LEVERAGING OFFSETS IN ARMS TRADE: OPTIONS FOR INDIA

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For over four decades, India has been one of the major arms importing countries among the developing countries. The trend of imports has, however, not always been uniform. There have been high and lows in the volume of arms imports depending on the nature of budgetary resources allocated for defence from time to time. This allocation of budgetary resources for defence has always been a huge challenge for policy-makers in the government as they were confronted with the problem of making optimal defence allocations, taking into consideration other economic compulsions and meeting social obligations such as poverty alleviations programmes, expenditure on education and health, etc. At the same time, the nation had to confront hostile neighbours from the very beginning after independence and, therefore, the imperatives of meeting the national security needs could never to be relegated to a secondary importance. In the absence of indigenous capability to produce arms and weapon systems, imports became a natural choice in gearing up to meet the ever pressing national security needs. Such import dependency in arms continues till date even as the noble intentions of building indigenous capability in defence production remain a distant dream.

The liberalised economic policies of the early 1990s unleashed the true potential of the nation as these policies began paying dividends in the late 1990s and post-2000 in the form of accelerated economic growth, unseen before. With the rapid growth of the economy, the defence allocations too

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started reflecting an upward trend, particularly after 2000-01. Increased defence allocations also meant burgeoning arms imports. Meanwhile, with the end of Cold War in the late 1980s, there has been a paradigm shift in the international relations, with the acrimony among the superpowers coming to a virtual end, resulting in decreased world defence expenditure. The arms producing companies, particularly those belonging to the developed world that thrived during the Cold War era, suddenly found themselves at a cross-roads as their very survival became doubtful, resulting in a series of mergers and acquisitions by larger companies. The arms market, which was hitherto a sellers' market, began to turn itself into a buyers' market. Intensified competition among the arms producing companies resulted in huge choices for the buyer countries from among the various options available. Such exercise of choice also led to various attractive offers being made by the arms producing companies, aided by the arms export policies of the respective countries in which these companies operated. The competition among the arms producing companies led to efforts to reduce the cost of acquisitions of weapons for the importing countries in the form of counter-trade, buy-back, co-production, licensed production, etc. Offsets are one such mechanism of compensating the arms importing countries by the arms exporting countries. Such compensatory measures became even more pronounced in the case of the developing countries, with limited defence budgets, that sought to leverage their arms purchasing potential by seeking a variety of benefits from the exporting countries.

SCOPE OF THE PAPER

This paper discusses the nature of defence offsets, the various types of defence offsets and a brief analysis of beneficial effects of offsets. The Indian policy on defence offsets has been analysed in detail, bringing out the need for strengthening the current policy.

NATURE OF DEFENCE OFFSETS

There are various definitions of offsets. It would perhaps be appropriate to quote the one offered by the United States as the country is one of the leading arms exporting countries and thereby undertakes huge offsets obligations linked to such exports. The US Arms Export Control Act and the International Traffic in Arms Regulations define offsets as, *"Compensation practices required as a condition of purchase in either government-to-government or commercial sales of 'defense articles' and/or 'defense services.'"*[1] As a compensation practice, defence offsets help the buyer country reduce procurement costs and/or result in any other economic benefit. Some of the other terms used for referring to offsets in different counties are: industrial cooperation; industrial participation; counter-purchase/counter-trade; compensatory transaction; buy-back; and swap or barter. In terms of effects, offsets can be classified as "direct" or "indirect." Direct offsets are *"contractual arrangements that involve defense articles and services referenced in the sales agreement for military exports. These transactions are directly related to the defense items or services exported by the defense firm and are usually in the co-production, subcontracting, technology transfer, training, production, licensed production, or financing activities."* Indirect offsets are *"contractual arrangements that involve defense goods and services unrelated to the defense items or services export referenced in the sales agreement. The kinds of offsets that are considered 'indirect' include purchases, investment, training, financing activities, marketing/exporting assistance, and technology transfer."*[2] Another type of offsets are the "semi-direct" offsets, combining the characteristics of both direct and indirect offsets. For example, the Indian defence offsets can be classified as semi-direct offsets even though the offsets policy of the Ministry of Defence (MoD) cites them as direct. They can be termed as semi-direct since, as per the policy, the offsets can be undertaken in the domain of the entire defence sector in various forms, as

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1. "Offsets in Defense Trade," Twelfth Report to Congress by the US Department of Commerce, Bureau of Industry and Security, December 2007, p. 1.4
2. Ibid.

Normally, the offset implementation costs tend to be low in the case of indirect offsets as against direct offsets, since the former offer flexibility in their implementation by the vendor.

defined in the policy, and not limited to the particular defence item in the prime contract.

The quantum of offsets sought and whether the offsets need to be direct or indirect is the prerogative of the arms importing country. The chosen options depend on the objectives intended to be achieved through offsets. For example, if the nation's economic development is the key objective, it is possible that indirect offsets may be sought. On the other hand, if the intended objective is to fulfill a specific purpose such as the development of the defence industrial base of the country, then direct offsets would be the best option. Some counties such as South Africa, Israel and Malaysia have taken recourse to a combination of both direct and indirect offsets. In the Indian defence offsets policy, the key objective is not stated. But judging from the spirit of the policy, it can be deduced that the core purpose of offsets is to give a fillip to the nation's defence industry as the scope of the policy is limited to direct offsets restricted to the defence sector. Both direct and indirect offsets are the usual norm in the international arms imports. In the case of the US, the ratio of indirect to direct offsets for the period 1993 to 2006 was 60:40.[3] This ratio reflects the tilt towards indirect offsets, compared to direct offsets. Normally, the offset implementation costs tend to be low in the case of indirect offsets as against direct offsets, since the former offer flexibility in their implementation by the vendor.

QUANTUM OF OFFSETS AND MINIMUM THRESHOLD

The quantum of offsets sought (i.e. offsets as a percentage of prime contract value) and a minimum threshold of the main contract for which offsets are sought vary from one country to another, depending on a number of factors such as the objectives behind a country's offset policy and the ability to absorb offsets, etc. Most of the offset implementing countries have adopted a mixed

3. Ibid., p. 25

approach of direct and indirect offsets, with a few countries such as the UK confining their policy to direct offsets. The range of offsets as a percent of prime contract is quite wide, ranging from 20 per cent in the case of Thailand to 100 per cent in most of the European countries. Similarly, the offset threshold also varies quite widely. In the case of Brazil, for example, offsets are sought for all contracts exceeding $ 1 million. In the case Denmark and Poland, the limit is $ 3 million and $ 5 million respectively.[4] As per the Indian defence offsets policy, all arms import contracts in excess of Rs 300 crore ($ 75 million) need to fulfill a minimum of 30 per cent offsets.

Offset Multipliers

Offset multiplier is a negotiated factor used by the arms importing country as an incentive to acquire a specific offset project that provides enhanced benefits. For example, if a country has a policy of 100 per cent offsets, then a $ 100 million import deal would result in an equal amount of offsets in a defined area. In this case, the factor of offsets can be stated as one. If, however, the offsets are undertaken in a specific area that has been accorded a higher order of importance by the buyer country, it is possible that such a prioritised area may be accorded a multiplier factor higher than one for the purpose of counting offsets. If a country considers defence industrial development as a prioritised area, then it is possible that a higher multiplier factor for technology transfer is attached over other factors, say, export of defence equipment. Internationally, an offset multiplier factor ranging from 0.5 to 10 (and, in some cases, ranging up to 20) is permitted by various countries in receipt of offset benefits. In a very few cases, a multiplier factor less than one can also be seen. Multipliers of less than one mean that prime contractors are only credited a portion of the total actual value of a transaction, and that the actual value of contracts will be higher than the credit value.[5] The Indian offset policy does not accord a multiplier of more than one at present, although the issue of higher multipliers may be considered in due course, as and when the policy is revised. In the case of the US, the

4. J. Brauer and J. Paul Dunne, "The Economics of Arms Trade Offsets: A Review," paper presented at the International seminar on Defence Finance and Economics, November 13-15, 2006.
5. n.1, pp. 5-6 and 5-7.

average multiplier factor in offset transactions during the period 1993-2006 was 1.165.[6] Usually, a flexible offsets policy tends to be liberal on the issue of multipliers. Arms exporting companies too tend to prefer higher multipliers as it facilitates focussing on a particular area for discharging their offset obligations.

BANKING OF OFFSET CREDITS

An offset credit is a monetary unit of measuring the achievement of offsets against an offset obligation. It is the product of the value of an offset transaction times a multiplier factor. Banking of offset credits is a mechanism enabling a foreign vendor to commence operations in the importing country even before a contract is awarded. The offset credit banking agreement provides for offset credits to be accumulated either in advance of an offset programme and/or in excess of a fulfilled offset obligation. An offset banking arrangement is usually negotiated between a contractor and the offset authority of the importing country and the credits are applied towards the fulfillment of future offset obligations. Normally, defence procurement contracts are long drawn, and precious time may be lost if a foreign vendor is to wait until the main contract is inked. Banking of offset credits helps the prospective vendor to commence operations as part of future offset obligations. The accounting of such credits is usually maintained by the offset regulatory authority of the recipient country. Many countries such as Israel, Poland and the UK have incorporated banking provisions in their respective offset guidelines. Some countries permit banking of credits on a case-by-case basis. If an anticipated procurement contract is not awarded for any reason, provisions also permit in a number of countries for transferring these credits to another offset obliger. Banking of offset credits is normally considered a positive incentive for foreign vendors to invest in local industry, whether the actual contract is awarded at a future date or not. Inclusion

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6. Ibid.

of provisions related banking of offset credits is also a sign of a flexible offset policy. An offset banking credit policy must contain detailed clauses such as: how the credits may be used; how long the credits will hold their value; whether the credits may be traded or sold to other companies that have obligations in that country; and who can bank credits on behalf of the supplier company.[7] Sometimes, it is possible for the vendor to accumulate excess credits over and above the designated offset obligations. A number of countries permit excess credits to be carried forward to count against future offset obligations. The commencement date of offset credits and the period within which these are required to be counted against offset obligations are also usually prescribed in the offset guidelines of the importing country. Such clauses with regard to commencement and extinguishing of offset credits are sometimes referred to as "sunrise" and "sunset" clauses. Incorporation of such clauses in the offset guidelines provides clarity to the vendor. Banking of the offset credits is not permitted as per the current Indian policy on defence offsets and offset contract needs to be executed co-terminus with the prime contract. There are indications, however, that provisions related to banking of offset credits will be included in the policy when it is taken up for revision.[8]

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PENALTIES AND BANK GUARANTEES

An offset agreement may provide for imposing penalties on the vendor, in case of failure to meet the offset obligations within the specified time period. Penalties are usually applied to the unfulfilled balance of the obligation and may be assessed at the end of the performance period for the entire obligation or at specified intervals during the performance period.[9] In addition, performance guarantees may also be

7. Gregory J. Martin, "Offsets: Sharing International Experience," paper presented at the International Seminar on Defence Finance and Economics," New Delhi, November 13-15, 2006.
8. "Defence Purchase Policy: Western Pressure Resisted," *The Hindu* (New Delhi), May 5, 2008.
9. Martin, n.7.

Table 1: Illustration of International Offset Practices*					
Country	**Offset Arrangement**	**Per Cent of Offsets**	**Offset Threshold**	**Multipliers**	**Penalties/ Guarantee**
UK	Direct	100	$ 20 million	Yes	No
Australia	Direct and Indirect	30	$ 2 million	Yes	N/A
Poland	Direct and Indirect	100-170	$ 7 million	Yes	N/A
Sweden	Direct and Indirect	50-100	N/A	Yes	N/A
South Africa	Direct and Indirect	100	$ 10 million	Yes	Yes
South Korea	Direct and Indirect	30	$ 10 million	Yes	N/A
India	Direct	30	$ 75 million	No	Yes

* Compiled from various sources

sought from the vendor in the form of bank guarantees or surety bonds, etc facilitating payment of liquidated damages in case of failure to meet the offset obligations within the stipulated period. It is generally believed that penalties and bank guarantees tend to increase the offset transaction costs. The Indian offset policy contains provisions related to penalties and bank guarantees.

EVALUATION OF BENEFITS OF OFFSETS

Despite defence offsets becoming a preferred choice in the last 2-3 decades, the experience of various countries indicates that there is no conclusive evidence on the positive effect of offsets. A major reason for such a conclusion is non-availability of data, as information related to defence procurements is generally kept guarded by nations. Offsets as part of defence procurement have been resorted to for more than two decades now. Since around 2000, the study of offsets has been pursued with fervour by defence economists across globe. Even with intense academic, political, and media attention, it is remarkable that empirical evidence on offsets deliverables remains sketchy.[10] Yet, ironically, more and more countries are resorting to defence offsets. While only about twenty

10. Ron Matthews, "Defense Offsets: Policy Versus Pragmatism," in Jurgen Brauer and J. Paul Dunne, eds., *Arms Trade and Economic Development* (Routledge, 2004), p. 97.

countries (mostly within the North Atlantic Treaty Organisation) had offset policies in the 1960s and 1970s, by the end of the 1990s, the figure swelled to around 130.[11] By now, it is well established that deals involving offsets tend to cost more than off-the-shelf purchases. Since most supplier companies are privately-owned corporations with a responsibility to enhance shareholders' returns, the cost of providing offset benefits are likely to be passed on to the arms purchasing country. The degree of difficulty of providing the offset benefits and the perceived level of risk to the supplier company will, in large part, determine the cost.[12] It is estimated that offsets transaction costs range between 7 and 10 per cent of the prime contract value.[13] Since offsets are not freebies doled out by the vendors, the benefits for the recipient country must outweigh the cost of offsets, if the offsets have to become a viable proposition. The perceived benefits of offsets by the recipient countries include: (a) reduction of arms acquisition costs; (b) additional job creation and generalised economic development; (c) creation of new and sustainable work; and (d) transfer of technology.[14] Despite a lot of euphoria on the actual or perceived benefits of offsets, there is lack of evidence on such benefits. Two well known defence economists point out that virtually no evidence exists that general economic goals are ever achieved via offsets, with the possible exception of Germany in the 1950s. On similar lines, these economists conclude that there is virtually no positive and certainly no compelling evidence that offsets create new, let alone sustainable, jobs.[15] On the issue of technology transfer, an important perceived benefit of offsets, the finding is that "with regard to general and specific technology transfer directed either toward military or civilian

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11. Susan Willett and Ian Anthony, "Counter Trade & Offsets Policies and Practices in Arms Trade," Copenhagen Peace Research Institute, accessed from website <www.ciaonet.org/wps/wis01/> on May 12, 2008.
12. Martin, n.7.
13. Brauer and Dunne, eds., n.10, p. 71.
14. Brauer and Dunne, eds., Ibid., accessed from website <www.aug.edu/sbajmb/paper-RHaines.pdf>
15. Jurgen Brauer and J. Paul Dunne, "The Economics of Arms Trade Offsets: A Review," paper presented at International seminar on Defence Finance and Economics, New Delhi, November 13-15, 2006.

industry, the record is mixed,"[16] meaning that technology transfer has indeed proved beneficial in certain instances. Despite scepticism surrounding offsets, there is ample evidence to suggest that a few countries have benefited from their offset policies. The aerospace industries of Brazil, South Korea and Poland owe their success to offsets to a large extent. Similarly, countries such as Israel and Malaysia have derived benefits through both direct and indirect offsets.

Absence of clear empirical evidence may pose dilemmas for policy-makers in making choices between direct and indirect offsets, quantum of offsets to be sought and areas of focus for offset implementation.

Thus, the findings on the benefits of defence offsets by defence economists appear to be not only mixed but also dichotomous. For, if lack of credible data on offsets is the reason cited by those criticising offsets, the same argument can also be used by those in favour of offsets. Until reliable data is available on the subject and valid conclusions are drawn thereby, it is difficult to gauge the beneficial or detrimental effect of offsets. It is, perhaps, early days yet to argue either for or against military offsets even as the academic world dealing with the subject awaits credible findings backed by reliable data, before verifiable conclusions can be drawn.

Absence of clear empirical evidence may pose dilemmas for policy-makers in making choices between direct and indirect offsets, quantum of offsets to be sought and areas of focus for offset implementation. In sum, the predicament is not whether offsets deliver the intended results or not. On the contrary, it is a question of making a choice between 'good' offsets versus 'bad' offsets. Offsets would work if they are embedded appropriately in the overall policy matrix, be it indigenous defence industrial advancement or general economic development. For example, direct offsets are often single deals to be completed within a specified time-frame and linked with a specific military project. The programme, to be sustainable, should be able to prolong itself beyond the life of the offset programme. In order to make direct offsets sustainable, the policies should aim

16. Brauer and Dunne, Ibid.

at developing capacities for becoming component suppliers and embed themselves in the international supply chain,[17] continuing beyond the offset programme. Such integration into the global supply chain would be feasible only if competence is achieved in terms of quality, price and delivery parameters. Offsets are incidental or, at best, can become a catalyst in achieving these parameters. A matured and well developed civil industrial base is an important prerequisite for development of the indigenous defence industry through offsets and technology transfer. Lastly, offsets will be effective when an intensive preliminary research regarding what to ask for in the form of offsets and how to utilise such gains is carried out, in addition to having a specific plan of action.[18]

THE BUYER COUNTRY'S PERSPECTIVE

Since the underlying purpose is to reap maximum benefits from defence equipment imports, the natural tendency of an arms importing country is to make most of the associated offsets of the deal. Through the mechanism of offsets, the importing country seeks the latest technology and maximum assistance in licensed or joint production. The buyer country would also expect foreign direct investments in joint ventures in the chosen industry. The purchasing country would attempt to gain maximum advantage from offsets through skilful negotiations to ensure that offsets do not increase the import price or at least the offset transaction costs are kept to the minimum. It is also important from the buyer country's perspective that the vendor does not circumvent his offset obligations by counting and linking offsets to an existing business deal which would take place anyway even in the absence of offsets.

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17. Ravinder Pal Singh, "Offsets: Why, How and Why Not?," paper presented at the International seminar on Defence Finance and Economics, New Delhi, November 13-15, 2006.
18. Nam Sung Han and Joon Soo Park, "The Defense Offset Policy in South Korea," Korean Institute of Defense Analyses (KIDA) Papers, January 2004.

It is important to note that mere dependence on offsets would only lead to granting subsidies to state-run enterprises, and may lead to inefficiencies in the buyer country.

THE VENDOR'S DILEMMA IN OFFSETS

From the vendor companies' perspective, meeting offsets obligations has become imperative as these companies operate in a fiercely competitive market. In a competitive arms market, offsets often act as a differentiator in winning arms contracts. However, the dilemma faced by the arms exporting countries is in terms of loss of domestic jobs and preserving their own technological edge in arms production. Transfer of technology in arms production may result in loss of military edge, besides leading to increased competition as more countries tend to develop the ability to produce sophisticated weapon systems. However, the argument that the developed countries lose their technological edge through discharge of their offset obligations is not totally tenable, since the cutting edge or state-of-the-art technology is never parted with by the developed countries. Nor does the capacity exist among the recipients, particularly among the developing countries, to absorb the cutting edge technology. Since arms manufacturing companies operate with a motive of profit maximisation, the attempt on their part would be to minimise the cost associated with offsets. When negotiating an offset agreement, every attempt is made to minimise the offset requirement in order to protect the company's domestic labour force, its established supplier base, and its core technologies. At the same time, it is also important for these companies to complete their offset commitments satisfactorily, as their reputation is at stake.[19] Similarly, the vendor country's fears of the importing country piecing together the transferred technologies over a period and building competencies and, thus, becoming a competitor in the market place, are also not unfounded. China is an example of this gradual building of competencies. In the field of aerospace, China started with Russian technology and later undertook co-production with McDonnell Douglas. Thereafter, they started doing minor pieces for Boeing before

19. "Policy Issues in Aerospace Offsets," report based on a National Research Council Workshop held on June 9, 1997, in Washington DC. Report edited by Charles W. Wessner and Alan Wolff

producing rear fuselage and tail pieces. Then they have entered into a memorandum of agreement with Europeans and other Asian nations to build a 100-seater aircraft. Perhaps this process of competency building could have also happened without offsets, but not as quickly.[20]

A WIN-WIN SITUATION FOR ALL

A brief analysis of the buyer's perspective on offsets in order to gain maximum advantages and the vendor's reluctance to give away too much, may lead to the impression that offsets aspirations of the buyer and a possible recalcitrant approach towards the same by the vendor are dichotomous in nature. However, this need not be the case at all times. It is quite possible that offsets could lead to a win-win situation for both the parties to a deal. Offsets pave the way for marketing of the vendor's equipment, and for the buyer, these could result in various concomitant benefits in addition to the prime contract. In fact, offsets work best only when they result in a win-win situation for both the vendor company and purchasing country. It is important to take note that offsets must become an incidental consideration and not the main motivation in weapon procurement. Offsets will succeed along with other holistic measures of defence industrial development and not in isolation. Further, it is important to note that mere dependence on offsets would only lead to granting subsidies to state-run enterprises, and may lead to inefficiencies in the buyer country. Finally, offsets will work best when the aspirations of both the vendor and buyer country are fulfilled thus, resulting, in a win-win situation for both the seller company and the purchasing country.

CORE OBJECTIVES OF INDIA'S DEFENCE OFFSETS POLICY

The offset policy was introduced in the Defence Procurement Procedure (DPP) for the first time in 2005 and subsequently its scope was enlarged in 2006. Ideally, any policy must bring out the core objectives behind its formulation. However, the Indian offsets policy, as contained in the DPP-2006, does not list out the objectives. In fact, Appendix 'D' of the DPP calls it a "Procedure for Implementing Offsets Provisions" and not a policy as such. Assuming the

20. Ibid.

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existence of a thin line between a policy and a procedure, one would expect clarity and articulation of the objectives in implementing the defence offsets. Although the objectives of defence offsets are not listed out as such in the current policy, it can be deduced from the provisions contained in the policy that it aims at defence industrial development of the country. The provisions of the policy, in its present form, only talk of direct offsets involving export of defence products and services, in addition to direct foreign investment in the defence sector industries/R&D establishments.

Since defence offsets are resorted to for a variety of perceived benefits, it is vital that the policy brings out the main and secondary objectives in unambiguous terms. Such a focus and clarity are of significance, as the subsequent chain of actions involving among others, designing the offsets provisions, implementation and monitoring mechanisms, and offset contract negotiations, etc revolve around the core objectives of the policy as the backdrop. This vital aspect is missing in the existing Indian defence offsets policy.

Nature of Defence Offsets in India

Strictly in terms of definitions of direct and indirect offsets mentioned in this paper, the defence offsets policy in India appears to have adopted a middle path i.e. a combination of both, despite using the term "direct offsets" in the policy. Accordingly, for the purpose of defence purchases made under DPP-2006, offset obligations shall be discharged directly by any combination of the following methods[21]:

(a) Direct purchase of, or executing export orders for, defence products and components manufactured by, or services provided by, the Indian defence industry, i.e. Defence Public Sector Undertakings (DPSUs), the Ordnance Factory Board (OFB), and any private defence industry

21. Defence Procurement Procedure-2006, Appendix 'D', Ministry of Defence, Government of India.

manufacturing these products or components under an industrial licence 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.

(b) Foreign direct investment (FDI) in Indian defence industries for industrial infrastructure for services, co-development, joint ventures and co-production of defence products.

(c) Direct foreign investment in Indian organisations engaged in defence R&D as certified by the Defence Offset Facilitation Agency (DOFA).

Capability of Indian Defence Industry

The offsets can be undertaken under any of the above mentioned categories. Of late, there has been a debate on the issue of the Indian defence industry's capability to absorb a huge amount of offsets. This is even more pertinent considering that armed forces' modernisation has been stepped up in recent years, with a relatively higher proportion of the defence budget being allocated for capital expenditure. The capital budget for 2007-08, for example, was over $ 10 billion. For the current financial year (2008-09), this figure is around $ 12 billion. If one assumes that 70 per cent of capital budget (i.e. $ 15 billion out of $ 22 billion) is catered for meeting import requirements, the same should result in offsets worth $ 4.5 or Rs 18,000 crore for these two years alone, with a minimum threshold of 30 per cent of the main contract. It is pertinent to note that in some cases, such as the proposal to acquire 126 medium multi-role combat aircraft (MMRCA), the offsets have been pegged higher, at 50 per cent of the contract value. Against such huge potential of offsets, the current value of defence exports from the country appears too small. For the year 2007-08 (up to December 2007 or the first nine months of the financial year), the value of Indian defence exports stood at Rs 342 core ($ 85 million).[22] On an annualised basis, the value of exports works out to around Rs 456 crore ($ 114 million). As against such defence export figure, offsets between Rs 3,000-4,000 crore ($ 750 million-1 billion) need to be undertaken every year, given the current ratio of capital expenditure

22. Ministry of Defence, Government of India Annual Report, 2007-08, Para 7.56.

In the absence of defence export potential and with limited scope for FDI, it may become an arduous task for undertaking the offset obligations by the vendor companies.

allocation in the defence budget.[23] In other words, the value of defence exports needs to go up by 8 to 10 times their current level. Thus, the gap between the existing quantum of exports and what is required to be undertaken as part of offset obligations of the vendors is too huge. To be able to undertake such a huge amount of exports requires investment of a large magnitude in the indigenous defence industrial infrastructure. In addition, such large infrastructural investments may take years before the production can be stepped up. Therefore, one is left wondering whether any study on the potential of indigenous defence industry has been undertaken prior to embarking on an ambitious defence offsets programme. Apart from export of defence equipment and services, the two areas for implementing offsets are in the form of FDI in the Indian defence industry or defence R&D organisations. The entry of the private sector in the defence industry has been permitted as recently as 2001 with a maximum cap of 26 per cent foreign equity. The initial response to such a liberalised policy was muted as no major private company came forward for investment in the defence industry, until recently. Of late, a few joint venture (JV) proposals and memorandums of understanding (MoUs) have been announced involving major Indian companies such as Tata, L&T and leading arms manufacturing companies such as Boeing, Lockheed Martin, etc. But the amount of investments announced in these proposed tie-ups is only a trickle in what is seen as a huge ocean of offsets, and the road ahead is rather long. One way to absorb the huge quantum of offsets is to hike the FDI in the defence industry from 26 per cent to 49 per cent, as demanded by a section of the industry. In the absence of defence export potential and with limited scope for FDI, it may become an arduous task for undertaking the offset obligations by the vendor companies. This, in a way, is also a major challenge for those in the government responsible for implementing the policy.

23. As per the present Indian defence offsets policy, offsets can be undertaken under three broad categories i.e. (a) export of defence equipment and services; (b) FDI in defence industry; and (c) FDI in Indian defence R&D organisations. On a rough approximation, these three segments must account for 1/3rd of offsets each every year.

NEED FOR STRENGTHENING THE POLICY

A few other issues which are of relevance from the Indian policy perspective are discussed below. At the moment, certain teething troubles seem to be coming in the way of a smooth implementation of the policy. In any case, it would be too early to expect any tangible results as a fallout of the offset policy, since the same has been introduced only recently. The benefits flowing out of the policy can only be gauged after about five or more years. Some of the impediments in the policy and suggested ways to overcome the same are enumerated below:

(a) **Structural Strengthening**. The Defence Offset Facilitation Agency (DOFA) has been created within the MoD to facilitate implementation of the offset policy. Creation of an exclusive agency for providing guidance on defence offsets is a step in the right direction. A few other countries with considerable experience in implementing offsets also have similar organisational structures, be it in the Economic Ministry or Defence Ministry to handle defence offsets. The DOFA is represented by the Services, MoD, defence industry and the Defence Research and Development Organisation (DRDO). One of its important assignments is to vet the offset proposals technically. Technical evaluation and appraisal of the proposals is a critical task as it could have a significant impact on the future technological map of the defence industrial base. The evaluation process must be able to distinguish the key technologies that are required for augmenting the defence production as against the low end technologies that may have insignificant impact. The industry experts must also be in a position to assess whether the domestic defence industry is in a position to absorb the high-end technologies. Apart from technological assessment of the proposals, the DOFA also plays a key role in policy formulation and its revision from time to time. Ability to formulate provisions requires a long-term and holistic vision of a variety of issues and a deep understanding of the offset experiences of other countries so as to learn from their successes and pitfalls. In addition, the offset contracting process requires skills in acquisition management. Lack of negotiating skills among the civil servants/military staff involved in acquisition and offset contracts is a

Technology transfer is a common element of offset programmes and often accompanies co-production and sub-contract activities.

common drawback as against professionally experienced representatives of the arms suppliers, who are skilful in developing one-sided contracts with an ability to have them swung to their advantage.[24] Therefore, involvement of experts in the DOFA, fully conversant with the implications and all facets of defence offsets, is essential.

(b) **Transfer of Technology (ToT)**. Transfer of technology, a vital issue in offsets, has not been incorporated in the present policy. One possible explanation could be that in most of the acquisition cases, ToT is a condition attached to the main contract itself, as is the case with the MMRCA deal. If the core aim of the policy is the defence industrial development of the country, ToT must be accorded topmost priority as part of offsets, as compared to other provisions of the policy such as defence exports, FDI, etc. While defence exports, unarguably, facilitate foreign exchange earnings, additional job creation, and so on, what is of significance from a long-term perspective is to lay thrust on ToT that would create a knowledge bank, in terms of codified as well as tacit knowledge. Technology transfer can take place in a variety of forms such as data knowhow (drawings, processes, procedures, manuals/instructions); licences (design, production, sales, marketing territory, support); material (critical component material, production process equipment); training (on-job-training, classroom, product-specific or general business training); and education (funded R&D, scholarships, sponsorship). Technology transfer is a common element of offset programmes and often accompanies co-production and sub-contract activities.[25] A number of countries have accorded a multiplier of more than one for ToT under offsets. Technology transfer was the third most important offset obligation undertaken by US companies, after direct purchase and sub-contracts. Technology transfer formed 16.5 per cent of the

24. Pal Singh, n.17.
25. Martin, n.7.

total value of offsets undertaken by US companies between 1993-2006.[26] However, there are many practical difficulties associated with ToT such as identification of core technologies and the ability to overcome tough export controls imposed by the supplying countries. Overcoming such strict export controls requires a strategic manoeuvring of our foreign policy. Another difficulty associated with ToT is its valuation. In most cases, the value of the technology transfer is negotiated between the supplier company and buying country. The negotiated value of the technology is often based on the supplier company's prior investment in R&D, the market value of the technology, or the amount the foreign government would otherwise need to invest for developing the technology itself.[27] Certain intangible factors also need to be considered when valuing technology transfer. Such qualitative measurements could include the anticipated revenues from implementing the technology, jobs created by the transfer, and flow-down benefits to the local economy.[28] ToT being an intangible element, attaching a monetary value to it is a complex task, which requires expert handling involving multiple agencies. Structural strengthening of the DOFA is also important from the viewpoint of handling the various complex issues associated with ToT.

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(c) **Banking of Offset Credits**. An important criticism of the present policy is that it does not provide for banking of offset credits. The current policy is rigid to the extent that the offset contract commences only after the primary contract has been

26. "Offsets in Defense Trade," Twelfth Report to Congress by the US Department of Commerce, Bureau of Industry and Security, December 2007, p. 2.9
27. Martin, n.7.
28. Martin, Ibid.

entered into and terminates along with the main contract. A variety of reputed lead manufacturers of defence equipment in other parts of the world are looking forward to key tie-ups with Indian industries, eyeing the benefits of low labour costs, software development skills, etc. Through the mechanism of offsets, the bonding between global players and Indian industry can be strengthened in a variety of ways. Offset banking credits is one such mechanism. Incorporation of a procedure for offset banking credits would encourage the prospective foreign vendors to enter into joint ventures with their Indian counterparts in the defence industry, with a hope that the offsets credits earned by them in the past (after a notified cut-off date or what is usually referred to as a "sunrise" clause) would count against future contracts. A clause should also be inserted facilitating transfer of offset banking credits, so that a vendor is in a position to benefit from such a transfer even if he is not awarded a contract at a future date.

(d) **Offset Multipliers**. The practice of assigning additional weights to the offsets greater than one is in vogue in some countries. On this issue, the present Indian offsets procedure states, "The advisability of giving additional weights to offers having multiplier effects in terms of exports generated or building indigenous capability in strategic technology products, or other issues may be considered after reviewing the experience of implementing the policy."[29] Now that the policy is expected to be taken up for revision shortly, the issue of multipliers must be addressed. Inclusion of multipliers, as deemed fit for each offset obligation, is crucial as multipliers act as incentive for foreign vendors to accept a particular type of offset obligation that the country considers as crucial. Normally, ToT (involving key technologies as against routine or low-end technologies) and R&D collaborations tend to receive multipliers greater than one, as can be seen from the experiences of some countries. It is not feasible to suggest an across the board weightage, and each case has to be evaluated on its individual merits before assigning a suitable multiplier. However, the issue needs to be included in the policy, with scope for flexibility for assigning multipliers.

29. n.21.

(e) **Broadening the Scope of the Policy**. The current policy is limited to direct offsets, involving only export of defence equipment and services. However, there is an imperative need to expand the scope of the current policy without diluting the well intended purpose of developing the defence industrial base. There is a need to extend the offset credits for investments made in, or technology transferred to, the entire aerospace industry, without differentiating between the civil or military aerospace industry. The whole of the aerospace industry engaged in the manufacture of aircraft or aircraft related components or engaged in services related to aircraft manufacturing must be covered for receiving credits by the offset provider. Such extension of offsets, covering the entire aerospace industry is logical because, the world over, most of the aircraft manufacturing companies such as Boeing, Embraer, etc are engaged in the business of manufacturing both civilian as well as military aircraft. The basic technology, processes and components tend to overlap in the manufacture of both types of aircraft, with minor variations at the end stage of production. Though there are companies in the highly industrialised countries exclusively engaged in, or specialising in, manufacture of either a civilian aircraft or military aircraft, economies of scale dictate that the aerospace industry in a developing country like India cannot afford such an exclusivity. It becomes imperative for the aerospace industry to engage itself in the manufacture of both types of aircraft since basic technologies and manufacturing processes tend to be similar in both versions of aircraft manufacturing. The Indian aerospace industry has the potential to manufacture a 100-seater passenger aircraft, which could cater for both military and civilian purposes. Hence, any investments made, or technology transferred by, a foreign vendor must be counted against offsets of such

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vendor as long as the recipient of technology or investments in the Indian aerospace industry happens to be engaged in the production of dual use aircraft or components thereof. The current policy does not permit investments made in, or technology transferred to, the civil aerospace industry to be counted against defence offsets. The scope of the policy, therefore, needs to be extended.

(f) **Need for a Flexible Offsets Policy**. The Indian defence offsets policy is mandatory in nature, involving defence procurements beyond the threshold of Rs 300 crore, with penalty clauses attached in the case of a vendor's failure to meet his offset obligations. However, the offsets policy needs to be flexible without in any way diluting the core objectives of the policy. Such a fine balancing act requires dexterous designing of various provisions and clauses of the policy. A fine tuned objective must result in a win-win situation for both parties. After all, a foreign vendor seeks to reap maximum financial benefit from offsets as well as the main contract. Therefore, instead of creating difficulties for the vendor through cumbersome clauses and conditions, offset provisions must be simple, easy to understand and the prospective vendors should be in a position to seek clarifications without any difficulty usually encountered in dealing with the bureaucracy. A complex and cumbersome offsets policy would only result in increasing the offset costs and may prove to be counter-productive. Penalties and bank guarantees tend to raise the cost of offsets, thereby, increasing the overall cost of the main contract. Certain countries such as the UK, which has a policy of 100 per cent offsets, do not impose penalties in case offset obligations are not met by the vendor. The sole penalty is that consideration of future bids by an offshore vendor will be influenced by its performance in an earlier offset programme.[30] Considering that all major defence acquisition deals involve internationally reputed arms manufacturers,

30. Ron Matthews, "Defense Offsets: Policy Versus Pragmatism," in Brauer and Dunne, eds, n.4, p. 90.

whose credibility is at stake in case of failure to meet their offset obligations, a flexible offset policy can easily do away with penalties and bank guarantees and, thus, help bring down the offset costs.

(g) **Offsets Monitoring Mechanism**. Although there is a lot of initial pre-offsets enthusiasm surrounding defence imports, what does not get adequate attention is the issue of whether the offsets result in intended benefits. This occurs due to a lack of effective monitoring being put in place. Weak monitoring of offsets implementation has been experienced in quite a few countries as there is not much evidence that institutional structures have been put in place for overseeing the actual implementation of offsets. In the Indian case, the DOFA can only facilitate and assist in implementation of the policy. An implementation agency cannot be expected to take on the role of monitoring as well. Therefore, a separate and exclusive structure must be created and entrusted with overseeing and monitoring responsibilities. If it were only a financial audit, perhaps an agency like the comptroller and auditor general (C&AG) could have taken on this role. But monitoring the implementation of offsets involves more than the financial aspects. It involves systematic supervision of the entire gamut of the defence offsets implementation mechanism and ensuring that the intended benefits of technological development of the defence industrial base actually occur. Hence, creation of a separate organisational structure for this exclusive purpose is vital.

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(f) **Need for Proactive Approach.** The present policy is vague on implementation of offsets with regard to areas in which the implementation potential exists. Instead of listing out the nature of defence exports and the type of equipment that the Indian industry is capable of manufacturing, it appears that the offsets policy requires the vendors to come out with the

nature of defence equipment that they would like to import from the country. In other words, the policy, instead of being proactive in prescribing various areas of growth, appears to be reactive leaving the initiative to the prospective vendors in identifying the potential areas in the nation's defence industry. The recently issued request for proposal (RFP) for the MMRCA is an example for such a phenomenon. Further, the roadmap on reaping the benefits of offsets does not clearly come out in any of the government policy documents. The subject of defence offsets and their potential to develop the defence industrial base of the country requires enormous research and the DOFA must take lead in undertaking such research. Arrangement of workshops, conferences, seminars and brainstorming sessions involving industry experts, think-tanks and academic institutes would be of immense help in such a process.

CONCLUSION

National offset policies, as part of defence equipment imports, have gained prominence in the last 2-3 decades. Offsets have, indeed, resulted in a variety of intended benefits such as economic and indigenous defence industrial development in some countries, even as conclusive empirical evidence on the overall impact of offsets is yet to emerge. The very fact that the number of countries seeking offset benefits has gone up manifold within a couple of decades is an indication that offsets do result in positive outcomes. India's initiative in introducing the offsets policy in defence procurement couldn't have been more timely, at a time when the acquisition budgets have been reflecting impressive growth levels, as a result of buoyant economic progress by the country. What is now required is a careful steering of the policy from here onwards, with carefully chosen objectives and a clear roadmap to convert policy intentions into reality.

(The views expressed in the paper are those of the author and not of any organisation)