of the crisis of the defence sector has already led to initiatives by workers in arms companies such as Lucas Aerospace, Rolls Royce, Vickers and BAC. They have proposed alternative plans for investment in new areas, with a range of formidable ideas for new transport systems on road, rail or canal; energy systems based on renewable sources of energy such as wind, waves, tides or direct solar collection; medical systems like sight for the blind using radar; as well as ideas for the process of production in agriculture, mining and manufacturing (See Labour Party Defence Study Group, 1977). If these ideas could be harnessed to demilitarisation and new forms of industrialisation, the tendencies towards under-development could be powerfully reversed.

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