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# DEFENCE OFFSETS

## International Best Practices and Lessons for India

Laxman Kumar Behera

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## INTERNATIONAL BEST PRACTICES AND LESSONS FOR INDIA

**Laxman Kumar Behera**

INSTITUTE FOR DEFENCE STUDIES & ANALYSES
रक्षा अध्ययन एवं विश्लेषण संस्थान

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Laxman Kumar Behera

# PREFACE

Like many other countries, India has a formal offset policy to enable it to leverage its huge arms imports in order to develop a strong indigenous defence industry. The offset policy, which was formally announced for the first time in 2005, has been revised several times, with the latest policy coming into force since August 2012. As per the extant provision of the policy, a 30 per offset is mandated in import contracts valued Rs 300 crore or more. Till December 2014, the defence ministry had signed 25 offset contracts– 16 for the Air Force, six for Navy and three for Army -– valued at $4.87 billion. However as highlighted in the successive reports of the Comptroller and Auditor General of India (CAG), India's experience of offsets has been less than satisfactory. Complementing the audit findings of the CAG, this monograph presents further evidence, indicating the poor impact of the policy on Indian defence industry. The monograph argues that the offset policy has not proved to be a catalyst for bringing in foreign direct investment, which was its key objective since its very inception. It has also not been able to facilitate and promote defence exports, another key objective of the policy. At the same time the policy has also not been able to attract high-end manufacturing, or technology into the local industry. The policy has only served the limited purpose of promoting exports of civilian aerospace parts and components.

The monograph argues that the Indian offset policy has inherent design flaws that make it ineffective. It suggests a comprehensive roadmap for Indian policy makers, on the basis of a detailed assessment of the offset policies followed by six countries: Canada, Israel, Malaysia, South Korea, Turkey and UAE. While the monograph is meant largely for an Indian audience, it could prove to be of use to countries who are interested in devising an effective offset policy.

The monograph is divided into six chapters. The first chapter is an introduction to the world of offsets, and also discusses key emerging issues. Chapter II critically examines the evolution of the India's offset policy. It also identifies the key design weaknesses of the policy

framework. Chapter III summarises the observations made by successive CAG reports, beginning with the 1990 report on the offsets in the Bofors contract. The chapter argues that the successive CAG reports have served little purpose as the government has not acted upon the key findings of the auditor. Chapter IV examines the impact of the offset policy on the defence industry. It also underscores the lack of data on the subject, while suggesting the approach for carrying out an impact analysis that could form the basis of any future research on the subject. Chapter V surveys the offset practices of seven countries including India. It observes that compared to other countries, India's offset policy is ineffective and at times lacks fundamentals as understood by many others. Chapter VI makes a set of recommendations for the consideration of Indian policy makers.

*CHAPTER - I*

# INTRODUCTION

The global arms trade is increasingly becoming a two-way process. Instead of the traditional off-the-shelf procurement involving goods/ services being exchanged for money, more and more arms buyers are now demanding that some form of work should also directly flow from the contracts they sign with foreign entities. The flow back arrangement in the contract, widely known as offsets, is usually demanded as a certain percentage of the contract value. Offsets are also demanded in various other forms ranging from traditional counter trade practices (purchase, buy-back or counter purchase) to modern-day practices such as licence production, co-production, investment, and technology transfer. The purpose for demanding offsets also varies from country to country, depending upon their priorities. While some countries seek offsets in the form of foreign investment and the like for general economic development, others demand technology transfer and a definite work share in the items being procured. Offsets can therefore be of two types: direct and indirect. While direct offsets are related to the system being procured and are typically in the form of co-production, subcontracting, licenced production and technology transfer, indirect offsets are unrelated to the items imported by the buyer. Such offsets usually include counter trade transactions, investment, financing activities, export related assistance, and technology transfer.

## Offsets and the Economic Literature

The wide acceptance of the practice of offsets can be gauged from the fact that presently around 120-130 countries have offset requirements in some form or other, compared to some 15 countries that had such a requirement in the early seventies.[1] The widespread practice of offsets notwithstanding, it does not find much acceptance in the available

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[1] Peter Hall and Stefan Markowski, "On the Normality and Abnormality of Offsets Obligations" *Defence and Peace Economics*, Vol. 5, 1994, p. 173.

economic literature. Brauer and Dunne, whose edited book of 2004 is by far the most comprehensive study on the subject, categorically state that "neither economic theory nor extant empirical evidence suggests that offset arrangements yield net benefits."[2] Elucidating this further, the authors in a separate work provide a more succinct assessment of the efficacy of offsets:

> [O]ffsets do not result in arms acquisition cost reductions, that offset do not stimulate broad-based civilian economic development, that neither substantial not sustained job creation occurs, not even within the military sector, that almost no successful technology transfer into the civilian sector is observed, and that only limited technology transfer into the military sector occurs, often over decades and at high cost. Moreover, whatever technology is transferred is quickly outpaced by continuous technology advances in the main developed counties…[3]

The authors' pessimism about the efficacy of offsets is also accompanied by two critical issues that are normally overlooked by offset demanding countries. First and foremost, countries seeking offsets hardly ask the question as to whether offsets really bring in new business. Evidence suggests that a business, which would have taken place without an offset contract, is normally accepted as a valid offset transaction. Second, countries also hardly study the costs and benefits of each offset contract. This assumes importance given that offsets tend to inflate the cost of the main procurement contracts. It is believed that the administrative cost of offsets alone costs the supplier 7-10 per cent of the contract value.[4] This together with other costs associated

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[2] Jurgen Brauer and John Paul Dunne (eds.), *Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets,* London, Routledge: 2004, p. 1.

[3] Jurgen Brauer and John Paul Dunne, "Arms Trade Offsets: What Do We Know?" in Christopher J. Coyne and Rachel L. Marhers (eds.), *The Handbook on the Political Economy of War* Cheltenham, Edward Elgar: 2011, p. 259.

[4] Ibid, p. 251.

with offsets, has the potential to raise the cost of the procurement contract by as much as 20-30 per cent as was found in the Belgian experience.[5]

The pessimism of the economic literature notwithstanding, in practice, offsets are widely used, including in civilian procurements. It is estimated that offsets account for 5-30 per cent of the total world trade.[6] The justification for offsets, especially in defence procurement, is given in the unique context of the arms market, which is "far from perfectly efficient".[7] Even those countries which do not have a formal offset policy, also provide for offset in other forms. The 'Buy America Act' of the US is essentially an offset policy but for the name.[8] In other words, as long as the market remains imperfect, offsets would likely to remain the norm rather than the exception.

## Offsets: Volume and Trends

The popular use of offsets by many countries notwithstanding, secrecy is the norm when it comes to official data. This prevents an authentic estimate of offset transactions at the global level. The lack of official data has however not prevented other agencies from making their own estimates. For instance, Avascent, a consulting firm, estimates that offset obligations worth $214 billion were generated worldwide during the seven year period between 2005 and 2011. The firm also estimates an additional $225 billion of offset obligations by 2016. Based on

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5 Wally Struys, "Offset in Belgium: between Scylla and Charybdis?", in Jurgen Brauer and John Paul Dunne (eds.), *Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets* London: Routledge 2004, p. 167.

6 n.2, p. 2.

7 Keri Wagstaff-Smith, "Offsets may be Justified in a 'Far From Perfectly Efficient' Market, Says Economist", *Jane's Defence Industry*, May 16, 2008.

8 The Buy American Act enacted first in 1993 applies to direct purchases by the US federal government when the value of purchase exceeds $3000. The Act "requires that 'substantially all' of the acquisitions be attributed to the American-made components." See John R. Luckey, "Domestic Content Legislation: The Buy American Act and Complementary Little Buy American Provisions", CRS Report for Congress, April 25, 2012.

Avascent's estimates, on an average, offsets of $37 billion are generated annually.[9]

Avascent's estimates may not necessarily reflect the true value of offsets as industry' estimates tend to be lower.[10] Besides, Avascent does not distinguish between defence offsets and civil offsets. This makes it difficult to arrive at the precise volume of offsets in the arms trade.

Given the lack of comprehensive official data on arms trade offsets, the statistics provided by the Bureau of Industry and Security (BIS) of the US Department of Commerce remain the only official source for any meaningful analysis. The BIS data is not only defence specific, but also captures the value of offsets and its percentage share of the total US arms exports, offset transactions by type (direct and indirect) and category (co-production, licenced production, technology transfer etc.).[11] The BIS data is however restricted to US companies that are mandated to report any defence export which entails an offset requirement exceeding $5.0 million to the US government. The US companies are also required to intimate "offset transactions completed in performance of existing offset commitments for which offset credits $250,000 or more has been claimed from foreign representative."[12]

Assuming that the US is largest offset provider (by virtue of being the largest arms exporter in the world), and that countries seeking offsets

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9 "The Half Trillion Dollar Challenge: Designing Offset Strategies to Build Reputation, Promote Development", July 2012, http://www.avascent.com/wp-content/uploads/2013/02/Avascent-Offsets-2-White-Paper.pdf.

10 "The Defence Industry: Guns and Sugar", *The Economist*, May 25, 2013, http://www.economist.com/news/business/21578400-more-governments-are-insisting-weapons-sellers-invest-side-deals-help-them-develop.

11 It is however to be noted that the pubic version of BIS data does not include country-wise offset.

12 Bureau of Industry and Security, U.S. Department of Commerce, "Guidance for Complying with the Bureau of Industry and Security's Procedures for Reporting on Offsets Agreements Associated with the Sales of Weapon Systems or Defense-Related Items to Foreign Countries or Foreign Firms", http://bis.doc.gov/index.php/guidance-for-reporting-on-offset-agreements.

from US companies also demand similar arrangements with other arms suppliers, the BIS data can be used to generalise the magnitude of offsets at the global level.

As per the 17th BIS report, during 1993-2011, 53 US defence companies signed 830 offset-related defence export contracts with 47 countries. The value of the associated offsets was $83.73 billion, representing 68.28 per cent of total arms export contract value of $122.67 billion. In 2011 alone, nine US companies signed 59 offset-related defence agreements valued at $10.76 billion with 27 countries. The offset value of these contracts was $5.48 billion or 50.92 per cent of total export value.[13]

The BIS report notes that during 1993-2011, direct offsets accounted for 40.8 per cent of all offset transactions, compared to 58.8 per cent for indirect offsets.[14] In 2011 however the share of direct offsets was higher at 48.7 per cent (the share of indirect offset was 51.1 per cent). Among all the offset categories reported by US companies, three categories - purchases, subcontracting and technology transfer – stood out as the most preferred offset transactions. Between 1993 and 2011, they together represented 81.1 per cent of all offset transactions by number, 77 per cent by actual transaction value and 72.6 per cent by credit value.[15]

A key aspect of the BIS report pertains to the annual variation of percentage of offsets in US arms exports. During the 19 reporting years, for which the BIS provides year-wise statistics, the offset percentage has fluctuated from the low of 34 per cent in 1993, to a

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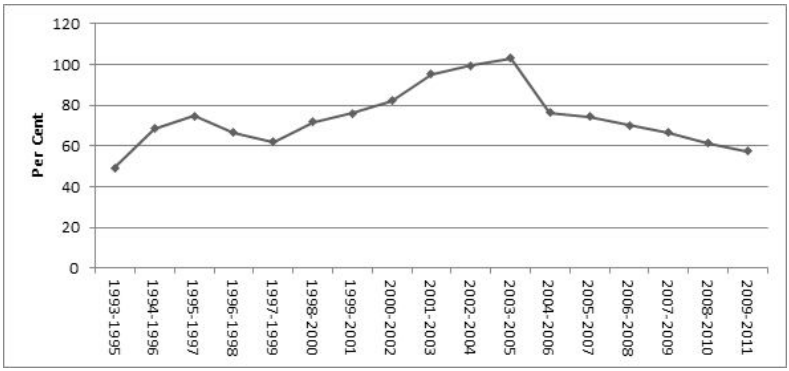
[13] Bureau of Commerce and Security, US Department of Commerce, *Offsets in Defence Trade*, 17th Study, February 2013, pp. 2-3.

[14] The summation of direct and indirect offset percentages falls marginally short of 100 as a small number of offsets transactions reported by the US companies are not specified in either category.

[15] In 2011, of the total number of transactions having multiplier of more than one, 60 per cent were technology transfer.

high of 125 per cent in 2003. Figure 1.1 shows a smoother trend line by way of plotting a 3-year moving average of the BIS statistics. As the figure illustrates, there are clearly two distinct periods, with the cut-off period being 2003-05. In the first period, the demand for offsets (in percentage terms) is more or less on an upward trajectory. The second phase is characterised by a persistent decline.

**Figure 1.1. Offset Percentage in US's Defence Trade, 1993-2011 (3-Year Moving Average)**




***Source:*** Figure extrapolated by the author from data obtained from the U.S. Department of Commerce, Bureau of Industry and Security, *Offsets in Defense Trade: Seventeenth Study*, February 2013, p. 3.

The persistent decline in offset percentages post 2003-05 raises the vital question as to whether the trend reflects a declining emphasis on the use of offset. While a definite answer could only be provided by examining the policies of all countries demanding offsets, a cursory remark could be made in the context of the official policies and positions of the US and Europe, two major players in the international offset trade.

The US, which is by far the largest offset provider, has always been worried about the negative impact of offsets on its economic, industrial and technological base. Officially, the US government views offsets as "economically inefficient and trade-distorting", and prohibits its government agencies from being directly involved in offset related

activities.[16] To limit the adverse impact of offsets, the US government has taken two crucial measures. First, it has authorised its agency to prepare an annual report to enable the US Congress to assess the magnitude of impact of offsets in defence trade. The BIS report, 17th in the series is the outcome of such mandate. Second, the US government has set up an inter-agency team (comprising secretaries of commerce, defence, labour, and state, and the United States Trade Representative) to engage foreign governments bilaterally and multilaterally to "limit the adverse effects of offsets in defence procurement". By January 2012, the inter-agency team had submitted five reports to the Congress. The report of the inter-agency team is, however, silent as to the extent to which the body has been successful in convincing the US arms buyers to limit the use of offsets. Given the US clout in the global arms trade, it will not be surprising if buyers of American weapons have paid heed to the inter-agency. However, as mentioned earlier, this needs to be probed in greater detail as there is opposing evidence to this effect. On the one hand, there are countries like Brazil, Malaysia and South Korea who have progressively increased the percentage of offsets. For instance, Brazil which used have a 100 per cent offset requirement, has upped the demand to 175 per cent in the acquisition of Swedish Gripen aircraft.[17] On the other hand, European countries, which had traditionally high offset percentage requirements, have started lowering their demands, subject to a maximum cap of 100 per cent.

### *EDA's Code of Conduct on Offsets*

US efforts to curb the impact of offsets are paralleled by a similar effort in the Europe. It is noteworthy that historically Europe had very

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[16] The US government does not however prevent its defence companies from undertaking offset activities. As per the US government policy, the "decision whether to engage in offsets, and the responsibility for negotiating and implementing offset arrangements, reside with the companies involved". See "1990 Presidential Policy on Offsets", available at http://www.bis.doc.gov/index.php/other-areas/strategic-industries-and-economic-security-sies/offsets-in-defense-trade. Accessed on November 13, 2013

[17] Janet Tappin Coelho, "Brazil Selects Gripen to Meet FX-2 Requirement", *Jane's Defence Weekly*, 17 December 2013

high offset requirements, often exceeding 100 per cent of the contract value. For instance, a 2007 European Defence Agency (EDA)-sponsored study found an average offset percentage of 135 among the European countries during 2000-2006. The offset percentage was also found to be much higher for countries like Finland, Greece, Poland and Spain which demanded an average of 145 per cent during the study period.[18] Another instance of a high offset demand is the UK's contract with Boeing in which the American company was asked to provide an offset of 130 per cent.[19] It is also noteworthy that the high offset requirement was prevalent despite the EU Defence Procurement Directive, which prohibited offset like practices in procurement. Nonetheless countries resorted to offsets by invoking the Article 346 of the Directive that allowed exemptions on grounds of national security.

The excessively high demand for offsets created concerns that they might erode the competiveness of the European defence and technological base. In a significant development, the EDA, a group of 27 European Union (EU) member countries, announced a voluntary, non-legally-binding Code of Conduct on Offsets which came into force on July 1, 2009.[20] The 'ultimate aim' of the Code is to "create the market conditions … in which offset may no longer be needed."[21] It however acknowledges that "today's defence market is not perfect" and there exists a scope for offsets, at least in the short-run.

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[18] E Anders Eriksson et al., "Study on the Effects of Offsets on the Development of a European Defence Industry and Market", July 2007, https://www.eda.europa.eu/docs/documents/EDA_06-DIM022_Study_on_the_effects_of_offsets_on_the_Development_of_a_Europ ean_Defence_Industry_and_Market_1

[19] Stephen Martin and Keith Hartley, "UK Firms' Experience and Perceptions of Defence Offsets: Survey Results", *Defence and Peace Economics*, Vol. 6, 1995, pp. 123-139.

[20] Brooks Tigner, "Briefing: EU Offset Policy Efforts Still in Question Three Years on", *Jane's Defence Weekly*, November 22, 2012.

[21] European Defence Agency, "Code of Conduct on Offsets Agreed by the EU Member States Participating in the European Defence Agency Version Approved on 3 May 2011", http://www.eda.europa.eu/docs/default-source/documents/The_Code_of_Conduct_on_Offsets.pdf.

The EDA's code of conduct lays down broad principles for the subscribing member states. Among others, the Code caps the offset requirement at no more than the value of the main contract, i.e. a maximum of 100 per cent in defence trade. It also stipulates that when the offset is a factor in the selection of bids, it should have less weightage, so as to ensure the procurement of the best available system at the most economical and competitive price. In an attempt to do away with the practice in which buyers sought specific offsets, the code gives the bidder the freedom to choose the most cost effective options for discharge of offset obligations. In other words, suppliers are given the freedom to choose their supply chain partners from the buying countries through a fair and open competition. The code finally binds the subscriber members to "mutual abatements to reduce reciprocal offset commitments."

Although the Code of Conduct is voluntary and legally non-binding, subscriber members have either aligned, or are in the process of aligning, their respective offset policies with the Code's broad principles. For instance, the UK, a key EDA member, has abolished its Industrial Participation (IP) policy which was the basis for its high demand for offsets. It has instead, since March 2012 adopted a liberal Defence and Security Industrial Engagement Policy (DSIEP). The DSIEP seeks voluntary participation by foreign companies to do business with the UK MoD, as opposed to the practice under the previous IP regime as per which the UK insisted on offsets of 100 per cent or more on contracts exceeding $16 million.[22] Given the compliance of the UK and several other European countries with the principle of the Code of Conduct, particularly with respect to limiting offsets to a maximum of 100 per cent, it is not surprising to see a downward trend in the global offset demand, as reflected in the US BIS data.

## Increasing Sophistication of Policy

The downward trend in offset demand notwithstanding, countries demanding offsets are now more sophisticated in their approach than

[22] Guy Anderson, "Four companies now subscribe to UK Defence and Security Industrial Engagement Policy", *Jane's Defence Weekly*, October 31, 2013.

before. The sophistication of the policy is usually based on the experience gained in the actual use of offsets, which is then reflected in the periodic revisions of the policy. As a result, countries not only demand offsets, but also choose the kind of the offsets they require and the areas where offsets are to be allowed. For this, countries also use a host of complex methodologies such as multipliers, banking of offsets, offset trading and principles of value addition, additionality and causality – which are the subject of detailed examination in this monograph. While examining the offset policy followed by other countries, the Monograph also tries to draw some reference for the Indian offset policy.

*CHAPTER - II*

# EVOLUTION OF THE INDIAN DEFENCE OFFSET POLICY: A CRITIQUE

India's offset policy dates back to the 1960s, although it was formally articulated only in 2005. In the wake of 1962 war with China, India made concerted efforts to build up its domestic defence industry in which offsets were a key element. The offset arrangements that India entered into with other countries were both direct and indirect, and were largely in the form of 'licenced production/technology transfer, counter or barter trade and long-term credit mechanisms'. The primary motivation was to become 'self-sufficient' in defence production and reduce the foreign exchange burden of arms imports.[1]

The Defence Procurement Procedure 2005 (DPP 2005) for the first time set out the official offset policy, stipulating that all import contracts worth Rs 300 crore or more would have defence-specific offsets amounting to 30 per cent; and the offset obligations of foreign companies were to be discharged concurrently with the main contract, failing which the companies would be liable to be penalised (at the rate of five per cent of the annual unfulfilled portion).[2] Foreign vendors were given two choices through which they could discharge their offset obligations. These were:

1. Direct purchase, providing market access, or creating new markets by generating export orders for Indian products, components and services.

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1 Angathevar Baskaran, 'The Role of Offsets in Indian Defence Procurement Policy', in J. Brauer and J. Paul Dunne, *Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets*, London: Routledge, 2004, pp. 217–232

2 Ministry of Defence, Government of India, *Defence Procurement Procedure 2005: Capital Procurements,* June 2005, pp. 5 &12.

2. Foreign direct investment in Indian public sector undertakings for defence industrial infrastructure

To discharge offset obligations, foreign vendors were given the freedom to choose their Indian offset partner(s), either from defence public sector enterprises or from companies in the private sector, in consultation with industry associations. In choosing their Indian offset partner, the foreign vendors were given the freedom to infuse technical or financial assistance, on condition that the cost of the same would not be included in the offset offer. The policy stipulated that only a Defence Public Sector Undertaking (DPSU) or Ordnance Factory Board (OFB) would assist the MoD in the monitoring of the implementation of offsets. The monitoring would be based on a yearly status report submitted by foreign companies.

These provisions notwithstanding, the 2005 policy suffered from many weaknesses. The major weakness was the lack of vision in the policy, an aspect that continued to dog the policy makers till 2012 when the objectives of the policy were at last announced. Among other flaws, the 2005 policy did not fully elaborate the scope of offset applicability; it lacked clarity regarding the criteria as per which the industry associations would select an Indian offset partner; laid down limited avenues for discharge of offsets; did not specify the products and services eligible for offset discharge; was rigid with regard to the discharge of offset obligations by foreign companies; and more importantly, did not identify a dedicated agency that would facilitate offset works. Some of these weaknesses were addressed when the revised offset policy was unveiled as part of the DPP 2006.

The DPP 2006, while retaining the minimum 30 per cent offsets and the penalty provision of the previous policy, included a number of improvements. Firstly, it clarified the scope of offsets by stating that offsets would apply to all capital acquisitions (including those for warship construction) categorised as 'Buy (Global)' or 'Buy and Make' where the indicative cost in the tender was Rs 300 crore or more. It further clarified that while the 30 per cent offset was to be applicable on the entire cost of the 'Buy (Global)' contracts, the same percentage of offsets would apply to the foreign exchange component of the 'Buy and Make' contracts. Secondly, the offset policy of 2006 simplified and increased the avenues for discharge of offsets. As per the revised

policy, the offset obligations of the foreign companies could be discharged by a combination of the following three means:

1. Direct purchase, or executing export orders for defence products and components, or services from Indian defence industries, i.e., Defence Public Sector Undertakings, the Ordnance Factories, and any private defence industry manufacturing these products or components under an industrial licence (IL) granted for such manufacture. For the purpose of defence offsets, 'services' will mean maintenance, overhaul, upgradation, life extension, engineering, design, testing, defence-related software or quality assurance services.

2. Direct foreign investment in Indian defence industries for industrial infrastructure, for services, co-development, joint ventures and co-production of defence products

3. Direct foreign investment in India organisations engaged in defence research and development (R&D) as certified by Defence Offset Facilitation Agency (DOFA)

Thirdly, the DPP-2006 brought in the much needed functional clarity into the offset policy by the inclusion of five key drafts: a draft undertaking to comply with offset requirements, draft technical and commercial offset offers, a draft offset contract and a draft quarterly report on the fulfilment of offset obligations. These drafts were meant to help foreign companies in devising/discharging their offsets. Functional clarity was also insured by stipulating rules for eligibility of offsets. In this regard, the policy laid down two conditions relating to the timing of offset transactions and the principle of value addition. As regards the timing of transactions, the revised policy of 2006 categorically stated that "only contracts for export of defence products or services made after signing of the main contract will be reckoned for discharging offset obligations." In other words, transactions made before the main contract was signed, were not eligible for offset purposes. To obviate a situation in which the Indian companies functioned as mere trading houses on behalf of the foreign companies, the revised policy stipulated the principle of value addition, by which products which contain imported components, only the indigenous content will count toward offset obligations.

Four, the revised policy allowed a degree of flexibility to the foreign vendors in the discharge of their offset obligations. They were given a degree of freedom to re-phase the offset obligations within the main contract period and a provision to extend discharge period.[3]

Five, the biggest change in the DPP-2006 was the creation of the DOFA headed by a joint secretary (JS) of the Department of Defence Production (DDP), with other members to be drawn from the Service Headquarters (SHQs), Headquarters Integrated Defence Staff (HQ IDS), Defence Research and Development Organisation (DRDO), DPSUS, OFs as well as various industry associations. The agency was intended to function as a 'single window' for performing the following functions:

1. Facilitate implementation of offset policy
2. Assist in the technical vetting of offset proposals
3. Assist in monitoring the offset provisions
4. Suggest improvements in the policy procedures
5. Interact with HQ IDS and SHQs
6. Advise, in consultation with HQ IDS, SHQs, DRDO, with regard to areas in which offsets will be preferred
7. Promote exports of defence products and services
8. Provide advisory clarifications on policy and procedures (in consultation with the Acquisition Wing wherever necessary).

In addition to the above charter of functions, the DOFA was also to: 1. "assist potential vendors in interfacing with the Indian defence industry for identifying potential offset products/projects as well as provide requisite data and information for this purpose;" and (2) to "engage,

[3] The re-phasing of offsets is subject to reasons to be approved by the Director General (Acquisition). The extension of time period is granted on 'exceptional grounds' based on examination by the Director General (Acquisition) and approved by the Defence Procurement Board.

following a fair, rational and transparent process, reputed independent professional expert bodies, as suggested by DRDO, to assist in its functions and commission studies by such bodies on offset policies, their implementation, utility and impact."[4]

The above improvements notwithstanding, the offset policy of 2006 suffered from a lack of clarity and fell far short of expectations. One area where the policy lacked clarity was the scope of the offsets. Although the policy for the first time clarified the specific contracts that were liable for offset provisions, it did not specify whether such provisions would be applicable if procurement was made under the fast track procedure and the option clause.

Another area where the lack of clarity was clearly palpable was the new offset requirements for Indian companies participating in a 'Buy (Global)' contract. As per the provisions, Indian companies participating in 'Buy (Global)' contracts were not subject to offset liabilities. "However, to ensure that the offset obligation is not circumvented by joint ventures (of Indian and foreign firms) where Indian firm is bidding, the foreign firm concerned will have to discharge offset obligation." While the intent of the policy was laudable and is in fact in line with best international practices (see Chapter V), it did not specify the quantum of offsets and the basis on which offsets would be determined.

The third aspect in which the 2006 policy lacked clarity was on the industrial licence (IL) front. As per the revised offset policy, the private sector companies that had an industrial licence (IL) were to be eligible for becoming Indian Offset Partners (IOPs). However, there was no clarity regarding the products/services for which an IL would be given. No clarity was also provided as to which are the products eligible for discharge of offsets. Besides, there was also a difference of interpretation as to whether companies in the services sector were

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[4] Ministry of Defence, Government of India, *Defence Procurement Procedure (Capital Procurements) 2006*, pp. 31-32.

required to obtain an IL. As per the Department of Industrial Policy and Promotion (DIPP) of the Ministry of Commerce and Industry, services being outside the manufacturing sector were not subject to an IL. The argument was however not accepted by the MoD, which insisted on an IL before any company could be eligible for becoming an IOP.

The MoD's insistence on an IL did not end the problems of the services sector which encountered another problem due to the different interpretations of the FDI limit. As per the DIPP, the 26 per cent FDI cap in defence manufacturing did not apply to the services sector. In other words, service sector companies can have up to 100 per cent FDI and at the same time be eligible for becoming IOPs. However, as in the case of the IL, the MoD had objections and apparently did not allow companies with more than 26 per cent FDI to become IOPs.

The new policy also fell short of expectation with regard to DOFA, which was intended to be a single-window agency. Although the agency was set up soon after the policy was announced, there were apprehensions that it did not have the authority to carry out its mandated functions. Compared to the policy intent, the body, for all practical purposes, consisted of one JS and a few junior level armed forces officials who were perceived to lack the required wherewithal to evaluate proposals from the financial, legal and technical angles. As regards the post-contract monitoring of offsets, the agency was majorly handicapped as it did not have the signed offset contracts with it.

Apart from the above, the revised policy fell short on several other counts. Before it was announced, there was much speculation that the revised policy would include some dynamic provisions such as transfer of technology (ToT), the banking of offsets,[5] and multipliers. To accommodate some of the above demands, the offset policy was again revised two years later and made part of the DPP 2008.

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[5] Government of India, Press Information Bureau, MoD Press Release, 'Pallam Raju's Address to Defence Offset Seminar', August 24, 2007.

The DPP-2008 made six key improvements in the offset policy. First, it further clarified the scope of the offsets by stating that procurement under the FTP was outside the offset purview. Second, it provided a 'List of Defence Products' for the discharge of offset obligations. Third, it allowed the banking of offsets along with detailed guidelines for execution. As per the guidelines, foreign vendors were allowed the pre-and post-banking of offsets, subject to certain conditions.[6] Four, it tried to allay the concerns regarding the IL and the FDI cap by stating that the guidelines of the DIPP on these two issues were supreme. Five, the new policy clarified the offset liabilities of Indian companies participating in a 'Buy (Global)' contract, by stating that if the indigenous content of the product on offer was less than 50 per cent, then offsets would become applicable. The offsets would amount to 30 per cent of the foreign exchange component.[7] Six, DOFA was given the additional responsibility of rejecting 'civil infrastructure and such technology that is otherwise easily available in the open market' from consideration of offsets. However, the DOFA's such new responsibility was confined to direct foreign investment in R&D.

The additional features in the DPP 2008 notwithstanding, the policy still belied expectations. The major disappointment was that no change was effected to improve the functioning of DOFA. This apart, the new policy did not specify the timeframe in which Indian companies were required to achieve the 50 per cent indigenisation, below which offset conditions became applicable.

The industry, particularly the foreign vendors were of the view that the banking period of two and a half years was too short to be attractive.

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[6] Under pre-banking, foreign vendors are allowed to consider creation of offset programmes in anticipation of future obligations. The offset credits so created could be banked and discharged against future contracts. Under the post-banking provisions, vendors are allowed to generate more offsets than they were obligated to under a particular contract. The surplus offsets can also be banked and discharged against a future contract.

[7] Ministry of Defence, Government of India, *Defence Procurement Procedure: Capital Procurement 2008*, pp. 43-55.

The foreign vendors also expressed their disappointment that there was no dynamic provision of multipliers in the new offset policy. The domestic industry also had complaints about the non-mandatory nature of the product list. It is to be noted that the even though the MoD laid down a defence product list, it was not explicitly mandated that offsets would be discharged with reference to that list.

The DPP 2011 tried to address some of the above concerns. First, it made it mandatory that offset obligations would be discharged only with reference to eligible products and services. Second, it expanded the list of eligible products and services. The product list was expanded by adding two more categories: products for internal security and civil aerospace products.

The services list was further expanded by adding training as another avenue for discharge of offset obligations. Third, it further clarified the scope of offsets, by stating that "offset will not be applicable in "option clause" where the same was not envisaged in the original contract." These improvements notwithstanding, the policy continued to be dogged by the many weakness of the earlier versions. It was only a year later when the policy went through a major revamp, that some of prevailing weaknesses were taken care of.

## Defence Offset Guidelines 2012

In a major review, the MoD in August 2012 published the comprehensively revised offset policy, titled, Defence Offset Guidelines (DOG). The guidelines, which became part of the DPP 2013, included several new provisions, besides modifying and clarifying some existing ones. The salient features of the new policy are discussed below:

### *Salient Features of DOG*

#### *Objectives*

Nearly seven years after it was first introduced, the DOG articulated the objectives of the offset policy. As per the new policy, the objective was to:

> [L]everage capital acquisition to develop Indian defence industry by (I) fostering development of internationally competitive

enterprises, (II) augmenting capacity for research, design and development related to defence products and services and (III) encouraging development of synergistic sectors like civil aerospace and internal security.

### *Enlarged Scope of Offsets*

The scope of offsets was further enlarged in the DOG to include the base and depot (B&D) spares and modification costs relating to the procurement of warships for the purpose of calculating offset obligations. Interestingly, this change came after the Comptroller and Auditor General of India criticised the government for failing to add the cost of B&D spares while calculating the total value of the offsets in the purchase of fleet tankers for the Indian navy from the Italian firm, Fincantieri (see Chapter III).

### *Expanded Avenues for Discharge of Offsets*

The avenues for discharge of offset obligations by foreign OEMs were expanded by: (1) permitting investment in "kind" in Indian industry; (2) allowing DRDO to acquire a select list of high technologies; and (3) increasing the number of Indian Offset Partners (IOPs). As per the revised DOG, investment in "kind" is allowed in the form of transfer of technology (ToT) and transfer of equipment (ToE) for manufacture and/or maintenance of permitted items. It is however to be noted that while the ToT can either be through the equity or non-equity route, the ToE can only take place through the non-equity route.

In case the foreign original equipment manufacturers (OEMs) opt for technology transfer for discharge of offsets, the guidelines mandate that such ToT should be provided without licence fee and be so comprehensive as to cover all documentation, training and consultancy required for full ToT. The cost of infrastructure and equipment of a civil nature is, however, to be excluded from calculation of offset obligations. The guidelines also mandate that "there should be no restriction of domestic production, sale or export" resulting from such ToT. To ensure that ToT does not lead to "dumping" of foreign technology, and to guard against the undue pricing of technologies, the guidelines stipulate stringent buy-back and value addition conditions. As per these conditions, foreign companies will get offset credit not for the value of the technologies transferred but for the value addition

(in India resulting from such ToT) and their eventual buy-back by foreign companies (see Table 1).

**Table 1: Aspects of India's Defence Offset Policy 2012**

| Discharge of Offset Obligations: Avenue Type | Multiplier | Banking (7 years) | Condition |
|---|---|---|---|
| A. Direct Purchase of permitted goods/services | 1.5 if IOP is an MSME | Allowed | Offset credit for value addition to be determined by subtracting value of imported items and any fee/royalty paid to foreign companies. |
| B. FDI in qualified Indian Industry | 1.5 if IOP is an MSME | Allowed | FDI is allowed upto 26 per cent in case the IOP is from defence manufacturing sector. |
| C. ToT (both through equity (i.e., JV) or non-equity route) | 1.5 if IOP is an MSME | Allowed | Offset credit is to be estimated at the rate of 10 per cent of value of buy-back of items for which ToT is used. Further, the actual value addition in India will be taken for estimating the value of buy-back. |
| D. Transfer of equipment (only through non-equity route) | 1.5 if IOP is an MSME | Allowed | Offset Credit is subject to 40% buy-back (by value) of eligible items within the period of offset contract. |
| E. ToT or transfer of equipment to DRDO labs, ABW, BRD and Naval Dockyards | Not allowed | Not Allowed | |
| F. Technology acquisition by DRDO | Up to 3.0: 2.0 if the ToT is meant for unrestricted domestic production for armed forces | Not Allowed | Offset credit for the critical technologies listed in new guidelines. The technology list is to be reviewed periodically |

| Discharge of Offset Obligations: Avenue Type | Multiplier | Banking (7 years) | Condition |
|---|---|---|---|
| F. Technology acquisition by DRDO | 2.5 if the ToT is meant for unrestricted domestic production for both civil & military use<br>3.0 if ToT is meant for unrestricted production for domestic (civil & military) and export purpose | | |

**Note**: 1. A minimum 70 per cent of offset obligations are mandated to be discharged by any one or a combination of avenue types from A to D in this table. 2. Discharge of pre-approved banked offset credits, where allowed, cannot exceed 50 per cent of total offset obligations under each procurement contract. Banked offset credits are not transferable except between the main supplier and his Tier-I sub-suppliers

***Source:*** Prepared by author based on information contained in Revised Defence Offset Guidelines 2012.

The conditions are somewhat less stringent in the case of ToE. The vendors are permitted to claim credits for the entire value of the equipment they transfer to their Indian offset partner. However, this is subject to, what is understood by some stakeholders, the OEM's minimum buy-back of 40 per cent of permitted items.

Technology acquisition (TA) by the DRDO is permitted as per a select list of high-technologies, which is to be reviewed and updated periodically. The list, which presently consists of 26 categories, includes fibre laser technology; propulsion, aerodynamics and structures for hypersonic flights; nanotechnology-based sensor and displays; and pulse power network technologies, among others. The evaluation of technologies by the foreign vendors is to be to be undertaken by the Technology Acquisition Committee (TAC), which is a multi-disciplinary body comprising of the DRDO's Directorate of Industry Interface and Technology Management (DIITM), the additional financial advisor

to DRDO, and members from services headquarters, among others. To ensure a two-way dialogue process between the DRDO and the foreign vendor for better understanding of each other's position, a window is provided to enable detailed discussion among the stakeholders

The list of Indian Offset Partners (IOP) has been expanded, by including hitherto excluded government institutions and establishments (including DRDO) that are engaged in the manufacture and maintenance of eligible items. The new entrants are allowed to receive both ToT and ToE as offsets for augmenting their "capacity for research, design and development, training and education." However offsets in the form of purchase from and equity investment in these institutions by the foreign OEMs are not allowed.

### *Provision of Multipliers*

The revised DOG for the first time added a multiplier clause to incentivise investment in select areas. The maximum value of multipliers was kept at three, which implies that a foreign company can claim credit up to three times the value of its actual offset investment. However, multipliers have been restricted to two areas: micro, medium and small enterprises (MSMEs) and technology acquisition by DRDO. In the case of MSMEs, a multiplier of 1.5 is allowed when an offset investment takes place in the form of: purchase from, FDI in, and investment in "kind" in these enterprises. Higher multipliers of 2.0, 2.5 and 3.0 are reserved only for the technology acquisition by DRDO. The higher the multiplier, the greater the technology leverage that the DOG intends to achieve. The maximum multiplier of 3.0 is allowed only when a foreign company provides a listed technology without any restriction on the volume of its production and sales, including exports.

### *Extended Banking Period*

The provision of banking of offsets, which was first introduced in DPP-2008, evoked a lukewarm response from foreign companies. The primary reason for this was the limited validity period of a maximum of two-and-a-half years. The revised DOG has extended the banking period to seven years. The banking provision is, however, allowed in the case of: purchase from, investment in, and technology /

equipment transfer to Indian industry (technology acquisition by the DRDO and the government establishments/institutions have been excluded from the banking purview).

In keeping with previous guidelines, the revised DOG also does not permit offset trading by restricting the transfer of banked offset credits to the main supplier and its sub-suppliers within the same acquisition proposal. However, unlike the previous version, the revised document stipulates that the pre-approved banked credits could not be used for more than 50 per cent of total offset liabilities arising out of a future procurement contract. This would mean that a foreign company would need at least two procurement contracts to discharge its banked offsets credits. The DOG has provided an eight-week window for the disposal of such cases to ensure that the banking proposals of the vendors are dealt with in a time-bound manner.

### *DOFA to DOMW*

One of the critical features of the new DOG is the provision of a Defence Offset Management Wing (DOMW) that replaces the previous DOFA. The Wing, like its previous version, will function under the Department of Defence Production of the MoD. However unlike DOFA, DOMW has more powers in matters related to post-offset contract management. Most importantly it is one of the repositories of the signed offset contracts, which was not the case with the DOFA. The DOMW is also tasked to formulate offset guidelines; participate in technical and commercial offset negotiations; monitor/audit offset programmes; administer offset penalties in case of default by vendors; implement offset banking; and assist vendor in all offset-related matters.

### *Provision for Supervision by the Defence Acquisition Council*

The monitoring aspect in the revised DOG has been further stressed by way of supervision at the highest decision-making level in the MoD. The revised policy stipulates that the DOMW "will submit an annual report to the DAC in June each year regarding the status of implementation of all ongoing offset contracts during the previous financial year." It is believed that by early 2015, DOMW has presented two reports to the DAC.

### *Clarity on Industrial Licencing and FDI Issues*

As mentioned earlier, a key hurdle to participation in offset programmes from the private sector's perspective, related to the differing interpretations of industrial licencing requirements and FDI exposure of IOPs. The MoD had earlier taken the stand that an IOP, irrespective of its being in defence or non-defence sector, must have an industrial licence and its FDI exposure must not exceed 26 per cent (the Ministry of Commerce guidelines state that an Indian company is subject to IL and FDI restrictions if its activities fall only in defence manufacturing). The revised guidelines have made it clear that the provisions of the DOG will be in "harmony and not in derogation of any rules and regulations stipulated" by other agencies.

### *Other Provisions*

Apart from the above provisions, the revised guidelines have also: expanded the list of eligible products/services against which offsets can be discharged; extended the offset discharge period; and put a cap on penalty in case of default. The list of eligible products/services has been mainly expanded in the renamed category of Products for Inland/ Coastal Security (earlier known as Products for Internal Security). Four more groups have been added to this category. The Civil Aerospace Products and Service(s) categories have been expanded by one group each. The number of groups in the "Defence Products" category, remain the same, but the group under warship building has been expanded by the inclusion of four distinct sub-groups with greater clarity. In all, there are now 39 products/services groups in which the foreign vendors are allowed to discharge their offset obligations. These groups are apart from the list of high technologies (meant for DRDO), against which the foreign vendors are allowed to discharge their offset obligations.

Regarding the offset obligation discharge period, the new guidelines have extended the period from the date of main procurement contract, by two years (the date of main procurement contract is inclusive of the date of warranty). However, the extension is subject to the vendors' submission of an additional performance-cum-warranty bond equivalent to the value of offset obligations falling beyond the period of main procurement contract. The bond is required to be submitted

six months prior to the expiry of the main performance-cum-warranty bond.

While the revised DOG has kept the annual penalty - in case of default on the part of vendor - at 5 per cent, it has now mandated that the overall penalties cannot exceed 20 per cent of the total offset obligations during the main procurement contract (there will be no cap on penalty in case of default during the extended period).

## CRITIQUE OF THE REVISED DOG

### *Value Addition: Exclusion of Services*

In a major deviation from the previous policy, the revised DOG has explicitly excluded "services" for the purpose of estimating value addition in India (the previous guidelines were silent on this aspect). With the addition of R&D services to the list of "services", the explicit exclusion of services allows far more leverage to foreign companies and very little incentive to the eligible Indian manufacturing industry. A simple theoretical illustration would help to understand the gravity of the potential consequences. For example, a foreign company opts for "training" (an eligible service) for discharge of its offset obligations worth Rs 10 crore. Since the foreign company is at complete freedom to choose an IOP, and assuming that there is cut throat competition within the Indian services sector to participate in the offsets programme, it becomes easier for the foreign company to choose an IOP that is willing to offer maximum concessions. Let us assume that the IOP agrees to a proposal to accept some surplus trainers from the pay roll of the foreign company at a cost of Rs 8.5 crore. Since value addition is not a factor in determining the offset credit, the foreign company will be entitled to claim offset credits, including those for the amount spent on its own trainers. In this case, the foreign company gets Rs 10 crore worth of offset credits (the amount will go up to Rs 15 crore if the IOP is an MSME) against the actual incurred cost of Rs 1.5 crore which the IOP receives for becoming the partner. If value addition had been a factor in determining offset credit, the foreign company would have got offset credits only for Rs 1.5 crore. Clearly, the loser in this case is Indian industry (if not the IOP which acts as a mere trading house for services and cannot see beyond its own business interests) which loses Rs. 8.5 crore worth of offset business.

The above loss is probably less when compared to the negative impact on the permitted manufacturing sector. With the increase in the number of categories on the services list, and the cost advantage to the foreign vendor in the discharge of offset obligations in this sector, the OEMs have virtually no incentive to resort to the eligible manufacturing products. In other words, the Indian manufacturing sector is at tremendous disadvantage vis-à-vis its brethren in the services sector. This will hamper their prospects of working with foreign companies or being a part of the global supply chain.

### *Advantage to Non-Defence IOP*

The revised DOG might have clarified the position vis-à-vis the licencing and FDI regulations as stipulated by other government agencies. However, at the same time, it has created a unique situation which has far reaching implications for the defence and non-defence sectors. For an Indian private company, defence manufacturing is subject to mandatory licencing and a 26 per cent FDI cap. These restrictions are, however, not applicable to companies in the civil aerospace, inland/ coastal security and services sectors. In other words, the companies in these sectors can become IOPs without the licencing and FDI constraints that their counterparts in the defence manufacturing would face. This clearly tilts the balance in favour of the non-defence manufacturing sectors. The foreign companies will be far more inclined to choose a non-defence IOP which does not require a licence and in which the foreign equity stake can be more than 26 per cent. In the latter aspect (equity stake) the incentive is far greater for a foreign company. Since there is no restriction on foreign equity stake in an IOP from the non-defence manufacturing sector, theoretically, a foreign company's wholly-owned subsidiary registered in India, can be its front organisation for the execution of offset programmes on behalf of the parent company! This may not be the true intent of the revised DOG, but the MoD should not be surprised if it finds this happening one day.

### *Lack of Clarity on Government Institutions/ Establishments*

The new DOG does not specify the government institutions/ establishments that have been made eligible to receive offsets in the

form of ToT and ToE for their capacity building. The names are, however, mentioned in the MoD's press release of August 2, 2012 and include: DRDO laboratories, Army Base Workshops, Air Force Base Repair Depots and Naval Dockyards, etc. The press release is not comprehensive as it uses the term "etc.", implying that some more names could be added to it later. This confusion apart, it is also not clear why the MoD has taken the press release route to identify these entities, instead of the DOG which as a part of the DPP, is the ultimate reference document. Moreover, it is also not clear why these institutions are kept away from the banking provision.

## Ambiguity regarding the defence items

As mentioned earlier, the DPP 2013 provides a revised list of products and services[8] that are eligible for discharge of offset obligations. The MoD on its part is well within its rights to specify any number of products or services which it wants to promote for exports through offsets. However such discretion has to be consistent with other government policies, including those of the MoD. It is to be noted that the DIPP in June 2014 released a list of defence items requiring mandatory IL. The list has been further modified by the DDP to include software and technologies.[9] This would lead the industry to assume that the items which they produce as per the DIPP list, or its revised version would also be eligible for offset transactions. The industry's assumption is quite logical as the objective of the offset policy is to promote the defence enterprises that includes companies producing items under IL. However, the problem is that the industry cannot use the offset route for export of all the items, as some of the items figuring in the DIPP list, do not feature in the DPP. For instance, "Air independent propulsion (AIP) systems (nuclear/conventional) for

[8] The Services are put in abeyance since May 2013. For more on this, see Chapter III.

[9] Ministry of Defence, Government of India, "Standard Operating Procedure (SOP) for issue of No Objection Certificate (NOC) for Export of Military Stores by Public as well as Private Sector Units."

maritime applications" which figure in DIPP list, do not find mention in the DPP.[10]

## Inconsistency with International Practices

Last but not the least, the revised offset policy does not take into account some of the practices followed by other countries. As highlighted in Chapter V, the Indian policy is quite moderate as far as the thresholds and percentages of offsets are concerned. It does not recognise the principle of value addition in both the manufacturing and services sectors; it does not apply the principle of additionality and causality while determining offset credit; it gives complete freedom to foreign companies to choose the areas for offsets; and lacks a strong institutional mechanism to implement and monitor progress of offsets. Consequently, inherent weaknesses have crept into the policy, which need to be corrected for it to become effective.

[10] Another item in the DIPP list that does not figure in the DPP is "cryogenic and superconductive equipment especially designed or configured to be installed in military vehicles."

*CHAPTER - III*

# INDIA'S EXPERIENCE WITH DEFENCE OFFSETS: THE AUDIT OBSERVATIONS

As of December 31, 2014, the defence ministry had signed 25 offset contracts with a committed inflow of Rs 29274 crore ($ 4.87 billion). However the offset inflows have not necessarily been to the satisfaction of the Indian policy makers. The Comptroller and Auditor General of India (CAG), the supreme auditor of government accounts, has of late produced several reports, on the poor execution and monitoring of offset contracts and the lack of any substantial benefits accruing to the Indian defence industry. Interestingly, the CAG's observations post the Defence Procurement Procedures 2005 (DPP 2005) bear a close resemblance to its own observations way back in 1990 on the counter trade agreement in the purchase of Bofors guns. Some of the observations made by the CAG in recent times are discussed below along with the steps taken by the MoD.

## Bofors and Counter Trade

In March 1986, India signed a deal for purchase and licenced production of the 155mm towed gun system and ammunition with Swedish firm, AB Bofors. The deal later generated a major political controversy following the allegation of bribes paid to win the contract.[1] A little known fact of the Bofors deal was the counter-purchase clause to facilitate the buy-back of goods manufactured in India. The purpose of the clause was to limit the outflow of large amounts of foreign exchange through the additional export of Indian goods. As per the contract, exports from India would be at least 50 per cent of the (1)

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[1] For a critical review of procurement of Bofors guns, see Comptroller and Auditor General of India, *Union Government (Defence Services): Army and Ordnance Factories,* Report No 2 of 1989, pp. 7-25.

value of the contract (Rs 1438 crore) and (2) purchase made under the licence agreement (the licence agreement was however not operationalised following the 10-year ban on Bofors imposed in 1989[2]). Following the agreement, India nominated the State Trading Corporation of India Ltd (STC), a Government of India enterprise, to effect and monitor exports from India. Consequently the STC signed an MoU with Bofors to implement the trade agreements. Subsequently, an addendum to the MoU was signed by the two parties, that clarified that the purpose of the counter-purchase clause was to "generate additional exports and not to divert existing exports from India."[3]

The above clarification to the MoU notwithstanding, India or STC hardly derived any benefit from it. This is amply clear from the following findings of the CAG:

- Traditional items constituted 59 per cent of the exports of over Rs 207 crore during April 1987 and June 1989 under the counter trade clause. Commodities like cashew kernels, meat, etc., which were not qualified were reckoned against countertrade.
- The objective of generating additional exports to Sweden was not fulfilled as the total exports to Sweden had declined in 1988-89 compared to 1987-88.
- With respect to four major commodities (castor oil, coffee, jute goods and rice) there was no additionality in STC's exports in 1988-89 vis-à-vis 1987-88 but only a diversion of trade.

The CAG also attributed the failure of the countertrade agreement to the lack of an appropriate mechanism to ensure proper implementation. In this regard, the CAG highlighted the flawed criteria followed by the STC that prevented the organisation from determining any additionality

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[2] Comptroller and Auditor General of India, *Union Government (Defence Services): Army and Ordnance Factories*, Report No 24 of 2011-12, p. 12.

[3] Comptroller and Auditor General of India, *Union Government (Defence Services): Army and Ordnance Factories*, Report No 12 of 1990, pp. 7-13

of exports achieved through the counter trade agreement. Consequently, the STC allowed all exports effected by Bofors to be treated as additional. What was surprising was the response of the Ministry of Commerce, the concerned administrative ministry to which the CAG sent its observations. Instead of taking corrective action, the ministry simply put the blame on the CAG, saying that "no alternative workable formula has been suggested" [by the CAG].

## CAG's Observation on Offsets Post-DPP 2005

### *Under-Realisation of Offset Benefit in Procurement of Fleet Tanker*

CAG's first offset-related comments post DPP-2005 were made in August 2010 in an audit report on the procurement of a fleet tanker by the Indian navy from Fincantieri, an Italian firm.[4] The report observes that the tanker purchase did not translate into full offset benefits for the Indian industry as the concerned authorities failed to seek offsets for the full value of the contract (Euro159.3 million) for which government sanction was obtained.[5] The under realisation of offset benefit was due to the wrong contracting procedure. The CAG observes that the tender floated by the navy did not require the vendor to quantify the cost of Base and Depot (B&D) spares in its commercial offer. Consequently, the quantum of B&D spares were negotiated separately later for an additional cost of Euro 20.8 million (the cost of

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[4] Comptroller and Auditor General of India, *Union Government (Defence Services): Air Force and Navy*, Report No 16 of 2010-11, pp. 17-20.

[5] The loss of the offset benefit is not the only observation of the CAG on procurement of fleet tanker. The CAG report also questions the selection of Fincantieri on the techno-commercial grounds. It is to be noted that apart from Fincantieri, two other vendors – Hyundai Heavy Industries Ltd (HHIL) of South Korea and Rosoboronexport of Russia – had participated in the tender. The Korean firm was disqualified as its proposal did not meet the stipulated steel specifications. The Russian offer although technically compliant but rejected as its commercial offer was found costlier than Fincantieri which was selected even though it "did not meet specifications of the steel as envisaged in the RFP [request for proposal]". The CAG termed the selection as "undue favour" to the Italian firm.

B&D spares was negotiated at 15 per cent of the total commercial offer of Euro 138.5 million submitted by the Fincantieri). Since the B&D spares were not part of the commercial offer of the vendor, offsets could not be demanded. The loss of benefit on account of this amounted to Euro 6.2 million (or Rs 36.6 crore at prevailing exchange rate of Euro 1.0 = Rs 58.75). In other words, had the authorities shown a little farsightedness and mandated the vendor to factor in B&D spares as part of the commercial offer, Indian industry would have gained offsets worth Euro 47.8 million, instead of Euro 41.6 million.

### *Procurement of AgustaWestland Helicopters*

In a report presented to both the houses of the Indian Parliament on August 13, 2013, the CAG highlighted the 'non- compliance with offset provisions' in the procurement deal for 12 AgustaWestland helicopters which was later embroiled in a massive controversy including allegations of bribery, leading to termination of the contract by the Indian government.[6] The helicopter deal (Euro 556.3 million) and the associated offset contract (Euro 116.9 million) were signed on February 8, 2010.[7] As part of offsets contract, AgustaWestland was committed to seven sub-offset contracts with MoD to fulfil its offset obligations over a period of time. It may be noted that the procurement of AgustaWestland helicopters was processed as per DPP-2006, which was the relevant document at that point of time. Although the DPP-2006 allows direct foreign investment (DFI) as one of means for discharge of offsets, it does not clarify the type of investment that is eligible. However, relying on the internal guidelines issued by the MoD, the CAG notes that "DFIs in kind were not eligible offsets as per the DPP 2006".[8] Elaborating further, the CAG noted that "construction

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6 Press Information Bureau, Government of India, "Investigation into VVIP Helicopter Deal", July 22, 2014.

7 Comptroller and Auditor General of India, *Acquisition of Helicopters for VVIPs*, Report No 10 of 2013, p. 4.

8 Comptroller and Auditor General of India, *Union Government (Defence Services) Air Force and Navy*, Report No 17 of 2012-13, p. 18.

of civil infrastructure was not valid offset for discharge of offset obligations."[9]

As against the above provisions and clarifications, the CAG found deviations in three sub-offset contracts. The first one relates to eligibility of offsets signed with the defence ministry. The CAG notes that as part of the offset agreement, AgustaWestland was allowed to sign a contract for establishing a helicopter support centre in Delhi through investment in Taneja Aerospace and Aviation Company (TAAC), a private Indian entity. The investment is deemed as 'ineligible offsets' as it is meant for creation of civil infrastructure. Giving details of the AgustaWestland's infrastructure investment in TAAC, the CAG observed that the said investment includes 'build or refurbishment of hangers, stores and office areas.'

The second observation of the CAG relates to a sub-contract with IDS Infotech (an Indian private software company which came under the scanner for its alleged role in the subsequent corruption charges) for engineering design services. The supreme auditor notes that the AgustaWestland was allowed to sign a sub-contract for design services that had already been completed before the contract was signed. This also amounted to a violation of DPP-2006 guidelines which did not allow pre-banking of offsets at the time of contract signing.

The third deviation observed by the CAG relates to eligibility of Indian offset partners (IOPs) and the viability of the Euro 22.3 million offset project to "manufacture and repair helicopter sub-assemblies and components" through IOPs in India. The CAG observed that of the five IOPs - Hindustan Aeronautics Ltd (HAL), Taneja Aerospace and Aviation Company, Dynamatic Technologies Ltd, Pranita Engineering Solutions and Sanghvi Aerospace (Private) Ltd –only HAL had an industrial licence and hence inclusion of others in the signed offset contract was not as per the DPP-2006 guidelines. Regarding the viability of the project, the auditor observes that the project was 'futuristic' and not linked to the requirement of domestic demand either from Indian

[9] Comptroller and Auditor General of India, *Acquisition of Helicopters for VVIPs*, n.7, p. 29.

Air Force (IAF) or the Indian civil aviation. It is to be noted that the project pertained to AgustaWestland's Lynx helicopter, which the Indian Air Force had no plans to induct in future.

## *CAG's Scathing Report of November 2012*

The CAG's August 2013 report was preceded by another report presented to the Parliament on November 29, 2012. Unlike the 2013 report, the 2012 report was more comprehensive besides dealing with 16 offset contracts worth Rs 18,444.6 crore.[10] The CAG observed that offsets in some contracts did not result in any value addition in India; that the foreign companies had a free run in selecting ineligible Indian offset partners for discharge of their obligations; and that the monitoring mechanism for offset contract implementation was weak. Some of the highlights of the report are elaborated below:

### *Direct Foreign Investment*

As mentioned earlier, as per the MoD's internal guidelines, offsets in the form of transfer of equipment (not resulting in any value addition) and for creation of civil infrastructure in India, are not permissible. The CAG, however, observed that, in five offset contracts, offset credits worth Rs 3410.5 crore, were claimed by foreign companies in violation of the above guidelines. The foreign companies that benefitted from this included two companies each from the US (Boeing and Lockheed Martin) and Russia (Rosoboronexport and MiG Corporation). Of a total of $1091.7 million worth of offsets from the C-17 Globemaster contract (signed on June 14 2011 for 10 aircraft and valued at $4.1 billion), Boeing's offset claim, in violation of guidelines, amounted to $ 330.1 million (or 30 per cent of the total offset liabilities). These invalid offsets, as identified by the CAG, include the establishment of Transonic Wing Tunnel (TWT) test facility ($195 million) at the Defence Research and Development Organisation (DRDO), the setting up of a maintenance training simulator ($ 38.2 million) and a flying training

[10] Comptroller and Auditor General of India, *Union Government (Defence Services) Air Force and Navy*, n.8, p. v.

simulator ($ 96.9 million). The CAG also had objection to Boeing's offset claim of $ 153.9 million (part of its total offset liability of $ 641.3 million) in the P-8 (I) Long Range Maritime Reconnaissance Aircraft contract for eight aircraft costing $ 2.1 billion that was signed on January 1, 2009. The auditor observed that Boeing's offsets – that were in the form of safety, reliability and air worthiness seminars; establishment of fire finder classrooms; transfer of metallurgy and hydraulic lab facilities; composite manufacturing assembly/tooling, mobile broadband, friction stir welding and aero structures tools and processes – were not valid as there was no value addition in India.[11]

The three other contracts in which the foreign companies claimed offsets in violation of DPP guidelines pertain to Lockheed Martin's C-130J Hercules aircraft, Rosoboronexport's Medium Lift Helicopters and MiG Corporation's contract for upgradation of MiG-29 Aircrafts. The CAG notes that in all these contracts, the foreign companies claimed offset credits for transferring training simulators that are prohibited as per the defence ministry's guidelines. While Lockheed Martin claimed $121 million worth of offset credit for providing a weapon training simulator, Rosoboronexport claimed $95 million for two mission based training simulators and the MiG Corporation $25 million for establishing a simulator centre.

### *Selection of Ineligible Indian Offset Partners*

Although the DPP gives foreign companies the complete freedom to choose its Indian offset partners (for discharge of offset obligations), this freedom is subject to certain rules and regulations. To be eligible to become an Indian Offset Partner, an Indian company, as per the DPP-2006 guidelines, is required to have an industrial licence, and its foreign equity exposure must not exceed 26 per cent. However as the CAG report observes, foreign companies were allowed to violate this provision in three contracts. In the contract for upgradation of 63 MiG 29 aircrafts (signed on March 7, 2008 and valued at $964 million,

[11] Ibid, pp. 19-20.

with the offset liabilities of $308.3 million), the Russian company was allowed to choose Prescient Systems and Technologies Pvt. Ltd, which, as noted by the CAG, was a 'foreign company'. In the procurement of Low Level Transportable Radar (LLTR), the French company, Thales was allowed to have Thales International India, its 100 per cent Indian subsidiary, as its Indian offset partner to discharge a part of its total offset obligations of $ 34.8 million. In the case of the Euro 159.3 million fleet tanker contract with Fincantieri (signed on April 23 2008), the Italian company was also allowed to have two foreign subsidiaries (Wartsila India Ltd and Johnson Pumps Ltd) as its Indian offset partners to discharge part of its Euro 41.6 million offset obligations. As mentioned earlier, the CAG had also criticised the selection of the Fincantieri fleet tanker as the defence ministry did not include Euro 20.8 million worth of base and depot (B&D) spares for calculation of Italian company's total offset liabilities, resulting in a loss of Euro 6.2 million worth of offset benefits to the Indian industry.[12]

### *Monitoring Mechanism*

The defence ministry had included a provision for the periodic monitoring of the implementation of offset contracts in DPP 2006. To facilitate the monitoring, the DPP also included a provision whereby foreign vendors were required to submit quarterly reports on the status of the offset contracts. Two in-house organisations, the Defence Offset Facilitation Agency (created in 2006) and Offset Monitoring Cell or OMC (created in 2010) were to render monitoring assistance. However these organisations were not equipped with enough manpower nor given adequate authority to perform their functions effectively. The CAG made the following comments on this issue:

- 'Due to lack of manpower and established procedures, the OMC was not able to effectively monitor the offset obligations. The OMC had at one stage conveyed to the Ministry that it was not clear about the type of assistance required to be rendered by it to the Acquisition Wing.

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[12] Comptroller and Auditor General of India, Union Government (Defence Services), Air Force and Navy, *Report No. 16 of 2010 -11*, pp. 17-20.

- The scrutiny of the quarterly reports by OMC was primarily predicated on the facts and figures submitted by the vendors and it had no mechanism in place for independent verification of these statements. The provision in the DPP relating to audit of the actual execution of contracted offsets by a nominated official / agency was never invoked.'

### *Non Recovery of Penal Charges*

One of the fallouts of the absence of a strong monitoring mechanism, as observed by the CAG, was the non-recovery of penal charges from foreign vendors who failed to fulfil their offset obligations within the given time frame. The auditor cites three contracts in which the defence ministry could not penalise the defaulting vendors. In the fleet tanker contract with Fincantieri, the penalty could not be imposed due to non-inclusion of the year-wise implementation schedule in the signed offset contract, although the DPP has such a provision. In two other contracts involving Israel Aerospace Industries (IAI), and Lockheed Martin (for the contracts pertaining to Harop UAV and C-130J aircraft, respectively), the defence ministry did not penalise the vendors on the pretext of the vendors' request to change offset partners mid-way. It is to be noted that as per the DPP-2006, once the contract is signed, the change of the partner and offset component is allowed only in exceptional cases.[13]

## MoD's Reaction

The CAG reports have no doubt exposed the critical weaknesses in the functioning of the defence ministry's offset policy. However at the same time, the reports have also served to force the defence ministry to revise its offset policy in order to allay some of the concerns raised by the CAG. Among other changes, the MoD has now included the cost of B&D spares for the purposes of calculating the offset obligations in shipbuilding contracts; allowed certain kinds of DFI through offsets; and clarified the MoD's position with regard to the eligibility of IOPs. The biggest change is perhaps the replacement of

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[13] Ministry of Defence, Government of India, *Defence Procurement Procedure (Capital Procurements) 2006*, p. 37.

the ineffective Defence Offset Facilitation Agency (DOFA) with Defence Offset Management Wing (DOMW). Unlike the DOFA, DOMW is now entrusted with powers in all matters relating to post contract offset management.

In addition, the MoD has also taken certain steps to tighten its monitoring mechanism. The Controller General of Defence Accounts (CGDA), the defence ministry's defence accounts branch, has now been entrusted with the additional task of auditing the claims made by the vendors. A high-level collegiate committee has been set up within the defence ministry to monitor offset programmes and impose penalties in case of default by the foreign companies. As per the information provided to the Parliament in August 2013, a penalty of $326,365 has already been recovered from three defaulting vendors. Further, in two more contracts, vendors have been notified of the imposition of a penalty of $2.5 million and action has been initiated to impose a penalty of Rs 143.68 crore in the case of eight more contracts.

However it needs to be noted that while the MoD has taken some steps, they are not necessarily enough to make the offset policy effective. As discussed in Chapter V, the Indian policy continues to be weak in many aspects when compared with the offset policies followed by many other countries. What is of greater significance is that instead of adopting international best practices, the changes in the offset policy have thus far focussed on addressing the immediate concerns and sometime without considering the long term consequences. The reactive nature of the offset policy is clearly evident from the MoD's Office Memorandum (OM) issued on May 23, 2013, keeping all 'services' related provisions of the offset guidelines in abeyance. This was clearly an attempt to prevent IDS Infotech-type of companies from misusing the offset provisions. However in the process it has banned all the services sector companies including the design and engineering service providers from undertaking any offset related business. However it needs to be noted that, abeyance is not the permanent solution, as lack of monitoring can lead to a similar situation even in the manufacturing offsets. Suffice it to mention that the offsets for IDS Infotech were approved by the MoD. Clearly it is necessary to put in place a credible mechanism to filter out the dubious offsets at the very beginning. For this India needs to develop strong institutional capabilities.

*CHAPTER - IV*

# INDIAN DEFENCE OFFSET POLICY: AN IMPACT ANALYSIS

As of December 2014, the MoD had signed 25 offset contracts valued at $4.87 billion. The offset are scheduled to be discharged between 2008 and 2022. Of the total, offsets worth $1.37 billion were to be discharged by March 2014, although the actual reported discharges have been valued at $840 million (or 17 per cent of total value of offsets signed) [1] As discussed in the previous chapter, the Comptroller and Auditor General of India (CAG), which has audited several offset contracts in recent times is not very impressed with how these offsets have been implemented. The supreme auditor has highlighted a number of weaknesses in the offset contracts that included the zero value addition, equipment transfer, invalid selection of Indian Offset Partners (IOP) and a weak monitoring mechanism.[2]

It should however be noted that although the CAG's findings on offsets are a useful indicator of the working of Indian offset policy, they are not so comprehensive as to throw light on policy's ultimate success or failure. The audit observations are more in the nature of fault-finding rather than a holistic analysis of the efficacy of the offset policy as a whole. For instance, at no point of time, has the CAG made mention of even a single offset contract that has worked as per the contractual terms. The aim of this chapter is to bridge this gap by examining the extent to which the offsets have impacted the policy objectives. It is true that only 17 per cent of the offsets have been discharged as of now and thus any meaningful study on the subject

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1 Standing Committee on Defence, *Demands for Grants (2014-15)*, Report No. 2, Lok Sabha Secretariat: New Delhi, 2014, pp. 27-28.

2 Comptroller and Auditor General of India, *Union Government (Defence Services): Air Force and Navy*, Report No. 17 of 2012-13, pp. 17-25.

would be little premature at this juncture. The chapter nonetheless makes a beginning to this effect and in the process provides an objective methodology for any future study on the subject.

## Limitation of Data

The impact analysis of offsets however is hampered by the unavailability of credible data in the public domain. The MoD has so far not made public the details of the offset contracts it has signed. What it has released are some broad financial details, and that too when asked by members of Parliament. These details relate to the dates when the contracts were signed, the value of the main contract and the offset amounts. What has thus far not been revealed are the identities of the Indian Offset Partners (IOPs), the value and nature of offsets received by each IOP, and the detailed timeframe for the execution of each offset contract. The lack of information on these counts thus hinders a precise economic analysis.

In view of the lack of data, this chapter analyses certain macro indicators in order to draw some broad conclusions. This analysis is further supplemented by interviews with some leading private sector companies. The detailed analysis however is preceded by a brief outline of the approach adopted for making an impact analysis which is followed by a description of offsets that India has signed so far.

## The Approach

The chapter takes a multi-pronged approach for analysing the impact of offsets. It begins by examining their impact on industry as a whole and follows it up by making an assessment of two distinct industry players in the India: the Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs), and private sector. While the impact of offsets on these two players is judged on a number of parameters, the impact on the whole industry is analysed through the prism of exports and FDI inflows, the two key focus areas since the offset policy's inception in 2005.

## Offset Contracts

It would be useful to list out the offset contracts signed by the MoD so far. The details of the 25 contracts are summarised in Annexure I.

Among the three services, the air force tops the list with 16 contracts, distantly followed by the navy (six contracts) and the army (three contracts). Among the foreign companies, Israel has the highest (nine) number of offset contracts whereas the US has offsets of the highest value. The biggest chunk of offsets has come through the Foreign Military Sales (FMS) route. The highest valued offset worth $1.09 billion came from India's purchase of 10 C-17 Globemaster aircraft from Boeing.

### *Impact on FDI*

Since 2005, the offset policy has retained a key provision whereby foreign companies can discharge their offset obligation through FDI. As per the revised guidelines issued on August 26, 2014, the FDI cap in defence sector stands increased to 49 per cent from earlier 26 per cent.[3] It is however to be noted that while foreign companies can claim offset credit for their equity investment in JVs, all FDI is not necessarily directly linked to offsets. This is for two reasons. One, the permissible FDI is cumulative that includes portfolio investment which is not eligible for the purpose of discharge of offsets. Second, FDI can be brought in by companies that do not have (and neither wish to have in the future) direct contract with the MoD. The impact analysis has to therefore factor in the offset-induced FDI, in order to arrive at the precise impact. However, no such offset-induced FDI data is available in the public domain. What is available in the public domain is the cumulative offset inflows into defence sector and the number of approved joint venture (JV) /FDI proposals. As of October 2014, the government had approved 33 JV /FDI proposals, involving mostly Indian private sector companies that include some of the biggest names such as Tata, L&T, Bharat Forge, Mahindra and ABG Shipyard (Annexure II). However, there has hardly been any fund inflow into the defence sector, although the FDI cap has been raised to 49 per cent. Table 4.1 shows the FDI inflow in select sectors including defence,

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[3] Ministry of Commerce and Industry, Government of India, "Press Note No 7 (2014 Series)", August 26, 2014.

up to August 2014, when the revised defence FDI policy was announced. As the data shows, defence is ranked 61 among the 62 distinctly identified sectors, with a meagre inflow of Rs. 24.36 Crore ($4.94 million)

**Table 4.1. Select Sector-Wise FDI Equity Inflows (April 2000-August 2014).**

| Rank | Sector | FDI Inflows | | % of Total FDI Inflows |
|---|---|---|---|---|
| | | Rs in Crore | US$ Million | |
| 1 | Services Sector | 192,090.45 | 40,546.07 | 17.66 |
| 2 | Construction Development | 111,223.10 | 23,751.76 | 10.35 |
| 3 | Telecommunications | 80,621.20 | 16,499.09 | 7.19 |
| 4 | Computer Software and Hardware | 61,914.18 | 13,191.22 | 5.75 |
| 5 | Drugs and Pharmaceuticals | 61,443.39 | 12,500.42 | 5.44 |
| 41 | Vegetable Oils and Vanaspati | 2241.30 | 441.76 | 0.19 |
| 52 | Timber Products | 440.51 | 86.41 | 0.04 |
| 61 | Defence Industries | 24.36 | 4.94 | 0.00 |
| 62 | Coir | 22.05 | 4.07 | 0.00 |

**Note:** The services sector includes financial institutions, banking, insurance, non-financial/business, outsourcing, R&D, technology, testing and analysis

***Source:*** Ministry of Commerce and Industry, Government of India

**Table 4.2. Approved JVs Post-Increase of FDI Cap (August 2014-March 2015)**

| Name of the Indian Company | Name of the JV Company | Proposed Foreign Investment | Investment Inflow (Rs. In Cr) |
|---|---|---|---|
| Hats Off Helicopters Training Pvt Ltd | CAE Inc., Canada | Post Facto Approval for the issue of 5,84,205 equity shares of Rs.10/- each to CAE Inc., Canada | 37.82 |
| Ideaforge Technology Pvt. Ltd. | NRI Investment | 0.1704 | |

| Name of the Indian Company | Name of the JV Company | Proposed Foreign Investment | Investment Inflow (Rs. In Cr) |
|---|---|---|---|
| Punj Lloyd Ltd. | FII & NRI Investment | Foreign Shareholder NRI IPO Allottees Repatriable Investment 22.79%+NRI 2.52%+FII 7.68%-Addition of activities | |
| Quest Global Mfg. Pvt. Ltd. | Aequs Mfg. Investment (P) Ltd., Mauritius | FDI 49% from existing 17.29% | 40.0 |
| Fokker Elmo Sasmos Interconnection Systems Ltd. | Fokker Elmo BV, Netherlands | FDI 49% | 6.0 |
| Star Wire Ltd. | Aubert & Duval France | FDI 5% | 12.28 |
| **Total** | | | **96.1** |

***Source:*** Rajya Sabha, Parliament of India, http://rajyasabha.nic.in/ (accessed on March 10, 2015).

Table 4.2 maps the FDI inflows post the increase in FDI cap. Although the volume of inflows in the eight months since the FDI cap increase is significantly higher than the cumulative inflows in the preceding years (more than a decade), there is no evidence of such inflows being influenced by offsets. As the table shows, not a single inflow has been brought in by companies which have offset liability with the MoD.

## Impact on Exports

From 2006 onwards, the DPP has been providing a list of items that are eligible for the discharge of offset obligations. The list has been expanded over the years to include both defence and civilian items. What is significant for the purpose of this chapter, is that the items eligible for offset discharge fall into four broad categories for which the Indian Trade Classification (Harmonisation System) – ITC (HS) — Codes have recently been announced (Table 4.3). These are also the

precise HS Code-wise categories under which various defence items are now being made subject to an industrial licence.[4]

**Table: 4.3. ITC (HS) Codes for Category of Defence Items Requiring Industrial Licence**

| ITC (HS) Code | Category |
|---|---|
| 8710 | Tanks and other armoured fighting vehicles |
| 8801 to 8805 | Defence aircraft, space crafts and parts thereof |
| 890610 | Warships of all kinds |
| 9301 to 9307 | Arms and ammunition and allied items of defence equipment; parts and accessories thereof |

***Source:*** Ministry of Commerce and Industry, Government of India, "List of Defence Items Requiring Industrial Licence", Press Note 3 (2014 Series), June 26, 2014.

It should however be noted that the ITC (HS) codes as mentioned in the Table 4.3 are broad-based and inclusive of non-defence items also. For instance, Codes 8801 to 8805, which come under HS Code 88 (aircraft, spacecraft and parts thereof) also include civilian aerospace items. In other words, there is no comprehensive HS Code for all the licencable defence items. This is likely to change with the new foreign trade policy promising to "create ITC (HS) codes for defence and security items for which industrial licences are issued."[5]

It is also to be noted that India's trade statistics as captured by various ITC (HS) codes do not include defence goods "as a matter of

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[4] Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, "List of Defence Items Requiring Industrial Licence", Press Note No 3 (2014) Series, June 26, 2014. It is to be noted that certain ITC (HS) codes as mentioned in Table 3 are broad-based and inclusive of non-defence items also. In other words, there are no comprehensive HS Codes for all the licencable defence items. This is set to change with the new foreign trade policy promising to "create ITC (HS) codes for defence and security items for which industrial licenses are issued' by the government. See Ministry of Commerce, Government of India, "Highlights of the Foreign Trade Policy 2015-2020", pp. 15-16.

[5] Ministry of Commerce, Government of India, "Highlights of the Foreign Trade Policy 2015-2020", pp. 15-16.

principle".[6] By this principle, all the offset-induced exports as captured by the above mentioned codes are essentially non-defence items.

Column 2 of Table 4.4 shows the export value of items that fall under the ITC (HS) Codes as mentioned in Table 3. As already mentioned, there has been a hefty growth in exports, to $4.7 billion in 2013-14, which is almost equal to the cumulative value of the offsets signed so far. Significantly, much of the growth coincides with the period post the promulgation of the offset policy. This may indeed sound incredible, but needs closer examination before any inference can be drawn. It must be noted that of the total exports, those under HS Codes 8801-8805, which broadly cater to 'aircraft, spacecraft and parts', account for an overwhelming share – 98 per cent in 2013-14 (Column 3 of Table 4.4). This is not surprising given that except for Codes 8801-8805, others mostly pertain to defence-specific items that are not captured by the official trade database.

The significant jump in the exports of 'aircraft, spacecraft and parts' raises a vital question: Does it mean that the Indian aerospace industry has come of age? Not necessarily, especially from the point of view of export of the major platform. As pointed out by an official of the Directorate General of Commercial Intelligence and Statistics (DGCIS), some of the exports under this category are 'temporary and non-revenue earning in nature', although the precise figures are not publicly available. Explaining further, the official intimated that such exports include satellites taken out of country by the Indian Space Research Organisation (ISRO) for launch from foreign launch pads. The major portion however consists of civilian aircraft and related components sent abroad for scheduled maintenance, repair and overhaul.

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[6] Ministry of Statistics and Programme Implementation, Government of India, *Statistical Year Book India 2015* (Chapter 18). According to an official of the DGCIS, interviewed on April 22, 2015, the capture of defence trade figures in official database depends on certification of purpose. If the exporter/importer mentions that the trade is for defence purpose, the said trade is not captured in the database. On the other hand, if the exporter/importer certifies that the trade is not for defence purpose, the said trade is captured in the database.

**Table 4.4. ITC (HS) Code-wise Exports**

| Year | Exports under ITC (HS) Codes 8710, 8801-8805, 890610 and 9301-9307 ($ Million) | Exports under ITC (HS) code 8801-8805 ($ Million) |
|---|---|---|
| 2004-05 | 52.0 | 49.8 |
| 2005-06 | 65.6 | 63.1 |
| 2006-07 | 86.9 | 77.6 |
| 2007-08 | 698.8 | 693.3 |
| 2008-09 | 1522.1 | 1467.0 |
| 2009-10 | 1064.7 | 1030.3 |
| 2010-11 | 1895.2 | 1766.4 |
| 2011-12 | 2351.6 | 2275.2 |
| 2012-13 | 2256.3 | 2210.2 |
| 2013-14 | 4674.6 | 4585.3 |

***Source:*** Ministry of Commerce and Industry, Government of India

**Table 4.5. Select Country-Wise Exports under ITC (HS) Codes 8802 & 8803, 2013-14**

| Country | | Exports under ITC (HS) Code 8802 (US$ Million) | Exports under ITC (HS) Code 8803 (US$ Million) |
|---|---|---|---|
| Countries without Offset Liability | China | 387.24 | 23.95 |
| | Saudi Arabia | 209.24 | 0.17 |
| | Singapore | 192.15 | 125.73 |
| | Sri Lanka | 930.71 | 0.77 |
| | UAE | 1041.70 | 13.24 |
| Countries with Offset Liability | France | 37.27 | 165.57 |
| | Israel | 0.89 | 44.34 |
| | Italy | 0.00 | 10.31 |
| | Russia | 0.00 | 73.98 |
| | Switzerland | 0.00 | 43.06 |
| | UK | 0.62 | 115.21 |
| | US | 71.92 | 343.55 |
| Total | | 3258.47* | 1296.43* |

**Note:** *: Figures include total exports including to countries not mentioned in the table.

***Source:*** Ministry of Commerce and Industry, Government of India

In order to further analyse the point made by the official of the DGCIS the major components and direction of exports can be examined under the categories ranging from 8802 to 8805. Table 4.5 provides the 2013-14 value of exports under these two heads - 8802 and 8803 - which together account for more than 99 per cent of total exports under the heads 8801-8805. As seen in the table, exports under 8802, which are in the nature of platforms, are mostly to countries other than the ones which have offset obligations with Indian MoD. On the other hand, the majority of exports under 8803, which relate mostly to parts and components are accounted for by countries which have offset liabilities in India. But the question is: To what extent is the export of the parts and components influenced by offsets. As seen in Table 4.6, the rise of exports to countries having offset liability with India coincides with the period post the announcement of offset policy, suggesting, *prima facie,* a positive relationship.

**Table 4.6. Exports under ITC HS Code 8803 to Counties with Offset Liabilities (US$ Million)**

| Year | France | Israel | Italy | Russia | Switzerland | UK | US | Total |
|---|---|---|---|---|---|---|---|---|
| 2002-03 | 15.3 | 5.2 | 1.3 | 12.1 | 0.5 | 11.1 | 10.2 | 55.8 |
| 2003-04 | 15.8 | 2.3 | 1.5 | 3.0 | 0.2 | 24.7 | 6.8 | 54.3 |
| 2004-05 | 15.0 | 0.9 | 2.1 | 4.2 | 0.1 | 7.9 | 5.0 | 35.2 |
| 2005-06 | 16.9 | 1.4 | 4.7 | 10.3 | 0.4 | 6.8 | 3.6 | 44.1 |
| 2006-07 | 23.6 | 2.4 | 2.4 | 16.4 | 0.0 | 13.4 | 5.6 | 63.9 |
| 2007-08 | 98.0 | 30.7 | 13.4 | 45.6 | 0.0 | 35.9 | 83.9 | 307.5 |
| 2008-09 | 142.8 | 36.6 | 11.7 | 72.9 | 6.9 | 84.2 | 265.3 | 620.2 |
| 2009-10 | 140.1 | 22.0 | 9.2 | 46.0 | 2.2 | 98.4 | 156.3 | 474.3 |
| 2010-11 | 221.6 | 62.7 | 10.5 | 98.5 | 8.7 | 150.7 | 508.7 | 1061.5 |
| 2011-12 | 158.5 | 38.2 | 6.1 | 61.9 | 72.4 | 315.6 | 237.9 | 890.6 |
| 2012-13 | 170.7 | 51.5 | 7.5 | 193.5 | 87.7 | 239.9 | 279.9 | 1030.7 |
| 2013-14 | 165.6 | 44.3 | 10.3 | 74.0 | 43.1 | 115.2 | 115.2 | 567.7 |

***Source:*** Ministry of Commerce and Industry, Government of India

### *Impact on DPSUs/OFs*

Table 4.7 provides the select statistics of the DPSUs and OFs, over a 10- year period beginning with 2004-05, the year before the formal offset policy was announced. As the table shows while the aggregate employment in DPSUs and OFs shows a continuous decline, the other

indicators – value of sales (VoS) and value of exports – show a near continuous increase. But to what extend are these changes attributable to the offset policy?

The answer to the above question lies in the details, which need careful examination. It is important to mention that although offsets to the tune of $4.8 billion have been signed, the actual flow into DPSUs and OFs would be less, although a precise estimate is difficult to arrive at. As pointed out by the CAG, a host of offsets, including several high value ones, are in the form of equipment transfers and therefore do not contribute to the aforementioned parameters (employment, VoS and exports) of the DPSUs and OFs. Moreover, given that offsets are open to both private and public sectors, the actual share of DPSUs and OFs in the total discharged offsets would decrease further.

In view of the above factors, the extent to which offsets would influence the key parameters of DPSUs and OFs is limited. This is particularly true with respect to one indicator: value of sales (VoS), the annual value of which (particularly in later years) is larger than the cumulative offset inflows since 2005. In other words, the huge disparity in VoS and offsets makes the latter an extraneous factor. This also holds good for employment.

The continuous decline in employment is largely due the reduction of industrial worker force in ordnance factories as a consequence of an accounting change effected in late 1980s to ensure cost-consciousness in the factories organisation.[7] Between 2004-05 and 2011-12, the manpower in the OFs has been reduced by 22,745 (19 per cent), with industrial employees accounting for 72 per cent of the total decrease.

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[7] Amiya Kumar Ghosh, *India's Defence Budget and Expenditure Management in a Wider Context* New Delhi, Lancer Publishers, 1996, p. 222.

**Table 4.7. Key Performance Parameters of DPSUs and OFs**

| DPSUs/ OFs# | VoS (Rs in Cr) | % increase in VoS | Exports (Rs In Cr) | % increase in Exports | Employment | % increase in Employment |
|---|---|---|---|---|---|---|
| 2004-05 | 17435.2 | 6.2 | 307.43 | -27.7 | 192776 | -2.7 |
| 2005-06 | 19916.8 | 14.2 | 318.76 | 3.7 | 189670 | -1.6 |
| 2006-07 | 22046.7 | 10.7 | 439.38 | 37.8 | 186332 | -1.8 |
| 2007-08 | 23678.1 | 7.4 | 628.15 | 43.0 | 184376 | -1.0 |
| 2008-09 | 27237.1 | 15.0 | 854.38 | 36.0 | 180575 | -2.1 |
| 2009-10 | 33995.9 | 24.8 | 477.76 | -44.1 | 175164 | -3.0 |
| 2010-11 | 36537.9 | 7.5 | 653.66 | 36.8 | 173465 | -1.0 |
| 2011-12 | 40494.0 | 10.8 | 730.01 | 11.7 | 169556 | -2.3 |
| 2012-13 | 40956.2 | 1.1 | 770.64 | 5.6 | 168310 | -0.7 |
| 2013-14 | 41001.0 | 0.1 | 768.50* | 1.7* | 68972* | -4.2* |

**Note:** VoS: Value of Sales; #: DPSUs do not include HSL, which came under the administrative control of the MoD in 2010; *: Figure is exclusive of OFs.

***Source:*** Author's database

Given the size differential, offsets may have been an extraneous factor to influence the VoS of DPSUs and OFs, but it needs closer examination to see any linkages with the exports of these enterprises' exports, which is not only smaller in size but, as articulated earlier, an area of clear-cut focus of the offset policy since its inception in 2005. An analysis of the export performance at macro level and of two of the biggest exporters: Hindustan Aeronautic Ltd (HAL) and Bharat Electronics Ltd (BEL), which together account for nearly three-fourths of total exports of all DPSUs/OFs, would reveal the linkages- if any. The aim is to see the extent to which offsets have contributed to exports and through those to the overall sales, because if the offset has led to increased exports, then it must be reflected in the rising share of exports in total sales.

As seen in the Table 4.7, exports of DPSUs/OFs have more than doubled during the study period. However, there is hardly any increase in terms of the percentage of the total turnover. In fact, the share remains almost static at 1.8 per cent in 2010-11 and 2011-12 for all the public sector units for which comprehensive data is available. This

suggests, that offsets have not yet become a key factor in the total exports of DPSUs and OFs.

The picture at the individual enterprise level, is however somewhat different. In the case of BEL, there has been a growth in exports, both in absolute terms and as a percentage of VoS (Table 4.8). What is more significant is that a part of this growth is offset-led. For instance in 2012-13, offset-led exports accounted for 23 per cent of the total exports of $32.8 million. Moreover, of the total accumulated export orders of $194 million, booked by the end of 2013-14, nearly 15 per cent ($28.45 million) was accounted for by offset orders.

In the case of HAL, although there has been a growth in exports in absolute terms, there is a decline in terms of the percentage of VoS (Table 4.8). This suggests that nearly the entire focus of the HAL is on the domestic front, with overall exports taking a backseat, and offsets playing almost a negligible role. Interestingly, according to a former head of HAL, one of the primary reasons for India's premier aircraft company's little exposure to offset is the poor quality of offsets offered by the foreign vendors. It is demeaning on the part of HAL to accept such offset work, added the official. The only major offset that HAL has so far received directly as a result of the MoD's policy is a mere $4.7 million order from the Boeing for providing the weapons bay door for the P8-I long-range maritime reconnaissance and anti-submarine warfare aircraft for the Indian Navy.[8] HAL's negligible role in offsets combined with the similar situation for the DPSUs/OFs as a whole, thus indicates the limited impact of offsets in promoting a key area of exports.

[8] Boeing, "Boeing Teams with Hindustan Aeronautics Limited for P-8I Weapons Bay Doors", News Release/Statements, February 11, 2011, http://boeing.mediaroom.com/2010-02-11-Boeing-Teams-With-Hindustan-Aeronautics-Limited-for-P-8I-Weapons-Bay-Doors.

**Table 4.8. Exports as % of Turnover of HAL and BEL**

| | HAL | | | BEL | | |
|---|---|---|---|---|---|---|
| | VoS (Rs in Cr) | Exports (Rs in Cr) | Exports as % of VoS | VoS (Rs in Cr) | Exports (Rs in Cr) | Exports as % of VoS |
| 2004-05 | 4533.8 | 150.1 | 3.3 | 32112.1 | 36.9 | 0.1 |
| 2005-06 | 5341.5 | 186.2 | 3.5 | 3536.3 | 52.7 | 1.5 |
| 2006-07 | 7783.6 | 270.5 | 3.5 | 3952.7 | 41.4 | 1.0 |
| 2007-08 | 8625.3 | 341.1 | 4.0 | 4102.5 | 57.1 | 1.4 |
| 2008-09 | 10373.4 | 436.6 | 4.2 | 4623.7 | 72.3 | 1.6 |
| 2009-10 | 11456.7 | 204.7 | 1.8 | 5219.8 | 99.4 | 1.9 |
| 2010-11 | 13115.5 | 237.4 | 1.8 | 5529.7 | 161.7 | 2.9 |
| 2011-12 | 14204.2 | 348.3 | 2.5 | 5703.6 | 187.9 | 3.3 |
| 2012-13 | 14323.6 | 382.8 | 2.7 | 6012.2 | 166.1 | 2.8 |
| 2013-14 | 15127.9 | 440.0 | 2.9 | 6174.2 | 246.2 | 4.0 |

***Source:*** Author's database

### *Impact on Private Sector*

The Indian private sector may be a late entrant into Indian defence industry, but it is the most enthusiastic player. Anybody who has been to any of the defence-related seminars organised in recent years would have witnessed the active participation of private players, both big and small. Moreover, industry associations, particularly the Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (*FICCI*) and the Associated Chambers of Commerce of India (ASSOCHAM), are now quite actively promoting the interests of the private industry.

The question relates to the extent to which offsets have stimulated the private sector's interest in defence production. One way of finding this enthusiasm is by looking at the year-wise issuance of Letters of Intent (LoI)/ Industrial Licences (IL) by the Indian government (Table 9). As seen in the Table, the number of LoI/IL granted has suddenly jumped after the detailed offset policy was announced in 2006, indicating a strong correlation between offsets and the private sector's interest in defence production.

**Table 4.9. Letters of Intent / Industrial Licence Issued to Indian Private Sector**

| Year | No. of LoI / IL Issued | No. of LoI / ILs Issued (Cumulative) |
|---|---|---|
| 2002-03 | | 12 |
| 2003-04 | 03 | 15 |
| 2004-05 | 07 | 22 |
| 2005-06 | 06 | 28 |
| 2006-07 | 09 | 37 |
| 2007-08 | 36 | 73 |
| 2008-09 | 46 | 119 |
| 2009-10 | 8 | 127 |
| 2010-11 | 28 | 155 |
| 2011-12 | 23 | 178 |
| 2012-13 | 12 | 190 |
| 2013-14 | 20 | 210 |
| 2014-15 (Till Jan 2015) | 41 | 251 |

***Source:*** Author's database

It is however to be noted that the mere rise in the private sector's interest as manifested by a hefty growth in LoI / IL does not necessarily mean that offsets have led to actual defence production in the Indian private sector. It is quite possible that LoI / ILs are bagged by companies in the hope of getting offset business in the future, which may not happen in due course. This seems to be true in the case of a large number of companies which are yet to begin production even after getting the licences. In this context, it needs to be noted that of the 251 LoI / IL issued to 150 companies till January 2015, 101 companies (67 per cent) are yet to commence production.

The larger question relates to the contribution of the 49 companies (that have commenced production) to India's overall defence production and the role of offsets in this. The following section attempts to answer this question.

Official information is lacking in respect of defence-specific production or the sales of Indian private sector. The MoD which compiles the data for the DPSUs and OFs in its annual report, does not do so for the private sector. Most of the private sector companies, especially the bigger ones, on their part also do not publicise the defence related information. A part of the reason is that the defence business of major private companies is clubbed with their larger civilian business. For instance the defence and nuclear business of Larsen and Toubro (L&T) falls within the company's heavy engineering segment, and thus there is

no separate accounting for the former. Similarly, TATA, which conducts its defence business through 14 group companies, also does not present its consolidated defence revenue separately. Among the very few major companies that provide some aggregate figures is Astra Microwave Products Limited, a Hyderabad-based company engaged in the design and manufacturing of radio frequency (RF) and microwave super components and sub-systems. In 2013-14, the company's defence segment accounted for 90 per cent of its total revenue of Rs 544.2 crore.[9]

The lack of official information across the private sector notwithstanding, there are several market surveys available on the volume of the defence business of the Indian private sector. According to one estimate, the current defence revenue of the entire private sector, including from overseas orders is around $2 billion.[10] Among the large companies, TATA which has a defence order book of Rs. 8000 crore, generated revenues of Rs. 2500 crore in 2013-14.[11] L&T's revenues from defence are believed to be Rs. 1200 crore.[12] Dynamatic Technologies, a Bangalore-based company with three business verticals – aerospace, auto parts and hydraulic pumps – generated business of Rs. 1589 crore from the aerospace sector in 2013-14.

The moot question is the extent to which the offsets have impacted the private sector's defence production and sales. As in the case of DPSUs and OFs, one way of finding this out is by examining the volume and growth of exports of the private sector. The underlying rationale is that the contribution of offsets to the private sector's production and sales, should be reflected in their exports. Unfortunately, unlike the DPSUs/OFs, the comprehensive export data for the private sector is

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9 Astra Microwave Private Ltd, *Annual Report 2013-14*, p. 33.

10 Tommy Wilkes, "Indian Firms Tool Up for Defence Orders on Modi's 'Buy India' Pledge", *Reuters*, August 20, 2014, http://www.reuters.com/article/2014/08/20/us-india-defence-idUSKBN0GK2AQ20140820.

11 Suman Layak, "Top Guns", *The Economic Times Magazine*, July 20-26, 2014.

12 Cuckoo Paul, L&T: Armed but Commissioned, *Forbes India*, September 29, 2014, http://forbesindia.com/article/boardroom/lt-armed-but-not-commissioned/38703/1.

limited. Table 4.10 provides the value of defence exports for four years up to 2013-14 for which data could be obtained. As the table suggests, there has been a nearly a 10-fold increase in exports, indicating the possibility of a growing influence of offsets.

**Table 4.10. Defence Exports by Indian Private Sector**

| Year | Exports (Rs in Crore) |
|---|---|
| 2010-11 | 29.1 |
| 2011-12 | 137.5 |
| 2012-13 | 138.1 |
| 2013-14 | 286.0 |

Note: The export figures are based on the no-objection certificates issued by the Ministry of Defence.

***Source***: Author's database

It is however to be noted that the private sector's interest in offsets goes beyond immediate exports. Given that the private sector is a late entrant into defence production, many companies view offsets as not only a means of getting business but also gaining expertise through technology transfers, working with global majors, besides getting international market visibility. It is however important to know the extent to which the Indian offset policy has helped the Indian private companies. To this end, a questionnaire was sent to a number of leading private sector companies, eight of which responded. These companies are: Alpha Design Technologies Pvt Ltd, Astra Microwave Products Ltd, Dynamatic Technologies Ltd, Elcom Group, L&T, MKU Pvt Ltd, Precision Electronics Ltd and Tata Power SED.[13] The views of the companies were sought on a number of specific issues. The response of the industry is summarised below.

Six companies said they had received offsets. Of the other two, one company was in the advanced stages of negotiations with foreign

[13] The author would like to thank Nitin Arora of Emkay Global Financial Services Ltd for his valuable assistance. Due to the sensitivities involved, many companies did not want their names to be mentioned. The views presented in the chapter are therefore not ascribed to any particular company.

OEMs but had not yet received any offsets. The other company, which despite its significant international exposure (with 90 per cent turnover coming from exports) in homeland security products, has not got any offsets so far. Of the six companies that had received offsets, the value of the offsets as a percentage of turnover was miniscule (less than 5 per cent). In one company the share had gone up to around 15 per cent, where as in another company, the share was over 50 per cent. There is almost near unanimity that the said offset-related business would not have been possible without a formal policy being in place, thus underscoring the role of the MoD's offset policy in generating defence business.

However the quality of offsets received by most companies is not significant in terms of the capability enhancement of the Indian defence industry. The majority view of the industry is that most of the offsets are build-to-print (BTP) in nature, with little value addition by the Indian partners. Most companies are also of the view that offsets have so far not been the catalyst for technology transfer.[14] Moreover, most offsets come with strings attached. Indian partners are made to honour the intellectual property rights (IPR) of the foreign partners and abide by non-competitive agreements that restrict the freedom of export.

## An Assessment

Despite the limitation of data, the evidence suggests that the offset policy has had a mixed impact on the Indian defence industry. On the positive side, the offsets seem to have made an impact on certain types of exports, particularly of civilian aerospace items (parts and components), defence exports of the private sector and overall exports of BEL, the premier defence electronics company in India. On the negative side offsets have not been a catalyst in influencing FDI inflows, which was a key objective of the policy since its very inception. Offsets

[14] Interestingly, an official of a large company interviewed for the chapter said that that the company had received technology via the non-offset route. He further stated that there is greater likelihood of obtaining technology, irrespective of the offsets if the business plan is impressive.

have also not facilitated the ToT or any meaningful manufacturing in the industry. Moreover the main impact on exports is largely confined to parts and components of civil aerospace items, not the platforms. Considering that manufacturing and technology are at the heart of an industry like defence, it is imperative that the MoD focuses its policy accordingly. This aspect assumes importance, given that nearly $3.5 billion worth of offsets are yet to be discharged.

*CHAPTER - V*

# DEFENCE OFFSETS: INTERNATIONAL BEST PRACTICES

As mentioned in the earlier chapters, the offset mechanism is widely used by many countries in their arms trade contracts. The popularity of offsets notwithstanding, there is a wide divergence in the way offsets are used by various countries. Usually offsets demanding countries have a formal policy framework, although some countries like China and Japan do not have such a framework. Within the policy framework, countries also differ in terms of the threshold, percentage and scope of offsets. Differences are also observed in the way countries pursue their offsets objectives, particularly with respect to valuation of offset credit, establishing a long-term relationship with the offset provider and promoting indigenous defence industry. Besides, countries also differ with respect to institutional mechanisms to implement and monitor offset programmes.

The chapter examines, in some detail, the offset policies of six countries: Canada, Israel, Malaysia, South Korea, Turkey and UAE which not only have a declared policy on offsets but have also undertaken periodic revisions based on the experience gained over a period of time. The selection of these countries is based on the ease of the access to the official policy. An occasional reference to the Indian offset policy is also made to highlight its convergence and divergence with the policies of countries surveyed in this paper.

## Offsets: Threshold, Percentage and Multiplier

As a common practice, countries often define the threshold limit of the main arms contract beyond which offsets become mandatory. Countries also define the precise offset requirement by way of specifying a certain percentage of the main contract value which is to be mandatorily ploughed back into the domestic industry. Over and above these, countries also have a multiplier provision in their offset policy. While the threshold limit determines the scope of offsets, the latter

two provisions (offset percentage and multiplier) determine the quantum of the offsets that can flow from the main contract. Table 5.1 summarises these conditions as they operate in the countries studied in the chapter. As can be seen, except for Canada, India has the highest threshold limit. This means that unlike most other countries which demand offsets in contracts valued at as low as $5-15 million, Indian industry cannot benefit unless the minimum contract value is $55 million.

India also has the lowest offset percentage requirement among the listed countries. This means, that given the value of an arms contract, the offsets that the Indian industry can get are lower than its counterparts in other listed countries. However, this may not hold true if one was to factor in the multiplier, which ranges between 1.5 and 9 for these select countries. Given the wide variation in the value of the multiplier, the actual transaction value of offsets can logically be different for countries with different offset percentage requirements. For instance, a 100 per cent offset with a multiplier of 9 (as in the case of Canada) in a procurement contract valued at, say $900 million, results in a lower offset transaction value ($100 million) than a similar contract with 60 per cent offset and a multiplier of 5 (as in the case of the UAE) where the actual value of the offset transaction would be $108 million.

**Table 5.1. Offset: Threshold, Percentage and Multiplier**

| Country | Threshold Limit (US$ Million) | Offset Requirement (%) | Multiplier |
|---|---|---|---|
| Canada | 100* | 100 | 4-9 |
| India | 55 | 30 | 1.5-3 |
| Israel | 5 | 50 | 1.5 |
| Malaysia | 15 | 100 | No multiplier** |
| South Korea | 10 | 50 | No multiplier |
| Turkey | No Threshold*** | 70 | 2-8 |
| UAE | 10 | 60 | 1.5-5 |

**Notes:**

*: Canada however the option of seeking offsets in contracts valued between $2 million and $100 million. The demand for offsets in such cases is determined by three factors: "(1) Is the procurement strategic to Canadian industry? (2) Are the potential bidding companies of interest to Canadian industry and are they capable of fulfilling [offset] obligation? and (3) Is the project a smaller part of a larger one?"

**: Although Malaysia does not allow multipliers as a general rule, it however considers it in "exceptional circumstances such as when the offset programme can lead to high-end technology acquisition or maximisation of FDI into Malaysia."

***: In its revised policy of 2011, Turkey abolished its earlier threshold limit of $10 million, virtually giving it the power to ask for offsets irrespective of the value of contract.

***Source:*** Author's database

From the above hypothetical example, it appears that a lower offset percentage requirement with a lower multiplier is technically the same as a proportionately higher offset percentage requirement with a higher multiplier. However, this logic overlooks a critical dimension that goes beyond the simple mathematical calculation. It is noteworthy that a multiplier is used for specific activities such as investment in R&D (as is the case in Israel), platform exports, technological cooperation, enabling technology that is specifically sought (Turkey), and high-end technology transfer (India). However, in most cases, the vendors have the discretion to choose the activities for fulfilling their offset obligations. In practice, very few vendors choose these specific areas, because the transaction is deemed as being too advantageous for the buyers. This is the reason why the multiplier has been of little relevance in offset transactions at the global level. This is amply illustrated in the 17th BIS Report which notes that out of 12,100 offset transactions made between 1993 and 2012, only 12 per cent transactions had a multiplier of greater than one. The average value of the multiplier in these transactions was found to be a mere 1.2.[1]

Since the multiplier is of lesser use, what becomes significant from a buyer's point of view is the percentage of offset requirement that determines the volume of the offsets that can flow into the domestic industry. This is perhaps the reason why countries like Malaysia and

[1] Bureau of Commerce and Security, US Department of Commerce, *Offsets in Defence Trade*, 17th Study, February 2013, pp. 4 & 21.

South Korea do not have a multiplier provision in their policies, but yet have a high offset percentage requirement. India on the other hand has persisted with a 30 per cent offset requirement since the policy was first announced in 2005.

## Hybrid Input-Output Model for Calculation of Offset Credit

In many countries including India investment is allowed as one of the means for the discharge of the supplier's offset obligations. However few countries bother to ensure if such investments, for which the foreign vendors earn offset credits, are having any real impact on the domestic economy. In this regard, the UAE's revised offset policy of 2010 is an exception. The revised offset policy has incorporated a 'hybrid' model for calculation of offset credit that virtually puts the onus on the foreign suppliers to ensure that a part of the offset inflow brings real benefits to the UAE economy.[2] As per the model, the total offset credit is divided into two categories: input credit and output credit. A foreign company earns input credits when it makes an investment in UAE. The investment can take place in the form of: industry enablers, knowledge empowerment and equity contribution. The maximum that the foreign company is allowed to earn input credit is 30 per cent of its total obligations. In other words, a minimum of 70 per cent credit is to be earned through output credit, which is given when the investment leads to exports, yields net profit of the ventures in which investment is made and generates income (salary) for UAE nationals. Evidently, the UAE model of calculating offset credit ensures that the flow of investment has a measurable outcome rather than being an end in itself. This model could be useful for other countries that want foreign investment but have no clue as to how to ensure that measurable outcomes flow from such investments.

## Value Addition

Many countries apply the principle of value addition for the purpose of estimating the true value of the offset credit that can be claimed by

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[2] Offset Programme Bureau of United Arab Emirates, "Defence Contractor Offset Guidelines", http://www.idp.ae/en/agreements/Offset%20Policy%20Guidelines.pdf.

foreign vendors. The value-add principle ensures that the foreign vendors get their due offset credit for the indigenisation they are able to achieve in the buying country. Normally, the value of offset credit is equal to the value addition of a product, although some countries allow 100 per cent credit beyond a certain localisation level. For instance, Norway's 2004 policy provides for 100 per cent offset credit if 80 per cent localisation, or more is ensured by the foreign vendors.[3]

Many countries have formulated detailed guidelines for estimating value addition in offset transaction. The Industrial and Regional Benefits (IRB) policy of Canada, which seeks offset benefits from the government's defence and security procurement, provides for two methods – the Net Selling Price method and the Cost Aggregate Method - to estimate the Canadian Content Value (CCV). The underlying principle of both methodologies is to ensure that "only the Canadian labour and materials of a particular work package is counted toward an IRB contractor's obligation; all foreign overhead, labour and materials for any particular transaction is excluded from CCV."[4]

In India, value addition is determined "by subtracting (i) value of imported components, i.e. import content in the product and (ii) any fees/royalty paid" from the final purchase/export price of the eligible products.[5] It is however to be noted that unlike Canada which applies the value addition principle for both products and services, India's policy is only restricted to the products. In other words, under the Indian offset guidelines, foreign vendors can claim full credit for a services related transaction which may have a 100 per cent import content. This not only gives an undue advantage to the foreign suppliers but also distorts the level playing field to the disadvantage of the manufacturing sector.

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3 Norwegian Ministry of Defence, "Guidelines for Establishing and Implementing Offset in connection with Procurement of Defence Material from foreign Suppliers", September 2004, p. 4.

4 Industry Canada, "IRB Eligibility Criteria", http://www.ic.gc.ca/eic/site/042.nsf/eng/h_00043.html.

5 Ministry of Defence, Government of India, *Defence Procurement Procedure 2013*, p. 46.

## Principle of Additionality and Causality

As Hartley and Martin rightly note, an offset agreement "oblige[s] the foreign supplier and its sub-contractors to buy goods and services over and above what they would have bought from firms in the purchaser's economy in the absence of the offset agreement."[6] In other words, offsets involve transactions that are in addition to the transactions made under the normal market forces and are purely caused by the new contractual obligations. The idea of offsets is therefore to create new market opportunities which would not have been possible without an offset contract. However, while awarding offset contracts the principle of additionality and causality is often overlooked by many countries, including India, which does not have any provision in the offset guidelines to this effect. Consequently, the foreign vendors are free to claim credits for transactions (say for purchase of goods and services) which normally would form a part of their commercial activities under normal market conditions.

Unlike to India, Canada, Malaysia and UAE emphasise additionality and causality in their offset contracts. With regard to additionality, the Malaysian policy categorically states that: "all new proposals or activities must reflect visible increment of value-add on top of the basic/ mandatory needs of the main procurement contract through direct offsets and present offset recipient's capability/capacity through indirect offsets in order to be considered for offset credits." For the purpose of causality, the Malaysian policy states that "all offset programmes must result directly from the procurement contract."[7] The UAE policy also talks of "expansion of existing business" and "causality (causing business to happen)" as the minimum criteria for offset activities, in order for them to be considered for credits.[8]

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6 Stephen Martin and Keith Hartley, "UK Firms' Experience and Perceptions of Defence Offsets: Survey Results", *Defence and Peace Economics*, Vol. 6, 1995, p. 124.

7 Malaysian Ministry of Finance, "Policy and Guidelines on Offset Programmes in Government Procurement (2nd Edition), March 2011, p.4.

8 UAE Offset Programme Bureau, Defence Contractor Offset Guidelines, 2010 to 2011 Edition, p. 9.

Compared to Malaysia and the UAE, Canada has a more scientific approach towards additionality and causality. Canada applies the following methodology with regard to additionality:

- The average of 3-year purchases immediately preceding the date of identification of offset transaction by the Canadian offset authority;
- Offset credit would be awarded in each of the reporting periods, based on those purchase values which exceed the three year average.

The above methodology for calculation does not, however, apply if the product/service being purchased:

- Involves a direct work;
- Is substantially different from what was previously purchased;
- Involves a different end use (market sale, application, etc) from what was previously purchased; or,
- Follows a competitive process to re-select the Canadian supplier.

The Canadian policy provides detailed guidelines to establish the causality factor. These require the bidder to submit, as documentary evidence, the "internal emails, official correspondence, meeting notes, corporate presentations or other complete or redacted documents", to prove that the transaction is influenced by the offset requirement. It is noteworthy that while the responsibility for demonstrating causality lies with the bidder, the acceptance of such a claim is the prerogative of the Canadian offset authorities. Among other factors, the Canadian authorities assess causality claims on the basis of the following three key factors:

- Market share: What is the market share of an offset recipient for a particular product or service?
- Business History: What is the nature, intensity and longevity of any existing business relationship between the offset supplier and the offset recipient?

- Intellectual Property: Are there any intellectual property considerations that impact the offset provider's choice of the offset recipient?

## Banking and Offset Trading

Among the seven countries studied in the paper, all except for the UAE, have a banking provision in their respective offset policies, although they differ in terms of: kind transactions allowed for banking; the extent to which banking is allowed; the validity period of the banked credits and; the flexibility in the usage of banked credit (Table 5.2). Among the six countries that have banking provisions only South Korea restricts banking to the excess transactions generated by vendors from their ongoing offset programmes. The others allow banking in anticipation of future procurement programmes as well as in the event of the overachievement of credits from the on-going programmes. The freedom to bank is unlimited in all countries except for Canada, which requires the vendors to identify a future procurement project against which the banked credits would be used. It also stipulates a cap for banking amount. As per the Canadian policy, vendors are allowed to bank a maximum 15 per cent of their bid price of a future contract they wish to participate in. In case of over achievement, the vendors are allowed to bank a maximum of 10 per cent of the total obligation value of an ongoing offset project, subject to a maximum of $100 million.[9] Canada also follows a stringent methodology for the purpose of determining the validity of the banked offset credit. Unlike the others who allow the entire value of the banked credit to remain valid for a certain fixed period (3-7 years), Canada follows a 'depreciation schedule' that reduces the value of banked credit over a period of time. As per the Canadian policy, 100 per cent of the entire banked credit remains valid for first three years; this depreciates to 75 per cent of the value between third and fourth year; and 50 per cent

[9] Industry Canada, "Banking of Industrial and Regional Benefit Transactions", http://www.ic.gc.ca/eic/site/042.nsf/eng/00035.html.

of the value between the fourth and fifth years (the validity lapses after the fifth year).

**Table 5.2. Offset Banking and Trading**

| Country | Validity of Banking Period (Years) | Trading |
|---|---|---|
| Canada | 5 | Not Permitted |
| India | 7 | Permitted within the scope of the same contract between the main contractors and its Tier-I sub-contractors |
| Israel | Not less than 5 | Permitted among the supplier's corporate divisions and subsidiaries |
| Malaysia | 5 | Permitted subject to a limit of 50 per cent of the new obligations |
| South Korea | 3 | The banked offset credit of subcontractors can be utilised by the main contractors provided the former participate in the "identical main acquisition programme" |
| Turkey | 5 | Permitted to a limited extent |
| UAE | No provision | No provision |

The freedom to use banked credits varies from country to country. Israel and Malaysia have a liberal policy that allows the vendors to use the entire banked credit for future use. Canada, India and South Korea however allow a limited use of banked credit. Canada has a "limit of 50 per cent of the total obligation that can be met using banked transactions." India allows full use of banked credits, but requires a minimum of two contracts for utilising the entire banked credit. In South Korea, the "ratio upon which the contractor may utilise the banked offset value against the obligations will be determined within 50 per cent by the Defence Acquisition Programme Administration (DAPA)."

Trading of banked offset credit does not seem to be popular in most countries. For instance, Canada, which allows banking for up to five years, clearly prohibits the trading of banked transaction between the

vendors.[10] Malaysia, on the other hand, allows trading, but subjects it to a limit of 50 per cent of the new obligations.[11]

## Offset Obligations on Domestic Enterprises

In an emerging trend, some countries like Canada, India, Turkey and the UAE place offset conditions on their own companies when the product offered by the domestic companies has a certain percentage of imported elements. The idea behind this is to prevent the local companies from acting as the front organisations of foreign companies and to force them to develop sub-suppliers of parts and components through compulsory subcontracting. However, the stipulated offset requirements for own companies varies from country to country. Canada is a useful case study in this respect. The Canadian policy does not distinguish between foreign and domestic companies as far as procurement contracts are concerned. Canada's official offset policy categorically states that "any company that wins a specific Government of Canada procurement that has an Industrial and Regional Benefits (IRB) requirement must fulfil the Industrial and Regional Benefits (IRB) obligation."[12] Since Canada stipulates 100 per cent offsets, the local companies winning contracts are also required to commit business activities amounting to 100 per cent of the contract value to the domestic industry. Like other foreign companies, Canadian companies are also required to meet the same criteria in order to become eligible. For instance, the Canadian company has to demonstrate that its offset proposals are compatible with the criteria of causality, incrementality and Canadian Content Value (CCV).

As per the Defence Offset Guidelines, Indian companies participating in 'Buy (Global)' contracts valued Rs 300 crore or more are required

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10 Industry Canada, Industrial and Regional Benefits: Model Terms and Conditions, Version 3.0, 2013, p. 31.

11 Malaysian Ministry of Finance, *Policy and Guideline on Offset Programmes in Government Procurement* (2nd Edition), March 2011, p. 8, http://mides.mod.gov.my/index.php/info/pekeliling/pekeliling-offset; Defence Acquisition Programme Administration (DAPA), Republic of Korea, *Defence Offset Programme Guidelines*, January 2012, p. 18

12 Industry Canada, "Frequently Asked Questions" http://www.ic.gc.ca/eic/site/042.nsf/eng/00015.html#q14.

to provide offsets if the indigenous content of their offered product is less than 50 per cent.[13] However unlike Canada, the Indian policy does not have a clear framework as to how the local companies are to discharge their offset obligations. Of the seven different avenues provided in the DOG for discharge of offset obligations, the local industry can at best use only one avenue (i.e. executing export orders) to discharge their obligations. Suffice it to mention that unlike foreign companies which can earn offset credit for investing in Indian enterprises or for purchase orders placed on the Indian companies, Indian companies cannot earn credits for such transactions. Clearly, Indian companies with an offset liability would be at a disadvantage vis-à-vis their foreign counterparts.

Apart from the offset avenue-related disadvantage, Indian companies also face discrimination on account of the indigenisation requirement. As mentioned earlier, Indian companies participating in 'Buy (Global)' procurement contracts are subject to offset liability if the indigenous content is less than 50 per cent. The offset liability is to be discharged at the rate of 30 per cent of the foreign exchange component of the procurement contract. From the outside it appears that Indian companies have fewer obligations than foreign companies. However, a deeper examination would show that Indian companies are more burdened than their foreign counterparts. Unlike foreign companies who are free to supply the final product whose parts and components can be sourced from anywhere in the world, an Indian company has to ensure a certain level of indigenisation, which amounts to nothing but direct offsets. Apart from this, the Indian company has to bear the additional offset liability arising out of the import content. Moreover, the direct offsets, that indicate the level of indigenisation, are to be demonstrated at the time of field evaluation trials[14] On the other hand, the entire 30 per cent offset liability of the foreign supplier can be discharged indirectly in areas totally unrelated to the procured item,

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[13] Ministry of Defence, Government of India, *Defence Procurement Procedure 2013: Capital Procurement*, p. 46.

[14] It is however to be noted that the DPP is not clear as to how and when, the Indian companies would establish the indigenous content of the product.

and the time period for the discharge can exceed two years, post the warranty period of main procurement contract.

Apart from the discrimination relating to the time period, the degree of indigenisation associated with direct offsets, combined with the offset liability arising out of the import content tilt the balance against the domestic suppliers. The distortion is to the extent that except for zero indigenisation (a theoretical possibility in which case the Indian company is a mere trader), the burden on an Indian company, at all other levels of indigenisation, is more than 30 per cent. This is illustrated in Table 5.3 which shows the burden imposed on Indian companies at varying rates of indigenisation.

**Table 5.3: Burden on Indian Companies under 'Buy (Global)' Contract**

| Indigenous Content (%) | Offset Liability, % (30% of Import content) | Total Burden, % (indigenous Content plus Offset liability) |
|---|---|---|
| 0 | 30 | 30 |
| 10 | 27 | 37 |
| 15 | 25.5 | 40.5 |
| 20 | 24 | 44 |
| 25 | 22.5 | 47.5 |
| 30 | 21 | 51 |
| 35 | 19.5 | 54.5 |
| 40 | 18 | 58 |
| 45 | 16.5 | 61.5 |
| 49.9 | 15 | 65 |
| 50 | 0 | 50 |
| >50 | 0 | >50 |

**Note:** It is unlikely that an Indian company offering a product with less than 30 per cent indigenous content would be issued a 'Buy (Global)' tender to respond In that case the indigenous content between zero and 30 per cent (as shown in column 1 of the Table) remains a mere theoretical possibility

## Channelling Offsets

Foreign companies tend to choose those business activities for discharging the offset obligations, which may be cost-effective for them,

but are of little value from the buyer's point of view. This is primarily due to the design of policy that gives complete freedom of choice to foreign OEMs in the matter of offsets. To guard against this, countries like Turkey, Canada and South Korea have reserved the right to demand specific offsets. Turkey, which is more concerned about boosting arms exports, specifically asks foreign vendors through the RFP to buy local made defence items as part of discharge of offset obligation.[15] Turkey's focus on arms exports through offsets seems to be yielding rich dividend. In 2012, its total arms exports were valued at $1.2 billion, placing it among the world's 20 biggest arms exporters. It is believed that around 80 per cent of its arms exports are offset-induced.[16]

Following the policy revision in December 2011, Canada has for the first time stipulated an Enhanced Priority Technology List (EPTL), in which a minimum of five per cent investment has to be made by the offset provider. The List, which is stated upfront in the RFP, is intended to encourage the development of advanced technologies in the aerospace and defence sectors.[17]

In South Korea, offsets are channelled in two ways: by influencing the source selection and by reserving the right to nominate local companies to partner the foreign companies for discharge of the latter's offset obligations. The source selection is influenced by way of stating upfront in the RFP the offsets required in each acquisition. The required offsets are divided into a number of categories and each category is assigned a numerical value. The categories then become the basis for selecting the winner. Presently, South Korea has six categories of offsets with 'Category A' having the highest value of six and 'Category E' having

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[15] Undersecretariat for Defence Industries, Ministry of National Defence, *Industrial Participation/Offset Guidelines*, April 2011, p. 9.

[16] Carola Hoyos and Antoine Amann, "Turkey Builds Domestic Defence Industry", *Financial Times*, October 09, 2013, http://www.ft.com/intl/cms/s/0/837ef75a-1980-11e3-afc2-00144feab7de.html.

[17] Industry Canada, "New Approach: Enhanced Priority Technology List", http://www.ic.gc.ca/eic/site/042.nsf/eng/00062.html.

the lowest value of one (Table 5.4). The DAPA also has the provision of giving 10 points provided a foreign company agrees to transfer state of the art technology that can be utilised in R&D projects.

**Table 5.4. South Korean Offset Category and Weighted Value**

| Category | A | B | C | D | E |
|---|---|---|---|---|---|
| Weighted Value | 6 | 4 | 3 | 2 | 1 |

***Source:*** Defence Acquisition Programme Administration (DAPA), Republic of Korea, *Defence Offset Programme Guidelines*, January 2012, p. 9.

South Korea reserves the right to select the local company, termed the Korean Industry Participant (KIP), who would partner with foreign companies for discharge of offset obligations. The DAPA also has the final say in cases where the foreign vendors are allowed to suggest a KIP. By reserving the right to select the KIP, the DAPA ensures that right domestic industry players get the opportunity, which is in the interest of the Korean industry.

## Establishing Long Term Relationship through Offsets

Many countries use their offset policies to ensure that foreign companies undertake business activities in the buyer country, through legally binding contracts, the violation of which warrants penalties. However, many a time such legally binding offset-induced activities are of short duration and are not necessarily beneficial for the buyer country in the long term. This is because the business arrangement is not often based on competitiveness to sustain the viability of the offset-induced-projects after the transaction period is over. A case in point is Malaysia, which witnessed the closure of certain projects after the supplier's offset obligation was fulfilled. Two such projects related to Malaysia's foreign purchase of modular suspension bridge and ACV300 armoured personnel carriers (APCs). As part of modular suspension bridge contract, an offset investment of $1.5 million was spent on a Malaysian firm, CTRM, by way of training the company's workers and investing in the factory's jigs and fixtures. The CTRM was to provide carbon composite launch rails for the bridges. However, once the offset period was over, the Malaysian firm received no further orders and consequently it was forced to shut down its factory. The experience was similar in

the case of the APC procurement. The deal involved the off-the-shelf procurement of 146 APCs from a Turkish firm followed by the licenced production of 65 vehicles through completely knocked-down (CKD) kit by a local firm, DEFTECH. A total of $17.5 million in offset credits was claimed by the Turkish supplier, for giving the licence and for its investment in infrastructure, jigs, tools and a test track at the Pekan facility. As in the CTRM's case, the Pekan facility was not able to sustain its activities beyond the offset period.[18]

Learning from past experience, Malaysia now emphasises the long-term viability of offset-induced projects. Its revised policy, announced in March 2011, categorically states that the offset "programmes proposed must be economically and operationally sustainable after the [offset] discharge period." It is now for the vendors to convince the Malaysian offset authorities of the sustainability of the projects they propose to undertake through the offset route.

The offset policy followed by Israel lays heavy emphasis on establishing long term partnerships with foreign companies. As such, the policy focuses on two broad principles: proactive guidance by the Israel offset authority and competitiveness of Israeli industry to work with foreign companies. Unlike the offset authorities of many countries, the Industrial Cooperation Authority (ICA) - under the Ministry of Economy - takes extra care to facilitate offset-related interaction between the domestic industry and foreign companies. The idea is to identify areas of cooperation and the Israeli companies that are best suited to undertake offset projects. Some of the functions of the ICA include:

- Assistance to overseas companies in identifying and locating suitable Israeli manufacturers and partners for joint ventures, outsourcing, R&D and other modes of cooperation and strategic partnerships with Israeli industry.
- Providing information about Israeli industry.

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[18] Kogila Balakrishnan, "Evaluating the Role of Offsets in Creating a Sustainable Defence Industrial Base: The Case of Malaysia", *The Journal of Defence and Security,* Vol. 1, No. 1, 2000.

- Conducting surveys related to Israeli industry.
- Coordinating visits by representatives of Israeli industry to foreign companies.
- Coordinating visits by representatives of foreign companies to Israel in order to survey local industry.
- Organising conferences to enable interaction between foreign companies and Israeli industry.

Israel acknowledges that any long-term relationship with foreign companies cannot be sustained without involving the best Israeli companies.[19] Accordingly, it encourages competition within domestic industry so as to allow the best company to partner in an offset project with a foreign company. Israel's policy seems to be yielding long-term value for the domestic industry. As stated by the outgoing chief of the Israel's offset authority, "on each $1 of [offset] obligation, we tend to secure about $3 or even $4."[20]

The ICA model for establishing long-term partnerships, especially by playing a proactive role to cement the domestic industry's long-term relationships could be a lesson for other countries which despite having a dedicated offset authority are often unable to play the role of a true facilitator. For instance, India's Defence Offset Facilitation Agency (DOFA), or its successor, the Defence Offset Management Wing (DOMW), have never been known to function the way the ICA does.

## Offset Swapping

South Korea is one of the few countries that allows offset swapping. The swapping is allowed to support the domestic industry that has offset obligations in a foreign country. Either the domestic manufacturer

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[19] Israeli Ministry of Economy, "Industrial Cooperation in Israel", http://www.moital.gov.il/NR/exeres/B204AC95-046B-4458-ACF3-41F965386044.htm.

[20] Barbara Opall-Rome, "Israel's Offsets Soar; More Local Firms Earn a Share", *DefenseNews*, January 19, 2013

or the foreign partner having an offset obligation in South Korea, can approach DAPA to consider a swapping proposal.[21]

## Beyond Defence: Offset Policy at National Level

Some countries including India have an offset policy that operates within the narrow prism of defence procurement only. In other words, the offset requirement is not applicable for the non-defence sector. South Korea and Israel are, however, figure among the countries whose offset policy is applicable at the national level for both defence and civil procurement. In the case of Israel, the offset requirements, as enshrined in its official Industrial Cooperation (IC) guidelines, can be applied to any procurement by the state, government corporations and public agencies when the value of the purchased foreign goods or services exceeds $5 million. Moreover, Israel is also in the process of bringing municipal authorities under the offset purview, enabling contracts such as for sewage treatment, water treatment, power systems, etc. to mandatory industrial cooperation conditions.[22]

Israel's (and for that matter any country's) offset policy at the national level however highlights a critical issue which merits some explanation. The issue is related to the international norms laid down by the 159-member World Trade Organisation (WTO). It is noteworthy that Israel is one of the signatories to the WTO's Government Procurement Agreement (GPA).[23] The GPA, which has been in force since January 1996, is a legally binding agreement among the members (42 as of 2013) to promote cross border government procurement of goods and services. The Agreement prohibits discrimination against foreign suppliers in government procurement. In this regard, Article 16 of the

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[21] Defence Acquisition Programme Administration (DAPA), Republic of Korea, *Defence Offset Programme Guidelines*, January 2012, p. 18

[22] Israeli Ministry of Economy, "Guidelines for Industrial Cooperation in Israel", http://www.moital.gov.il/NR/exeres/85C96324-328D-40FC-9E8A-78B6CC5F6E7E.htm.

[23] World Trade Organisation, "Parties and observers to the GPA", http://www.wto.org/english/tratop_e/gproc_e/memobs_e.htm.

GPA specifically forbids use of offsets for "qualification and selection of suppliers." However, an exception to the Agreement on national security grounds, which allows virtually unrestricted use of offsets in military contracts, is provided under the Article 23.

It is to be noted that the GPA is plurilateral in nature, meaning that its applicability is limited to the GPA signatories only. In other words, the GPA is not legally binding on the 117 members of the WTO (including India[24]) who are not signatories of GPA.

It is also to be noted that although Article 16 of the GPA prohibits offsets in government procurement, it still allows special exemption to the developing countries to "negotiate [at the time of accession to the GPA group] conditions for the use of offsets, such as the requirements for incorporation of domestic content." However, such offset "requirement shall be used only for qualification to participate in the procurement process and not as criteria for awarding contracts."[25]

Although Israel is a developed country, it has managed to retain the right to demand offsets in civil contracts also. Israel's offset rights seem to have been allowed under the window of negotiation, provided for each party within the GPA group. The window allows a party to negotiate the list of the government agencies and the goods and services that are open to bidding by all the GPA members. Since the list is agreeable to all the parties, Israel's asking of offsets from others also means giving the same rights to other member countries. Keeping this in view, Israel's offset threshold for civil contracts within the GPA framework is different from the threshold limits for the non-GPA members and for the military contracts. These are as below:

- Defence and security purchases require an undertaking of at least 50 per cent of the foreign content value.
- Civil procurements from countries that are signatories to the Government Procurements Agreement (GPA) of the WTO

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[24] India has observer status in the GPA

[25] See Article XVI of World Trade Organisation, "Agreement on Government Procurement", http://www.wto.org/english/docs_e/legal_e/gpr-94_e.pdf.

will be subject to a requirement of 20 percent of the foreign content value.

- Civil purchases from non-GPA countries are subject to Industrial Cooperation amounting 35 percent of foreign content value.

Israel's dynamic threshold limits for offsets can be a useful learning for a country like India that aspires to become a member of the GPA, and is contemplating a national offset policy.[26] When it becomes a member of the GPA, its defence offsets requirements as enshrined in the MoD's Defence Procurement Procedure (DPP) would be insulated by Article 23 of the GPA on national security grounds. And as a developing country it could bargain about the civil list (of government department and goods and services) that it wants to offer for international bidding with offset requirement.

## Implementation and Monitoring

One of the trickiest issues associated with offsets is related to the management of offsets particularly with respect to implementation and monitoring. Loopholes in these two areas could be counter-productive as has been found by the CAG, which undertook a critical study of 16 offset contacts (valued at Rs 18,444.6 crore) signed by India between 2007 and 2011. The CAG had made observations regarding the : invalid selection of Indian Offset Partners (IOP); zero value addition by the Indian Offset partner (IOP); award of the offset contract in violation of the stipulated provisions; and weak monitoring of offset projects. Interestingly, the CAG's observations are to be seen in the context of weak management of offsets.[27]

Canada has set up a IRB directorate which is the single-window agency for managing offsets for the aerospace, defence and marine branches

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[26] Amit Sen, "Govt Mulls Offset Policy for Purchases from Foreign Firms", *The Hindu Business Line*, November 18, 2013.

[27] Report of the Comptroller and Auditor General of India for the year Ended March 2011, Union Government (Defence Services): Air Force and Navy, Compliance Audit, No 17 of 2012-13, pp. 17-25.

of Industry Canada. Its management responsibilities include, deciding the applicability of offsets, evaluating the offset proposal, and allocating credits for offsets discharged. Thus the power to implement and monitor is vested in one body, even though the main procurement contract is signed by another agency.

Like Canada, Israel has a similar organisational structure for managing offsets. The Industrial Cooperating Authority (ICA) of Israel which operates under the Ministry of Economy is the nodal agency for managing the offsets. Under Israeli law, the ICA is authorised to ensure that the foreign procurement (valued $5 million or more) undertaken by any government entity is in compliance with the mandatory offset requirement. Although the ICA is not directly responsible for signing the contract, it has the responsibility to vet the offset undertaking form, which is part of the tender document. Post the signing of the main contract, the ICA is entirely responsible for enforcing the foreign vendors' obligations as per the undertaking given by vendors. The ICA's functions include all communication with the foreign suppliers; receiving periodic reports from the vendors and assigning credits based on the implementation progress; and granting time extensions, if required.[28] Thus, the ICA acts as a single-window agency for managing all aspects related to offsets.

Turkey and South Korea also have dedicated agencies for offsets. These are: the Under Secretariat for Defence Industries (SSM in Turkish abbreviation) of Turkey and the Defence Acquisition Programme Administration (DAPA) of South Korea. However, unlike the IRB and ICA, both the SSM and DAPA are not only part of the defence ministries of these countries but their role goes beyond offsets to include defence industrial development, acquisition and R&D management. Being the single agency for the entire range of tasks including offsets, these agencies are believed to be more authoritative in decision making.

In India, however, there is no single agency for managing offsets. The Defence Offset Facilitation Agency (DOFA) or its successor, the

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[28] Israeli Ministry of Economy, "Industrial Cooperation in Israel", http://www.moital.gov.il/NR/exeres/B204AC95-046B-4458-ACF3-41F965386044.htm.

Defence Offset Management Wing (DOMW), which functions under the Indian MoD's Department of Defence Production performs a part of the functions while the other functions are dispersed among the service headquarters and the Acquisition Wing of the Department of Defence. Evidently there is no single point of accountability.

## Conclusion

Given the shrinking military spending in advanced arms manufacturing countries and the simultaneous increase in defence expenditure by big arms importing countries in Asia and others parts of the world, offsets would continue to play a vital role in the international arms trade. In a buyers dominating global armament market, countries, which have declared offset policy, would try to improvise their existing policies to maximise their arms import. India being one of the biggest arms importers in the world, and having a declared offset policy since 2005, it is vital that its policy is not only dynamic and but takes into account some of the fundamental practices followed by others countries. As discussed in this study, the Indian offset policy, despite having gone through several rounds of revisions still remains a conservative one and lacks some of the fundamental principles adopted by others. Given that offset has a cost premium loaded into the main contract, it is high time that Indian policy makers took a serious look at the policy. In this context, the next chapter highlights a set of policy recommendation for improving India's offset policy framework.

*CHAPTER - VI*

# LESSONS FOR INDIA

Since the articulation of its defence offset policy in 2005, India has signed 25 offset contracts valued at $4.8 billion. However, the offsets do not seem to have yielded any meaningful benefits for the Indian industry beyond some increase in the exports of civilian aerospace parts and components. This is amply evident from the successive reports of Comptroller and Auditor General of India (CAG) and the analysis made in this Monograph of the various performance parameters of the Indian defence industry. Considering that offsets have a cost implication (in the sense that they inflate the cost of the main procurement contract), it is high time that India reviews its offset policy. This would imply that India either abolishes the offsets as a tool for incentivising local industry; or undertakes a comprehensive reform of the policy framework. As argued in this study, much of offsets' poor performance is due to the inherent weaknesses in the policy itself and lack of effective implementation and monitoring. Therefore, it would be only logical for India to tighten its policy framework, before taking the extreme step of abolishing the policy altogether. Some policy options that India could consider are as follows:

## Lower the Threshold and Increase the Offset Percentage

India is perhaps the only major arms importing country that has a very modest offset percentage requirement (30 per cent). Other countries demand a higher percentage of offsets, even 100 per cent, as in the case of Canada and Malaysia. Moreover, compared to other countries that demand offsets in contracts valued as low as $5 million (Israel), India's threshold is quite high (Rs 300 crore or $55 million). The higher threshold combined with a lower offset percentage means that compared to others, Indian Industry gets lower offset benefits for any given value of arms contract. Given that India's objective is to develop a strong defence industrial base, it could consider lowering the threshold to, say, $10 million, and raising the offset percentage requirement to a

minimum of 50 per cent, in order to ensure an enhanced flow of offsets to the Indian industry.

## Channel Offsets to Desired Areas

India is also the one major country that allows foreign companies to discharge their offset obligations as per their choice. Moreover, India also allows foreign vendors to violate offset guidelines with impunity, and dump 'in-kind' offsets that result in practically zero value addition. Unlike India, other countries demand specific offsets. South Korea goes to the extent of making offsets the sole criteria for determining the supplier, besides nominating local players who would partner foreign suppliers in the discharge of offset obligations. Canada stipulates a select list of futuristic technologies on which the foreign vendors are required to invest at least five per cent of their total offsets obligations. Turkey uses offsets as a tool to promote export by stipulating the export requirement in the tender document itself. In view of the above international practice, it would be better for India to demand specific offsets. The specific offsets could be demanded upfront through the tender documents rather than by leaving them to the discretion of the foreign suppliers.

## Application of Principle of Value Addition for both Manufacturing and Services

Although India mandates value addition for determining the offset credit, but this applies only to the manufacturing sector. This creates a bias in favour of the services sector in which foreign companies can obtain offset credits for the import content. Considering that manufacturing is at the heart of any industry, a bias against it does not augur well for the India defence industry. In this regard, India could learn from Canada, which does not discriminate between manufacturing and services and imposes uniform value addition requirements on both the sectors.

## Uniform Offset Obligation for both Domestic and Foreign Companies

Many countries such as Canada, India and Turkey impose offset obligations on their own companies in case there is an import content

in the products offered by them. The idea is to prevent the local industry from becoming a mere trading house and at the same time compel it to develop a support industry. However compared to others, particularly Canada, which has a clear policy of providing a level-playing field for both the foreign and local industry, India on the other hand discriminates its own industry. For instance in a 'Buy (Global)' contract, the offset liability on an Indian company can range between 30 to 65 per cent, compared to a flat 30 per cent for the foreign companies. Moreover, while foreign companies have the freedom to discharge their offset obligations in an extended warranty period, Indian companies are bound to discharge their obligation from the very outset, especially for the part they are contractually mandated to indigenise. This dissuasive policy should be rectified by imposing a uniform offset obligation on all the players, irrespective of their country of origin, to allow the local industry to operate in level playing field.

## Application of the Principle of Additionality and Causality for determining Eligibility of Offsets

A major weakness of the Indian offset policy is that it completely ignores the fundamental principle of offsets with regard to additionality and causality. Consequently, foreign companies have the freedom to earn offset credits for the transactions they undertake under the normal market force irrespective of offset contract. Evidently such a freedom defeats the very purpose of leveraging offsets for the benefit of local industry. In this regard, India could learn from others, particularly from Canada which insists on applying the principle of additionality and causality for determining the eligibility of offset transactions.

## Promote Long term Relationship through Offsets

One of the successes of offsets lies in the establishment of long term relationships between local and foreign companies. Realising the importance of this, countries such as Malaysia and Israel insist on the long-term viability of projects initiated through offsets. In the case of Israel, the long-term relationship is fostered by a proactive offset authority and by allowing competition to determine the best domestic companies that could work with foreign companies. India could follow this practice to foster partnerships that go beyond the offset contract period.

## Offset Policy at National Level

India's offset policy is narrowly focussed on defence procurement although reports suggest that India is mulling a national offset policy for both defence and civil procurement. For India to articulate a national offset policy, it has to factor in the WTO provisions relating to the Government Procurement Agreement (GPA) that prohibit offsets in government procurement. However certain exemptions are provided in the WTO's GPA framework itself that enable counties to demand offsets in both defence and civil procurement. Among the countries, Israel seems to have adapted quite well to the exemptions provided in the GPA framework. This is reflected in its dynamic approach that stipulates 50 per cent offsets in defence procurement, 35 per cent offsets in civil procurement from non-GPA signatories, and 20 per cent offsets in civil procurement from GPA members. India could follow the Israeli example for its national offset policy.

## Single Window Agency to Manage Offsets

The efficacy of the offsets lies in the effective implementation and management of offsets. India's poor track record is largely due to poor implementation and ineffective monitoring, which in turn stems from the absence of a credible authority to manage offsets. The Defence Offset Facilitation Agency (DOFA) and its successor, the Defence Offset Management Wing (DOMW) are inadequately manned to perform the task they are entrusted with. On top of that, the power to manage offsets is dispersed across stakeholders that include the Service Headquarters and the Acquisition Wing. Unlike India, countries such as Canada, Israel, South Korea and Turkey have dedicated, single-window agency to manage offsets in all aspects, ranging from vetting offset proposals, to awarding offsets credits to vendors and monitoring them. India too needs a similar organisation with powers to manage offsets in their totality.

# ANNEXURES

# Offset Contracts

**Annexure-I**

| Sl. No | Name of Scheme | Date/Year of Contract Signing | Foreign Vendor/Country | Indian Offset Partner (s) | Contract Value | Offset Value | Remarks |
|---|---|---|---|---|---|---|---|
| **AIR FORCE** | | | | | | | |
| 1 | Medium Power Radar (MPR) | October 16, 2007 | ELTA Systems Ltd/Israel | Astra Microwave Products Ltd (AMP) & L&T | Rs 810 Crore | $5.4 million (Rs 243 Crore) | The contract with Elta is for 15 MPRs. The first Arudhra radar was inducted at Air Force Station Naliya in Gujarat in June 2011. The Hyderabad - based AMP received offsets worth Rs 5 5 crore for supply of TR (Transmit & Receive) modules. L&T is believed to have received the rest. |
| 2 | MiG-29 Upgrade (69 fighters) | March 07, 2008 | RAC MiG Corp/Russia | Prescient Systems and Technologies Private Ltd (PSTPL) | $964 million (Rs 3856 Crore) | $ 308 million | The contract involves up -gradation of six fighters in Russia and rest in India. Offsets include setting up MiG consignment depots, service centre, simulator centre (worth $25 million) in India, and training aids. In addition, MiG Corp is believed to have been permitted to claim licence fee as offsets. PSTPL, a foreign company, was approved as an IOP despite not being eligible as per DPP-2006. |
| 3 | Mi-17 V-5 Helicopters | December 15, 2008 | Rosoboronexport/Russia | Base Repair Depot of Indian Air Force | $1.345 billion | $405 million | Offsets include, among others, two mission based training simulators worth $95 million; and provision of training on spares management for IAF depots. |
| 4 | Medium Altitude EO/IR Recce System for Jaguar Aircraft | February 02, 2009 | Rafael, Israel | n/a | | $21.1 million | |
| 5 | HAROP UAV with associated equipment | February 02, 2009 | IAI/Israel | | | $44.3 million | |

| Sl. No | Name of Scheme | Date/Year of Contract Signing | Foreign Vendor/Country | Indian Offset Partner (s) | Contract Value | Offset Value | Remarks |
|---|---|---|---|---|---|---|---|
| 6 | C-130J-30 (six aircrafts) | March 06, 2009 | Lockheed Martin/US (FMS route) | QuEST, TATA Power, BEL | $962.4 million | $219 million | Offsets include $121 million worth of weapon training simulators. Lockheed's offset proposals for its IOPs include 'aircraft design service' by Bangalore-based firm QuEST for $20 million; manufacture of RFID systems by BEL for $119 million; and manufacture of F-16 avionics components by TATA Power for $15 million. |
| 7 | Low Level Transportable Radar (LLTR) | July 29, 2009 | Thales/France | Thales International India (TII) | Rs 572.0 Crore | $34.75 million | Thales International India (TII), a 100 per cent subsidiary of Thales Singapore and Thales Hong Kong was initially approved as the IOP, but the French company later agreed to remove it after an audit objection. The *Business Standard* reports that Thales provided 100 cc motorcycles, domestic air-conditioners, bicycles, cars, shelters etc for fulfilling offset obligations. |
| 8 | AW 101 VVIP Helicopter | February 2010 | AgustaWestland/UK | Hindustan Aeronautics Ltd (HAL), Taneja Aerospace and Aviation, Dynamatic Technologies Ltd, Pranita Engineering Solutions, Sanghvi Aerospace and IDS Infotech, | €556.26 million | $224.14 million | The helicopter deal ran into huge controversy over bribery allegations, leading to termination of the contract by the MoD with effect from January 01, 2014. The CAG has highlighted the invalid selection of a number of IOPs. |
| 9 | CBU-105 Sensor Fused Weapon | November 15, 2010 | Textron/US | n/a | $257 million | $102.54 million | The contract is through FMS |

| Sl. No | Name of Scheme | Date/Year of Contract Signing | Foreign Vendor/Country | Indian Offset Partner (s) | Contract Value | Offset Value | Remarks |
|---|---|---|---|---|---|---|---|
| 10 | C-17 Heavy Lift Aircraft (10) | June 14, 2011 | Boeing/US | DRDO, HAL, TCS, Mahindra | $4.12 billion | $1.09 billion | The Contract is through FMS route. Offsets include $135.08 million worth of maintenance and flying training simulators, and establishment of Transonic Wind Tunnel (TWT) test facility for $195 million. |
| 11 | Mirage-2000 Upgrade | July 29, 2011 | Thales and Dassault Aviation/France | | €1470 million | $592.81 million (€441.37 million) | The upgradation of the Mirage aircraft is scheduled to be completed by 2021. |
| 12 | MICA IP and RF Missile | January 31, 2012 | MBDA/France | | €958.98 million | $386 million (€287.7 million) | The scheduled delivery of 493 MICA missiles is between 2015 and 2019. |
| 13 | New Generation Precision Guided Munitions (NGPGM) | | | | | | |
| 14 | PC-7 Mk II Turboprop Basic Trainer Aircraft | May 24, 2012 | Pilatus/ Switzerland | BEL, Tata Advanced System Ltd (TASL) | Rs.2895.63 crore | 165 million Swiss Frank* | As part of offsets, BEL would manufacture electrical harnesses for the Pilatus's global supply chain. A 10-year partnership between TASL and Pilatus, for the former to manufacture complete PC-12 NG aero structures for Pilatus global supply chain. TASL would also replace Pilatus's existing supplier (Poland-based PZL-Świdnik) for the aero structure |
| 15 | 3 C-130J (under Option Clause) | December 2013 | Lockheed Martin | | | $175 million* | |
| 16 | Additional Reccelite Pods (under Option Clause) | March 2014 | Rafael, Israel | | Rs. 218.29 Cr | $10 million* | |

| Sl. No | Name of Scheme | Date/Year of Contract Signing | Foreign Vendor/Country | Indian Offset Partner (s) | Contract Value | Offset Value | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | **NAVY** | | | |
| 1 | Fleet Tanker | April 23, 2008 | Fincantieri/Italy | Wartsila India Ltd (WIL), Johnson Pumps Ltd | €159.3 million | $55.3 million (€41.6 million) | Both Wartsila and Johnson Pumps are subsidiary of foreign company. WIL was later removed from the IOP list. |
| 2 | Long Range Maritime Reconnaissance Anti-Submarine warfare Aircraft | January 01, 2009 | Boeing/US | HAL, BEL | $2.1 billion | $641.26 million | Offset proposals valued at i$153.9 million include: (1) safety, reliability and air worthiness seminars, (2) establishment of fire finder classrooms, (3) transfer of metallurgy and hydraulic lab facilities, composite manufacturing assembly/tooling, mobile broadband, friction stir welding and aero s tructures tools and processes. BEL -supplied IFF (Identification Friend and Foe) is also believed to be part of offsets. A $4.7 million contract with HAL for supply of weapons bay doors. |
| 3 | Fleet Tanker under option Clause | March 31, 2009 | Fincantieri/Italy | | | $55.28 million | |
| 4 | Air Route Surveillance Radar (ARSR) | November 06, 2009 | | | | $11.2 million | |
| 5 | Unmanned Aerial Vehicles (UAV) | March 04, 2010 | IAI/Israel | | | $80.8 million | |
| 6 | Barak-I Missile | Oct 2014 | Rafael Advanced Defence Systems Ltd., Israel | | Rs. 875.49 Crore | $42 million | |

| Sl. No | Name of Scheme | Date/Year of Contract Signing | Foreign Vendor/Country | Indian Offset Partner (s) | Contract Value | Offset Value | Remarks |
|---|---|---|---|---|---|---|---|
| ARMY | | | | | | | |
| 1 | 969 Thermal Imaging Standalone Kits (TISK) for BMP-2 | March 2013 | Elbit/Israel | Alpha Design Technologies | Rs. 397.16 Cr | $24 million | |
| 2 | 1000 Thermal Imaging Fire Control Systems (TIFCS) for T-72 Tanks | March 2014 | Elbit/Israel | Alpha Design Technologies | Rs. 1629.85 Cr | $79 million | |
| 3 | 16 Heron UAVs | December 2014 | IAI/Israel | | Rs. 1606.32 Cr | $77 million | |

Source: Author's database.

**Annexure-II**

## List of JVs / FDI Proposals Approved in Defence Sector

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| 1 | Multirole Transport Aircraft Ltd. | 12 | Mahindra Defence Systems Ltd. | 23 | Rossell Aviation Pvt Ltd. |
| 2 | HAL-Edgewood Technologies Limited. | 13 | Tancja Aerospace & Aviation Ltd. | 24 | Indian Rotorcraft Ltd., Tata Sons Ltd. |
| 3 | HALBIT Avionics Private Limited. | 14 | Vyoneesh-Rosebank Technologies Pvt. Ltd. | 25 | Tara Aerospace Systems Ltd. |
| 4 | Bharat Electronics Ltd. | 15 | ICOMM Tele Ltd. | 26 | Larsen & Toubro Ltd. |
| 5 | Alpha-ITL Electro Optics Pvt. Limited. | 16 | Lakshmi Machine Works Ltd. | 27 | Space Era Materials and Processes Pvt. Ltd. |
| 6 | HBL Elta Avionics Systems Pvt. Ltd. | 17 | Tata Aerostructure Ltd. | 28 | Track Systems India Pvt. Ltd. |
| 7 | BF Systems Ltd. | 18 | Larsen & Toubro Ltd. | 29 | Amertec Systems Pvt. Ltd. |
| 8 | Alpha Electronica Defence Systems Pvt. Ltd. | 19 | ABG Shipyard Ltd. | 30 | Hical Technologies Pvt. Ltd. |
| 9 | Armet Armored Vehicles (India) Ltd. | 20 | Jubilant Aeronautics Pvt. Ltd. | 31 | BF Elbit Advanced Systems Pvt. Ltd. |
| 10 | Samtel Thales Avionics Pvt. Ltd. | 21 | Maini Precision Products Pvt. Ltd. | 32 | SasMos Het Technologies Ltd. |
| 11 | Astra Micro Wave Products Ltd. | 22 | Park Controls & Communications Ltd. | 33 | Quest Global Manufacturing Pvt. Ltd. |

Source: Rajya Sabha, Parliament of India, http://rajyasabha.nic.in/ (accessed on December 16, 2014).

The Monograph provides a comprehensive roadmap for reforming India's defence offset policy which despite having gone through several rounds of revisions in past decade or so, still lacks effectiveness. The roadmap is based on extensive study of offset practices followed by six countries: Canada, Israel, Malaysia, South Korea, Turkey and the UAE. The Monograph argues that in comparison to the offset policy followed by these countries, the Indian policy has inherent design flaws that needs a through overhaul for it to become effective. The Monograph also establishes a methodology for assessing the impact of the Indian offset policy on the domestic industry.

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