

The Impact of a Responsible Arms Control Policy on the UK Economy

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Executive Summary

1. The UK Government is committed to an 'ethical', responsible arms trade policy that in practice has failed to live up to expectations.
2. There is some evidence that this has come about because of concerns, on the grounds of national security, to maintain a defence industrial base of some form through the encouragement of exports and the likely impact on jobs, industry and economy of export controls.
3. The arms industry, in the UK and internationally, has undergone wholesale restructuring since the end of the cold War, leaving it much smaller, more concentrated and more internationalised. It is therefore difficult to talk meaningfully anymore about a purely national defence industrial base. The importance of the defence industry to the economy as a whole is likewise diminished.
4. In 2001, around 27.5% of the total value of Single Individual Export Licences (SIELs) granted by the government were for arms sales to 'Highly Sensitive' destinations, principally countries involved in conflict and those with a grave and consistent pattern of human rights abuses. These would be most likely to be targeted by a more responsible ethical policy. A further 30.4% were for sales to 'Intermediate Sensitivity' destinations, including countries with serious human rights problems or high levels of tension with neighbours.
5. There is a great deal of evidence that arms exports receive a substantial net subsidy from the UK Government, even taking into account countervailing factors such as possible lower procurement prices afforded by exports through longer production runs. Estimates vary, however, and one recent study shows a small net saving to the Exchequer from arms exports.
6. A recent study by Chalmers et. al. (2002) suggests that a 50% reduction in arms exports would lead to modest one-off adjustment costs to the UK economy, of around £2-2.5 billion, and would lead to an initial loss of 49,000 jobs, but the eventual creation of 67,000 new jobs as the economy adjusted.
7. This suggests that a more restrictive arms export control policy, such as banning arms sales to highly repressive regimes and countries in conflict, the 'High Sensitivity' destinations, would have an effect on the economy that was too small to be detectable.
8. There are therefore no economic arguments against a more responsible arms export policy. The government should give serious consideration to implementing a more restrictive regime.

1. Introduction

In 1997 under Robin Cook, the UK Government committed itself to an 'ethical', responsible arms trade policy. This was a commitment that went beyond any previous legislation and has had a clear impact on the pattern of arms exports. However, the new policy has not prevented the export of military equipment to many highly dubious destinations, including repressive regimes and countries involved in conflict. A number of high-profile cases have led NGOs and campaigners to question the significance of the new regime, and the depth of the Government's commitment to an ethical arms export policy. There have also been suggestions that the policy has been eased since September 11, allowing more sales to sensitive destinations such as India, Pakistan and Israel. (Mepham & Eavis, 2002).

There is some evidence that this has come about because of concerns for security and the belief that future UK security will need the maintenance of some form of defence industrial base, together with a recognition that this will need to be supported by exporting arms. The discourse has, however, mainly been an economic one, focusing on the likely impact on jobs, industry and the economy of cuts in military spending and/or the imposition of controls on exports. This has been made explicit in the new Defence Industrial Policy (DTI, 2002), which sees the defence industry as important to the UK economy and makes a strong case for the support of the industry through helping it export. The implications of this perspective are that imposing controls on exports, through a responsible arms control policy, would be economically damaging. This is not, however, a consensus view and a number of dissenters argue that it is unlikely that the economy would suffer as a result of the imposition of a responsible arms policy. Indeed, in some cases it has been argued that the economy would benefit from a move away from arms production (Dunne, 1994).

This paper considers the likely economic effect of introducing a responsible arms control policy on the UK economy. It complements the recent report by Saferworld (Mepham and Eavis, 2002) by providing a more detailed analysis focusing on the economic issues. To do this, first of all section 2 considers the current policy adopted by the UK and its implementation. Section 3 then examines the context of the policy, by looking at the restructuring of the arms industry and procurement that has taken place, first internationally and then in the UK. Section 4 then assesses the impact of a tighter policy. First, an analysis is conducted of the destinations of UK arms exports. From this, the possible impact on arms exports of imposing a responsible arms export policy is assessed. The economics of arm exports is then considered, with a survey of a number of studies that seek to estimate the net subsidy provided by the government to arms exports. A results of a recent authoritative study that looks at the wider economic effects of a 50% reduction in arms exports is then combined with the previous analysis to provide a rough estimate of the economic effect of a more rigorous responsible arms control policy. Finally some conclusions are presented in Section 5 and some policy recommendations in Section 6.

2. Exports, Ethics, Industry and the UK Government

The arms exports policy introduced by the Labour Government in 1997 stated that arms exports should not be licensed if they might lead to violations of human rights or

international humanitarian law, might undermine sustainable development, or might be used for external aggression or compromise regional stability. This has since become the Consolidated EU and National Arms Export Licensing Criteria – often referred to as the ‘Consolidated Criteria’¹. There are 8 criteria in total and the government would not issue a licence if any of the first four apply, namely if there is an embargo or concern for the proliferation of weapons of mass destruction, if there are human rights issues, if there is ongoing armed conflict, or if regional stability is threatened by the exports. The government would also consider issues around the another four criteria, namely any negative impact on UK national security, terrorism, the likely diversion of weapons to areas where exports would not be licensed directly, and any negative impact on sustainable development). There is also a caveat. A category ‘Other Factors’ is designed to allow the UK to ‘take into account the effect of proposed exports on economic, social commercial and industrial interests’, but these factors are not to ‘affect the application of the criteria in the Code’. It also allows licensing decisions to ‘give full weight to the UK’s national interest, including...economic, financial and commercial interests,...collaborative defence production with allies,...(and) protection of the UK’s essential strategic industrial base.’²

While these Consolidated Criteria do seem to provide a valuable way of applying a moral dimension to arms export controls, in practice their application seems to be variable. While the commitment in principle remains, any potentially controversial licensing decision will always end up as a judgement call made by Ministers and there have been a number of what might be considered extremely questionable decisions³. There are also signs that the number of licenses to countries of greatest concern, such as India, Indonesia, Israel and Pakistan has increased since September 11th 2001. (Mephram & Eavis, 2002). There is also some evidence that ethical criteria are relaxed when serious defence industry interests were at stake. For example, in May 2002 Trade and Industry Secretary Patricia Hewitt was reported to have stopped arms exports to India and Pakistan due to increasing tension between the nuclear rivals. This would have threatened a planned £1bn sale of Hawk trainer/ground attack aircraft to India, and Downing Street was quick to deny that there was an embargo, even accusing the DTI of “posturing” in media briefings.⁴

It is very difficult to assess the overall impact on the level of arms exports of the new policy. UK arms exports have dropped since 1997⁵, but this is mostly related to the

¹ The Consolidated EU and National Arms Export Licensing Criteria (26 October 2000 – House of Commons Hansard Columns 199-203W), available at URL http://projects.sipri.se/expcon/natexpcon/UK/uk_criteria.html

² As above.

³ Recent examples (in 2002) include. The sale of a military air traffic control system to Tanzania, seen as unnecessarily expensive and ill-suited to civil aviation needs,, various exports to India and Pakistan when the situation in Kashmir was on the verge of all out war, head-up displays for US F16s for onward sale to Israel etc. Other cases are discussed in Oxfam (2002), and in ‘Fanning the flames’, Saferworld Update, Autumn 2002, and CAAT News, Campaign Against Arms Trade, Jan/Feb., 2003.

⁴ Brogan, B., “No. 10 accuses DTI of ‘unhelpful posturing’ over arms sales check”, *Daily Telegraph*, 28 May 2002.

⁵ According to the UK Defence Statistics (MOD, HMSO, various years), the sales value of UK arms exports was £6.7b in 1997, £4.6bn in 1998, £4.2bn in 1999, £4.4bn in 2000, £4.2bn in 2001- SIPRI figures (SIPRI, 2002), which measure the *volume* of exports, irrespective of the actual price paid in particular deals, shows UK exports of major weapons systems dropping by more than one half in 1998 compared to the previous year, then remaining at a fairly steady level up to 2001.

gradual tailing off of major arms deliveries to Saudi Arabia (the Al Yamamah deal), and the inability of many traditional British clients, such as Indonesia, to buy major new weapons due to economic problems. Any specific effect of the new policy is hard to separate from these other factors. While the proportion of refusals of arms export licenses by the Government has increased slightly, it is still less than 3%⁶. This does not, however, give a valid measure of the rigour of the policy. The low refusals figure may simply indicate that companies are not seeking export licenses they know will be refused. What is interesting is the reaction of the defence industry to the new policy. While there have been some complaints about the process of granting export licenses taking too long, there have been few, if any, complaints that the criteria themselves are too restrictive, or that they are damaging the industry. Job losses and other problems in the industry in recent years have been blamed on a number of factors, such as the restructuring of the industry, the decline in global demand and government procurement policy. References to the government's 'ethical' arms export policy as a factor, however, have been rare to non-existent. Overall, it would seem that there is little evidence that the new policy has had a significant impact on the level of UK arms exports.

There is, however, evidence that the dominant reason for this inconsistent application of the ethical policy has been increasing Government concern for the impact of arms export controls on UK defence industry and the implications of this for the economy as a whole, with a particular concern for loss of employment. As noted, the 'Other factors' category allows the Government to take into account the effect on economic, social commercial and industrial interests, and both the Prime Minister and the Foreign Secretary have strongly defended what appear questionable sales in this way. When the PM was challenged on sales to India/Pakistan and Israel, during a televised press conference, he responded by saying 'I do not want to shut the industry down' and for the case of Israel, 'if we don't sell it, somebody else will'⁷.

The recent publication of a Ministry of Defence paper on Defence Industrial Policy⁸ makes explicit what has always been implicit. That the Government sees a 'thriving, innovative and competitive defence industry as essential for the defence of the UK and that they seek to maximise the economic benefits from defence expenditure through maintaining a globally competitive defence industry. They also see the defence industry as important for high tech manufacturing. An important change in policy is that they now see the UK Defence Industrial Base (DIB) as including both local and foreign owned suppliers. What is important is that the outputs are produced in the UK and not who owns them. The paper also states that the Government will continue to strongly support defence exports and will set up a new defence exports and market access forum 'to address export promotion and improved access to for UK industry to foreign markets'. They will also aim to maximise the exploitation of civil technology for defence and target investment in areas of 'military importance in which the UK can be global leaders'.

⁶ UK Govt., Annual Report on Strategic Export Controls, various years, HMSO.

⁷ It is worth noting, that on 27 August, a DTI memo to Israel was leaked to the press. This indicates that licensing practices have been changed as a result of the intifada, continued Israeli incursions and the breach of Israel's assurance that UK originated equipment would not be used in the Occupied Territories. 'As a result, we have not approved licences for equipment that would have been licensed before.'

⁸ See: http://www.mod.uk/industrial_policy/

This would seem to represent a move away from the concerns of an ethical foreign policy and the justifications would seem to be economic ones. The Government has made clear its aim to assist the local defence industry by improving market access and support exports, arguing that this will lead to reductions in unit production costs and help other exports. Yet the economic effects of military expenditure and the arms industry is, as we shall see, an area of considerable debate and it is not clear that the governments assumption of economic benefits is a reasonable one to make.

To evaluate the likely impact of a responsible arms export control policy it is important to see the context of an international arms market that has changed markedly since the end of the Cold War. The large cuts in procurement and the changed nature of security threats has had a considerable impact and any evaluation can only be undertaken with an understanding of the present structure and nature of the market. The next section looks at how the international industry has changed.

3. Restructuring of Arms Industry

With the end of the Cold War biting economic constraints and the increasing need to use resources for other purposes there led to huge reductions in military spending. At the same time the arms trade reflected the decline in procurement expenditure. The Stockholm International Peace Research Institute (SIPRI) provide data on the volume of trade in major conventional weapons. Their figures show that, after a very high level during the last years of cold war (1984-88), arms transfers went through a transitional period of steep decline between 1989 and 1994 and now seem to have stabilised but at a much lower level than that achieved in the late 1980s. Overall military spending followed similar trends, but is now rising again, with especially large increases in the USA⁹, and pressure from NATO and the new US administration for Europe to follow suit. It is however, unlikely that we will see anything like a return to Cold War levels of military burden (SIPRI, 2002).

3.1 Globalisation

The Cold War defence industry was very clearly historically specific, and very different to what had gone before it. It was very much a modernist industry with its clusters of inventions and technocratic culture. It was also a consciously planned product of the nation states, who wished to have the capability to produce and develop a comprehensive range of weapons, to create a national Defence Industrial Base (Lovering, 1998). In this way it was the product of particular structure of national and international relations, markets and technologies underpinned by a superpower arms race. It should be no surprise that the end of the Cold War saw such profound changes.

The resulting restructuring has left world arms production highly concentrated. In 1996 the 10 largest arms producing countries account for almost 90% of production: sales about \$200 billion (not including China and Russia). This declining trend has stopped, though restructuring continues in the USA and the EU. In the USA

⁹ The 2003 US defense budget, approved in October 2002, is for \$355bn, a 12% increase on the previous year. E.g. "US Senate approves defence increase", BBC News Online, 17 October 2002, <http://news.bbc.co.uk/2/hi/americas/2336079.stm>.

concentration peaked in 1998 when 4 huge arms companies absorbed more than 20 others and further concentration has been blocked by anti trust concerns and some problems with the integration of the different companies. Western Europe seems to be heading towards cross border integration but cross Atlantic links remain important (Skoens and Weidacher, 1999).

This rationalisation in response to declining demand saw no real conversion to civil production and the internationalisation has not created the truly global companies expected. What is clear is that the old 'spin off' of technology, as the benefits of military technology for civil industry were called, is no longer important. Instead 'spin in', the increasing use of civil technology and products in military good has become prevalent. In the UK government research facilities seem to be moving to a support role for procurement rather than the basic research establishments.

The major defence companies have also changed. They have moved away from being manufacturing companies over a range of products to become systems integrators, putting the products of other contractors together (Markusen and Costigan, 1999). British Aerospace, reinvented as BAE Systems, is the obvious UK example which in achieving profitability and becoming the apple of financial capitals eye shed half of its workforce and a lot of its production facilities.

In this way subcontracting has become increasingly important for the defence contractors, as they outsource. This has also led to more non-traditional companies being involved in work for defence companies. It is also clear that the supply chains have extended internationally. This is nowhere clearer than in BAE Systems moves into South Africa (Batchelor and Dunne, 1999). There have also been numerous cross border equity swaps and purchases, the development of joint ventures, licensed production, technology transfer, which are clearly a strategy of internationalisation by the companies. These developments by the companies were well ahead of the national governments' willingness to allow control over their national DIB to wane. (Skoens and Weidacher, 1999).

This has led to networks developing across the world and makes the existence of a comprehensive production capability within any country other than the US an impossibility and even in the case of the US unlikely. In addition finance capital became of growing importance for survival of companies and had a hand in determining the form of restructuring of the industry. The companies have not globalised, however, in the sense of becoming transnational and losing their home base. They remain tied to their national bases, despite some BAE Systems claims¹⁰. They require the support of national governments as major customers and national orders are important in getting export orders. In addition, they get considerable support from the government in exports.

¹⁰ In 1997 a British Aerospace director at a UK aerospace trades union conference said "We want to be seen as British in Britain, German in Germany, Chinese in China and so on". This was an attempt to redefine BAe and there have been an extension of networks etc.. but BAe remains a UK based company and still sees the UK MoD as its main customer, as Evans and Price (1999) affirms. The change in name to BAE Systems was to remove the reference to British and make the company seem more international.

There were clear changes in the nature of the companies as they became more like civil companies and took on the corporate governance structures of civil companies. They still retained close links with procurement executive, however, so there were still some differences, but they recognised the importance of their customers perception of them in a way they had not before (Evans and Price, 1999). One interesting change was a recognition of the importance of their different stakeholding groups. It was no longer only the government that was important and the other stakeholder groups could assist the companies in lobbying for state support and orders.

There have also been changes in employment relations. Companies have shed large numbers of employees and as companies moved away from production they have retained an increasing proportion of engineers and scientists. There are also a range of subcontracting companies dependent on them, many of these not obviously producers of military goods, as increasing spin in of civil technologies.

With the cuts in procurement trade became increasing important to the companies and they pushed to achieve exports. At the same time the subcontracting and creation of networks has led to an increase in trade within companies and within their networks. This could lead to less visibility of the arms trade in future and make it difficult to control

3.2 Changing procurement relations:

In the post Cold War world countries have moved away from a planned national defence industrial base (DIB), in which companies perceived themselves as the workshop of the Defence Ministry and were awarded cost plus contracts. There has been a degree of privatisation and with this a change in the regulation of the industry within countries both at a formal and an informal level. In the UK the mid 1980s saw more commercial environment introduced with competitive tendering, contracts awarded with reference to market prices etc.

These changing procurement relations and the decline in orders led to a marked restructuring of domestic companies. In many arms producing countries it also led to the creation of monopolies for particular components and systems. With competition came failure and the losers were taken over or closed down, leaving the government facing single suppliers. With the credible threat, however the Defence Industrial Base became much less successful in capturing the government. (Dunne, 1995). They soon saw the need to find ways of lobbying government and started to identify the most useful channels. This led to a very different relation to government than these companies had had in the past. Financial capital came to play an important role as the companies restructured and look for alternative support to government, while internationalisation of the companies allowed them to be involved in procurement contacts in other countries, though they still remained national based.

In attempts to support the local industry and reduce its costs the governments export policy was extremely important. It did, however, lead to now well known scandals as governments supported encouraged, subsidised, and took rather questionable

actions¹¹. Offsets became increasingly important for foreign sales and this increased the links with government who were providing support (Martin, 1999).

These changes can be argued to represent a reinvention or 'reconstruction' of the DIB in a more informal, international, and a less visible form. The major defence contractors are no longer the workshop of the MoD, but more commercially based firms, with large numbers of contractors, that have to use lobbying to influence government. They do this using their subcontractors and trade unions, local government and development corporations, particularly in areas where they are important to the local economies. Companies need local sales as they provide a solid base and help them to sell abroad. They are more international and so can use the threat of losing domestic jobs at home, as well as being able to influence domestic procurement through their links abroad, by pressuring host governments to put pressure on their home government. Companies are also involved in determining the threat and the response to it with the changes in procurement. Smart procurement, proposed by the UK government in the Strategic Defence Review provides them with such opportunities.

In addition, the increasing use of civil technology in weapons system, the development of dual use technologies, and the increase in intra company trade make trade less visible. Despite the companies remaining dependent upon their national governments, there could be problems of control. The regulation of the arms industry and trade at local and international level is becoming an important issue.

It is clear that the internationalisation of the industry requires an international approach to arms control.

¹¹ As the Scott report showed for the UK. See also James (1996) on the experience of Astra and Leigh (1993) on Matrix Churchill.

3.3 The Changing UK Arms Industry

To illustrate the restructuring that has taken place in the UK defence industry we consider the changes that have taken place in the UK defence contractors reported in the 1989 Advisory Council on Science and Technology (ACOST) report on defence R&D (1989), as making up the UK DIB. Clearly there have been significant changes in the defence industry and the speed of change is quite remarkable. It is important to recognise this as studies of the industry can become outdated very quickly.

Table 1

Company	Change
British Aerospace	Becomes BAE Systems
Chloride	Military business small
Dowty	Takeover by TI 1992
Ferranti	Went bust
GEC	Exited defence
GKN	
Hunting Inds	Exited defence 2001
Lucas Aerospace	Merger to form Lucas Varsity 1996
Pilkington El. Opt.	Defence business sold to Thomson
Plessey	Takeover GEC/Seimens
Racal	Takeover by Thales (was Thomson)
Rolls Royce	
Short Brothers	Takeover by Westland/GKN
Smiths Industries	Merged with TI to form Smiths Group 2000
Thorn EMI	Exited defence
Vickers	
Westland	Aquired GKN 1994

Moving closer to the present the UK Defence Industrial Base the sample in Table 2 provides data on sales and employment for defence companies that survived from 1990-2000, together with the sales for all companies in the economy and for all industrial companies. What is striking is that this is clearly an industry of declining importance to the economy. The share of sales of these companies fell from 7.6% of total sales to 4.5%, while employment fell from 10.9% to 4.7%. There is considerable variation across the sample, but it is worth remembering that not all of the sales of these companies are military and in some cases it is a minority of their total sales. Many companies have responded to reductions in demand by shifting more towards their civil areas, though some have focussed more on the defence sector and have developed their range of products through merger and takeover, such as BAE Systems.

< Insert Table 2 here >

So we see that the defence industry has been in decline, that there are a few major players dependent on the arms business, and that the number of jobs provided by these companies has declined dramatically.

3.4 Developments

To summarise, the changes in the defence industry since the end of the Cold War have led to the increasing globalisation of arms production, with both arms companies and particular weapons systems becoming multi-national enterprises. Nonetheless, the traditional 'domestic' market remains of considerable importance for major arms companies such as BAE systems. These companies face, however, an increasingly competitive market where they are no longer assured government contracts simply by virtue of their status as national 'champions'. They are, therefore, more dependent on arms exports to keep prices down.

As well as becoming more international, the nature of companies has changed, in similar ways to paths taken by large civil companies. They have become more 'hollowed out', maintaining core design competencies at their centre, but devolving a great deal of subsidiary functions, and even actual manufacturing, to subsidiaries and sub-contractors, frequently overseas. Another result of globalisation is the changed relationships with national governments of their countries of origin. While they still have influence over procurement decisions, they have much less formal input to government procurement decisions than in the past. Another important change concerns the nature of military technology, where increasingly the pace is set in the civil sector. Whereas in the past there was much talk of civil 'spin-offs' from military technology, much more important now are 'spin-ins' of commercially available civilian technology into military systems.

The notion of the national 'defence industrial base' has therefore changed dramatically, so that it now consists of a trans-national network of military and civilian companies rather than a highly concentrated and nationalised group of national champions. From the point of view of this report, the key fact is that the defence industry, due to reductions in size, increasing reliance on high technology, and globalisation of production is much smaller than at the time of the Cold War. It employs far fewer people and is of greatly reduced importance to the economy as a whole.

4. Impact of Controls

To evaluate the impact of any controls on arms exports it is important to deal with a number of issues. First, the importance of the defence industry as a whole to the economy needs to be considered. As we have seen, it has declined since the end of the Cold War, though it still represents a not insignificant volume of output and employment. Secondly, the role of exports within the defence industry. This in itself includes a number of specific factors, such as government subsidy to arms exports, on the one hand, and, on the other hand, the benefit to the exchequer from exports by reducing domestic procurement prices. Thirdly, the marginal effect of a reduction of exports of a given size, both on the industry and on the economy as a whole needs to

be assessed. An ethical export policy would be unlikely to involve the closing down of the industry, but would certainly reduce the volume of exports. Finally, what a more rigorous arms export policy might involve needs to be considered and how it would affect the volume of UK arms exports needs to be assessed.

The next subsection considers the impact of possible, more rigorous ethical policies on the volume of arms exports. Subsection 4.2 then looks at the different ways the government subsidises arms exports, with the next subsection discussing a recent study that estimates short and long-term consequences to the economy as a whole from a reduction in arms exports. Combining the economic analysis of the effects of a cut in arms exports, with estimates from subsection 4.1 of what proportion of exports might be affected by a more ethical policy, allows an estimate to be made of the economic effect of such a policy.

4.1 The effect of a tighter policy on the volume of arms exports

There are many ways in which the Government's strategic export control regime could be tightened to give greater weight to ethical considerations. However for many of these it is difficult to estimate the amount of lost business to the arms industry. The simplest type of criterion that could be applied is exclusion of a wider range of destinations of arms export on the grounds of human rights abuses and/or conflict potential. This would replace the government's current 'case-by-case' approach to export licensing to most destinations.

It is possible that a tighter 'case-by-case' approach could be adopted. For example, instead of refusing licenses where there is a 'clearly identifiable risk' that the equipment might be used for internal repression or external aggression, the criterion could be strengthened to exclude equipment that *could potentially* be used for internal repression or external aggression. However, the Government's Annual Report on Strategic Export Controls gives only very basic details of the type of equipment licensed, and none as to the value of individual licenses. Therefore, it is not possible to estimate the volume of business that would be lost through such a tightening.

Taking a practical approach to try to evaluate the possible impact of a responsible arms export control policy, we first consider the countries that are likely to be excluded and what the likely loss of exports will be. The obvious starting point is the Government's Annual Report on Strategic Export Controls. This gives details on the type of equipment licensed, but no information as to the value of the individual licenses. It does, however, list the total value of Single Individual Export Licenses (SIELs) approved, by country of destination. Taking the Annual Report for 2001 and considering whether the destinations are likely to be considered at risk of failing to meet likely ethical criteria allows a rough estimate of the likely impact of tightening controls. The destinations were divided into three categories, namely high sensitivity, intermediate sensitivity and low sensitivity, before adding up the value of SIELs approved to countries in each category. Where the total value of SIELs was recorded as 'less than £250,000' the country was excluded.

The criteria used to allocate the countries to these categories were as follows:

High Sensitivity: A country was included in this category if:

- a) It was an undemocratic regime with a grave and consistent pattern of human rights abuses (based on Amnesty International's 2002 report);
- b) It was involved in a high level of internal conflict and/or severe repression of minorities;
- c) It was involved in external conflict with another country and/or military occupation of disputed territory;
- d) It was a known transit point for arms trafficking.
- e) Some combination of the above factors individually falling short of grounds for exclusion but collectively justifying a Highly Sensitive classification.

Intermediate: A country was included in this category if it was not in the 'High Sensitivity' category but fulfilled one of the following conditions:

- a) It had an undemocratic regime (without a high degree of human rights abuses);
- b) It had a grave and consistent pattern of human rights abuses (but was nominally democratic);
- c) It had high levels of tension and conflict potential with neighbours.
- d) It had low level internal conflict or violent political conflict.

Low Sensitivity: A country was included in this category if it was not included in the other two categories. The United States was classified as Low Sensitivity despite being involved in conflict with Afghanistan, as the UK was actually participating in this conflict alongside the US¹².

The Tables in the Appendix list all countries to which more than £250,000 of SIELs were approved for each category, together with the value of SIELs approved and, in the case of the High and Intermediate categories, the reason(s) for inclusion in those categories. This leads to the following totals for each of the categories:

High Sensitivity,	£ 527m	(27.5% of total),
Intermediate Sensitivity	£ 581.5m	(30.4% of total),
Low Sensitivity	£ 806m	(42.1% of total).

These categorisations allow estimates to be made of the proportion of the UK arms export business that would be lost if the high/intermediate categories of destinations were excluded. There are of course problems with these figures. On the one hand, not all arms export licenses go through SIELs, many go through Open Individual Export Licenses or Open General Export Licenses. It is reasonable to suppose that the more sensitive a destination, the more likely exports are to require individual approval through SIELs rather than the more loose control of an OIEL or an OGEL. If this is so, then these figures overstate the proportion of sales going to Highly Sensitive destinations, and understate that going to Low Sensitivity destinations. On the other

¹² Therefore, the point of controversy was not arms sales to the US as such, but whether the UK should in fact be involved in the war. If Britain had opposed the war in Afghanistan, then the issue of arms sales to America would have been problematical, but it would be perverse for the UK to participate in a war itself, but then refuse arms sales to the US on the grounds of participating on the same side in the same war. Also, refusal of licenses for components to be incorporated in complete systems by a second country to be exported to a third, sensitive, country, might lead to knock-on effects whereby British companies would not be selected as suppliers in the future. It is not possible to estimate this effect with currently available information.

hand, excluding High Sensitivity destinations could prevent sales of components and subsystems to other arms producers, such as the USA, if they were to be incorporated into equipment sold to excluded destinations. This would tend to reduce the reported sales to Low Sensitivity destination. As these two effects are in opposite directions, the figures quoted above may not be too far from the truth. However Government to Government sales should also be taken into account, but they are not listed in the Annual Report. This would include the huge Al Yamamah deal with Saudi Arabia, a 'high sensitivity' destination, though that is nearly complete.

If we repeat the classification exercise, using the figures in the Annual Report for actual exports of equipment in 2001, as opposed to SIELs issued, the figures are quite different. Highly sensitive destinations have 19.1% of sales, Intermediate ones 9.8%, and Low ones 71%. That is we get a much lower proportion of exports to the more sensitive destinations. The figures used in this exercise are based on EU Tariff codes, which do not include all items on the military list. In particular, they don't seem to include things such as military communications, software etc., i.e. equipment that wouldn't be so readily classed as a weapon or part thereof. It is possible that the more sensitive destinations tended to get more of this less sensitive type of equipment, which would imply that these figures understate the proportion of exports going to more sensitive destinations.

Overall, while these figures understate the proportion of exports going to high sensitivity countries, the figures based on SIELs probably overstate the picture, as they would be less likely to get OIELs. The true picture probably lies somewhere between the two.

	SEILs	Actual exports
High Sensitivity,	27.5%	19.1%
Intermediate Sensitivity	30.4%	9.8%
Low Sensitivity	42.1%	71.1%

Therefore a moderate tightening of the policy, excluding exports to countries involved in war or severe and systematic repression, and to those known to be involved in arms trafficking, would lead to a cut in arms exports of somewhere between 19 and 27%, while a very rigorous policy that excluded also the 'intermediate' destinations would lead to a fall of between 29% and 58%. Of course it is possible to imagine other policies, such as an exclusion of the high sensitivity destinations and more rigorous controls on exports to intermediate destinations, especially relating to the types of equipment most likely to be misused.

There is, however, another issue. The Defence Manufacturers Association of Great Britain, in their Memorandum to the Defence Select Committee of 25 November 1999, argues that "The UK especially demonstrates great strength in the high technology sub-systems sphere, where it has a particularly strong record in most sectors. In consequence, a considerable proportion of defence export contracts won each year have been for subsystems, components, spares etc. and there are very few major Western high technology programmes which do not have some level of British subcontractor participation." This means that exclusion of arms sales to certain destinations might have a significant secondary effect on the sale of components to arms manufacturers in other countries, where it was known that they were to be

incorporated into complete systems which would then be exported to an unacceptable destination. This issue came to the fore in 2002 when it was revealed that the government had approved the export of components to the US for F16s to be sold to Israel. Dunne and Perlo-Freeman (2003) discuss this in more detail.

It is difficult to estimate the magnitude of this secondary effect. It may be possible to get some idea by considering exports to the US, for which £349 million worth of SIELs were granted in 2001, around one third of the total to 'low sensitivity' destinations. Data from the Federation of American Scientists website¹³ shows a total value of US arms exports in 2000 (the most recent year shown) of around \$12 billion, of which around 30% was to countries in the 'high sensitivity' category, principally Israel and Saudi Arabia. Data from SIPRI (2002) show that the total arms sales, domestic and foreign, of US companies in SIPRI's list of the top 100 arms producing countries, were worth \$94 billion. Taking this as a lower bound for total US arms production, this means at most 12.8% of US arms production in 2000 was exported, of which 30% to high sensitivity destinations, so that around 3.6% of US production went to these destinations. If this is representative of the final destination of UK equipment exported to the US (most of which is components), then this suggests a rather small secondary effect. However, it is possible that a refusal to supply components, say for F16s destined for Israel, could lead to UK companies no longer being used as suppliers of components for F16s altogether.

Such an effect is speculative and could also be mitigated if more efforts were made towards international controls on arms exports and if the implications of an export policy were made clearer in advance, as opposed to the ad-hoc, case-by-case, approach taken at present. However, it seems reasonable in the light of this consideration to use the higher figure obtained from considering the value of SIELs in estimating the proportion of UK arms exports that would be affected by a more rigorous policy.

4.2 The economics of arms exports

Export prices are not simply a calculation based upon the balance of supply and demand, rather they are influenced by a whole host of strategic, political and economic factors. They are thus a complex amalgam of a whole range of subsidies by government and cross subsidisation by government and companies. In many cases the cost of R&D and even production facilities are covered by governments and the cost of export production to the companies involved is simply the marginal cost of production. In addition, their governments will often provide further assistance. As a result the fact that arms exports are profitable for the individual companies involved does not mean that they are profitable for the country as a whole.

The services and financial assistance provided by the government which are often ignored in discussions of the value of the arms trade to the UK economy are:

- **Export Credit Guarantees:** Through the Export Credit Guarantee Department the Government provides interest rate subsidies for buyers of UK exports. It also provides insurance cover to compensate exporters in the case of defaulting by the

¹³ www.fas.org

importer (up to a maximum of 90% of the total, but usually 75-89% for defence sales). It also provides unconditional guarantees to UK banks, covering. There has been a tremendous increase in the support this procedure has given to arms exports and there have been questions raised over the judgement of the financial risks made. As Ingram & Davis (2001) point out, the cost of this is not simply that payouts to companies receiving ECGs for defaults have been greater than premiums paid in the military sector, but that the capital used to guarantee exports is failing to receive a commercial premium, as would be expected of other uses of government capital.

- DESO: The Defence Export Services Organisation (DESO) was created from the Defence Sales organisation in 1985. It remains part of the MoD and acts as a focus for the various sources of government support for defence exporters, advises ministers on strategy, assists industry in regional marketing, overseas offices, market research, exhibitions and military support facilities. It is also involved in intergovernmental negotiations. Its marketing and much of its military support services are provided free to industry, but charges are made for Navy and Army equipment exhibitions, loans of equipment and demonstrations (NAO, 1989)
- Other promotional support: Aside from the activities of DESO, defence attachés to UK embassies frequently engage in the promotion of UK arms exports. In addition, the armed forces themselves are used for export promotion, for example at arms fairs.
- Distortion of procurement: Many analysts argue that certain procurement decisions by the UK government have been distorted by the desire to support the export efforts of the arms industry, so that more expensive systems have been bought because this would enable a system designed for export to be brought to production. A frequently-cited case of this 'tail-wagging-the-dog' phenomenon is the procurement in 1995 of the EH101 helicopter. A mixed US Chinook and Anglo-Italian EH101 package was chosen over a superior all US Chinook option, to maintain UK producer Westlands (Ingram and Davis, 2001).
- Use of aid budget: With the end of the cold war and the decline in military spending, has come a decline in aid budgets. The level of military and non-military assistance has fallen. This suggests a close link between aid and arms, spectacularly illustrated by the Pergau Dam scandal, where a relatively wealthy country, Malaysia, was given a huge proportion of the aid budget for an undeserving project, against the wishes of the ODA. The reason for this was the tying of the aid to a large defence contract. Large increases in aid have tended to coincide with large arms sales. This use of aid not only acts as a hidden subsidy to arms exports, it also has an opportunity cost. If it had been used for civil purposes it may have increased economic growth more. While, the practice of linking aid to arms sales was officially banned by the incoming Government in 1997, a deal struck with Thailand in 2002 appears to undermine this. This involved an offset arrangement as part of a £1bn arms sale, whereby BAE Systems would invest in the Thai agricultural sector, while the British Government would promote Thai food exports. Britain also agreed to help

overturn an EU ban on the import of Thai chickens¹⁴. Although this is not strictly speaking an arms-for-aid deal, the involvement of the Government in the offset deal clearly represents a hidden subsidy to arms exports.

- Support for research and development (R&D): The UK arms industry benefits from the funding of most military R&D by the government. This was estimated as being worth £570m by Ingram and Davis (2001). It is, however, difficult to assess how much of this would be spent in any case, purely for the development of weapons for domestic procurement, and what the marginal cost incurred as a result of exports is. The marginal cost is certainly not zero, as some systems are developed specifically for export and export models frequently differ from those for domestic procurement. However, because of the difficulty of estimating this, most studies have excluded this item from their estimates.

On the other hand, there are also benefits to the exchequer from export levies and licence fees on arms, though this is sometimes reduced or waived. Cooper (1995) reports an MoD estimate of 30m for levies from private correspondence. In addition, the MOD can benefit from the provision of spares, ammunition and training that follow on from the export of a major weapon system. There may also be some benefits through the export of dual use technology products. A more important benefit to the MOD claimed for arms exports is that, by lengthening production runs, they spread out fixed costs and thus generate economies of scale, enabling the armed force to obtain weapons at lower prices. However, the significance of this is disputed by defence economists. Ingram and Davis (2001), for example, argue that in practice, supposedly 'fixed' costs tend in the long run to expand with the volume of production and that, as export models of weapons are frequently different from those for domestic procurement, additional development costs are incurred. Thus, they argue that the economies of scale generated by exports are largely illusory.

Apart from the matter of subsidies, there are a number of aspects of the contemporary international arms market that tend to reduce the value of arms exports to the UK economy, and specifically to the job-creation potential of exports. These are:

- Offset agreements: With many large arms contracts there are offset arrangements where the purchaser gets a commitment from the supplier to buy other, often not defence goods, and can include a requirement to produce locally or transfer technology. In some cases this is barter or counter-trade. Officially offsets are discouraged, but the payment in oil arrangements of the Al Yamamah package and the agreement for technology transfer and offset purchases and even landing rights at Heathrow to the Malaysian government, shows that they exist. Apart from making a deal look better than it is, there are disadvantages. Small and medium sized suppliers, who have less scope for their own offset arrangements, may have their supplies of components replaced by foreign offsets, or may suffer through dumping of offset civilian goods in the home market. Clearly such arrangements will reduce the impact of the contract on the domestic economy and hence limit the number of jobs supported¹⁵.

¹⁴ Barnett, A., "UK forges £1bn secret arms deal with Thailand", *The Observer*, 10 Nov. 2002.

¹⁵ Batchelor and Dunne (2000) discuss some of these issues for the case of South Africa. See also Martin (1996).

- Technology transfer/licensing: While money can be made through licensed production, the licensees are usually interested in the technology to develop their own production capability. In the long run this can mean lost orders and new competitors. It also means that fewer jobs are created in the UK by the export order.
- Component sourcing: In order to compete in the international market, firms may use lower cost components from abroad (they may have to as part of offset arrangements). This will diminish the positive impact in the economy.
- Commissions and bribes: The history of the arms trade is a history of intrigue and corruption. Getting lucrative defence contracts has always involved double dealing and large commissions. In some case up to 30% of the contract can be such payments (Sampson, 1991). According to Transparency International's 1999 Bribe Payers Index, the defence industry is second most likely to involve bribes. Using their conservative estimate of the level of commissions paid of 10%, gives approximately £600 million in bribes (Transparency International, 2002). Such corrupt practices create serious economic distortions. Until recently, they have also been entirely legal and, indeed, tax-deductible as expenses, representing a measurable cost to the UK treasury. However, the payment of bribes to foreign officials was finally outlawed by the UK Anti-Terrorism, Crime and Security Act of 2001. Nonetheless, Transparency International argue that the nature of the arms business means that a great deal more effort is needed to properly tackle the problem. (Transparency International, 2002). Indeed, the UK Secretary of State for International Development, Clare Short, commenting on BAE Systems sale of an air traffic control system to Tanzania, at a conference in April 2002, said that she found it "very difficult to believe that a contract like that could have been made cleanly".¹⁶

Taken together all of these suggest that there is a clear cost to the arms trade that is often ignored and that this will drastically reduce any claimed benefits. While arms sales are highly profitable for the exporting companies, this may not reflect a benefit to the country as a whole. The government may gain some benefits from lower procurement prices and from the provision of training and spares etc., but, overall, estimates that have been made by many researchers suggest a relatively large net subsidy: An important exception is Chalmers et. al. (2002), which is discussed in more detail in the next section.

It is difficult to estimate the hidden costs and subsidies for obvious reasons and there have been a number of attempts at measurement, but it is worth attempting to get some ball-park figure based upon the available information and guesses. Table 3 below compares a number of estimates of different categories of direct and indirect subsidies to arms exports by the UK government, along with, in some cases, savings resulting from exports. The Martin study incorporates an estimated saving to the government of £163m per year through lower domestic procurement prices generated

¹⁶ Murphy, J., "BAE anger over Short's bribe claim", *Daily Telegraph*, 28 April 2002.

by arms exports. Otherwise, the differences in these figures mainly reflect the different treatment of R&D, but they all support the finding that exports are heavily subsidised.

This suggests that the UK being an arms exporter is subsidised by the state. This does not mean that reducing exports will be costless. The reduction in demand is still likely to impact on the companies, their shareholders and workforce, and the local economies in which they operate. The likely economic effects of this reduction in demand are the focus of the next section.

Table 3 Comparison of estimates of net subsidy for arms exports by UK Government.

Source:	Martin 1999	WDM 1995	CAAT 1996	ORG/Saferworld 2001	
Distortion of procurement	120	30	30	60	
DESO	17	21	21	16	
Service attaches	8	9	9	16	
ECGD cost	239	303	303	227	
Overseas aid	42				
Other Promotion	5	21	21	37	
Tax breaks for bribes				64	
<i>Subtotal</i>	<i>431</i>	<i>384</i>	<i>420</i>		
R&D	-40		650	<570	
Other	-163				
Total	228	384	1034	420	million
	(1995 prices)				
1995 UK arms exports	2.0bn				
1996 UK arms exports	3.5bn				

Sources: Figures for arms exports for 1995-96: UK Defence Statistics (1998) Estimates: Martin (1999) WDM (1995), CAAT (1996) ORG/Saferworld: Ingram & Davis (2001).

4.3 The Likely Economic Effects of Restrictions

From the figures in section 4.1, the removal of high sensitivity exports would mean reducing arms exports by around 27.5%. If we add the intermediate category this suggests a reduction of 58%. This does, however, represent a maximum, one that it is extremely unlikely would be achieved by any likely arms export control policy.

We have seen in subsection 4.2 that there is a great deal of evidence to suggest that such policies would lead to a net benefit to the Exchequer, as they would correspondingly reduce the amount of subsidies to arms exports. However, in considering the consequences for the economy as a whole, we also need to look at issues, such as the number of jobs involved, the effect on demand in the economy, and other costs of adjustment of the economy to a lower level of arms production and export. It is important to note that these costs are largely short-term and one-off. Jobs and output lost in a particular sector do not mean a permanent loss of economic

capacity. Nonetheless these short-term costs are real and need to be taken into account¹⁷.

In considering these broader economic effects resulting from reductions in arms exports, we are fortunate to have a recent report, Chalmers et al (2002), in which two Ministry of Defence economists and two academics consider the economic costs and benefits of UK defence exports and provide estimates of the economic impact of a 50% reduction of arms exports. They estimate that such a reduction would lead to a net financial loss to the Exchequer of between around £40m and £100m a year on a continuing basis. It would also involve a one off cost of adjustment of between £0.9m and £1.4bn. Including possible terms of trade effects increases this to between £2 and £2.5bn, the bulk of which falls in the first couple of years. The net loss to the Exchequer is in contrast to the results of other studies, such as the ORG study, which suggest a net benefit from the ending of subsidies. The difference arises from a number of factors. Compared to the ORG study, for example, Chalmers et al do not count the foregone return on capital from Export Credit Guarantee support, and estimate a higher value to the Ministry of Defence in lower procurement prices resulting from arms exports. The one-off adjustment costs are not considered by other studies.

To provide some context, Chalmers et al (2002) point out that the estimated cost of economic adjustment is much less than some other economic adjustments that have taken place in recent history, such as coal mining. Most of the costs would fall on the workers in the defence industry. There would be some severe local effects, but defence workers are generally highly skilled and are likely to find alternative employment. In the medium term, substantial reduction in defence exports would divert qualified scientists and engineers to other parts of the economy, it may reduce overall R&D activity –if there is no replacement with civil- but unlikely to have any significant effect on the economy. If anything, the effect is likely to be positive. They estimate that 49,000 jobs would be lost as a result of the reduction in exports, but that these would be offset by the creation of 67,000 new jobs in non-defence employment as the economy adjusts. There would actually be a medium-term increase in employment. It should also be pointed out that the short-term costs can be minimized, and long-term benefits maximized, by government efforts to re-train redundant defence workers and support demand and investment in affected regions.

Overall, these results suggest that the economic costs of reducing defence exports are relatively small and largely one off. This leads them to conclude that the balance of arguments about defence exports should be based on mainly non-economic considerations¹⁸.

There are suggestions that these estimates are on the high side. Other studies, discussed in Section 5.1, certainly estimated the cost of exports as higher—through subsidies and other such factors. But it does provide a carefully undertaken and authoritative statement with the stamp of approval of having MoD participants. It has

¹⁷ Previous studies such as Barker, Dunne and Smith (1991), have shown that cuts in military expenditure with reallocations to other forms of government expenditure would benefit the economy, but in this case we are not anticipating compensatory spending.

¹⁸ This study would, however, seem to have been ignored by the DTI in drafting their Defence Industrial Strategy document: http://www.mod.uk/industrial_policy/

also been published in a peer reviewed journal. What is important for this study, is that the highest estimate of the effect of a responsible arms control policy on arms exports is just above the 50 % cut assumed by Chalmers et al (2002), while the effect of excluding only the most sensitive destinations is just over half that, with a 27.5% cut being a fairly maximal estimate. Combining the adjustment cost and jobs estimates of Chalmers et. al (2002) with the annual cost/benefit to the Exchequer from this and from the ORG/Saferworld study, this suggests the orders of magnitude in Table 4 below:

Table 4 – summary of economic effects of possible arms export control policies

Scenario	Cut in exports	Annual cost to govt. (Chalmers)	Annual saving to govt. (ORG)	Adjustment cost	Initial job loss	Eventual new jobs
Chalmers et. al.	50%	£40-100m	£210m	£2-2.5b	49,000	67,000
Exclude High	27.5%	£22-55m	£115.5m	£1.1-1.4b	27,000	37,000
Only allow Low	58%	£46-116m	£244m	£2.3-2.9b	57,000	78,000

Notes: The three scenarios are those of Chalmers et. al. (2002) of a 50% cut in arms exports; the exclusion of exports to ‘high sensitivity’ destinations, and the exclusion of exports to high and intermediate sensitivity destinations. Annual cost (Chalmers) refers to the annual cost to the exchequer estimated by Chalmers of a 50% cut in arms exports, applied pro-rata. Annual benefit (ORG), is based on the total net subsidy for arms exports estimated by Ingrams & Davis (2001), and assumes this leads to pro-rata savings when arms exports are cut. The one-off economic adjustment cost, and the initial job losses and eventual job gains, are based on Chalmers et. al. (2002), again applied pro-rata.

It is unlikely that an arms export control policy more stringent than the lower of our estimates will be imposed and this suggests that it will have no significant impact on the economy; one-off adjustment costs of between £1.1-1.4 billion, an initial loss of 27,000 jobs offset by the eventual creation of 37,000 new jobs, and an effect on the exchequer ranging from a £55m annual loss using the upper range of the Chalmers. et. al. Estimate, to a £115m saving using the ORG estimate. Effects of this magnitude would not even be detectable in the broader economic picture.

5. Conclusions

This study has considered the likely impact of a responsible arms policy on the UK economy. It is clear that the Government has so far applied such a policy inconsistently at best and it would appear that the reasons for this are largely economic ones. There are, however, a number of problems with the argument that a more responsible policy would have negative economic consequences.

Firstly, the arms industry has undergone considerable restructuring and is both different and smaller than it was during the Cold War. There has been some increase in defence spending, but this is unlikely to match the past excesses of the Cold War period. There is also no evidence that a defence industrial base has a positive impact on the economy and it is clearly an industry of declining importance to the UK

economy. In addition, it is clear that defence exports are subsidised by the taxpayer and are not as unequivocally beneficial to the UK economy as the Government would lead us to believe. They cannot be justified on economic grounds except as a means of maintaining a defence industrial capacity in the UK, which itself cannot be justified on economic grounds. Even the report commissioned by the Ministry of Defence concludes that “the balance of argument about defence exports should depend mainly on non-economic considerations” (Chalmers et al, 2001, p33).

Furthermore, when we consider the effect of a reasonable tightening of controls, to prevent sales to some of the world’s most repressive regimes and to countries involved in conflict, our findings suggest that this would lead to a fall in arms exports of just over half that considered by Chalmers et al., and which they found to have a minimal cost to the UK economy. It is clear that any argument against imposing a responsible arms policy cannot be reliant on economic arguments.

It is worth noting that the defence industry in the UK still uses considerable expertise of skilled manpower and takes up a significant share of private and public R&D expenditure. This leads one to wonder why the cost of arms production per se is not being questioned and why the potential benefits of using these resources in the civil sector are not being considered. There is a clear opportunity cost to successive Governments’ fixation with bolstering the UK defence industry.

6. Policy Recommendations

Mepham and Eavis (2002) provide a detailed list of proposals that are consistent with the analysis of this report. We would emphasise:

- The increasing internationalisation of the arms industry and the growth in the importance of less visible inter-company transfers means there is a need for international control. There is a need for international agencies to establish international standards on the supply of arms, based on international humanitarian law and human rights, as contained in the draft Arms Trade Treaty, and to include components within the regulations.
- At a national level the government should:
- Apply the Consolidation Criteria in a consistent manner, not sacrificing these criteria to political expediency or narrow economic interests.
- Clarify the meaning of the additional criteria for the export of components announced in 2002 and publish details of their use in the Annual Report on Strategic Export Controls.
- Produce legislation controlling licensed production of arms and publish details of licensed arrangements approved in the Annual Report on Strategic Export Controls.
- Seriously consider a more rigorous policy than the case-by-case approach of the Consolidated Criteria, for example excluding arms exports to countries involved in armed conflict, and those with grave, consistent and systematic patterns of human rights abuses.
- End Export Credit Guarantee subsidies to arms exports

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Appendix: Estimation of Status of Countries Receiving SIELs for UK Arms Exports

High Sensitivity,	£527m	(27.5% of total),
Intermediate Sensitivity	£581.5m	(30.4% of total),
Low Sensitivity	£806m	(42.1% of total).

Comprising:

High Sensitivity

Country	Value of SIELs (£m)	Reason
Algeria	5	Internal conflict
Angola	8	Internal conflict, Intervention in DRC
China	32	Undemocratic, Human rights, Repression in Tibet and Xinjiang, conflict potential with Taiwan
Hong Kong	4	Diversion to China
India	62.5	Conflict with Pakistan, Internal conflict in Kashmir, Human Rights
Indonesia	15.5	Internal conflict in Aceh, West Papua, Human Rights, Violent Political Conflict with active security force participation
Israel	22.5	Conflict in Occupied Territories
Jordan	55.5	Undemocratic, Human rights
Kuwait	16	Undemocratic, Human Rights
Morocco	1.5	Occupation of Western Sahara
Nepal	6	Internal conflict, Human rights
Nigeria	10	Human rights, Violent Political Conflict with active security force participation
Philippines	2	Internal conflict
Pakistan	14	Undemocratic, Human rights, Conflict with India
Russia	17	Internal conflict in Chechnya
Saudi Arabia	20.5	Undemocratic, Human Rights
Singapore	38.5	Undemocratic, End Use concerns
Sri Lanka	15.5	Internal Conflict, Human Rights
Syria	0.5	Undemocratic, Human rights, Conflict potential with Israel
Tunisia	1.5	Undemocratic, Human rights
Turkey	179	Human rights, Repression of Kurdish minority, Occupation of Northern Cyprus, Conflict potential with Greece
Total	527	

Intermediate destinations

Country	Value of SIELs (£m)	Reason
Brazil	73	Human rights
Brunei	1.5	Undemocratic
Cyprus	10	Unresolved conflict
Equitorial Guinea	1	Human rights
Greece	5.5	Conflict potential with Turkey
Guyana	2	Human rights
Egypt	7.5	Human rights
Kenya	2.5	Human rights
Kyrgyzstan	2	Human rights
Malaysia	23	Human rights
Mexico	1.5	Low level internal conflict, Human rights
South Korea	161.5	Conflict potential with North Korea
Oman	121	Undemocratic
Qatar	1.5	Undemocratic
Taiwan	86	Conflict potential with China
UAE	81.5	Undemocratic
Yemen	0.5	Human rights
Total	581.5	

Low sensitivity

Country	Value of SIELs (£m)	Country (ctd.)	Value of SIELs (£m)
Argentina	1	Kazakhstan	3
Australia	25	Lithuania	1
Austria	5	Luxembourg	4
Bahrain	4.5	Macedonia	1
Bangladesh	1.5	Malta	1
Belgium	16	Netherlands	19.5
Bolivia	11.5	New Zealand	1
Bulgaria	0.5	Norway	11.5
Canada	43	Poland	5.5
Chile	1.5	Portugal	3.5
Croatia	1	Romania	10.5
Czech republic	5.5	Sierra Leone	1.5
Denmark	5.5	Slovenia	0.5
El Salvador	0.5	South Africa	29
Estonia	2	Spain	13.5
Finland	4.5	Sweden	24.5
France	33.5	Switzerland	8
Gabon	3.5	Tanzania	19.5
Germany	30	Thailand	27
Ghana	1	Ukraine	1
Hungary	1	USA	304.5
Ireland	4.5	Uruguay	1.5
Italy	55.5	Venezuela	2.5
Jamaica	1	Zambia	3.5
Japan	49.5	Total	806

Notes:

The Highly Sensitive group of countries included countries with undemocratic governments and a grave and consistent pattern of human rights abuses. This is because autocratic rule combined with serious human rights abuses suggests a systematic pattern of repression of opposition, where any military equipment supplied would potentially be upholding this regime. Any country engaged in systematic repression of certain groups, for example as part of an internal conflict, was classed as Highly sensitive regardless of whether they are nominally a democracy or not. (e.g. Colombia). Likewise, so was any regime with a systematic pattern of abuses against political opposition. Countries involved in war were also placed in this group.

In the intermediate section the democracy criterion became important. First of all there were some countries, like UAE, which are absolute autocracies, but where Amnesty reports very little by way of systematic abuses, probably because there isn't really much opposition at the moment. They were nonetheless included as Intermediate because an undemocratic regime is a priori likely to use repressive measures against any political opposition that may occur. The lack of democratic legitimacy of the regime means there is a reasonable presupposition that they may resort to repressive means to maintain their regime if necessary. Thus the supply of large quantities of equipment to the UAE suitable for internal repression, as recorded in the Annual Report, is questionable.

Secondly, there were countries like Brazil which are democratic but where there was in practice widespread torture and other human rights abuses by security forces. Such countries are included as intermediate because there is no systematic pattern of repression here against political opposition or otherwise. The abuses are not government policy, official or unofficial, though the degree to which they act to prevent them may leave a lot to be desired. In particular, the abuses are not linked to the nature or legitimacy of the regime, so that military equipment sold to them is not maintaining an apparatus of repression. Nonetheless, the abuses are serious and place moral question marks around arms sales in general to the country, and specific concerns about particular types of equipment that could be misused.

Table 2

Company	Sales			Employment			%Growth Sales			%Growth Employment		
	1990	1995	2000	1990	1995	2000	1990-1995	1995-2000	1990-2000	1990-1995	1995-2000	1990-2000
AIM Group	51084	33236	67190	848	694	1201	-34.9	102.2	31.5	-18.2	73.1	41.6
Alvis	128894	79981	233803	3136	1437	1720	-37.9	192.3	81.4	-54.2	19.7	-45.2
BAE	9085000	7153000	7043000	127500	56400	50500	-21.3	-1.5	-22.5	-55.8	-10.5	-60.4
Britax International	639057	714460	623900	6802	6805	7040	11.8	-12.7	-2.4	0.0	3.5	3.5
Chemring Group	28882	53130	65398	664	946	1029	84.0	23.1	126.4	42.5	8.8	55.0
Chloride Group	345300	101405	122763	11875	2365	1320	-70.6	21.1	-64.4	-80.1	-44.2	-88.9
Cobham	153800	211400	435200	3767	3472	6960	37.5	105.9	183.0	-7.8	100.5	84.8
GKN	2114700	2470200	3708000	36737	32520	39785	16.8	50.1	75.3	-11.5	22.3	8.3
Hampson Industries	57190	91461	143180	2388	2417	2430	59.9	56.5	150.4	1.2	0.5	1.8
Hunting	748584	1125700	1051600	7680	13588	10448	50.4	-6.6	40.5	76.9	-23.1	36.0
Marconi (GEC)	5878102	5791000	6590000	145029	86121	74253	-1.5	13.8	12.1	-40.6	-13.8	-48.8
Meggitt	251722	345481	346455	5770	5751	4460	37.2	0.3	37.6	-0.3	-22.4	-22.7
Pilkington	2572600	2737400	2469000	58100	41100	32300	6.4	-9.8	-4.0	-29.3	-21.4	-44.4
Rolls Royce	2962000	3163000	4744000	55475	43500	40900	6.8	50.0	60.2	-21.6	-6.0	-26.3
Smiths Group	704900	759300	1323900	13606	10983	14468	7.7	74.4	87.8	-19.3	31.7	6.3
Vosper Thornycroft	93016	239224	197715	1955	2274	3471	157.2	-17.4	112.6	16.3	52.6	77.5
Total Market	3.4E+08	4.65E+08	6.45E+08	4425805	4534402	6133938	36.7	38.6	89.4	2.5	35.3	38.6
Total Industrial	2.6E+08	3.71E+08	5.41E+08	3972771	3907465	4999723	42.4	46.1	108.0	-1.6	28.0	25.8
Defence Total	25814831	25069378	29165104	481332	310373	285325	-2.9	16.3	13.0	-35.5	-8.1	-40.7
Defence share Total	7.6	5.4	4.5	10.9	6.8	4.7	-28.9	-16.7	-40.8	-37.6	-30.9	-56.9
Defence share indust	9.9	6.8	5.4	12.1	7.9	5.7	-31.3	-20.6	-45.5	-34.7	-27.8	-52.9