Chapter 3
The Defence Offsets Policy in Australia

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3.1 Introduction

For the past two decades, compensatory contracting arrangements have been applied by most nations in the procurement of defence materiel. In principle, these arrangements are "designed to 'offset' the cost of procuring expensive weapons on the part of the buyer through the recovery of hard currency, employment creation in the buyer country, support of the buyer's industrial base and, significantly, technology transfer from seller to buyer".[1] This paper is concerned with the Australian Defence Offsets Programs (ADOP). The overall aim of the ADOP has been "to provide access for Australian industry to advanced technology, skills and overseas markets to as to help establish internationally competitive industries within Australia".[2]

Australia presents a very interesting case for a student of defence economics. It is a well developed economy which maintains a modern force structure at a relatively low share of GDP. In gross terms Australia's defence budget is about the same as those of some medium size European countries. Whilst Australia maintains a special relationship with the USA, its defence doctrine is that of self-reliance and, thus, the development of industrial capability to support the Australian Defence Force (ADF) rather than attain self-sufficiency in weapons manufacture and logistic support.

When Australian offsets arrangements were originally set up in the early 1970s, they were aimed primarily at overseas suppliers of military and aerospace equipment, requiring them to place work with Australian industry to develop local defence-oriented manufacturing and support capabilities. The scheme was subsequently expanded to include a wider range of high technology manufactures (see below). From 1986 until the end of 1992, Defence offsets were a mandatory countertrade requirement applied by Australian Defence to achieve such objectives as the attainment of certain technological, manufacturing or service support capability, pump priming of new activities, and so on. An offsets obligation was deemed to arise whenever the imported content of a Defence contract had a value of at least AUS$2.5 million. From 1993, following the 1992 Review of Defence Policy for Industry, Defence is to reduce its

reliance on "less focused mechanisms such as offsets" applying them only as a measure of last resort (see below).[3]

Clearly, joint transactions involving packages of goods and services including specific countertrade arrangements could be negotiated between Defence and overseas contractors if the mandatory ADOP did not exist. What is therefore the rationale for the mandatory ADOP as opposed to a world in which Defence and contractors could freely negotiate the most appropriate and advantageous packages of goods and services?

We argue in the final section of this paper that there is no good reason for a mandatory offsets scheme and that the mandatory version of the ADOP could only ever offer any potential advantage if Defence were incapable of or uninterested in pursuing the best possible contractual arrangements. In a world in which Defence had identified its needs and negotiated hard and freely with potential contractors, a mandatory scheme would have nothing extra to offer. Such arrangements merely shift the initiative away from the purchaser and give suppliers scope for opportunism at the expense of the buyer. First, however, we present a brief sketch of the history of Australian offsets, Defence and civil (Section 2). This is followed by an evaluation of offsets programs (Section 3).

To set the context for an assessment of the significance and the likely impact of Defence offsets, it is useful to refer to the Defence of Australia, 1987 White Paper,[4] which outlines the current rationale for Australian industry involvement in the Government requirement for defence self reliance:

"The capacity to maintain, repair, modify and adapt defence equipment to the Australian environment, independently of overseas sources, is of fundamental importance to our combat effectiveness in all levels of conflict. This requires Australian involvement in design, development and production to acquire the necessary detailed knowledge, skills and facilities. Through such work local industry can make an important contribution to the sustained operational effectiveness of our forces in combat."[5]

Hence it has been the Government's policy "to encourage the widest possible cost-effective involvement of Australian industry in defence work" ... including circumstances whereby ... "cost and delivery time penalties (incurred by Australian industry involvement) ... must be justified for each item in terms of their contribution to independent supply and support compared with alternatives."[6]

3.2 Brief History of Australian Offsets Programs

3.2.1 Early Developments

The development of Australian offsets programs has been largely associated with the procurement of military equipment. In the late 1950s, substantial quan-

tities of defence materiel were purchased from the USA and it was felt at the time that some form of reciprocal purchasing was desirable to encourage and support the development of Australia's defence-related industries. In 1958, a US military mission was invited to visit Australia to assess the country's defence-related industrial capabilities. The mission concluded that Australian defence industries would not be able to supply US Defence requirements or comply with American standards.

During the Vietnam War a further effort was made to create opportunities for Australian industry to bid for US Defence contracts. This met with a limited response from Australian manufacturers as many of their order books were full and firms were reluctant to invest or innovate to respond to American Defence requirements. Many companies felt that the continuity of US orders could not be assured even if Australian firms attained US military standards. Nevertheless, efforts to make Australian manufacturers more import competitive and export oriented continued through the 1960s.[7]

In 1968, a high ranking Australian mission visited the US to discuss the practicalities of increasing American Defence procurements from Australia. As a result, semi-annual Procurement Liaison Meetings (PLMs) between the two countries were initiated to develop a joint programme for increased Australian industry involvement in US Defence procurement. The real problem in achieving this was finding suitable Australian tenderers: there was no lack of potential sub-contracting offers from American defence contractors. In 1969, an Australian mission visited the US to assess and report on opportunities for Australian industry in US Defence procurement. It was during the mission's discussions with US DOD officials that the possibility of Australian Government using its leverage, as major purchaser of American equipment, to seek 'offsets' (reciprocal purchases) as a condition of buying became a serious option.[8]

In 1970, following the mission's recommendations, the Ministers for Trade & Industry, Supply and Defence established the first 'offsets program' under the banner of the Australian Industry Participation Program (AIPP). The purpose of the AIPP was to obtain offsetting work for Australian industry when major purchases were made overseas. The Program sought to develop and sustain Australian defence-related industrial capabilities, and industry generally, through the diffusion of new and improved technologies.

The original Program covered purchases of military and civilian aircraft and the label of "Offsets Program" was attached to both elements together. Initially its operation was the responsibility of a standing Inter Departmental Committee (IDC) consisting of the Departments of Trade and Industry (in the chair), Supply (responsible for the Program's day-to-day operations) and Defence. Although the odium of any failure of the policy was to be borne primarily by the Trade

Department, the Program kept all defence purchasing and associated offset orders or sub-contracting within the hands of Defence.[9] However, as rules associated with the Program were not very clear, confusion ensued as to what 'offsets' were — offsetting purchases from Australia by the supplying country (i.e., countertrade) or increased local content in producing the contracted goods (i.e., forced sub-contracts). Subsequent changes in the administration of the AIPP added to the apparent confusion. A key point is that the original Program specified neither that offsets were to be mandatory nor desirable levels of offsets that should be sought. In a nutshell, contractors were expected to do 'their best' in identifying the scope for agreed offsets and in discharging offsets obligations. This became known as the 'best endeavours' basis for offsets compliance.

Two examples drawn from the 1970s serve to indicate how offsets evolved as they were put to work in this period. First, in 1973, following the Australian commitment to purchase the FFG ships, the Australian and US Departments of Defence negotiated offset arrangements under which the US DOD and industry agreed to meet an offset objective of up to 25 per cent of the value of a major Australian order. Those American firms that benefited most from Australian order were to carry the initial and primary burden of offset implementation. US Defence procurement from Australian sources was normally to be competitive, that is, subject to satisfactory performance, quality and delivery requirements while costs were not to exceed those of comparable US items or other foreign items eligible for award.

Second, the New Tactical Fighter (NTF) program started in 1977 led Defence to reconsider in depth the nature of appropriate industrial involvement. Its analysis led to the publication of Guidance Paper released to the contenders for supply of the NTF in November 1978. The paper explained that offset work would be one element of a two part industry program and would comprise activity to a value of at least 30% of the imported content of project costs. Preferred work for offset purposes was production for export of NTF components but other types of offset were also acceptable. Many of the offset opportunities suggested by the Guidance Paper were to appear in later years in official documentation describing the operation of the scheme.[10]

3.2.2 The 1984 Inglis Review

In 1984, Committee of Review on Offsets was set up under the chairmanship of Sir Brian Inglis (the Inglis Review). It undertook a comprehensive review of the Offsets Program and attempted to make an assessment of its costs and benefits. It found the existing objectives set for the Offsets Program to be very general and equally applicable to a range of other industry initiatives. It therefore sought to formulate new objectives to identify the Program's specific mission.[11]

The Review found it difficult to make precise quantitative assessments of the costs and benefits of the Program. It identified transaction costs to the Commonwealth and businesses concerned and noted that price premia (reflecting the cost of anticipated offsets requirements) might have been factored into purchases. The perceived benefits were associated with enhanced access to overseas markets and technologies. Despite the intangible nature of benefits and poor data on costs, the Review concluded that there were net benefits from the Program.

The Review was also very critical of the administration of the Offsets Program and made 24 recommendations, many of which were reflected in a revamped Offsets Program which came into effect in March 1986.

3.2.3 The Post-1986 Programs

The new program formalised the division between civil and defence offsets and provided written guidelines for the administration of both program components. The broad objective of the Program was to bring to Australian industry advanced technology, skills and capabilities to assist in the establishment of internationally competitive industries in Australia and support defence industry capability objectives. The first goal applied to Civil Offsets and the second to Defence. Priority was to be given to offsets incorporating direct transfer of advanced technology and training, R&D conducted by Australian industry or research institutions and the participation of local enterprise in design and related work.[12]

On a broader front, the Government's response to the Inglis recommendations produced a more targeted policy of industry assistance. As a result, the Defence program of industry support moved away from the AIPP and was replaced by the Australian Industry Involvement (AII). The AII was defined as a program of activity put in place by an overseas contractor and comprised two elements: Defence Designated and Assisted Work (Designated Work) and Defence Offsets. In special cases, the AII responsibility was placed on the Australian prime contractor, e.g., the Collins Submarine Project. This allowed the prime contractor to maximise local content and through this establish the through life support capabilities in support of the ADF.[13] Both programs were also consistent with the general policy of preference for Australian- and New Zealand-made goods and services.

The most radical aspect of the new Offsets Program was its departure from the 'best endeavours' approach and the explicit adoption of mandatory offsets arrangements for all Government purchases which exceeded AUS$2.5 million with an imported content of at least 30 per cent. It appears that the arrangements related to the New Tactical Fighter program had already moved a long way in this direction, however, as early as 1978.[14]

The offsets obligation of foreign companies was set at 30 per cent of the imported content of contracts. Acceptable activities were defined as activities of technological significance including but not restricted to manufacturing, software development, research and development, design and development, technology transfer and certain types of training undertaken by overseas suppliers as a result of attracting or anticipating an offsets obligation. There was a strong emphasis on long term viability and international competitiveness. New production initiated as a result of offsets was expected to be sustained after the fulfilment of prime contractors' offsets obligations. Multiplier incentives were used for the first time to give particular encouragement to the provision of offsets in the form of R&D and approved training expenditures. These activities were credited at three times their nominal value for offsets purposes. The Program also stipulated that offsets obligations should not result in any price increase for goods and services procured by the Commonwealth, i.e., primary contracts subject to offset obligations should not be 'padded' in the anticipation of offsets requirements.

Until 1986, Defence contract conditions were specified and designated work and offsets obligations were secured in contract. One problem with securing the obligation in contract was that where the period for completion of the industry program was longer than that needed to complete the contract, there was no legal mechanism to enforce compliance with the industry program. This was overcome by developing Project Deeds which were legally enforceable and were separate from the contract. Credit Deeds were also developed to encourage contractors to put in place long term industry programs whether or not they had offsets obligations. Credits could then be used to discharge existing or future offsets obligations whilst suppliers could establish long term industry programs that were commercially viable.

When the 1986 combined Defence-civil guidelines were introduced, it was envisaged that they would soon be reviewed to smooth out various teething problems. The guidelines were reviewed in 1988 when it was agreed that, due to the growing disparity of the civil and defence programs, separate guidelines should be promulgated. Accordingly, separate Civil offsets guidelines were published in 1988 and Defence offsets guidelines in 1989. The scope of the AII was also widened to include Australian Production, in addition to Designated Work and Offsets. The 1988–92 AII and Defence Offsets Programs are described in the following section.

3.2.4 1988–1992 Australian Industry Involvement Program

The 1988–89 Defence Offsets Program is a part of the revised Australian Industry Involvement (AII) Program. This comprises a broader program of pro-

duction work, research and development or enhancement of Australian technology or industrial capability, arranged by a prime contractor or sub-contractor for delivery by an Australian company.[15] Maximising competitive Australian value-added is a major AII objective and the level of Australian production offered by a prospective contractor is an important factor in the evaluation of each proposal.[16] The AII Program comprises:

- Australian Production; and/or
- Designated Work; and/or
- Defence Offsets.

Australian Production "means direct participation in a contract for procurement of supplies and/or services by Australian manufacturing industry. It includes the provision of goods and services conjointly of that industry and is referred to as the 'level' or 'value' of Australian Production".[17] The goods and services under consideration are deliverables under the contract for supplies and the 'level' or 'value' is used in the calculation of any Defence Offsets obligation arising from a contract placed with an overseas supplier. These goods and services are not acceptable as Offsets. (Indeed, the terminology under the program has now changed and Australian Production is now called 'local content', which at once makes it clear why such activity is not acceptable as offsets.)

Designated Work comprises "those work activities of defence and/or strategic significance undertaken by Australian firms, where the activity involves the Department of Defence paying a cost premium which has been mutually agreed with the Contractor".[18] Designated Work involves a cost premium and is therefore not acceptable for consideration as meeting any part of the Defence Offsets obligation arising from the purchase. In calculating the level of Offsets obligation, the mutually agreed premium involved in Designated Work, is not included as Australian Production and in the calculation of the 'level' or 'value' of AII. In contradistinction to Offsets, Designated Work benefits from explicit funding assistance. For example, in the F/A-18 Project, the Designated Work requirement increased the overall project cost by about 15 per cent.[19]

Defence Offsets are "activities of defence and technological significance which are directed to Australian industry by an overseas supplier as a result of receiving an order" ... "for goods and/or services from the Department of Defence".[20] The Defence Offsets obligation of an overseas supplier is seen as a commitment to generate a program of activities in Australia. This commitment is required whenever the imported content of a contract has a value of at least AUS$A2.5m. Offsets are to be provided at a rate of 30 per cent of the value of the imported content.

The following example from the Guidelines[21] shows different components of the AII Program:

		AUS$ million
a.	Prime contract value (including premium)	10.5
b.	Level of Australian Production	2.0
c.	Level of Designated Work (excluding premium)	4.0
d.	Level of premium	0.5
e.	Level of imported content [(a) – (b+c+d)]	4.0
f.	Offsets obligation [30% of (e)]	1.2
g.	Level of AII [(b) + (c) + (f)]	7.2

In this example, the level of AII is 72 per cent of prime contract value excluding the Designated Work premium. The level of AII in Defence capital equipment contracts reached 70 per cent in 1989–90. Of this some 60.5 per cent was accounted for by Australian Production and Designated Work and about 9.5 per cent was secured as Offsets.[22]

The new civil guidelines included Partnership for Development Agreements, aimed primarily at the information technology industries, a Pre-qualified Supplier Scheme, a new category of investment Offsets, the inclusion of some insurance activities as eligible Offsets activity and increased emphasis on service industries. The Program was directed at "developing internationally competitive, technology intensive industries by bringing into Australia advanced technologies, skills, research and investment and encouraging overseas companies to establish Australia as a research and development and manufacturing base for exports to the South East Asian and Pacific region".[23]

3.2.5 Defence Offsets Program

The 1988–92 Defence Offsets Program is an expanded and tighter version of the 1986 Program. The earlier guidelines were largely rewritten to remove a number of ambiguities resulting from poorly drafted rules and, in some cases, the unclear intent of the previous scheme. Some of the most significant changes between the old and new guidelines are noted below. However, the new Program retains the mandatory character and the basic logic of the previous system.

The objectives of the Defence Offsets Program are stated to be improvement in the capability of defence industries to maintain and adapt military equipment, provide munitions and spares and develop technology to meet the longer term needs of the ADF. To be acceptable as offsets, activities proposed by overseas suppliers must meet four criteria:

a. **commercial viability**: the offset must be likely to lead to activities which are internationally competitive, in terms of price, quality and delivery, and

also commercially viable on a sustained basis without further subsidy from the Commonwealth or State Governments;

b. **price**: goods and services procured by Defence when offsets apply must not be more highly-priced than they would have been in the absence of the Offsets Program;
c. **technology**: offset activities must be at least as 'sophisticated' technologically as the goods/services procured from overseas but not necessarily directly related to such goods and/or services; and
d. **new work**: offsets must involve an addition to or extension of the activities already undertaken by the overseas supplier in Australia. More specifically, they must be activities which meet any of the following:
    i. are new to individual Australian firms or which improve existing capabilities and which would not otherwise be undertaken in Australia,
    ii. result in local research, design, development, production or support activities which would not otherwise have been undertaken in Australia,
    iii. open up markets overseas new to Australian products and/or services.

Generally, Defence requires that approved offsets are related to the provision of specialised support in Australia for the maintenance of the equipment being purchased and which contributes to self reliance. The normal after sales customer support, distribution or marketing activities, which form the part of the normal commercial activities undertaken by the supplier in Australia, are not acceptable as offsets.[24]

The threshold for offsets purposes was increased to AUS$2.5 million of the *imported content* as suggested by the Inglis Review. Under the previous definition, offsets were often sought against contracts as low as AUS$2.5 million in value with import content of AUS$0.75 million resulting in very small but administratively costly offsets obligations.[25] Also, the new guidelines permit the application of a range of multipliers (×1, ×1.5, ×2 and ×3), the particular one chosen depending on the nature of offsets-related activity. The multiplier used is based on the priority ranking of the project to the Defence Department, and is no longer related to specific offset activities.

Since 1986, Defence has sought compensation for non-performance of the agreed offsets programs by means of pre-agreed Liquidated Damages. Under the revised Program, these are to be specified in the Contract or Deed. Under the 1986 Guidelines, Australian prime contracts could be made liable for contingent liabilities, such as liquidated damages, on behalf of their foreign sub-contractors. The new Guidelines make an Australian prime contractor responsible only for ensuring that its foreign sub-contractors enter into satisfactory arrangements (by means of a sub-contract or a Deed) with the Commonwealth. The facilities for transferring offsets obligations from one contractor to another have been

removed. The list of activities suitable for offsets has been revised, e.g., part production and gifts and donations were removed from the list and hire/lease agreements incorporated under the revised Guidelines.

3.2.6 Winding Down of Offsets Programs

The winding down of the Civil Offsets Program was announced in the March 1991 Economic Statement. Following the Statement, the shift of civil industry policy away from offsets has been accelerated as:

- offsets were abolished for automotive purchases;
- aerospace offsets were replaced by long term Memoranda of Understanding (MOUs). These commit overseas contractors to give Australian companies equal opportunities to bid for work. There are no sanctions in the event of non-compliance apart from a threat to revert to the case-by-case accounting of offsets; and
- information technology and tele-communications acquisitions were covered by Partnership for Development arrangements and Fixed Term Arrangements for 'non-partners'.

Following the 1992 Review of Defence Policy for Industry (the Price Review), Defence decided to reduce "its reliance on less focused mechanisms such as offsets in support of Australian industry involvement." ... "As a rule, however, specific Australian Industry Involvement objectives will be achieved best by more focused provisions within contracts, ensuring continuing capabilities in areas of importance. Defence offsets will remain as a last resort but will have to address high priority capability requirements set out in the proposed industry capability planning statements."[26]

3.3 Evaluation of the Australian Defence Offsets Program

Data on the operation of Offsets programs are incomplete (especially in the early years) and, on the occasions they have been collated, sometimes cover only Defence and sometimes both Defence and civil offsets. The main sources used here are Bureau of Industry Economics (BIE), Purcell, Howe and Dunne.[27] We present the available information in three sub-sections. First, we report figures related to the operation of the combined Civil-Defence Program between 1970 and 1984. This is based on data submitted to the Inglis Review as reported by the BIE.[28] Second, we consider data on Defence-related offsets during the period 1973/74–1990/91.[29] Third, we report data on Defence offsets in the 1980s and 1990s.[30]

Defence offsets performance can be assessed in terms of dollar values and acquittal rates or in terms of their success in meeting specified objectives. Analysis of the first kind is presented in 3.3.1. In principle, this should be a relatively unambiguous type of assessment. However, the available data is not very consistent and conclusions may vary depending on which source of information is used. The more controversial performance criteria in terms of value to Defence and the wider community in terms of program objectives are reviewed in 3.3.2.

3.3.1 Offsets Obligations and Acquittal Rates

3.3.1.1 The Combined Program 1970–1984

Table 1 contains an overview of civil and Defence offsets 1970–84 and shows that offsets commitments comprised 21.8 per cent of the value of contracts in relation to which offsets might have been sought.

Table 1: Summary of Offsets Program Performance 1970–1984

	Contract value AUS$m	Contract value for offsets purposes[a] AUS$m	Offsets commitment[b] AUS$m	Offsets achievement[c] AUS$m	Offsets completed[d] AUS$m
Civil	3058	2971	632	450	331
Defence	3845	2971	876[e]	252[e]	223[e]
Total	6903	5942	1508	702	554

Notes:

a. This is defined as the total contract value less the value of all Australian local content included in the contract for other than providing approved offsets.

b. This represents the value of offsets which prime contractors are committed to provide over an agreed period of time. The status of this commitment varied considerably between purchases, depending on the form of the contract and/or side agreement. In some cases, the prime contractor had agreed only to satisfy the offsets commitment on a 'best endeavours' basis.

c. This comprises orders placed by overseas companies for offsets work in Australia plus the value of technology transfers and other eligible activities.

d. This is the value of offsets orders and other activities actually completed by Australian industry.

e. This includes an unknown proportion of subsidised "designated defence work" which is not classified as offsets.

Source: BIE[31]

The table relating to both components of the program shows the low level of offsets delivered (orders placed) of AUS$702 million relative to offsets obligated (AUS$1,508 million) in the period 1970–84. This discrepancy was seen in the early 1980s as the major failure of the 'best endeavours' policy.

Table 2 shows offsets commitments and achievements by country. Of these commitments, worth AUS$1,508 million in current prices, the large majority (78.2 per cent) were borne by US contractors followed by UK (9.7 per cent), Federal Republic of Germany (4.6 per cent), Japan (3.4 per cent) and France (3.2 per cent).

Table 3 shows the industry distribution of offsets for the same period. The main area targeted by the Program was the aerospace industry (65 per cent of overall contract value, 53 per cent of offset obligations and 46 per cent of orders issued). Some 13 Australian firms undertook about 60 per cent of offsets work with Hawker de Havilland accounting for one third of offsets orders issued.

The local parts content of offsets related purchases was estimated at 25 per cent of offsets achieved (15 per cent for civil offsets). Local production of parts incorporated into international aerospace sales was about 50 per cent of offsets and technology transfer about ten per cent.[33]

Table 2: Offsets Commitments and Achievements by Country 1970–1984

Country	Commitments AUS$m	Achievements AUS$m
United States	1180	437
United Kingdom	146	131
FR Germany	70	48
Japan	51	24
France	48	49[a]
Other	13	13
Total	1508	702

Note:

a. Indicates that some companies have accumulated offsets credits in excess of the total commitments of all companies.

Source: BIE[32]

Table 3: Offsets Program Performance by Industry 1970–1984

	Contract value for offsets purposes AUS$m	Offsets commitment AUS$m	Percentage commitment (c/b) %	Offsets achievement (orders issued) AUS$m	Percentage achievement (e/c) %
(a)	(b)	(c)	(d)	(e)	(f)
Civil Aerospace	1945.4	340.3	17.5	238.2	70.0
Defence Aerospace	2011.3	590.6	29.4	138.7	23.5
Civil Shipbuilding	100.0	30.0	30.0	0.6	2.0
Defence Shipbuilding	620.3	154.3	24.9	27.4	17.8
Civil Vehicles and associated equipment	7.4	2.2	29.7	0.7	31.8
Military Vehicles and associated equipment	164.0	75.1	45.8	56.6	75.4
Telecommunications and radar equipment	570.0	166.6	29.2	126.8	76.1
Computing equipment	326.1	91.2	28.0	28.2	90.1
Machine tools	8.0	2.2	27.5	0.3	13.6
Earth moving equipment	0.8	0.2	30.0	0.2	67.0
Miscel. electrical and electronic equipment	104.7	31.8	30.4	10.7	33.6
Miscel. mechanical equipment	63.6	19.1	30.0	18.8	98.4
Miscel. industry and business machines	20.4	4.3	21.1	1.2	27.9
Total Defence	2971.0	876.4	29.5	252.0	28.8
Total Civil	2971.0	631.5	21.3	450.4	71.3
Grand Totals	5942.0	1507.9	25.4	702.4	46.6

Note: See Table 1 for definitions of terms. Percentages are based on unrounded figures.

Source: BIE[36]

3.3.1.2 Defence Offsets Between 1973/74 and 1990/91

Dunne analysed data relating to 254 major defence equipment contracts with AIPP/AII implications signed between 1973/74 and 1990/91.[34] At 1991 prices, these contracts were worth AUS$21,168 million, had an import content of AUS$10,124 million (an average of 48 per cent of the value of each contract), and generated offsets obligations of $3,568 million, of which 62 per cent had

been met by 1991. Local production created by the Defence offsets policy was worth 0.25 per cent of all merchandise imports and 0.04 per cent of national output during this 17 year period.

By country of origin, over half (52 per cent) of contracts examined were placed in the USA and accounted for 40 per cent of the value of all projects analysed. Contracts placed in Australia comprised 45 per cent of aggregate project value but only 20 per cent of all projects. By contract value, France (5.1 per cent), West Germany (3.3 per cent) and the UK (2.6 per cent) trailed far behind and Japan (0.2 per cent) was the only Asian nation represented.

As for obligations and acquittals, offsets obligations by 1991 had been fully or more than fully discharged in only 37 per cent of the 254 projects Dunne examined. Over half of the projects were incomplete at the time of analysis but of those which were complete, less than 100 per cent of offsets obligations had been met in almost a third of cases and in 17 per cent of cases, no obligations at all had been discharged.

3.3.1.3 Defence Offsets in the 1980s and 1990s

Purcell analysed the value of Australian industry work secured under the Defence Offsets Program between 1 January 1986 and June 1990.[35] This was estimated at about AUS$855 million. The value of offsets obligations fluctuated from year to year with fluctuations in capital procurement. In 1988/89, the value of contracts involving offsets was AUS$96.1 million and new offsets obligations amounted to AUS$25.8 million. The corresponding figures for 1989/90 were AUS$3,914 million and AUS$346 million respectively, reflecting the impact of the ANZAC Ship Project. Tables 4–6 contain tabulated data on offsets obligations and local content in the 1980s and 1990s.

Table 4: 1990–91 Offsets Obligations and Industry-related Defence Spending

	Per cent	**AUS $bn[1]**
Defence budget	100	9.0
of which industry related expenditure	39	3.5
• local content	28	2.5
• imported content	11	1.0
Offsets	2	0.18

Note: [1]Rounded figures

Source: Purcell[37]

Table 5: Defence Spending with Industry: Local Content Achievement

	Early 1980s (per cent)	Early 1990s (per cent)
• Capital equipment	30	65
• Repair and maintenance	75	85–95
• Replacement equipment and spares	75	75
• All spending with Australian industry	45	70

Source: Purcell[38]

Table 6: Real Defence Spending on Capital Equipment and Offsets Obligations 1980–81 to 1989–90

Annual averages in constant 1991 prices		
	AUS$bn	**Change in AUS$m**
• Defence budget	8.5	+125
• Spending on capital equipment	2.0	+80
• Imported capital equipment	1.2	–15
• Offsets obligations	0.37	–4

Source: Purcell[39]

The relationship between offsets obligations and the relevant ('industry-related') defence spending in 1990/91 is shown in Table 4. This assumes offsets obligations to be about 18 per cent of the imported content of 'industry-related' goods and services, i.e., the gross value of offset obligations (30 per cent) reduced to take into account purchases below the AUS$2.5 million (imported content) threshold and the multiplier rebates. Overall, the 'net offsets obligations' are equivalent to some two per cent of the total budget and seven per cent of the local content.

Since the mid-1970s, the local content in Defence equipment procurement, measured in real dollars, has increased considerably (from an initially small base). Table 5 shows high levels of local content achieved in the 1990s and Table 6 shows the implications of rising local content in projects for offsets obligations. The latter table shows a declining trend in imports and therefore

offsets. Also, with the growing share of local content in capital procurement, the current level of offsets obligations is well below the average for the 1980s.

The large decline in the share of the imported content of capital equipment in the 1980s, and, thus, the illustrated decline in the value of offsets obligations, reflects the impact of a small number of relatively large, by Australian standards, projects with high local content. As commitments to these large projects account for over 60 per cent of the current Five Year Defence Plan funding, it is unlikely that the imported content of Defence purchases will continue to decline rapidly in the 1990s. In view of Australia's dependence on imported technology, the retention of the 60–70 per cent local content ratio over the next decade would represent a considerable achievement for the home industry.

Purcell notes that the presently available time series of offsets obligations and acquittals are not readily amenable to statistical analysis.[40] In particular, the year-on-year variations have been large and difficult to interpret. Nevertheless, using the available statistics, Purcell estimates that in the decade to 1989–90, it is estimated that the 'raw' (historic) value of contracts with Australian Industry Involvement was AUS$13 billion. Leaving aside considerations of the value for money (in terms of Defence priorities) and the timeliness of offsets acquittals, the 'raw value' of offsets obligations was AUS$2 billion during that period and acquittals AUS$825 million — yielding an acquittal rate of over 40 per cent.

Despite the difficulty of tracking offsets acquittals relative to obligations, Howe shows there was an improvement in the acquittal rate between 1970–80 and 1980–86.[41] This is not surprising, considering the steps which were taken to tighten offsets arrangements. For the period 1986–92, historic data are likely to offer only an imprecise indication of the acquittal rate achieved because of imperfections in our knowledge of the lag structure involved. Anecdotal evidence, however, suggests it will have risen.

Table 7 contains the most up to date estimates of offsets obligations and available at the time of writing. The table shows the 'raw value' of pre-January 1986 offsets obligations (AUS$956 million) to be some 31 per cent of the corresponding imported content of projects (AUS$3,090 million). The 'raw' offsets achievement rate appears to be 94 per cent. Whilst some offsets obligations have not been acquitted, others were exceeded and some offsets credits were earned. For the post January 1986 period, offsets obligations (AUS$1,393 million) were about 38 per cent of the corresponding imported content of projects (AUS$3,710 million). By mid 1993, some 29 per cent of the post-January 1986 offsets obligations have been achieved. The overall 'raw' acquittal rate (pre and post 1986) is about 56 per cent. This appears to be significantly higher than the earlier estimates reported above.

Table 7: Offset Obligations and Achievements

	AUS$million					
Financial Year Totals[1,2]	**Contract Value**	**Aust. Content**	**AIPP or AII in Contracts[4]**	**Imported Content Value**	**Offsets Obligations**	**Offsets Achieved**
to 30 Jun 80	954.629	0.000	163.083	481.606	163.083	148.912
1980/81	155.081	0.000	24.478	28.935	24.478	29.895
1981/82 (F/A-18 Project)	2,510.064	0.678	800.733	2,151.358	557.631	492.775
1982/83	140.172	0.920	47.867	61.269	46.947	62.662
1983/84	105.087	0.000	31.260	19.372	31.260	31.804
1984/85	111.663	0.000	37.277	79.915	37.277	44.658
to 31 Dec 85	313.955	17.976	143.230	267.555	95.425	89.238
Grand Totals for Contracts, Pre 1 Jan 86	4,290.651	19.574	1,247.928	3,090.010	956.101	899.944
01 Jan 86–30 Jun 86	889.419	16.927	249.188	510.517	195.259	94.641
1986/87 (Submarine Project)[3]	3,328.545	1,955.570	2,723.866	875.218	287.604	153.216
1987/88	653.686	420.528	453.403	270.809	27.375	21.139
1988/89	363.094	22.490	136.960	282.191	111.078	88.961
1989/90 (Frigate Project)	3,908.221	2,799.313	4,108.469	1,063.358	560.453	40.041
1990/91	1,134.554	578.658	724.452	469.844	143.693	7.529
1991/92	171.336	58.104	79.207	81.716	21.103	3.267
1992/93	187.101	51.294	97.745	156.220	46.451	0.000
Grand Totals for Contracts Post 1 Jan 86	1,0635.956	5,902.884	8,573.290	3,709.873	1,393.016	408.794

Notes:
1. Totals include projects where offsets are not required
2. Some project details not available
3. No offsets against submarine platform
4. AIPP pre 1 January 1986 and AII post 1 January 1986 (see Section 3.2)

Source: Unpublished figures. Defence Industry Committee Report 1993.[43]

3.3.2 Offsets Performance and Offsets Policy Criteria

To measure the perceived value of offsets, Howe identified 1386 tasks undertaken between 1970 and 1992,[42] and sought expert advice on their perceived worth to Defence or the community at large in terms of:

a. level of contribution to the through-life support of the parent equipment;
b. technology transfer effects;
c. degree of "national benefit", i.e., benefits from offsets obligations flowing not to Defence but the wider community;
d. formal training implications;
e. relatedness to the parent project; and
f. R&D implications.

On performance criteria (a)–(c) weights were allocated on a scale of 1 (lowest) to 5; on (d)–(f) simple Yes/No answers were sought. To derive a very rough indication of trends, the full period was divided into two 1970–1986 (997 tasks) and 1986–1992 (389 tasks).

The results are considered from two angles: first the proportion of all offsets tasks which were considered to have made any positive contribution in terms of given criteria; second, the level (low, medium or high) at which offsets which made such a contribution were perceived to have been effective. (The second angle could only be taken in relation to criteria (a)–(c)).

From the first angle, the two attributes of offsets which were perceived to have occurred at positive levels with greatest frequency in 1970–1986 were "national benefit" and "relatedness to project", 77 and 84 per cent respectively. These two were also the only attributes to show declines in frequency between the earlier and later (1986–92) periods, to 48 and 74 per cent respectively. The perceived positive incidence of all other attributes of offsets thus increased, through-life support from 58 to 62 per cent, technology transfer from 20 to 56 per cent, tasks involving training from 5 to 20 per cent and those involving R&D scoring below ten per cent in both sub-periods.

From the second angle it is striking that, whatever the attribute chosen, the value of offsets when positive has nevertheless been perceived to be predominantly low. This was true in both sub-periods for technological transfer and national benefit dimensions and markedly so for through-life support in the earlier sub-period. Since 1986 however, the through-life support aspect of offsets has come to be dominantly medium- and high- valued.

Putting both first and second perspectives together:

a. the generally low level of national benefit reaped from offsets reflects the perception that they have done little to enhance Australia's export potential;
b. over half of the offset tasks have contributed little or no strategic benefit to Defence self-reliance;
c. over three quarters of tasks have little or no value in terms of transferring technology (a very low return on investment in technology transfer).

Leaving aside for a moment the actual cost of offsets requirements to the portfolio or the taxpayer, Howe's analysis cast doubts on the utility of offsets outcomes to Defence ("strategic benefit to Defence self-reliance"). The analysis also casts doubt on the value of external benefit of Defence offsets to the community at large. Further, "national benefits", which are not a requirement of the Defence Offsets Program (external benefits) may be obtained in lieu of Defence-related benefits.

In sum, benefits (to Defence) from the Offsets Program "remain somewhat indistinct".[44] Offsets proposals have largely been driven by suppliers rather than initiated on the basis of well defined ADF support requirements and reporting of achievements is not mandated by either contractor or Defence. The supplier predominance even extends into the structuring of some project reporting systems.[45] Also, there has been a lack of clarity about which of the offsets criteria are primary and those which are enabling. "Current thinking is that critical capabilities which must be provided in country are the proper province of project deliverables whereas sustaining beyond the life of a project might be encouraged by separate arrangements".[46] Key issues that must be addressed here concern the supportability of capability proposals on strategic grounds, the extent of industry's capability to provide the required level of support, and the extent to which Defence may use its leverage in negotiating the prime contract to secure priority capabilities in industry.[47]

The shift away from civil offsets and their replacement by Partnerships in Development, Long Term Agreements and Import Facilitation Programs suggests that in the absence of offsets there may in any case be a basis for procurement leverage on suppliers to demonstrate their commitment to the Australian market.[48] The key issue here is that any procurement mechanism used should be customer- rather than supplier-driven. This means that the policy focus should be on the identification of support priorities for Australian industry and flexibility in procurement to maximise the customer benefit rather than the application of mandatory provisions such as the 1988 ADOP scheme.

If offsets were a 'free good' as stipulated in 1989 Guidelines, any positive benefit accruing to Defence on the taxpayer could be regarded as a bonus. For example, from the calculations presented in Table 5, Purcell concludes that offsets resulted in "the budget add on" of two per cent in 1990–91.[49] Thus, "it can be seen that there is a 'free good' to Defence" and, by implication, the table demonstrates "why offsets are potentially so useful to Defence".[50]

This appears to be a classic case of the 'free lunch' fallacy. Under the 1989 Guidelines, offsets are meant to be provided at no extra cost to Defence, they are thus assumed to be a 'free good'. The relevant question that has not been asked in this case is this: what would have been the total cost of goods and services

obtained under the 'imported content' plus obligated offsets (in the illustrated case AUS$2.5 bn.) in the absence of the mandatory offsets scheme? If, in lieu of the mandatory offsets obligations, Defence were able to negotiate price discounts on the imported content and pay for the offsets goods and services separately, it is not unlikely that the total cost of the two separate packages could be less than AUS$2.5 billion spent on the combined package. In such a case, the apparent 'free lunch' of AUS$0.18 billion may obscure a real loss to the taxpayer from forgoing price discounts on the imported content which might have exceeded AUS$0.18 billion. It is only if it can be demonstrated that the opportunity cost of the mandatory offsets scheme to Defence is less than AUS$0.18 billion that it could be argued that "offsets are potentially so useful to Defence" All that is presupposes that the value of offsets to the ADF is at least equal their obligated value — an assertion that remains to be validated.

The administration of offsets also results in costs to Defence. Howe estimates that administrative monitoring costs alone for the offsets scheme run to at least AUS$1.5 million per year. Other cost may be imposed on Defence by contractors.[51]

What the above examples show, even if offsets are entirely free to Defence, which is certainly not the case, the purpose of all policy is to raise the level of social net benefit which is found by looking at impacts on both costs and benefits. Thus, acquiring something 'free' if it generates only modest or negligible net benefits may compare unfavourable with acquiring instead something at a positive cost (if the net benefits are more substantial).

The international trade policy aspects of the ADOP is also important in determining procurement policies. Whilst some recent major acquisitions of platforms have been of European origin, the USA continues to be the predominant supplier of technologically advanced weapons systems. With the recent contracting of US domestic defence markets, there has been considerable Congressional pressure to shelter US defence contractors from overseas offsets demands. Thus, there has been considerable pressure to take into account various aspects of US-Australia defence trade in the design of Australian procurement mechanisms, such as offsets.

Since 1988, in response to the protectionist sentiments in the USA, a defence trade Memorandum of Agreement (MOA) has been discussed between the US and Australian Departments of Defence. The MOA would provide an umbrella waiver of the US Buy American Act for Australian producers in lieu of the present case-by-case approach (but not necessarily an automatic exclusion from other US protectionist measures). Seventeen US allies (mainly NATO) have similar agreements.[52] At present, Australia is unique among US allies in "having a MOA with the US Government which acknowledges that suppliers to

Australia through the Foreign Military Sales (FMS) system may be obligated to offsets".[53] Also, the USA has been encouraging Australia to consider the membership of the Government Procurement Code. Australia was not previously eligible for the Code membership due to the operation of the Commonwealth purchasing preference margin. With its adherence to the GATT principles, Australia may find it increasingly difficult to resist Code membership.[54]

Australia has no equivalent of the multilateral NATO Conference of National Armament Directors (CNAD) or the Independent European Program Group (IEPG), which facilitate intra European and US collaboration in defence production, R&D and procurement. Australia has MOUs in place with the USA on a case-by-case basis and bilateral umbrella MOUs on defence equipment procurement with the UK, New Zealand, Sweden and Norway. There MOUs tend to facilitate exchange of information on procurement and the scope for industry collaboration.[55] Often international pressures on Australian policies of support for Defence-oriented industry have more to do with the need for bureaucratic cultures to communicate than with security or economics.[56] For example, the US concept of "defence industrial base" and the "critical technologies list" — which have no counterpart in Australian defence planning — may impede Defence trade negotiations between the two countries. It is also worth noting that Australia does not attract, or seek, concessional arrangements in the form of aid which suppliers often have to provide to their poorer customers.

3.4 Broader Policy Goals and Offsets

It has been argued by us elsewhere that offsetting requirements are often part of normal contracting arrangements between businesses in that many commercial transactions involve the exchange of packages of goods and services whereby the purchase or sale of certain goods or services is contingent on the tied purchase/sale of some other products. In that sense, 'offsets' are an aspect of the normal transactional reprocity between willing buyers and sellers.[57]

All commercial transactors are free to adopt policies that prescribe the sort of contractual arrangements, including various offsetting arrangements, that they require from contractors. Government procurement agencies seeking to engage suppliers in such arrangements are doing nothing different from normal market operators. In the world of imperfect markets, complex transactions and asymmetrical information flows, it is possible that some such compensatory or offsetting requirements, including elements of barter countertrade, will enhance the welfare of the purchaser. This can only be assessed on a case-by-case basis.

Both commercial operators and governments are free to adopt mandatory 'offsets' policies whereby they refuse to transact with suppliers unwilling or unable to offer enhanced packages of goods or services supposedly at no extra cost to the purchaser. When such demands are so inflexible as to insist on an 'in kind' package enhancement rather than the equivalent or greater price discount — they are clearly inefficient. Operating such inflexible policies can only serve to handicap the buyer by restricting its ability to negotiate the most advantageous price-content-quality combination.

An important difference however between business organisations and governments is that few of the former would insist on applying mandatory offsets requirements that fly in the face of commercial self-interest. By contrast, there is evidence that governments have persisted with mandatory offsets obligations, for reasons which are essentially political.

In 1992, in their contribution to the review of the ADOP, the present authors argued that the preferred approach should be to adopt a stance consistent with a flexible and efficient procurement system in which government negotiators would be free to seek offsets if it were to the greatest advantage of Defence to have them, but otherwise to bargain for price discounts.[58] An obvious policy implication was that Defence should scrap the mandatory ADOP and instead instruct its procurement organisation to develop a procurement system that was customer-driven and oriented.

Since then, the mandatory Defence offsets Program has been relegated to a status in which it will be used only when it is of benefit to Defence (see above). We are certainly encouraged by this policy development. Although, various industrial vested pressure groups may see the move to flexible application of offsets requirements as detrimental to their parochial interests, it seems appropriate to conclude this paper with a quotation from one of the captains of the Australian defence industry:

"For me and for the great many of those in the industry, it is more appropriate to talk about the total package, which now goes under the heading of Australian Industry Involvement be that local content, designated work, or offsets. Quite frankly, very few of my colleagues bother to consider the esoteric differences between these. To them it is all work which is related to orders from the Defence Department to exacting standards and specifications demanding considerable technical and management skills and requiring considerable investment (in both financial and manpower terms)".[59]

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