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Defense industrial participation: The South African experience

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Introduction

South Africa faces one of the world's most controversial arms deals involving offsets. The degree of coverage, of both relative transparency and simultaneous lack thereof, and of public debate is unprecedented and has provided important and disturbing insights into the workings of the international arms trade. This makes it an important case study for research on the economics of offsets.

In September 1999 the South African cabinet approved a R29.9 billion arms acquisition program for its armed forces, the South African National Defense Force (SANDF).[1,2] To justify its decision to purchase arms from foreign suppliers and to win public support for the deal, government stressed the potential positive effects of sellers' proposed industrial participation offers (offsets) on investment, job creation, and growth in South African defense-related industry and the national economy at large. At the time of approving the program, it was stated that foreign suppliers had made offset offers worth an extraordinary R104 billion, more than three times the value of the arms deal itself. This would result in the creation of more than 65,000 jobs over a period of 7 years.[3] Since then the deal has been mired in controversy and has seen considerable debate and public scrutiny, to an extent unrivaled in any other country.

This chapter considers this experience. The next section provides historical background that briefly explains the unusual nature and development of South Africa's arms industry, its offset policy, and the arms procurement package that led to the present controversies. Then an attempt is made to evaluate the general impact of the arms deal, before considering its more specific costs and benefits. The important political fallout of the deal is then outlined. The final section draws some conclusions.

South Africa's defense-related industry and offsets

From the 1960s until the beginning of the transition to democracy in 1990, South Africa maintained a high and increasing military burden[4] in support of the *apartheid* state. The military burden peaked in 1977 at just under 5 percent of GDP. This reflected the purchase of large amounts of imported weapons prior to the imposition of a mandatory United Nations arms embargo in 1977 (Batchelor, Dunne, and Lamb, 2002) and led to the creation of a military-industrial complex centered around the state-owned arms producer Armscor, with private firms acting as subcontractors. Resources flooded into the arms and other strategic industries, creating growth, but leading to inefficient allocation of investment and to serious economy-wide problems in the 1980s (Batchelor, Dunne, and Saal, 2000). Between 1989 and 1997, South Africa's defense expenditure declined by

more than 50 percent, and the public sector was restructured and commercialized. Armscor's production side was split off to form Denel in 1992.[5] The defense firms pursued a number of supply-side adjustment strategies, with Denel and the three largest private sector defense groups (Reunert, Grintek, and Altech) experiencing financial problems. All of the private firms reduced their dependence on defense work to less than 20 percent of turnover with significant increases in non-defense work and export orders. This took place in a policy vacuum, with the government adopting a "hands-off" approach to defense industrial adjustment as military spending declined (Dunne, 2003; Goga, 2003). As from 1996, a national Defense Review (RSA, 1998) put defense industrial policy back on the agenda. Of four force design options, the one that emphasized reduced manpower and increased capital intensity[6] was approved by cabinet and parliament in April 1998.[7] Armscor subsequently issued requests for tenders to foreign suppliers to meet SANDF's new equipment requirements, with all potential foreign suppliers being notified of the government's new offset policy and requested to submit appropriate proposals with their tenders.

The approval of a large arms import procurement order was an explicit recognition that an all-purpose defense industry could no longer be supported but that specific companies may prosper in niche markets. It was the offsets, that is the defense industrial participation (DIP) policy, that was to facilitate this. Developed from a national industrial participation (NIP) policy, which came into being in 1996,[8] the DIP policy aimed to retain and create jobs, abilities, and capabilities, allow a sustainable defense industrial capacity with strategic logistic support capabilities, to promote value-added arms exports, promote like-for-like technology transfer and joint ventures, and maintain skilled indigenous manufacturing capabilities. It included requirements that there should be no increase in the arms purchase price as a result of industrial participation,[9] that offsets must represent new, not merely redirected, business, that it must be economically and operationally sustainable, that it must result directly from the arms purchase contract,[10] and that the fulfillment of any obligation was to lie solely with the seller. Allowable industrial participation projects and activities were investments, joint ventures, subcontracting, licensed production, R&D collaboration, export promotion, and supply partnerships.[11]

For NIP policy related to Department of Defense (DoD) purchases, the value threshold was set at US$ 10 million (or equivalent), with DIP obligations split 50:50 between national (i.e., non-defense) and defense priorities. All DIP activities were to be managed by Armscor and all non-military portions by the Department of Trade and Industry (DTI) in accordance with NIP policy provisions. The discharge period for all DIP obligations was 7 years. A penalty of 10 percent is to be levied by

Table 19.1: South Africa's arms acquisition program

Program	*Number of units*	*Supplier*	*Cost (R millions)*
Tranche 1			
Corvettes	4	Germany	6,917
Submarines	3	Germany	5,354
Light utility helicopters	30	Italy	1,949
Jet trainer/light fighter	12/9	Britain/Sweden	7,110
Total: Tranche 1			21,330
Tranche 2:			
Jet trainer/light fighter	12/19	Britain/Sweden	8,662
Total: Tranche 1 & 2			29,992

Note: * Total value of IP activities as a percentage of purchase cost
Source: Department of Defense, Defense Acquisition Package, 18 November 1998.

Armscor, with the approval of the DoD, on unfulfilled portions of DIP obligations for contracts worth US$10 million or more.[12]

In September 1999, cabinet approved a revised version of the arms acquisition package and made available public information about the cost of each of its components, together with some details about the foreign suppliers' NIP proposals (see table 19.1).[13] The total direct cost of the acquisition program was estimated at R29.9 billion (at 1999 prices and exchange rates), to be paid out over a period of at least 8 to 14 years, with equipment to be delivered between 2000 and 2008. Benefits were to be realized in three categories:

> direct defense-related offsets (about 20 percent of the total), including direct purchases from South Africa's defense industry, technology transfers, and export orders for local defense firms;
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> indirect offsets, or counterpurchases, by foreign defense suppliers of non-defense goods and services from South Africa (about 45 percent); and inward investment in South Africa's defense and non-defense industries by foreign defense suppliers and companies associated with the suppliers (about 35 percent).[14]

Each of the arms acquisition program items carried a 5 percent penalty clause for non-delivery on NIP and DIP projects and activities.

The official original cost of the arms deal was R30 billion, but as a result of changes in the exchange rate and increases in managing costs, this jumped to R53 billion. Unofficial estimates are much higher. The original total NIP estimate was R110 billion, but is now

estimated to be R140 billion, again largely the result of currency fluctuation and other problems.[15]

The impact of the arms deal

One of the most important benefits of the arms deal was to be its impact on local industry. Local companies did benefit through direct DIP activities by foreign suppliers buying subsystems and components, either under license or in collaboration with the foreign suppliers. The effect has been to provide orders to domestic companies and opportunities for companies to develop niches in the international arms market. For instance, Denel has been contracted to build the tail section for the RAFs Hawk fighter trainers.[16] It is also building landing gear fuselage sections for the Gripen jet fighter, and rudders and ailerons for other BAE Systems aeroplanes, although these are not overly high-tech manufacturing operations. There is an increasing participation of European defense groups and investors in the South African industry, at prime contractor and subcontractor levels. (This is part of ongoing restructuring and expansion of international defense groups such as EADS and Thales.) In-country divisions can influence govemment-to-government dealings to the benefit of the parent company and local subsidiary.

The value of purchases from South Africa's defense industry are dependent on their competitiveness (in terms of price, quantity, and delivery) and capabilities, and on whether foreign suppliers are confident that local inputs can be successfully integrated into their weapon systems. But market-driven downsizing and restructuring has led to a loss of capabilities, including skilled human resources, in many sectors and sub-sectors of the local industry. For instance, South Africa's maritime and naval shipbuilding industry, concentrated in Durban and Cape Town, has downsized dramatically in recent years with the attendant loss of valuable capabilities and skills. The country's only naval shipyard, Dorbyl Marine, closed in the early 1990s because of poor trading conditions. The industry thus lacks the capacity to design and manufacture major naval ships, including submarines, although a few companies have the capacity to design and manufacture small harbor patrol boats. The local maritime industry does, however, have limited capacity in naval electronics (including shipborne radar systems), systems integration (combat suites), ammunition (including naval bombs and mines), research and development, and ship repair and maintenance. Batchelor and Dunne (2000) had in fact suggested that this sector was not particularly well placed to benefit from the Navy's acquisition program without significant investments to upgrade and expand its existing capabilities. Some of these predictions have become reality: for example, in January 2003 the corvette delivery schedule was set back by a year due to the installation of faulty copper communication cabling by a South African company.[17]

In contrast, South Africa's aerospace industry, concentrated in a few companies in Gauteng province (which includes Johannesburg and Pretoria), had a relatively well-developed capacity to design and manufacture missiles, aerospace engines, and fixed and rotary wing military aircraft. The industry also has significant capabilities in electronics (including radar), avionics, systems integration, weapon systems, and ammunition. Batchelor and Dunne (2000) suggested that this sector was well placed to benefit from

the arms deal, and this would appear to have been the case. With the finalization of the arms package, a number of European defense companies, including the preferred suppliers, made investments in South African defense companies, particularly aerospace and information technology companies. Most of this investment has involved equity purchases rather than fixed investment in plant and capital. The equity investments were linked to arms purchases from countries such as Germany, Italy, Sweden, and Britain but are also part of larger initiatives by European governments to promote increased trade between South Africa and themselves. There is also a growing number of joint ventures between European and South African defense firms. These are significant in that they involve technology transfers and should allow South African defense firms to become part of the European's global supply chains. In addition, some evidence of a significant impact on South Africa's defense exports is noted. In particular, European governments have been "prompted" to purchase South African defense products, despite criticism from European defense industries.[18] Some of the preferred European suppliers also helped South African defense firms bid for, and win, other foreign defense contracts.

An important aspect of the arms deal was employment creation. South Africa has an unemployment rate of around 30 percent.[19] Initial estimates suggested that the R104 billion worth of industrial participation commitments would create approximately 65,000 jobs.[20] This sounds impressive but amounts to a cost of Rl.6 million per job and is extremely high, nearly 20 times the average cost per job in South Africa's defense industry. Batchelor and Dunne (2000) estimated that the R14.5 billion worth of potential DIP activities could create, or sustain, approximately 40,000 jobs (based on R350,000 per job) in the local defense-related industry.[21] While foreign suppliers' defense purchases from local defense-related industry, together with the prospect of increased defense exports, is likely to have a positive impact on job creation in South African defense firms, any such estimates are open to question. Even if these estimates are accepted, they represent considerably fewer jobs than could be created if the funds were used for purposes other than buying arms.[22]

Government also attempted to use the arms purchases to leverage substantial investment in the non-defense sectors of South Africa. Here, it attempted to "direct" this investment to particular sectors (minerals and energy) of the industrial economy and to specific parts of South Africa such as the provinces of KwaZulu Natal, the Western Cape, and the Eastern Cape.[23] It also sought to link this deal's NIP project with other national economic and industrial policy initiatives, such as DTI's Spatial Development Initiatives and Industrial Development Zones.[24] Batchelor and Dunne (2000) suggested that many of the promised investments were highly dubious, and they seem to have been proved right. Their main example of potential problems was the German submarine consortium's NIP proposal (valued at nearly R19 billion) that included the construction of a stainless steel plant by the German company Ferrostaal at Coega, near Port Elizabeth, and the establishment of a US$10 million venture capital fund to help small and medium manufacturing enterprises in the stainless steel industry. The steel plant was intended to form the anchor tenant for a planned deep water port at Coega, but this is not happening and the initiatives that have replaced it are mired in controversy (see Haines, 2004). For example, a condom factory in East London was to be constructed with substantial investment from Ferrostaal. Despite government statements that this initiative was one of the offset successes, it had still not materialized by August 2003.[25] In fact, the record of

employment creation associated with investment in strategic industries (e.g., state companies Armscor, Sasol, and Mossgas) and massive capital-intensive mega-projects (e.g., the Columbus and Alusaf steel projects) in South Africa is not particularly impressive. For many of the mega-projects foreign exchange earnings are not repatriated, vertical integration does not take place, and job creation effects in downstream industries are not fully realized (Fine, 1997). It is not clear why the projects related to the arms deal should be any more successful.

Finally, due to the severe lack of reliable data providing an accurate analysis of the state of affairs of NIP developments is virtually impossible at this time. Nonetheless, DTI is providing a positive spin on NIP delivery and related job creation. For example, in August 2003, DTI announced that most NIP projects were on track, had already created 5,000 jobs, and would result in the establishment of a total of 15,000 direct jobs and 50,000 indirect jobs by 2011.[26] Independent defense analysts and investigative journalists have suggested otherwise.[27] The non-defense industrial participation developments that have been reported in the media certainly seem idiosyncratic: they include a spinning and yarn-dying project at Cape Mohair in Port Elizabeth ($1.3 million investment from Agusta), the manufacture of gold jewelry at Oro Filk Gold in Cape Town ($5 million investment, also by Agusta), an investment in a timber mill near Sabie by BAE/Saab ($90 million), and an upgrade of swimming pool facilities in Port Elizabeth aimed at promoting tourism from Scandinavia (R10 million).

Overall, it is clear that the arms deal has had a positive effect on South Africa's economy, particularly in defense-related industry[28] —after all, the billions must buy something—but there is little evidence that the predicted level of benefits have been or will be reached. Due to lack of full transparency and data access, *net* benefits cannot be assessed. There is also the important issue of the opportunity cost of the resources used in the deal; this is considered in the next section.

Evaluating the costs and benefits of offsets

As mentioned, the arms deal reflected renewed attention to defense industrial policy. Instead of ignoring the industry, the concern was about whether to retain some degree of arms production capability and what the possible economic costs of losing the industry might be. But this need not have concerned the government. A body of scholarly literature suggests that military spending is unproductive and generally yields either no statistically significant or a negative effect on economic growth in developing countries, with the negative economic effects exacerbated by investment in domestic arms production (Brauer, 1991; Dunne, 1995; 1996). Indeed, Batchelor and Willett (1998) argue that the expansion of the domestic arms industry (during the 1970s and 1980s) distorted the trajectory of the country's industrial development (and) imposed a number of long-term economic costs on the economy. The absorption of scarce resources (capital, labor, and foreign exchange) and the crowding out of non-military public and private investment and of non-military R&D contributed to the underdevelopment, declining productivity, and poor international competitiveness of the civilian economy.

Despite marked downsizing and restructuring, South Africa's defense-related industry remains highly capital, skill, import, and research intensive, with very limited links to the

civilian economy. The country has retained an advanced arms production capacity, although not over a comprehensive range of systems and not independently of the major international players. Given the nature of the international industry and intense competition among the group of peripheral producers that South Africa finds itself in, it is not clear that its prospects are particularly rosy.

In constructing the arms deal, it is clear that the South African government made a serious attempt to develop industrial participation policies that reflect lessons learned by other countries. But there are fundamental problems with offsets in general, and with the South African case in particular, that are apparent from the available literature which does not instill confidence that the benefits promised to South Africa's economy will ever be realized. The impact of offsets is often found problematic in terms of job creation, the strengthening of backward and forward linkages, and technology enhancement (e.g., Struys, 2001). Nor do they constitute a "third way" for economic development of LDCs (Batchelor and Dunne, 2000). A study of Saudi Arabia's defense offset programs reveals that instead of a projected 75,000 local jobs, the various programs generated employment in the region of 2,000 (Matthews, 1996). Few countries appear to have been successful in using defense offsets to embed and extend technology transfers. Those domestic defense industries that are expected to benefit from offset deals are often characterized by technologies developed within the particular confines of the defense sector, that have limited links with civil industry (Batchelor and Dunne, 2000). What is required is a "high degree of local technological absorptive capacity" to be achieved through a state-sponsored "civil-military, Science and Technology strategy" (Matthews, 1996), but this is unlikely to be forthcoming. There is also the possibility of firms reneging on contracts and simply paying agreed penalties. In addition, there is the question of capacity within government (e.g., DTI and Armscor) to fully monitor implementation of NIP and DIP offers over time.

Doubtless, some portion of South Africa's defense industry is benefitting from direct offsets, and while it might struggle to retain the capabilities to produce a range of advanced weapon systems it could become part of the global industry as subcontractor to some of the foreign equipment suppliers. But while the aerospace and electronics industry would seem to be benefitting significantly, there is the question of whether they can survive once the orders off the current arms deal are filled. It is not clear that the companies will be internationally competitive to allow follow-on industrial development to be sustainable. The concerns about the capacity and capability of the local naval industry to fully benefit, particularly in relation to Navy orders, is even greater. Indeed, whether South Africa should be maintaining a defense industrial base at all is an important question, given the evidence that it can be a drain on the economy. Off-the-shelf purchases would have been cheaper and would have allowed government to allocate savings to encourage conversion from military to non-military industries. This would have permitted it to develop those areas of the economy with the highest potential for economic growth and job creation, thereby dealing more effectively with the current high levels of unemployment.

It would also seem that many of the foreign suppliers' NIP offers are questionable. For instance, it is not clear whether South Africa is getting state-of-the-art technology in areas of growth, or old technology in areas of overcapacity (e.g., stainless steel). The dangers are clear. After the economic damage caused by resource misallocation to strategic

industries and capital-intensive mega-projects under *apartheid*, it is important not to make the same mistakes again. It is not clear from our survey of the issues that the implications for industrial policy implicit in some of the offset offers have been fully thought through. It is certainly the case that the alternatives have not been given adequate consideration. A related issue is whether government should be using its industrial participation policies (and its human resources) to support the maintenance of indigenous defense production capability. Instead, it could support a strategic capability to assess and make informed choices among competing weapon systems (i.e., an intelligent customer capability). This would seem preferable given the costs of maintaining local defense production capability, the current state of certain sectors of the defense industry, and the fact that the international market has relatively stagnant demand and excess capacity.

All-in-all, it would seem clear that the use of the arms deal to benefit local industry had a high opportunity cost. Moreover, moving South Africa into the murky world of international arms trade also brought negative externalities, discussed in the next section.

Political fallout

In political terms, the arms deal brought significant negative externalities. The deal reverberated throughout government departments, parliament, cabinet, the ruling party, and the public. In late 1999, in the immediate aftermath of cabinet's approval of the arms procurement program, allegations appeared in the public domain that certain officials who had been responsible for deciding on who the successful suppliers would be had received bribes from certain bidders. One of the most vocal South African accusers was a Member of Parliament for a small opposition party.[29] These allegations, largely due to pressure from parliament's Public Accounts Committee, resulted in a series of investigations into the decision making process with respect to the arms deal, the most significant of which being the joint investigation undertaken by the offices of the Auditor General, the National Directorate of Public Prosecutions, and the Public Protector. According to the report of the investigation, "no evidence was found of any improper or unlawful conduct by Government" (RSA, 2001, p. 373). But the report suggested that certain govemment officials had acted in an improper and irregular fashion. Particular mention was made of conflict of interest of the Chief of Acquisitions in the Department of Defense at the time.[30] The essence of this conflict of interest was that his brother owned a company engaged in direct links with one of the successful bidders, the Thomson Group (now Thales) and would benefit from contracts awarded to Thomson. The Chief of Acquisitions was suspended from DoD in 2002 and resigned shortly thereafter.

Further evidence of improper practices came to light in 2002 when the ANC Parliamentary Chief Whip[31] was arrested on fraud and corruption charges. Allegedly, he received a bribe from one of the bidders, and it was charged that he actively concealed the bribe from parliament. In February 2003, he pleaded guilty to the fraud charges in the Pretoria Commercial Crimes Court but was acquitted on the corruption charges. He subsequently was sentenced to four years in prison. Evidence also entered the public domain that suggested that the Minister of Defense at the time decisions on arms procurement were made[32] had a conflict of interest. It appeared that he and four other

senior defense officials had controlling stakes in a company, Log-Tek (later Conlog Holdings), with direct links to successful bidders. The Directorate of Special Operations (known as the Scorpions), which falls under the National Directorate of Public Prosecutions (Department of Justice), initiated an investigation into the arms acquisitions deal and pursued other possible improper practices. As of late 2003, they are investigating allegations of corruption, tax evasion, and fraud against the brother of the Chief of Acquisitions at the time of the deal.[33] They also investigated allegations made against South Africa's Deputy President,[34] namely that he attempted to solicit bribes from Thomson (now Thales) with respect to the arms deal and to future contracts, This investigation received extensive coverage in national and international media. In August 2003, the Director of Public Prosecutions announced that no legal action would be taken against the Deputy President on the grounds that even though "there is a *prima facie* case of corruption against the deputy president, our prospects of success are not strong enough."[35]

Given the nature of the international arms trade, with its secrecy, non-transparent negotiations, and the importance of commissions and bribes (Sampson, 1991), it is no surprise that there would seem to be evidence of wrongdoing in the South African case.[36] The meeting of an inexperienced government with the shady dealings of the international arms industry was always likely to lead to such problems. The resulting impact on the workings of a new democracy have been particularly damaging and must be counted as an important if not quantifiable cost of the arms deal.

Conclusions

Post-*apartheid* South Africa faces a number of economic challenges which include attracting foreign direct investment and creating jobs. To help deal with this, government decided to spend nearly R30 billion on imported arms for its armed forces. At no point did government consider trying to limit the purchase costs of the acquisition program by simply buying the cheapest off-the-shelf weapons (or even second-hand weapons). Instead, it invested considerable effort into negotiating offset offers from foreign equipment suppliers to benefit local defense-related industry and the national economy. Leaving aside the issue of whether the expenditure on arms was necessary at all on security grounds, the choice of imports with offsets was risky. The purported economic benefits of offsets have been questioned and what little empirical evidence had been available already suggested that they tend to have a much smaller impact on the local economy than is usually promised. It is difficult to judge whether arms prices are reasonable since there are no standardized goods and fixed prices in the defense market. It is also unclear whether the work attached to offsets is genuine new work and whether it is sustainable once the term of the arms deal expires. Thus, there are considerable doubts about whether South Africa as a whole has or will benefit from the deal. At the same time the political costs are clear.

In sum, this chapter suggests that the South African government cannot claim that the country has benefitted from the decision to go the arms offset route. A more sensible strategy might have been to leverage investment into sectors with a capacity for mass employment creation, sectors that can make a positive contribution to South Africa's

infrastructure capacity, and toward meeting basic needs in public utility sectors such as housing, transport, tourism, energy, and communication. The South African experience provides valuable insights into the positive and negative aspects of defense offsets for small industrializing and developing economies but, on the whole, casts further doubts on the claimed benefits of purchasing arms with offsets and the advisability of them engaging in such deals.

Notes

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1. The rand went from around 5 to the £ in 1990 to 18 in 2002 before starting to decline. In late 2003, it is around 11 to the £ or around 6.5 to the US$.
2. The original program and list of preferred suppliers was approved by cabinet in November 1998. The revised program, approved by cabinet in September 1999 was divided into two tranches: the first, costing R21.3 billion, will include 3 submarines and 4 corvettes from Germany, 12 jet trainers from Britain, 9 light fighters from Britain and Sweden, and 30 light utility helicopters from Italy. The second tranche, costing an additional R8.6 billion will include 12 jet trainers from Britain and 19 light fighters from Britain and Sweden. The 4 maritime helicopters from Britain, and the balance of 10 light utility helicopters from Italy are excluded from the revised program.
3. "Economic and Fiscal Impacts of the Procurements." Press Release, Government Communication and Information Service, 15 September 1999.
4. Military burden is military expenditure as a percentage of GDP.
5. Armscor's procurement policies, including more transparent and competitive procurement from local and foreign suppliers, fundamentally altered the cosy relation evident between public and private sector industry during *apartheid*. In addition, since 1994, the ANC-led government's commitment resulted in a number of black-empowerment deals and equity partnerships between black-owned companies and the (largely white) private sector.
6. It proposed reversing the trend of increasing personnel and operating expenditure to allow for increased capital expenditure by cutting personnel levels in the SANDF from 100,000 to around 70,000 by 2000/01. The proposed rationalization process would reduce the share of personnel expenditure to 40 percent and operating expenditure to 30 percent of the total defense budget, thereby allowing capital expenditure to increase to 30 percent, a level last achieved in 1993/94 (see RSA, 1998).
7. This option recognized that there was no short or medium term military threat to South Africa, and that the defense budget would remain restricted for an extensive period of time. This option also envisioned the acquisition of a wide range of major defense equipment, and these purchases would require cabinet and parliamentary approval (RSA, 1998, pp. 34–48).
8. Offsets, or industrial participation as it is officially referred to in South Africa, became mandatory for all government purchases in September 1996. NIP obligations affect all government and parastatal purchases or lease contracts (goods, equipment, and services) with an imported content equal to or exceeding US$10 million (or the equivalent thereof). The obligation must equal or exceed 30 percent of the value of the imported content of the purchase or lease and must be fulfilled within 7 years from the effective date of the industrial participation agreement. The prospective foreign seller/supplier has to submit and implement business projects that would generate credits equaling or exceeding the 30 percent obligation. A 5 percent performance guarantee is required prior to the contract being awarded. The mission of the NIP policy is "to leverage economic benefits and support the development of South African industry by effectively utilising the instrument of government

procurement." The stated objectives of NIP policy are: sustainable economic growth; the establishment of new trading partners; the generation of inward foreign investment; increasing exports of "value added" goods and services; R&D collaboration; job creation; human resource development; technology transfer; and the creation of economic advantages for previously disadvantaged communities.

9. This is very difficult to police as there is no fixed price for imported arms.
10. The exception is the Strategic Partnership Agreement (SPA), a long-term agreement between government and supplier that is not linked to a single tender.
11. In evaluating industrial participation proposals, a credit system is used that allows for the accumulation of credits.
12. Armscor levies a penalty up to 30 percent on the unfulfilled portion of DIP obligations for contracts worth between US$2 million and US$10 million.
13. Parliament's approval was not sought. Instead, the Executive argued that parliament's approval of the Defense Review (RSA, 1998) equated with approval of an acquisition program.
14. Government Communication and Information Service, 15 September 1999.
15. In terms of the suppliers' currencies, the total commitments for the main consortia were BAE/Saab US$7.2 billion and Ferrostaal €2.85 billion.
16. *Business Day* (26 October 2000).
17. Allegedly, the original cabling had to be removed to install better quality cabling (*Mail and Guardian*, 3 January 2003 and 15 February 2003).
18. For example, in early 1999 Denel's Somchem division was awarded a R1 billion contract to supply fuses for the AS90 155mm howitzer guns used by British peacekeeping forces in Bosnia (*Business Day*, 6 January 1999).
19. According to Statistics South Africa, the unemployment rate is estimated to be 29.4 percent, but the South African Institute of Race Relations (SAIRR) suggests that it may be as high as 36 percent (see SAIRR, 2001, p. 333).
20. As presented by government in September 1999.
21. In 1997 the cost per job (remuneration costs per employee) in the public sector defense industry (Denel) was R93,722 while in the private sector (e.g., Reunert) it was slightly lower at R82,838. However, this is not an accurate reflection of costs associated with maintaining or creating jobs in the defense industry. In 1997 turnover per employee in the public sector defense industry (Denel) was R231, 898 while in the private sector (e.g., Reunert) it was more than double—R464,633 (Batchelor and Dunne, 2000).
22. Reallocation of defense spending to other forms of government spending have been shown to increase employment and output (see discussion in Dunne, 1996).
23. *The Star*, 29 My 1999.
24. Government Communication and Information Service, 15 September 1999.
25. *Mail and Guardian*, 25 July 2003.
26. *Business Day*, 12 June 2003; *Business Report*, 11 August 2003.
27. See "The Great Arms for Jobs Sham," *Mail and Guardian*, 8 March 2002; "Are the Defence Suppliers Delivering?" *Business Day*, 13 May 2003; "The Sordid Truth Behind an Arms Deal," *Guardian*, 17 July 2002.
28. Botha (2003) makes claims for the success of the deal, but the study is singularly uncritical and unconvincing. For example, the paper puts a very positive spin on the contracts placed, using Armscor sources and interviews with Armscor officials to provide data on contracts placed. There are also a number of claims based on company sources, with no evidence cited. The report accepts all of these claims uncritically, without any attempt to seek evidence. In addition, there is no reference to published studies on the South African defense industry and the arms deal in the report.
29. Ms. Patricia de Lille of the Pan African Congress.
30. Mr. Shamin "Chippy" Shaik.

31. Mr. Toni Yengini.
32. Mr. Joe Modise (who died in November 2001).
33. Mr. Schabir Shaik, who is to appear in the Durban High Court in early 2004 on charges of corruption, tax evasion, and fraud, many of which relate to the arms deal.
34. Mr. Jacob Zuma.
35. Sunday *Times*, 24 August 2003. Shortly after this announcement, allegations emerged within the public domain that the Director of Public Prosecutions, Ngcuku, had been a spy for the security forces during *apartheid*. With a serious crisis brewing within the ANC, President Thabo Mbeki, in an attempt to limit the political damage, launched a judicial commission of inquiry, the Hefer Commission, into the spying allegations.
36. Indeed, this led Transparency International to call for an end to offset deals (Transparency International, 2002).

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Appendix: National industrial participation policy

The evaluation of industrial participation proposals and the awarding of credits are based on the following methodology:

Objective	*Methodology*	*Factor*
Sustainable economic growth	Revenues accumulated over the fulfillment period	$1=1 credit
Export promotion	Export revenues=additional credits	$1=1 Credit +LC*
Job creation	Salaries and wage costs accumulated over the fulfillment period	$1=1 credit
Training and development	Training and development costs accumulated over the fulfillment period	$1=1 credit
SMME promotion	Outsourcing to SMMEs	$1=1 credit
Previously disadvantaged individuals	Outsourcing to PDI SMMEs PDI ownership % x revenues	$1=2 credits $ x %=credits
Investment	Capital outlay or capital injections	$1=2 credits
R&D expenses	All costs	$1=2 credits
Technology transfer	On a case by case basis linked to revenues	$1=1 credit

Note: * LC=local content
Source: National Industrial Participation Policy for South Africa, Department of Trade and Industry, Pretoria, April 1997.