THE AUSTRALIAN GOVERNMENT OFFSETS PROGRAM*

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The Australian government offsets program has been in place since 1970, but until recently, with the publication of the report of the Committee of Review on Offsets, it has operated with little public scrutiny and has attracted little academic interest. This is a program aimed at the manufacturing sector in Australia, with a view to increasing Australian firms' participation in internationally competitive activities. Issues posed as requiring investigation include: the protection aspects of offsets, their efficacy in transferring technologies from overseas suppliers of government funded purchases, the question of economic integration and the countertrade dimension of offsets.

Keywords: defence offsets, civil offsets, technology transfer, protection, economic integration, countertrade

BACKGROUND TO THE AUSTRALIAN GOVERNMENT OFFSETS PROGRAM

The AGOP was formally endorsed by the Australian government in April 1970 following recommendations by an Australian Defence Industries Mission to the US, led by Sir Ian McLennan. The original program, directed exclusively to the defence industries, was to result in Australian produced sales against local purchases of defence equipment, and this was to be achieved through promotion of the local product and through government-sponsored persuasion to seek out co-operative production agreements between foreign suppliers of government funded purchases and local industry. To date, the offsets program has not received legislative sanction.

Offsets are 'workload' directed to local industry, by overseas suppliers, as a precondition to receiving a major order for purchases financed by the government. The AGOP has operated since 1970 with little public scrutiny and has attracted little academic interest. This has been so in spite of the dollar magnitudes involved; and the program has only of late received some public exposure with the Federal government espousing policies for increased international

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competitiveness for local industry. Such policies bear a close association with offsets programs.

In April 1984, a joint announcement by the then Ministers for Industry and Commerce and for Defence Support (the two departments sharing administration of the AGOP as of that date) called for a comprehensive review of the program with a view to improving the operational effectiveness of the program and to enhancing its contribution to broader national objectives.[1] The report of the Committee of Review on Offsets, the Inglis report, was published in December 1984. New guidelines were subsequently issued and came into effect in March 1986.

OBJECTIVES

In its original 1970 form, the objectives of the AGOP were:

> . . . to promote increased overseas sales of Australian built equipment and components; to encourage co-operative research and development projects between Australian and overseas industry; to encourage firms to take on work in Australia for foreign firms wishing to build up the Australian content of items offered for sale to the Australian Armed Forces; and to seek sub-contracts from overseas defence contractors.

Overall, the 1970 policy of encouraging offsets was to " . . . assist in the maintenance and development of Australian defence production capability and the upgrading of Australian industrial technology."[2] It is clear that offsets were seen even then as an instrument of both industry policy and of trade policy, in that not only was the intent to seek increased workload for local defence manufacturers, but also offsets were to effect the transfer of technology to Australian industry. Both of these broad objectives connote further aims which impact on the diffusion of any acquired high technology throughout industry generally and on the enhancement of skills levels throughout the workforce which would raise Australian living standards as industry achieved export competitiveness on world markets.

In its current 1986 form:

> The prime objective of the Offsets Policy is to bring to Australian industry advanced technologies, skills and capabilities to meet the goals of:
>
> (a) establishing internationally competitive activities within Australia
>
> (b) supporting industry defence capability objectives.

The current policy is aimed at raising the productive capability and capacity of Australian firms by providing opportunities to gain access to advanced technologies, skills and larger markets.[3]

With an emphasis on technology transfer, the current policy is aimed at engendering the establishment of long-term work which is internationally competitive and is also viewed as " . . . contributing to self-reliance in the supply and support of defence equipments."[4]

In essence, the original and current objectives might not appear to differ markedly. However, there is a difference of emphasis. The original objectives sought workload for local industry with a view to assisting defence industry capability and upgrading industrial technology. The new objectives seek advanced technologies, skills and larger markets with a view to establishing internationally competitive activities and assisting in defence industry capability. The intent now is that if industry is competitive, the workload will gravitate to it, rather than the increased workload necessarily leading to competitiveness. The acquisition of advanced technologies, skills and access to larger markets is now accepted as a means to this increased competitiveness.

ADMINISTRATION

Administration of the AGOP is split between the Departments of Industry, Technology and Commerce (civil offsets) and Defence (defence offsets), with administrative responsibility determined by the identity of the purchaser. Defence offsets commitments are specified within a defence procurement contract and form one component of a program for Australian industry involvement. These programs might include both an offsets obligation and designated and assisted work. Defence designated and assisted work might be permitted a cost premium as this is work of defence strategic significance which would not otherwise have been undertaken in Australia. That is, defence designated and assisted work leads to activities which contribute to the goal of national self-reliance. Defence offsets are other activities which do not receive government funding assistance in that they do not attract a cost premium and are administered by the Department of Defence. Civil offsets refer to all offsets other than those embodied in a defence procurement contract, and are administered by the Civil Offsets Authority of the Department of Industry, Technology and Commerce.

Three committees meet on offsets considerations:

1. the Standing Interdepartmental Committee on Offsets, which establishes and reviews policy guidelines;
2. the Offsets Advisory Committee, which advises the Minister for Industry, Technology and Commerce on matters relating to civil offsets; and

3. the Defence Industry Committee, which advises the Minister for Defence on matters relating to defence offsets.[5]

Since its establishment, the AGOP has been administered by government departments ranging from Trade and Industry initially, then Secondary Industry, Manufacturing Industry, Defence, Productivity, Industry and Commerce, Defence Support, and currently Industry, Technology and Commerce, and Defence jointly. The original intent that offsets be defence-related only was soon abandoned. Civil and defence offsets were united until 1975, then split until 1982, united again until December 1984, and are currently administered jointly by the Departments of Industry, Technology and Commerce and of Defence.

Three states of Australia (New South Wales, Queensland and Victoria) operate individual offsets programs alongside the federal program. It does appear that these state programs have a narrow focus, targeting more on employment generation and workload creation than on the technology transfer objectives and industry revitalisation goals of the AGOP. Although the state programs seek a level of offsets of 30 per cent of the imported value of state funded purchases, differences in contract thresholds and duplication of administrative and tendering costs have contributed to suppliers' concerns with the overlap of these programs. It is also possible that undue fragmentation of offsets workload might ensue and that competition between the states with the offer of various incentives is likely to lessen the economic impact of local production. However, the latest guidelines do provide for the foreign supplier to discharge both its federal and state obligations through a sole successful submission to the federal authority. Further rationalisation seems likely.[6]

CRITERIA OF ACCEPTANCE OF WORKLOAD AS OFFSETS

Several criteria must be met before proposals put forward by foreign suppliers to government-funded organisations are accepted as offsets. These are:

1. the commercial viability criterion, which requires that offsets result in Australian activities which are competitive in price, quality and delivery, and whose viability is assured without government assistance;
2. the price criterion, specifying that offsets should not incur any price premium;
3. the technology criterion, requiring that offsets be of a level of technological sophistication not inferior to that embodied in the

goods or services being purchased, and that this technology preferably be not currently available in Australia;

4. the new work criterion, which requires that offsets must be additional to work which would have occurred in the absence of an offsets program, through normal commercial arrangements. The offsets activities should:
   (a) lead to new work for local firms, or
   (b) create a local research, design, development, production or support capability which would not have occurred, or
   (c) provide access to new markets; and
5. the defence criterion, which necessitates that defence offsets contribute to self-reliance in supply and support for the Australian Defence Forces.[7]

REQUIREMENTS OF THE AUSTRALIAN GOVERNMENT OFFSETS PROGRAM

Responsibility to provide offsets rests with the overseas prime contractor. This contractor incurs an offset obligation when the federal government finances a purchase, lease or hire arrangement which it sources, and where:

1. the duty-free price of the purchase exceeds $2.5 million with an imported component in excess of 30 per cent of this price; or
2. the Department of Defence mandates offsets for defence strategic purposes.

Various authorities, listed below, are exempted from the requirements of the AGOP because the government deems that their trading activities occur in competitive markets. This is a new dimension to the current program and it begs the question of what criteria have been used to identify 'competitive markets'. This seems particularly important as such a definition might clarify the implicit objectives of the program, *viz.*, are offsets sought because of an absence of competitive rivalry between potential suppliers to the Australian government (the behavioural dimension to competition in markets) or to correct for a deficiency in numbers of suppliers resulting in the potential for monopoly practices (the structural dimension)?

Exempted Authorities

(i) Australian National Line
(ii) Commonwealth Banking Corporation
(iii) Snowy Mountains Engineering Corporation

(iv) Medibank Private
(v) Housing Loan Insurance Corporation
(vi) Australian Serum Laboratories
(vii) Australian Industry Development Corporation
(viii) Export Finance and Insurance Corporation
(ix) Australian National Railways.[8]

The requirement that offsets be provided at a level of 30 per cent of the imported content pertains to both single and accumulated contracts. For single contracts an offsets obligation normally is to be discharged within one year of the contract period terminating, or up to five years from the contract date. For accumulated contracts, the obligation is to be discharged within the subsequent three financial years for orders accumulated over any one financial year.

In the event of an overseas supplier not fulfilling its offsets obligations in the agreed manner, several courses of action are available to the ministers administering the program. These include implementation of penalty clauses, the withholding of an offsets clearance for subsequent purchases, a moratorium on further payments against the purchase contract, and public exposure of delinquent overseas contractors. Further, the government retains the option of cancelling offsets arrangements if it assesses that they depart to such an extent from their approved form as to flout the spirit of the AGOP.[9]

FORMS OF OFFSETS AND THEIR VALUATION

Offsets can be discharged in many forms and include the following categories:

1. The transfer of technology, where offsets include the provision, at reduced prices, of proprietary, non-proprietary and intellectual property.
2. Training associated with research, development, design and production and valued with a multiplier of three attached to the cost of provision.
3. Research and development, to be valued with a multiplier of three applied to the cost of provision.
4. Purchases of Australian made products and services, to be valued at their export price.
5. Overseas marketing of local production, and valued at the full value of products or services sold where the Australian value-added is not less than 70 per cent of the selling price, or the Australian value-added in other cases.

6. Part-production or assembly, to be valued at the Australian value-added.
7. Joint or collaborative ventures, where the Australian involvement is to occur at the conceptual, design, development and production stages, and valued on the basis of previously outlined details.
8. Gifts and donations, to be valued at their selling price. Where the gift or donation is used for research and development or for training it is valued with a multiplier of three applied to the selling price.
9. Provision of equipment, to be valued at the invoice value.
10. Administrative expenses, including such expenses as travel and professional fees of representatives of the overseas supplier while arranging offsets and to be valued at actual cost.[10]

The Committee of Review on Offsets estimates that, to date, some 25 per cent of offsets are accounted for by part-production arrangements; co-production contributes to a further 50 per cent and technology transfer and training account for 10 per cent. The balance is not explained by the committee.[11]

CONTRACTUAL OBLIGATIONS

The Australian government prefers that offsets obligations be secured in its contracts for the purchase of foreign-sourced goods and services, and the offsets commitments would then be included in a request for tender document. If this is not possible, then a deed of agreement to provide offsets is required. For example, this latter course is appropriate when defence items are purchased through US foreign military sales procedures. A deed of agreement would normally include the nature and extent of an offsets obligation and a specification of the agreed offsets activities, together with their valuations and the discharge dates of these activities.

A foreign supplier's proposal to commit civil offsets is deemed not to be a factor in the purchasing authority's decision on the sourcing of purchases as this commitment is not assessed competitively by the civil offsets authority. This authority only confirms with the purchasing authority whether the mandatory requirements of the AGOP have been met. However, this is not always the case with defence offsets, where the attractiveness of a formal offsets commitment might sometimes determine the outcome of a procurement tender selection.[12]

PERFORMANCE OF THE AUSTRALIAN GOVERNMENT OFFSETS PROGRAM

As Table 1 summarises, for the period 1970-1984, from a contract value of overseas purchases eligible for offsets of some $5.9 billion, commitments to provide $1.5 billion in offsets were made and approximately $0.55 billion of workload was completed with Australian firms.

TABLE 1
Summary of Offsets Program Performance: 1970-1984

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

(a) 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) 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) Comprises orders placed by overseas companies for offsets work in Australia plus the value of technology transfers and other eligible activities.

(d) The value of offsets orders and other activities actually completed by Australian industry.

(e) Includes an unknown proportion of subsidised designated defence work which is not classified as offsets.

Source: *Report of the Committee of Review on Offsets,* Australian Government Publishing Service, Canberra, 1985, page 41.

The breakdown of offsets performance data by industry category appears in Table 2. The significance of defence industries is apparent (defence aerospace, defence shipbuilding, military vehicles and associated equipment) and these account for 50 per cent of the contract value of purchases for offsets purposes. Also important

TABLE 2
Offsets Program Performance by Industry: 1970 - 1984

Industry	Contract value for offsets purposes $m	Offsets commitment $m	Percentage commitment c/b	Offsets achievement (orders issued) $m	Percentage issued e/c	Offsets completed $m	Percentage completed g/c	e/b
a	b	c	d	e	f	g	h	i
Civil aerospace	1945.4	340.3	17.5	238.2	70.0	150.8	44.3	12.2
Defence aerospace	2011.3	590.6	29.4	138.7	23.5	118.3	20.0	6.9
Civil shipbuilding	100.0	30.0	30.0	0.6	2.0	0.6	2.0	0.6
Defence shipbuilding	620.3	154.3	24.9	27.4	17.8	23.3	15.1	4.4
Civil vehicles and associated equipment	7.4	2.2	29.7	0.7	31.8	0.7	31.8	9.5
Military vehicles and associated equipment	164.0	75.1	45.8	56.6	75.4	52.7	70.2	34.5
Telecommunications and radar equipment	570.0	166.6	29.2	126.8	76.1	116.0	69.6	22.2
Computing equipment	326.1	91.2	28.0	82.2	90.1	64.2	70.4	25.2
Machine tools	8.0	2.2	27.5	0.3	13.6	0.3	13.6	3.8
Earth moving equipment	0.8	0.2	30.0	0.2	67.0	0.2	67.0	25.0
Misc. electrical and electronic equipment	104.7	31.8	30.4	10.7	33.6	7.8	24.5	10.2
Misc. mechanical equipment	63.6	19.1	30.0	18.8	98.4	18.5	96.9	29.6
Misc. industry and business machines	20.4	4.3	21.1	1.2	27.9	1.1	25.6	5.9
Total Defence	2971.0	876.4	29.5	252.0	28.8	223.5	25.5	8.5
Total Civil	2971.0	631.5	21.3	450.4	71.3	331.0	52.4	15.2
Grand Total	5942.0	1507.9	25.4	702.4	46.6	554.5	36.8	11.8

Note: See Table 1 for definitions of terms. Percentages are based on unrounded figures.
Column i calculated by the author.

Source: *Report of the Committee of Review on Offsets,* Australian Government Publishing Service, Canberra, 1985, p. 42.

contributors are civil aerospace,[13] telecommunications and radar equipment, and computing equipment industries.

The majority of industries achieved an offsets commitment at the required level of 30 per cent, but not one industry category had completed its offsets obligations. Orders placed with Australian firms expressed as a ratio of commitments made by foreign suppliers (col.f, Table 2) illustrate the parlous state of the enforcement of offsets arrangements. In the defence sector, 28.8 per cent of commitments were met with orders issued, while the figure is 71.3 per cent for civil offsets. In aggregate, less than 50 per cent of commitments were met with orders issued.

Possibly the most appropriate summary measure of the success of the AGOP in attracting workload for Australian firms is the ratio of actual orders issued to the contract value for offsets purposes (col.i, Table 2). These figures are disturbing in that they highlight the outcome that the target of a minimum level of 30 per cent offsets on all eligible purchases has been reached in two industries only, both of which are relatively minor in terms of overseas purchases. The aggregate figures demonstrate that against defence sector purchases, Australian industry has performed less successfully in attracting overseas orders (8.5 per cent only of the contract value of purchases overseas has appeared as orders placed with Australian firms) than against civil purchases (15.2 per cent of the contract value of purchases overseas has appeared as orders with local firms). Overall, orders to the value of only 11.8 per cent of the contract value of purchases with foreign firms have been placed with Australian firms, a result which must call into doubt the success of the program when evaluated against a target of at least 30 per cent.

Further, some 63 per cent of total offsets commitments remain uncompleted, with the defence sector having some 74 per cent incomplete. Not all of this outstanding deficit is delinquency, with some component being 'work placement in progress'. Nevertheless, the Inglis committee estimated that some 20 per cent of obligations not yet discharged might be classed as delinquencies with $130 million of an estimated delinquent $160 million pertaining to defence purchases, the larger part of which was made on a 'best endeavours' basis under US foreign military sales procedures.[14]

The Inglis report relates offsets completed with value added in, and exports from, Australian manufacturing industry. Over the five year period 1978/79 to 1982/83, offsets completed were stable at 0.1 per cent to 0.2 per cent of value added in Australian manufacturing industry. They represented between 0.8 per cent and 1.7 per cent of the value of manufactured export and between 1.3 per cent and 3.0 per cent of exports of 'elaborately transformed manufactures'.[15] As such, offsets are relatively minor when judged against total manufacturing

activity. Further, the committee estimated that, at best, only 0.2 per cent of total employment in manufacturing in Australia might be directly attributable to offsets activity.[16]

It is also informative to examine data on offsets arrangements by country of origin. The US is by far the largest supplier to the Australian government and has amassed offsets commitments of $1.8 billion, of which only $0.44 billion in orders have been placed with Australian firms, the lowest apparent success rate in fulfilling obligations. Japan has outstanding obligations of 53 per cent of commitments, while the United Kingdom, Federal Republic of Germany, France and 'other' suppliers have been more successful in discharging their offsets obligations. However, factors such as the 'best endeavours' clauses of the US foreign military sales system muddy any relationship between fulfilment of offsets commitments and tardiness in honouring those obligations.[17]

POLICY ISSUES IN THE ANALYSIS OF AN OFFSETS PROGRAM

While the practice of mandating offsets arrangements first appears to be an issue of industrial organisation with its focus on the upgrading of the technological base of Australian manufacturing industry, it has consequences extending well beyond the micro-arena and into the arena of international trade. Four dimensions to the impact of an offsets policy are identified in this preliminary paper. These are:

(a) the protective elements in an offsets program,

(b) offsets and international technology transfer,

(c) the countertrade dimension, and

(d) aspects of economic integration.

(a) The Protective Elements

The OECD, amongst others, highlights the increasing significance of non-tariff restrictions to trade. It estimates that, following from the Tokyo Round of the GATT, average 'most-favoured nation' tariffs on industrial imports of some 17 of the major OECD nations have fallen to about 4.5 per cent. However, tariffs (both nominal and effective) in sectors which account for some 28 per cent of trade in manufactures, still remain high, and are being applied alongside an increasing variety of other forms of protective measures. For example, over the period 1980-83 the share of exports from Japan and the Asian newly industrialising countries subject to non-tariff restrictions increased from 15 per cent to over 30 per cent, and the number of countries imposing non-tariff restrictions on trade widened.[18] The

OECD suggests of these non-tariff restrictions that " . . . the high degree of sectoral specificity and discrimination reflects the 'crisis management' orientation underlying trade policy . . . Policy actions appear geared to meeting highly specific objectives: the problems faced by a particular supplier; the difficulties faced by a particular industry or region."[19] It does appear that some major trade problems of today are essentially the domestic problems of lack of growth and sluggishness of adjustment. Industrial policies, amongst others, have been adopted as alternatives to trade policy, in particular, tariff protection. Offsets are being used in this way.

That offsets workload must be additional to activity which would have occurred through normal commercial arrangements (the 'new work criterion') confirms the view that an element of protection is afforded firms which otherwise would not have participated in that activity without the support of the program. However, in spite of this, the Committee of Review on Offsets suggests that ". . . while having overlapping objectives, the Program does not correspond to a local content scheme, where the objective is to have a nominated share of supplies made in Australia."[20] Grossman defines a local content protection scheme as one which ". . . requires that a given percentage of domestic value added or domestic components be embodied in a specified final product."[21] The Inglis committee is suggesting that as not all offsets arrangements require local content, then the AGOP might not equate to a local content scheme.

However, it is the case that the type of offsets sought against purchases vary markedly from part-production and co-production (which certainly correspond to a local content scheme) through unrelated offsets (which might not equate to a local content scheme) to research programs and technology transfer (which are certainly in the spirit of such schemes in that value-added is contributed by these arrangements).[22] The IAC, in a working paper on local content schemes, writes that ". . . government purchasing policies which afford preference to goods with relatively high Australian content and the offsets provisions applying to government purchases supplied by local firms may also be considered as local content schemes."[23]

(b) Offsets and International Technology Transfer

If the market in technology was perfect, there would not be a need for an offsets policy with objectives as stated. In fact, certain authorities ". . . are exempted from the policy on the basis that major trading activities are undertaken in competitive markets."[24] However, the market in technology is imperfect (for reasons of inappropriability, risk and uncertainty, and indivisibility), and if technology transfer is to occur, it will do so through a non-market form of exchange (technology transfer being a prime objective of the AGOP).

It would be illuminating to have published the criteria the government uses in determining the competitiveness of trading activities and which resulted in the list of exempted authorites mentioned earlier. It might also be illuminating to assess the degree of competitiveness of the markets in which those industries listed in Table 2 trade. If small numbers of suppliers and heterogeneity of product are major determinants of a lack of competitiveness, then a hasty categorisation of these active industries might list the majority as being competitive, possibly with civil aerospace, and the defence categories of defence aerospace, shipbuilding and military vehicles and associated equipment as being imperfect.

This is not to assert that such a categorisation is rigorous, but given the exclusion clause of exempted authorities, it does appear that many of the activities currently attracting offsets might also be exempted if the program was applied consistently. In this light, it is interesting to note that the Australian National Line is exempted whereas civil shipbuilding offsets are sought. The Commonwealth Banking Corporation, Housing Loan Insurance Corporation, Australian Industry Development Corporation, Export Finance and Insurance Corporation and Medibank Private are exempted, yet they are likely to purchase computing equipment and business machines overseas and these are listed as offsets categories.

In the present context, the markets-hierarchies paradigm might be used to explain the organisational form for facilitating the process of technology transfer.[25] Following from this paradigm, the role of firms (MNEs and local firms) and of governments (both foreign and domestic) becomes apparent, as does the strategic interaction which develops between these participants. This interaction is strategic in that the commodity in exchange, technology, is rent-producing and is central to the foreign firm's competitive strategy. And so it is to the foreign government, as technological ascendancy enhances a nation's comparative advantage.

The domestic government, in its quest for capturing rents from technology, engages in a strategic play with both the foreign firm and its government and also with the domestic firm. The domestic government is able to set pre-conditions to the process of trade which the domestic firm cannot. That is, the domestic government sets a pre-emptive strategy of requiring an offsets commitment to any purchase it finances and which is foreign-sourced. Government realises that unless domestic industry is competitive, no local participation in foreign-sourced production will eventuate, and often will not do so even if local industry is competitive with foreign suppliers. Thus, in order to garner rents, the domestic government attempts to establish a 'credible' pre-condition to exchange through mandating offsets against the purchases it funds. Here, the emerging theory of

technological competition might be appropriate in advancing understanding of situations where governments intervene in an attempt to capture for domestic firms rents from foreign sources that domestic firms cannot themselves capture.[26]

Nevertheless, this strategic game-play is not necessarily biassed in favour of the domestic actors. The winner (if there is one) might not take all. The costs of enforcing an offsets policy might be substantial. In a non-market form of exchange, costs include those of bringing together willing parties to the transaction and the administrative costs of ensuring the exchange is finalised. Transactions costs associated with enforcing an offsets policy are likely to be large as there exists the incentive for the foreign supplier to default on its offsets obligations, an incentive often compounded by the ambiguous nature of the commodity or service contracted as an offset. The neoclassical assumption of zero transactions costs must be abandoned when the form of exchange is hierarchial rather than market-based.

(c) The Countertrade Dimension to Offsets

Offsets are government-mandated countertrade (the exchange of goods for goods rather than dollars for goods) and as such have attracted comments, particularly from the North Americans, such as ". . . offsets and any move to countertrade are a pernicious influence that serves to undermine the open, competitive world economy."[27] The consequences of countertrade are not well understood. However, it is possible that the visible and immediate benefits of countertrading are overshadowed by its hidden costs.

Access to markets and technologies are cited as prime goals of the AGOP. This access is sought through the catalytic role offsets might play in providing leverage for local firms to internationalise. However, it is doubtful whether the benefits of assisted passage in the international marketing fracas, for instance, accrue to local firms or whether this further entrenches the foreign supplier in that global marketplace. Successful international marketing is very much an expensive and acquired skill, one not readily learned and practised, and one not readily relinquished by the successful to its rivals. If local firms are wanting in these skills, then to abandon the process of learning-by-doing, and to free-ride on, and further enhance, the competitiveness of foreign suppliers in markets acquisition seems a dubious benefit. The hidden cost of this offsets arrangement is that the foreign supplier, acting as a marketing agent, retains all of the market information.[28]

As countertrading expands, both firms and governments must structure countertrade strategies into their management policies. This will require a radical divergence from conventional, commercial

practices based on price and market signals. Further, because of its inherently discriminatory nature, countertrade has the potential to foster severe retaliatory responses. Offsets have some features of a 'beggar thyself' policy rather than being a 'beggar thy neighbour' policy. For instance, it might be that countertrading nations sacrifice credibility and hence bargaining power in international trade fora such as the GATT, which have at their cornerstone the commercial, non-discriminatory, multilateral, trading system, rather than the politicised, bilateral arrangements characteristic of countertrade. Australia is not a signatory to the GATT (1981) agreement on government procurement, which limits the trade distorting effects and the protectionist effects of procurement policies.

(d) Aspects of Economic Integration

An offsets policy displays distinct aspects of economic integration in that collaborative ventures in production, marketing, research and development and training between local firms and foreign suppliers are prominent. Implicit in the objectives of the AGOP are access to broader markets and the derivation of scale economies in research and development, production and distribution.

Intra-industry trade is widely recognised, and relatively recently a body of literature has developed which points to a theory of intra-industry trade. Underpinning this theory are two dimensions to trade; *viz.*, inter-industry trade which is based on comparative advantage, and intra-industry trade stemming from economies of scale considerations. Following from this theory, factor endowments determine the broad industrial structure of a nation, while it is scale economies that limit the range of products from any particular industry. Intra-industry specialisation results and trade ensures the internationalisation of production. This, in large part, explains why the propensity for nations to trade has been increasing with increasing degrees of similarity between economies.[29]

Thus, the offsets program does display essential features of the above four dimensions. First, offsets do include an element of protection. Second, offsets do draw governments and firms into a rivalrous game-play with the possibility of retaliatory responses which might be harmful to all participating. Third, offsets are a form of countertrade and exist in a most damaging form in that they are mandated. The implications of increasing countertrade in a world with gains to be made from free trade require elaboration. Fourth, offsets foster co-operative arrangements between active participants and are essentially consistent with the broader processes of internationalisation and economic integration.

CONCLUDING REMARKS

The impact of an offsets program has been identified as having four dimensions which require more extensive elaboration. These span aspects of both international trade theory and the theory of industrial organisation. Some well-developed issues in the debate on protectionism apply, as does the theory of intra-industry specialisation. On the other hand, understanding of the lesser-developed issues of countertrade and of strategic rivalry in imperfect international markets is essential to a better appreciation of the impact of an offsets program. Only after these policy issues have been thoroughly explored can a statement be made as to the efficacy of such programs. This analysis is deferred by the author for further consideration. In conclusion, it might be advanced that pivotal to the effectiveness of an offsets policy is the question of leverage and of the credibility of the threat to the foreign supplier of encountering more stringent conditions in future tender dealings if suitable offsets arrangements are not committed and discharged. However, leverage is probably an ineffective strategy if the commodity purchased is in monopoly supply (as is possibly the case with some defence acquisitions), and in exchanges with nations more dominant in the economic arena than Australia.

NOTES AND REFERENCES

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2. Joint Statement on Defence Industries, Minister for Trade and Industry and the Minister for Defence and Supply, 1 April 1970.
3. *The Australian Government Offsets Program: Guidelines for Participants,* AGPS, Canberra, 1986, paras. 2.1, 2.2.
4. *ibid.*, para. 2.2.
5. *ibid.*, para. 3.5.
6. *ibid.*, para. 9.3.
7. *ibid.*, chapter 4.
8. *ibid.*, para. 5.3.
9. *ibid.*, chapter 5.
10. *ibid.*, chapter 6.
11. *Report of the Committee of Review on Offsets,* AGPS, Canberra, 1985, para. 3.14.
12. *The Australian Government Offsets Program: Guidelines for Participants, op. cit.*, chapter 7.
13. Civil aerospace is a major contributor to the AGOP. It is interesting to observe that Australia is not signatory to the GATT agreement on civil aircraft, which, although not explicitly banning offsets, appears to do so implicitly.

14. *Report of the Committee of Review on Offsets, op. cit.*, p. 29.
15. *ibid.*, p. 45.
16. *ibid.*, para. 5.10.
17. *ibid.*, chapter 3.
18. Organisation for Economic Co-operation and Development, *Costs and Benefits of Protection,* Paris, September, 1985.
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22. Studies of the economics of content protection include the works of G.M. Grossman, *ibid*; M. Mussa, *The Economics of Content Protection,* National Bureau of Economic Research, Working Paper No. 1457, September 1984; Industries Assistance Commission, *Local Content Schemes: a Technical Analysis,* Working Paper, July 1984; and of government procurement as a protective device include S.S. Joson, *Substitutability of 'Buy Local' Policy for Tariff Protection in Small Economies,* Working Papers in Economics No. 78, University of Sydney, January 1985; P.G. Warr and B.R. Parmenter, *Protection through Government Procurement,* Discussion Paper No. 91, Centre for Economic Policy Research, Australian National University, Canberra, March 1984.
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