# Indian Defence Offset Policy
## An Impact Analysis

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*The article assesses the impact of defence offset policy on the Indian defence industry, by taking into account two key parameters—foreign direct investment (FDI) inflows and exports. It observes that the offset policy has a mixed impact. On the positive side, the offset policy seems to have an impact on certain types of exports. On the negative side, the policy has not been a catalyst in bringing in foreign investment and technology inflows into the Indian defence industry, nor has it been successful in promoting its high-end manufacturing. Besides, majority of exports that the policy seems to have promoted is largely confined to parts and components.*

Since 2005, the Indian Ministry of Defence (MoD) has been operating a formal offset policy as part of the Defence Procurement Procedure (DPP), the procurement manual used for capital acquisition for the Indian Armed Forces. The prime objective of the offset policy, which has undergone several rounds of revisions, is to leverage India's huge arms import for strengthening the indigenous arms industry. To achieve the objective, the policy allows foreign vendors to discharge their offset obligations through a combination of avenues that include two key provisions: FDI in Indian companies; and purchase of certain products/services from qualified Indian enterprises.[1] Till October 2014, MoD signed 25 offset contracts valued $4.97 billion. Of the total amount, $1.37 billion worth of offset

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was to be discharged by March 2014, although the actual reported discharge has been valued at $708 million (or 14 per cent of total value of offsets signed till October 2014).[2] The Comptroller and Auditor General of India (CA&G), which has audited several offset contracts, is, however, not very impressed about the way offsets have been implemented. In a report submitted to the Parliament in November 2012, CA&G brought out a variety of weaknesses, including zero value addition, equipment transfer, invalid selection of the Indian Offset Partner (IOP), and a weak monitoring mechanism.[3]

It is however to be noted that CA&G's audit findings on offsets, although a useful indicator of the working of Indian offset policy, are not yet comprehensive to throw light on the policy's ultimate success or failure. The audit observations are more of fault-finding, rather than seeing holistically the efficacy of the offset policy as a whole. For instance, at no point of time, the CA&G has spoken of even a single offset contract that has worked as per the contractual terms. The aim of this article is to bridge this gap by examining the extent to which the Indian offset policy has impacted the objectives. While doing so, the article recognises the fact that only 14 per cent offsets have been discharged and any meaningful study on the subject is a little premature at this juncture. It, nonetheless, sets a basic foundation by way of establishing an objective methodology based on which any future study on the subject can also be conducted.

## Limitation of Data

The impact analysis of offsets however suffers from lack of credible data in the public domain. MoD has so far not come out with required details of the offset contracts it has signed. What it has given is some broad financial details, and that too when asked by the Members of Parliament (MPs). These details are in the nature of date of contract signing, value of the main contract and offset amount. What it has so far not revealed is the name of IOPs, the amount and kind of offsets received by each, and the detailed timeframe for execution of each offset contract. The lack of information on these counts thus hinders a precise economic analysis.

Given the data constrains, the article examines certain macro indicators in order to draw some broad references. The analysis of macro indicators is further supplemented by interviews conducted with some leading private sector companies. The detailed analysis on these two counts however is preceded by a brief outline of the approach of the article in analysing the

impact analysis, followed by a description of offsets that India has signed so far.

## The Approach

The article follows a multi-pronged approach for analysing the impact of offsets. It begins with an examination of impact on the industry as a whole, followed by an examination of two distinct players in the Indian industry: the established public sector—including the Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs)—and the nascent private sector. While the impact of offsets on these two distinct players is examined through a number of parameters, the impact on the whole industry is analysed through the prism of exports and FDI inflows, two key areas of focus since the offset policy's inception in 2005.

## Offset Contracts

It would be useful to list out the offset contracts that the MoD has signed so far. The details of the 25 contracts are summarised in the Annexure. Among the three forces, 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, the United States (US) tops the list with maximum value of offsets. The biggest chunk of offsets has come through the Foreign Military Sales (FMS) route. The biggest offset worth $1.09 billion came from Boeing from India's purchase of 10 C-17 Globemaster aircrafts.

### Impact on FDI

Since 2005, the offset policy has retained a key provision by which the foreign companies can discharge their offset obligation through FDI. As per the revised guidelines issued on 26 August 2014, FDI cap in the defence sector was increased to 49 per cent, up from 26 per cent earlier.[4] It is, however, to be noted that while foreign companies can claim offset credit for their equity investment in joint ventures (JVs), all FDIs are not necessarily directly linked to offsets. This is because of two reasons. First, the permissible FDI is cumulative one and includes portfolio investment, which is not eligible for the purpose of discharge of offsets. Second, FDI can be brought in by companies which do not have (or wish to have in future) direct business with MoD.[5] The impact analysis has to therefore factor in the offset-induced FDI in order to see the precise impact.

**Table 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 |

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

*Note:* Services sector includes financial, banking, insurance, non-financial/business, outsourcing, research and development (R&D), technology testing and analysis.

However, there are no such offset-induced FDI data available in the public domain. What is available in the public domain is the cumulative FDI inflows into defence sector and number of approved JV/FDI proposals. Between 2001 (when the industry was opened to the private sector) and October 2014, the government has approved 33 JV/FDI proposals, involving mostly Indian private sector companies. This includes some of the bigger names such as Tata, Larsen and Toubro (L&T), Bharat Forge, Mahindra and ABG Shipyard. However, in terms of inflow of funds, there is hardly any inflow into the defence sector, although there has been an increase post-revision of FDI cap to 49 per cent. Table 1 shows FDI inflows into select sectors, including defence, up to August 2014, when the revised defence FDI policy was announced. As the data shows, of 62 distinctly identified sectors, defence industries ranks 61 with a meagre flow of Rs 24.36 crore ($4.94 million).

Table 2 maps the FDI inflows post-increase in FDI cap. Although the volume of inflows in eight months post-increase in FDI cap is significantly higher than the cumulative inflows in the preceding years (of more than a decade), there is no evidence of such inflows being influenced by offsets. As the table shows, there is not a single inflow which is brought in by companies having offset liability with MoD.

**Table 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 | |
| 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, the Netherlands | FDI 49% | 6.0 |
| Star Wire Ltd | Aubert & Duval France | FDI 5% | 12.28 |
| Total | | | 96.1 |

*Source:* Rajya Sabha, Parliament of India, available at http://rajyasabha.nic.in/, accessed on 15 March 2015.

*Note:* FII = foreign institutional investor; FDI = foreign direct investment; NRI = non-resident Indian.

## Impact on Exports

The DPP from the 2006 onwards has provided a list of eligible items for the purpose of the discharge of offset obligations. The list has been expanded over the years to include both defence and civilian items. What is significant is that the items eligible for offset discharge broadly fall under four categories, for which the Indian Trade Classification (Harmonisation System)—ITC (HS)—Codes have recently been announced (see Table 3). Suffice to mention that these are the precise HS Code-wise categories under which various defence items are now being subject to industrial licence.[6]

It must, however, be noted that ITC (HS) Codes, as mentioned in Table 3, are broad-based and inclusive of non-defence items also. For instance, Codes 8801–8805, which come under the HS Code 88 (aircraft, spacecraft and parts thereof), also include civilian aerospace items. In other words, there are no comprehensive HS Codes for all the licensable 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 licenses are issued.'[7]

It must also be noted that India's trade statistics, as captured by various ITC (HS) Codes, do not include defence goods 'as a matter of principle'.[8] 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 provides export value of items that fall under the ITC (HS) Codes as mentioned in Table 3. The data shows a hefty growth in exports to $4.7 billion in 2013–14, which is nearly equal to the cumulative value of offsets signed so far. Significantly, much of the growth coincides with the period after promulgation of offset policy. This may indeed sound incredible, but needs closer examination before a reference can be drawn. It must be noted that of the total exports, exports 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). This is not surprising given that except for Codes 8801–8805, others mostly pertain to defence-specific items which are not captured by the trade database.

The significant jump in exports of 'aircraft, spacecraft and parts' raises a vital question: does it mean Indian aerospace industry has come of age? Not necessarily, especially from the point of view of export of the

**Table 3** ITC (HS) Codes for Category of Defence Items Requiring Industrial Licence

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

*Source:* Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India, 'List of Defence Items Requiring Industrial License', Press Note 3, 2014 Series, 26 June 2014.

**Table 4** ITC (HS) Code-wise Exports

| *Year* | *Exports under ITC (HS) Codes 8710, 8801–8805, 890610 and 9301–9307 (US$ million)* | *Exports under ITC (HS) code 8801–8805 (US$ 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.

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 figure is not publicly available. Explaining further, the official intimated that such exports include, among others, satellites taken out of country by the Indian Space Research Organisation (ISRO) for launch from foreign launch pads. The major portion, however, constitutes of civilian aircrafts and related components sent abroad for scheduled maintenance, repair and overhaul.

In order to further probe the point mentioned by the official of the DGCIS, an attempt is made to examine, in detail, the major components and direction of exports under the broad category. Table 5 provides the 2013–14 value of exports under the 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 is in nature of platforms, are mostly to countries other than the ones which have offset obligations with Indian MoD. On the other hand, majority of exports under 8803, which caters to mostly parts and components, are accounted for by countries having offset liability with India. The question is to what extent the export of the parts and components is influenced by offsets? As seen in Table 6, growth of exports to countries with an offset liability with India coincides with the period

**Table 5** Select Country-wise Exports under ITC (HS) Codes 8802 and 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* |

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

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

**Table 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.

post-announcement of offset policy, suggesting, prima facie, a positive relationship.

**Impact on DPSUs/OFs**

Table 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 is on a continuous decline, the other indicators—value of sales (VoS) and value of exports—show a near continuous increasing trend. However, the question is as to what extend these changes are attributable to the offset policy?

The answer to the above-mentioned question lies in the details and needs careful examination. It is noteworthy 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 the precise estimation is difficult to arrive at. As pointed out by CA&G, 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 of the DPSUs and OFs. Moreover, given that offsets are open to both private and public sectors,

**Table 7** Key Performance Parameters of DPSUs and OFs

| *DPSUs/ OFs#* | *VoS (Rs in cr)* | *% increase in VoS* | *Exports (Rs in cr)* | *% increase in Exports* | *Employ-ment* | *% 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* |

*Source:* Author's database.

*Notes:*

1. VoS =value of sales.
2. #DPSUs do not include Hindustan Shipyard Ltd (HSL), which came under the administrative control of the MoD in 2010; *figure is exclusive of OFs.

the actual share of DPSUs and OFs in total discharged offsets would be further less.

Given 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 of one indicator: VoS, the annual value of which (particularly in later years) is larger than the cumulative offset inflows since 2005. In other words, the large disparity in VoS and offsets makes the latter an extraneous factor to the former. This is also true in case of employment. Its decrease is largely due to the continuous reduction in industrial workforce in OFs, which itself is the result of an accounting change effected in late 1980s to bring cost-consciousness in the OFs organisation.[9] Suffice to mention, between 2004–05 and 2011–12, the manpower strength of OFs has been reduced by 22,745 (19 per cent), with industrial employees accounting for 72 per cent of total decrease.

Given the size differential, offset may have been an extraneous factor to influence the VoS of DPSUs and OFs, but it needs closer examination to see any linkage with 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. To see any linkage, an attempt is made to look at export performance at macro level and also of the two 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. The underlying rationale is to see the extent to which offsets have contributed to exports and, through that, the overall sales. It is assumed that if offset has led to increased exports, then it must be reflected in the form of rising share of exports in total sales.

As seen in the Table 7, exports of DPSUs/OFs has more than doubled during the study period. However, as a percentage of total turnover, there is hardly any increase. In fact, the share remains almost static at 1.8 per cent in 2010–11 and 2011–12, for which data for the entire public units are available. This suggests that the offsets have not yet been a key factor in the total exports of DPSUs and OFs.

The picture at the individual enterprises level is however somewhat different. In case of BEL, there has been growth in exports, both in absolute terms and as a percentage of VoS. What is more significant is that a part of the growth is led by offsets. For instance, in 2012–13, of the total exports of $32.8 million, offset-led exports accounted for 23 per cent. Moreover, of the total accumulated export orders of $194 million

**Table 8** Exports as Percentage of Turnover of HAL and BEL

| *Years* | *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.

booked by the end of 2013–14, nearly 15 per cent ($28.45 million) is accounted for by offset orders.

In case of exports of HAL, although there has been a growth in absolute terms, there is a decline in terms of percentage of VoS (Table 8). This suggests that the whole focus of HAL lies in the domestic front, with overall exports taking a backseat and offsets playing almost a negligible role. In fact, the only major offset that it has received directly as a result of MoD's contracts is a mere $4.7 million order from the Boeing for providing weapons bay door for the P-8I long-range maritime reconnaissance and anti-submarine warfare aircraft for the Indian Navy.[10] 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.

**Impact on Private Sector**

The Indian private sector may be a late entrant to Indian defence industry, but is its most enthused 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 ones. Moreover, the 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), which were relatively insignificant players in the deference sector earlier, are now quite actively pursuing the interests of the private industry through whatever institutional mechanisms they have to interact with the defence establishment. The question is as to what extent the offsets have stimulated private sector's interest in defence production. One way of measuring this enthusiasm is by looking at the year-wise issuance of letters of intent (LoIs)/industrial licences (ILs) by the Indian government (Table 9). As seen in the table, the number of LoIs/ILs granted has suddenly jumped after the detailed offset policy was announced in 2006, indicating a strong correlation between offsets and private sector's interest in defence production.

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

**Table 9** Letters of Intent/Industrial Licences Issued to Indian Private Sector

| *Year* | *No. of LoIs/ILs Issued* | *No. of LoIs/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 January 2015) | 41 | 251 |

*Source:* Author's database.

The bigger question is, what is the contribution of the 49 companies (which have commenced production) to India's overall defence production and the role of offsets in that? In the following, an attempt is made to probe this question.

On the aspect of the defence-specific production or sales of Indian private sector, it is however to be noted that official information is hazy. The MoD, which compiles various 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 defence-related information. A part of reason is that defence business of major private companies is clubbed into their larger civilian segments. For instance, defence and nuclear business of the L&T falls under the company's heavy engineering segment, and no separate accounting is presented exclusively for the former. Similarly, Tata, which conducts its defence business through 14 group companies, does not present consolidated defence revenue separately. Among the very few major companies which present some aggregate figure is Astra Microwave Products Limited, a Hyderabad-based company engaged in 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.[11]

The lack of official information across the private sector notwithstanding, there are several market survey reports about the volume of 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.[12] Among the big companies, Tata, which has a defence order book of Rs 8,000 crore, generated revenue of Rs 2,500 crore in 2013–14.[13] L&T's revenue from defence is believed to be Rs 1,200 crore.[14] Dynamatic Technologies, a Bangalore-based company with three business verticals—aerospace, auto parts and hydraulic pumps—generated a business of Rs 1,589 crore from the aerospace sector in 2013–14.

The moot question is: what is the influence of the offsets on the private sector's defence production or sales? Like in the DPSUs and OFs, one way of finding out the influence is to examine the volume and growth of exports made by the private sector. The underlying rationale is that if offsets have contributed to private sector's production and sales, it should be visibly reflected in exports. Unfortunately, unlike for the DPSUs/OFs, the export data for the private sector is limited. Table 10 provides the

**Table 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 |

*Source:* Author's database.

*Note:* The export figures are based the non-objection certificate issued by the MoD.

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 fivefold increase in exports, indicating the possibility of a growing influence of offsets.

It must also be noted that the private sector's interest in offsets goes beyond immediate exports. Given that the private sector is a late entrant to defence production, many companies view offsets as a medium of not only getting business but also gaining expertise through technology transfer, working with global majors, besides getting international market visibility. In such a scenario, it is important to know to what extent has the Indian offset policy helped Indian private companies. In order to probe this, a questionnaire was sent to a number of leading private sector companies, of which eight companies responded. These 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.[15] The views of the companies were sought on eight specific questions. The response of the industry is summarised next.

Of the eight companies, six companies said yes to receiving offsets. Of the remaining two, one company is in advance stages of negotiation with foreign original equipment manufacturers (OEMs), but has not received any offsets as yet. The other one, which despite having a 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 which have received offsets, in four companies the amount of offsets as a percentage of turnover is miniscule (less than 5 per cent). In the fifth company, the share is increasing to around 15 per cent, whereas in the sixth, the share is over 50 per cent. There is almost a unanimity that the said offset-related business would not have occurred without a formal

policy in place, signifying the importance of the MoD's offset policy in generating some defence business.

However, the quality of offset received by most companies is not significant from the point of view of capability enhancement of the Indian defence industry. The majority view of the industry is that most of the offsets are in the nature of the build-to-print (BTP), with little value addition done by the Indian partners. Most of the companies are also of the view that offsets have so far not been a catalyst for technology transfer.[16] Moreover, offsets, whenever received, come with strings attached, in the manner that Indian partners are made to honour intellectual property rights (IPRs) of the foreign partners and abide by the non-competitive agreement that restricts their freedom to export.

## Final Assessment

Despite the limitation of data, the balance of evidence as brought out in this article does suggest a mixed impact of offset policy on Indian defence industry. On the positive side, the offsets seem to have made an impact on certain types of exports which include the exports of civilian aerospace items (particularly parts and components), defence exports of the private sector and exports of BEL, the premier defence electronics company in India. On the negative side, offset has not been a catalyst in influencing FDI inflows, a key objective of the policy since its very inception. Offset has not been a catalyst in bringing transfer of technology or meaningful manufacturing to the industry. Moreover, the major impact on exports is largely confined to parts and components of civil aerospace items, not the platforms. Considering that manufacturing and technology are the heart of an industry like defence, it is imperative that MoD focuses its policy accordingly. These aspects assumes importance given that over $3.0 billion worth of offsets are yet to be discharged.

## Notes

1. The avenue for discharge of offset obligations has been enlarged over the years to include investment in kind and technology transfer to Indian companies. See Ministry of Defence, Government of India, *Defence Procurement Procedures 2013: Capital Procurement*, pp. 43–44.
2. Standing Committee on Defence, *Demands for Grants (2014–15)*, Report No. 2, Lok Sabha Secretariat: New Delhi, 2014, pp. 27–28.
3. Comptroller and Auditor General of India (CA&G), *Union Government (Defence Services): Air Force and Navy*, Report No. 17, 2012–13, pp. 17–25.

4. Ministry of Commerce and Industry, Government of India, 'Press Note No. 7 (2014 Series)', 26 August 2014.
5. It is however to be noted that in such a case, the foreign company can utilise the banking provision allowed in the offset policy for future discharge.
6. Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India, 'List of Defence Items Requiring Industrial License', Press Note No.3, (2014 Series).
7. Ministry of Commerce, Government of India, 'Highlights of the Foreign Trade Policy 2015–2020', pp. 15–16.
8. Ministry of Statistics and Programme Implementation, Government of India, *Statistical Year Book India 2015*, chapter 18. According to an official of the Directorate General of Commercial Intelligence and Statistics (DGCIS), interviewed on 22 April 2015, 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 data is captured in the database.
9. Amiya Kumar Ghosh, *India's Defence Budget and Expenditure Management in a Wider Context*, New Delhi: Lancer Publishers, 1996, p. 222.
10. Boeing, 'Boeing Teams with Hindustan Aeronautics Limited for P-8I Weapons Bay Doors', News Release/Statements, 11 February 2011, available at http://boeing.mediaroom.com/2010-02-11-Boeing-Teams-With-Hindustan-Aeronautics-Limited-for-P-8I-Weapons-Bay-Doors.
11. Astra Microwave Private Ltd, *Annual Report 2013–14*, p. 33.
12. Tommy Wilkes, 'Indian Firms Tool Up for Defence Orders on Modi's "Buy India" Pledge', *Reuters*, 20 August 2014, available at http://www.reuters.com/article/2014/08/20/us-india-defence-idUSKBN0GK2AQ20140820.
13. Suman Layak, 'Top Guns', *The Economic Times Magazine*, 20–26 July 2014.
14. Cuckoo Paul, 'L&T: Armed but Commissioned', *Forbes India*, 29 September 2014, available at http://forbesindia.com/article/boardroom/lt-armed-but-not-commissioned/38703/1.
15. The author would like to thank Nitin Arora of Emkay Global Financial Services Ltd., for his valuable assistance. Due to the sensitivity involved, many company did not want explicit use of their names. The views presented in the article are therefore not ascribed to any particular company.
16. Interestingly, an official of a large company interviewed for the article mentioned receiving technology through non-offset route. He further mentioned that when a successful business case is presented, there is likelihood of obtaining technology, irrespective of the offsets.

## Annexure

### Offset Contracts

| *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) | 16 October 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 radar named Arudhra was inducted at Air Force Station Naliya in Gujarat in June 2011. The Hyderabad-based AMP received offsets worth Rs 55 crore for supply of TR (Transmit andReceive) modules. L&T is believed to have received the rest. |
| 2 | MiG-29 Upgrade (69 fighters) | 7 March 2008 | RAC MiG Corp, Russia | Prescient Systems and Technologies Private Ltd (PSTPL) | $964 million (Rs 3,856 crore) | $308 million | The contract involves upgradation 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. was 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 DPP2006. |
| 3 | Mi-17 V-5 Helicopters | 15 December 2008 | Rosoboron export, Russia | Base Repair Depot of Indian Air Force (IAF) | $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. |

| *Sl. No.* | *Name of Scheme* | *Date/Year of Contract Signing* | *Foreign Vendor/ Country* | *Indian Offset Partner/(s)* | *Contract Value* | *Offset Value* | *Remarks* |
|---|---|---|---|---|---|---|---|
| 4 | Medium Altitude EO/IR Recce System for Jaguar Aircraft | 2 February 2009 | Rafael, Israel | n/a | | 21.1 million | |
| 5 | HAROP UAV with associated equipment | 2 February 2009 | IAI, Israel | | | 44.3 million | |
| 6 | C-130J-30 (six aircrafts) | 6 March 2009 | Lockheed Martin, US (FMS route) | QuEST, Tata Power, BEL | $962.4 million | $219 million | Offsets include $121 million worth of weapon training simulator. 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) | 20 July 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 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. |

| *Sl. No.* | *Name of Scheme* | *Date/Year of Contract Signing* | *Foreign Vendor/ Country* | *Indian Offset Partner/(s)* | *Contract Value* | *Offset Value* | *Remarks* |
|---|---|---|---|---|---|---|---|
| 8 | AW 101 VVIP Helicopter | February 2010 | Agusta Westland, the 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 1 January 2014. The CAG has noted invalid selection of a number of IOPs. |
| 9 | CBU-105 Sensor Fused Weapon | 15 November 2010 | Textron, the US | n/a | $257 million | $102.54 million | The contract is through FMS |
| 10 | C-17 Heavy Lift Aircraft (10) | 14 June 2011 | Boeing, the 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 | 29 July 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. |

| *Sl. No.* | *Name of Scheme* | *Date/Year of Contract Signing* | *Foreign Vendor/ Country* | *Indian Offset Partner/(s)* | *Contract Value* | *Offset Value* | *Remarks* |
|---|---|---|---|---|---|---|---|
| 12 | MICA IP and RF Missile | 31 January 2012 | MBDA, France | | €958.98 million | $386 million (€287.7 million) | Delivery of 493 MICA missiles is scheduled between 2015 and 2019. |
| 13 | New Generation Precision Guided Munitions (NGPGM) | | | | | | |
| 14 | PC-7 Mk Turboprop Basic Trainer Aircraft | 24 May 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 10year 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-widnik) 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 crore | $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 | 23 April 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 | 1 January 2009 | Boeing, the US | HAL, BEL | $2.1 billion | $641.26 million | Offset proposals include $153.9 million worth of: (a) safety, reliability and air-worthiness seminars; (b) establishment of fire finder classrooms;and (c) transfer of metallurgy and hydraulic lab facilities, composite manufacturing assembly/tooling, mobile broadband, friction stir welding and aero structures 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) | 31 March 2009 | Fincantieri, Italy | | | $55.28 million | |
| 4 | Air Route Surveillance Radar (ARSR) | 6 November 2009 | | | | $11.2 million | |
| 5 | Unmanned Aerial Vehicles (UAV) | 4 March 2010 | IAI, Israel | | | $80.8 million | |

| *Sl. No.* | *Name of Scheme* | *Date/Year of Contract Signing* | *Foreign Vendor/ Country* | *Indian Offset Partner/(s)* | *Contract Value* | *Offset Value* | *Remarks* |
|---|---|---|---|---|---|---|---|
| 6 | Barak-I Missile | October 2014 | Rafael Advanced Defence Systems Ltd., Israel | | Rs 875.49 crore | $42 million | |
| | | | | ARMY | | | |
| 1 | 969 Thermal Imaging Standalone Kits (TISK) for BMP-2 | March 2013 | Elbit, Israel | Alpha Design Technologies | Rs 397.16 crore | $24 million | |
| 2 | 1000 Thermal Imaging Fire Control Systems (TIFCS) for T-72 Tanks | March 2014 | Elbit, Israel | Alpha Design Technologies | Rs 1629.85 crore | $79 million | |
| 3 | 16 Heron UAVs | December 2014 | IAI, Israel | | Rs 1606.32 crore | $77 million | |