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## Introduction

The implosion of the Soviet Union and the end of the Cold War led to the collapse of global defence procurement budgets and the creation of excess defence-industrial capacity. A buyer's market ensued, whereby exporters were obliged to furnish additional benefits over and above the sale of the military product. This reciprocal investment is what is commonly, though not universally, referred to as offset.<sup>1</sup> Of course, vendors may refuse to play this game, but they do so in full knowledge that more obliging competitors lie in wait. If vendors do offer offset, often via transfer of the underlying production processes, then they face the danger of creating future competitive forces. This classic 'Scylla and Charybdis' dilemma is at the heart of tensions between the offshore vendor and customer offset authority, influencing vendor marketing strategies, negotiating positions and contractual relations that have evolved over the past two decades.

The immediate pressures surrounding operational management have acted to preclude longer-term analysis as to how offset policy and practice may be evolving. For instance, the viability and longevity of offset are rarely discussed in the same context, yet logically if the former is questioned then the latter will also be in doubt. It is remarkable that the future of such a controversial topic has attracted so little attention, especially given that it has been bedevilled with criticism concerning its ability to deliver the anticipated benefits. Offset is shrouded in mystery, misinformation and misunderstanding. It incites major debates: for instance, there is concern about the 'inevitable' additional cost it imposes on procurement deals; there is also the view that it lacks transparency, and hence carries major potential for corruption; and, finally, there are questions over the sustainability of the technology transfer it generates.<sup>2</sup>

The sustainability issue highlights tensions between country customers aiming to maximise indigenous capability opportunities through defence offset and offshore vendors seeking compliance with customer-mandated offset requirements, but in such a way that their Intellectual Property Rights (IPR) and competitive advantage are protected. Foreign vendor resistance to ‘giving away the crown jewels’ has led to a questioning of offset’s worth to recipient countries. Foreign vendors, therefore, face a tricky balancing act. There is a need to win major defence contracts, but at the same time, expectations must be managed to ensure that customers do not become disillusioned with outcomes. As a result, offset goals are only partially achieved across the broad swathe of customer countries. Remarkably, rising disappointment over offset’s inability to create sufficient skilled jobs, foster high value technology transfer, promote supply chains, encourage local R&D and support exports, has not dimmed offset’s global appeal.

Indeed, offset exhibits strong dynamics. It is reportedly enjoying compound annual growth of 3.5 per cent, with obligations expected to increase by 36 per cent between 2012 and 2021 to reach a cumulative total of more than \$425 billion.<sup>3</sup> It is reported that over 130 nations now have official published offset requirements, and the numbers continue to rise.<sup>4</sup> In 2012, Mexico launched its first offset policy, followed by Indonesia in 2014, and a Philippines’ policy is imminent. Moreover, the impressive 143 per cent growth in Chinese arms exports across the five-year period 2009–14, positioning it as the world’s third-biggest exporter across this period, and also the subsequent 2012–16 period, is mainly attributable to a unique competitive package comprising offset, extremely keen pricing structures and political noninterference.

The reason behind offset’s popularity is the belief that government-mandated offset regulations can leverage offshore vendors to release technology and accelerate growth of indigenous industrial capability. Whether, and to what extent, this belief is true is a moot point. The purpose of this chapter, then, is to explore the theoretical, policy and implementation characteristics of offset, especially whether existing approaches are fit for purpose. Government-mandated offset is the model employed by most major arms purchasers, and if it is not delivering the anticipated benefits, then this begs the question as to whether the life of offset is time limited.

## 7.1 Offset and the Clash between Ideology and Pragmatism

Classical economic theories emphasise the importance of perfect markets and free trade. Yet, while these theoretical constructs apply to commercial sectors, the domestic defence context will feature monopoly-monopsony market structures, and, additionally, because of the sensitivity of arms exports, they will be subject to far greater institutional scrutiny, oversight and control. Furthermore, the traditional requirements of national security and sovereignty of supply set defence apart from commercial endeavour. Accordingly, protectionism is the cornerstone of the global arms trade, representing just one of myriad political, diplomatic, military and institutional barriers that vendors must navigate around to access foreign markets. A further imperfection of the modern arms market is held to be the importing countries' insatiable appetite for defence offset. Specifically, offset is held to be anticompetitive, market-distorting and welfare-reducing, with the European Commission, in particular, intervening to control and suppress member state offset regimes.

Most arms importing states prioritise direct offset, seeking technology transfer to accelerate local defence industrialisation. However, some states prefer indirect offset, requiring vendor investment to be channelled into commercial activities in support of broader economic and industrial development objectives. Governments warm to offset, because it is viewed as a 'win-win' arrangement, and hence has become *de rigueur* in major arms deals. While weapons capability is the principal qualifier for closing a sale, the attractiveness of the offset package is increasingly a critical discriminator in the marketing mix. Arms exporters are well aware of the importance of offset. Nevertheless, there is a reluctance to release high technology to secure the sale, viewing the process as sacrificing the corporate heritage of technological creativity and innovation, accumulated through generations of expensive investment. Yet, it is held that the existence of a 'buyers' market (supply exceeding demand) creates leverage for buyer governments to demand offset as an obligatory, not discretionary, component of the procurement deal. Accordingly, arms exporters fail to win orders if offset is not offered, or offered but is unattractive. Offset is an important part of the procurement package, and it is therefore essential to determine the parameters of what offset can and cannot achieve.

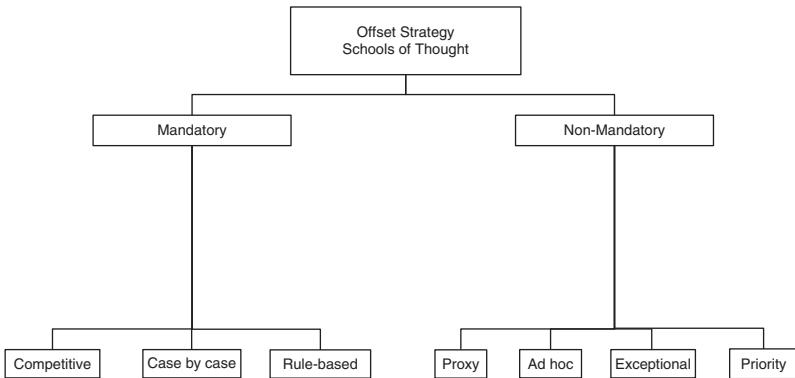
Offset might be described as a form of blackmail, but it is legal. It may also be viewed as 'compensation', but it is surely inappropriate

to tie compensatory investment to unfettered arms procurement. Yet, it is this counterbalancing action that defines offset, with the buyer's market acting as the spigot creating and controlling the pressure. If market forces converge, then surely pressure for offset would subside. The problem with this argument is that offset was a salient feature of the global arms trade decades before the ending of the Cold War, and the collapse in arms demand. The stand-off between NATO and the Warsaw Pact created the conditions for a supplier's market, defined as limited numbers of arms exporters enjoying unlimited growth in customer nations' defence budgets and procurement spends. While the demand for offset is linked to the notion of a buyer's market, there are three other important considerations that determine the existence, and, indeed, success of offset. First and foremost is procurement scale. Large volumes drive customer leverage and, in turn, the quality of the offset package: the bigger the procurement volume, the greater the extent and degree of technology transfer the vendor is prepared to offer. The second factor influencing the nature and viability of offset is the importing country's technological absorptive capacity. This capacity embraces not only local platform manufacturers, but also the broader civil-military R&D community, including innovative supply chains and frontier engineering universities. These elements, combined with an abundance of highly skilled scientists, technicians and engineers, are principal factors determining offset success. Thirdly, the feasibility and appeal of offset will be influenced by the nature of the recipient country's offset strategy. Flexibility will be more attractive to offshore defence vendors than government-mandated prescription and penalty.

## 7.2 Mandatory versus Non-Mandatory Offset

Few countries are without a formal offset policy, and most of these are poor African and Asian states. Those that do have offset regimes have crafted approaches that range from ad hoc and rudimentary to formal and prescriptive. The challenge, then, is to construct a framework that adequately defines offset, covering all its 'chameleon' features. Figure 7.1 offers such a schema, distinguishing between the two principal schools of thought on offset policy: (formal) mandatory and (informal) non-mandatory offset.

The most important school of thought illustrated in Figure 7.1 is mandatory offset policy, normally designed, managed and monitored



**Figure 7.1:** Offset policy dichotomy

Source: author

by a customer country's Offset Authority. There are three types of government-mandated policy, distinguishable by the degree of contractual flexibility. The first is characterised by a high degree of competitiveness and flexibility. Here, offset policy is broad and generalised, allowing policymakers to be judgemental about requirements. The erstwhile UK Industrial Participation (IP) policy was reflective of this particular approach. It ran from 1990 until 2012 and was held to be successful.<sup>5</sup> The launch and transposition of the 2009 European procurement Directive led to the abandonment of UK Industrial Participation policy. Arguably, the success of the UK model was due to its simplicity, reflected by the fact that when operational, the policy could be summarised in just one short paragraph: IP should be placed with UK companies, be defence-related, new and of equivalent technological level as the primary defence contract, arise on procurements exceeding £35,000 and not be subject to legal contractual status.<sup>6</sup>

Significantly, the policy was concerned with competition not compensation, and was incentivised through the encouragement provided to overseas defence contractors to search the UK defence economy for internationally competitive subcontractors. The thinking was that if IP projects could be allocated according to competitive forces rather than 'detached' institutional decision-making, then there would be no basis for an offset cost premium. Moreover, flexibility was introduced through the MoD IP Unit, firstly, leaving the specifics of IP projects to the commercial judgement of offshore vendors, subject to compliance

with the ‘one-paragraph’ policy framework, and, secondly, through interpreting the 100 per cent offset quota as a ceiling rather than floor for negotiating offset agreements. The effect was that offset quotas were agreed on the basis of what offshore vendors could achieve rather than on arbitrary, inflexible and ‘undoable’ offset aspirations. Finally, as the IP agreement had no legal identity, penalties were not imposed in the event that the offset quota was not achieved. The MoD simply highlighted its long memory in such matters.

The second category of mandatory offset policies is case-by-case evaluation. Here, a policy exists but is not externally published, and thus confined to procurement staff within the MoD. The procurement body operates against an internal set of standardised guidelines that offer flexibility in their application. Offset negotiation is undertaken on a case-by-case basis, allowing offset packages to be tailor-made to align with the scale and technical specification of both the particular weapons procurement and local absorptive capability. The two best examples of countries employing internal case-by-case offset policies are Singapore and Japan. Both have long pursued policies of offset, especially licensed production. The platforms are built to foreign design specifications, and as far as possible, local subassembly and systems solutions are integrated into the final weapons configuration. Civil-military benefits are also exploited so that technology learning is not isolated to the defence economy, but permeates across the broader commercial industrial environment.

The final form of mandatory offset approach is the most dominant, the rules-based policy. It is prescriptive, normally through the publication of lengthy and complex offset policy documents. The rules-based methodology tends to be associated with states possessing limited defence-industrial capacity. Hence, greater rigour and incentivisation are required to steer offshore vendor investment towards industrial and technological gaps in the local economy. The recipient country’s Offset Authority will determine strategic offset goals, including economic diversification, job creation, skill generation, R&D investment, supply chain promotion, export opportunity – often through access to OEM global supplier networks, as well as capacity widening and deepening objectives. In response, offshore vendors pursue one or a combination of options to discharge offset obligations, including: (1) deciding that it is a distraction and transferring the task to independent specialist brokers, for a fee; (2) cascading a proportion of the liability down to

the vendor's supply chain; (3) proposing multiple projects within the broader offset programme to clear offset liabilities; and (4) simply defaulting, and paying the Offset Authority's penalty fee. The latter option is the least palatable, because it will sour relations between the vendor and customer country, negatively impacting on contractual eligibility scores that will influence the outcomes of future procurement bids.

The second school of offset thought is the non-mandatory approach, reflecting scenarios where formal offset policies do not apply. However, the absence of formal policy does not mean that there are no customer expectations regarding industrial cooperation. Indeed, non-mandatory models include reciprocal investment that is expected, condoned and encouraged. There is, firstly, what might be termed the 'proxy' offset model, and the best example here is that of the United States. Although Washington denies it has an offset policy, since 1933 the proxy method has been the 'Buy American' legislation. The US Department of Defense is required to Buy American first, as a general rule, under Federal Acquisition Regulation and Defense Federal Acquisition Regulation. However, the Regulation does not preclude foreign firms from competing for federal contracts, but to be eligible for Department of Defense awards, bidders must prove that 50 per cent of programme content is produced in the United States. Hence, in everything but name, 'Buy American' operates as an offset policy.<sup>7</sup>

Secondly, there is the European Union offset model, based on 'exceptionalism'. This approach dates back to Article 223 of the 1957 Treaty of Rome that directs: 'Any Member State may take the measures which it considers necessary for the protection of all essential interests of its security and which are connected with the production of, or trade in arms, ammunition and war material.'<sup>8</sup> Since that time, and including the most recent legislation, Article 346 of the 2007 Treaty of Lisbon, the European Union has tolerated the view that defence operates as an exception to open and free trade. Thus, throughout a fifty-year period, offset was allowed, though not necessarily condoned. This position dramatically changed following the 2009 publication of the European procurement Directive 2009/81/EC. Applying the 'single market' concept to defence, the European Union sought to remove what it perceived to be noncompetitive practices perpetuating Member State defence-industrial sovereignty and duplicative arms production. In the European Union's ideological pursuit of competitive and contestable

markets, offset was then viewed as a barrier to Europe's evolution towards an integrated defence market.

The European Union would continue to approve direct offset, but subject to Article 346 that noncompetitive domestic production must be based on national security grounds. Indirect offset immediately became illegal, as commercial investment bore no relevance to national security. The fear of legal action by the European Court of Justice led initially to widespread abandonment of Member State offset policies. The United Kingdom, for example, fully transposed the 2009/81/EC legislation, replacing it with a voluntary and non-audited Defence and Security Industrial Engagement Policy. Yet, along with other EU Member States, the United Kingdom has continued to seek exemption from the Directive on national security grounds for major arms procurement programmes. The poorer East European and smaller Scandinavian countries have gone further, gradually re-instituting formal offset policies formulated on perceived 'compliance' with the exceptional criteria of Article 346.

The third form of non-mandatory offset has regard to the Australian model. This developed after Canberra abandoned its 1990s mandatory offset policy on the grounds that it did not work. Since that time, Australia has been without a formal offset policy, but nevertheless still requires overseas suppliers bidding on procurement contracts to 'engage' with Australian defence companies. The goal is to encourage development of Australian defence-industrial capability by securing opportunities for high-value inward technology transfer. There is no offset policy in place; no quotas, multipliers and only limited penalties, but quality investment into Australian defence industry is a *sine qua non* for the down-selection of bidders.<sup>9</sup>

### 7.3 Offset Transition Curve: From Prescription to Partnership?

Every market requires stability, and as far as possible certainty, so that businesses can invest with confidence that their assets are secure. However, offset is a dynamic and fluid process, and even the most tightly crafted policies can change. This happens on a regular basis, affecting even the world's biggest arms importers. For example, India's protracted and convoluted offset guidelines have suffered repeated amendments. Similarly, the UAE's original 1992 offset policy underwent revisions in

2010 and 2015. Repeated changes of a country's offset policy suggest it is not working as intended, either in achieving the stated policy goals (India)<sup>10</sup> or in the vendors' ability to discharge liabilities across the contractual timeframes (UAE).<sup>11</sup> Consistency in policy approach is a major problem, but so is policy implementation. A particular challenge in this regard is mutual agreement of the level and value of technology transfer. The foreign offshore vendor is obviously reluctant to 'give away' technology, but in any case, there is only so much offset that can be allocated to 'competing' players across the global customer base. Of course, the 'best' offset will be calibrated with high customer procurement volumes; but even then, it is in the interests of all stakeholders to ensure that the new capacity is sustainable, as insufficient demand inevitably leads to offset failure. Offset negotiations are often fraught, and the search for compromise is challenging.

These problems represent formidable challenges to the effectiveness of offset, and beg the question as to why countries continue to engage in this practice. On balance, offset probably does bring net benefits to 'industrialised' states, but there is a remarkable reluctance, both in the literature and by country governments, to accept that offset likely fails to work in the 'industrialising' countries. There are some success stories, but the benefits derived from offset projects are often short-lived and illusory. Huge numbers of highly skilled jobs are not created, and evidence of local R&D, supply chain and export investment opportunities is sparse. So, why does the offset star continue to shine so brightly? It is difficult to be precise, in the absence of data, but offset's allure is probably due to poor country decision-makers being seduced by the prospect of 'free' investment. The reality, though, is that offset is not costless, and the additional cost in nearly all circumstances will be borne by the customer via inflated primary defence contract prices.

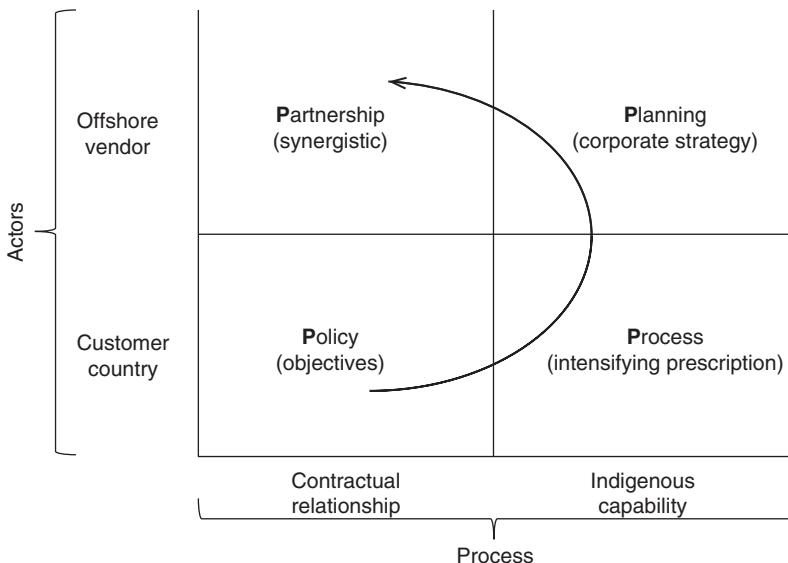
So, where does this leave the impartial offset observer? There is little in the literature to support informed speculation as to the future nature and direction of defence offset. Thus, a survey was undertaken of offset managers at eight of the United Kingdom's top defence exporting companies. The sample group of companies accounted for at least 70–80 per cent of total UK defence exports. Participating companies included global multi-product prime contractors and super-subcontractors, with product structures spanning the spectrum of land, sea and air weapons systems. The biggest primes and super-subs have engaged in offset since the early 1990s, though some 60 per cent

have only established stand-alone offset offices since 2010. Most of the sample firms had engaged in offset arrangements prior to this period, but the creation of dedicated offset capacity reflects the growing importance of offset in support of UK arms exports.

Offset operations at 30 per cent of survey companies are organisationally aligned with legal and compliance functions. One company situates its offset team in the commercial division, partially to maintain close links to specialists in the risk, compliance, security and legal functions. Another company that established its offset office in 2012 appointed an offset manager who 'double-hats' as the compliance officer and reports to the company lawyer. The close link between offset and compliance reflects widespread institutional concern that offset is mired in corrupt practices. The tainting of offset began with the publication of a 2010 Transparency International report that investigated the potential for corruption in offset programmes. Its findings supported the conclusion that offset is prone to corruption. Although the evidence presented to support this proposition is flimsy and inaccurate, the report's findings were widely disseminated. As a result, a view gained traction that corruption in offset was endemic.

Earlier corruption scandals embroiling UK arms exporters had led to the publication of the Woolf Report Recommendations and the Bribery Act, and these developments have considerably strengthened corporate compliance policy. Interestingly, the prevailing view amongst this study's interviewees is that defence offset is no more tainted by corruption than procurement. In fact, 100 per cent of survey responses indicate that corporate offset operations have never been compromised by actual or even alleged corrupt practices. Moreover, there is no evidence of malpractice by overseas beneficiaries of UK defence offset programmes. All offset managers confirm that foreign offset beneficiary companies are selected only after rigorous due diligence audits. If the UK arms exporters harboured suspicions over the transparency and proprietary nature of offset deals in customer countries, they state they would have no hesitation in walking away from the deal. Discussions with company representatives leave no doubt that protection of the company's brand overrides the importance of any particular defence sale.

The process of winning orders hinges on the recognition that offset acts an enabler not only in winning deals, but also in creating the opportunity to engage in long-term commercial relationships based



**Figure 7.2:** The 4P offset model

Source: author

on trust and commitment. The question is whether mandated offset is delivering the benefits promised. Based on interview responses and secondary research material, a trend has been identified that suggests the gradual demise of offset in favour of ‘partnership’. This process is conceptualised in Figure 7.2, through a four-stage (4P) offset curve that proceeds through customer policy and process and corporate planning into offset arrangements that eventually morph into mutually beneficial customer-vendor partnerships.

#### 7.4 Policy – Chasing Elusive Rainbows

The starting point in the 4P analytical framing approach is to evaluate customer offset objectives. These have remained constant over time, focused on increasing sovereign industrial and technological capability in either or both the civil and military domains. However, with the passage of time, customer governments have become more demanding in their requirements for technology access. Around 50 per cent of the offset managers surveyed state that the biggest challenge is dealing with increasingly strident offset authorities seeking excessive, over-

ambitious and often unacceptable offset packages. Customers harbour irrational capability aspirations, and this creates difficulties over the sophistication of technology transfer and the associated inevitable disagreements over financial value. India is cited as a case where excessive technology demands and tortuously long delays in decision making work against constructive engagement. Also mentioned is Qatar, which is ambitiously pursuing TRL 1 technology capability, albeit that Doha probably has the finance and appetite to succeed. A further challenge is the inflexible and bureaucratic approach adopted by offset authorities. An example is given of a Scandinavian offset authority that rejected a proven and innovative project aimed at joint development of medical technology for early diagnosis of cervical cancer, because it fell outside aerospace and defence offset project parameters.

## 7.5 Process – ‘Big Stick’ Mentality

The investigative focus moves from policy objectives to the ‘dynamics’ of policy. In what ways are policies changing? Are they becoming more or less rigorous, flexible or bureaucratic? Is there an emerging trend that might signal future nuanced or even dramatic policy changes? The interviewees’ responses to such questions suggest that offset is becoming more, not less, prescriptive, and the rationale for this hardening of policy is likely an attempt to improve flagging performance. Predicting the outcome of enforced mandatory offset policy compliance is not easy, but made worse by the uncertainty that pervades the world’s defence markets. Changes in environmental conditions drive uncertainty, including threat perceptions, fiscal positions and political expediency. Technological change can also act to undermine the longevity of weapons systems, and actual or imminent conflict may increase the ‘urgency’ of arms acquisition, causing user nations to bypass the strictures of national procurement and offset policy. Defence sales are in any case lumpy over time, and this will obviously have a knock-on effect with respect to the demand for offset.

The defence market has become more competitive and price sensitive, and, as a consequence, offset authorities are now increasingly emboldened to impose more prescriptive regulation. There is a hardening of offset authority positions across the plethora of regulations. Most states

are demanding direct offset, but in recent years a broader array of defence, aerospace and security projects have come under the purview of direct offset. This diversification into aerospace and security has been due to the growth in counterterrorism requirements, leading one offset manager to observe that offset projects in the defence domain can be symbolised with a small 'd', and those in security with a capital 'S'. Civil offset demand is still substantial, however. For example, contrary to the legislative constraints imposed on offset by the European procurement Directive, interviewees confirm that East European states continue to demand reciprocal 'commercial' investment.

All interviewees report that offset authorities are becoming more demanding and ambitious in the search for higher-value technology transfer/work placement. It appears that customers are increasingly placing near equal weighting on product price/performance and the quality of the offset package. Turkey, for instance, requires a 40 per cent weighting for offset. More widely, it is also becoming common practice for offset to be incorporated into bid selection criteria. This prioritisation of offset applies equally to advanced states pursuing non-mandated offset models as to developing states with formal, mandated, and extremely prescriptive policies. The discernible trend towards progressive tightening of regulatory frameworks is also reflected in both falling offset thresholds and fulfilment periods; the latter now being regularly linked to arms delivery periods. Customer demand for low-value commodity countertrade has fallen away, and instead there is a growing policy emphasis on technology transfer. The mechanism for ensuring that the infusion of technology is channelled towards high value sectors is through offset multipliers. However, these are declining, and what had previously been automatic multipliers now need to be justified on the basis of higher and higher levels of technology transfer. Even more challenging is that the process of satisfying rising customer industrial ambitions via the creation of local indigenous capacity is likely to be tied to establishing local R&D, supply chain and export capabilities. Yet, while multiplier values and offset thresholds are falling, so are quotas. There seems to be a grudging recognition by offset authorities that the era of unsustainable 100 per cent quotas is over, with investment depth replacing development breadth.

Offset authorities are also adopting increasingly punitive postures. For example, South Korea no longer allows credits to be banked as a means of liquidating future liabilities. There is also a view that

penalties on offset deals may sometimes be set higher than those penalising failure on the primary defence contract. One interviewee suggests that India has even introduced a negative multiplier. Moreover, offset authorities are belatedly recognising that vendors facing default on their obligations prefer simply to pay the penalty. This happens even though failure to deliver may lead to blacklisting on future projects, representing a big reputational risk to offshore vendors. A major challenge to successful discharge of obligations is finding viable offset projects, principally because there is only so much technology that can be disseminated through offset. To ensure vendors do not interpret penalties as the ‘force of least resistance’, offset authorities have moved to increase their severity as well as transferring any undischarged obligations to the next project. However, these punitive actions just increase the problems, adding to the pressures that caused vendors to struggle in the first place. No stakeholders, including the customer, want offset projects to fail, so it is in everyone’s interest to avoid a ‘race to the bottom’.

## 7.6 Planning – via ‘Smart’ Offset Strategies

Over 70 per cent of offset managers argue that growth in the numbers of global arms exporters is leading to an intensification of the buyers’ market. This leaves a significant minority of managers believing that rising pressure for offset encourages exporters to bow to the inevitable and pursue ‘smart’ routes for establishing an in-country presence in key overseas markets. Although offset may require the release of greater technology transfer, it can also serve as an enabler for generating long-term revenue streams. Indeed, one subcontractor manager argues that offset can be a profitable line of business, especially when angled towards clearing prime contractor offset liabilities. Broader counter-trade and buy-back strategies do not figure in the business strategies of UK firms. Offset is viewed as the principal competitive strategy, but careful planning is always needed. For example, one interviewee states that offset did not feature in the respective design of two project developments begun over the last five to ten years. The reason is that offset only becomes an issue at commencement of the campaign, ‘after’ the development and production stages. The development of new systems may take up to twenty years, so offset is not a factor in the planning mix. Another manager echoed this view, stating that profit

margins are used to fund fifteen-year product development cycles. In the process, management must decide what represents core and non-core software and systems. Offset is detached from this process, and hence the suitability of technology transfer and offshore production will always be the ‘can kicked down the road’. Eventually, once the offset is negotiated, then the suitability of technology transfer will be constrained by its sophistication, and the search to secure sustainability is a customer problem. The reality is that a developing country must be prepared to continuously invest in development projects for its industry to become sustainable. In this sense, it is no different from the historical furrow ploughed by advanced country governments: over generations, it has been the taxpayers of these states that have borne the huge cumulative investment cost of expensive defence programmes in constructing the foundations of defence-industrial capability.

One interviewee argues that it is essential to formulate an integrated strategy, recognising that the primary defence contract and offset proposal are part of the same competitive package. The strategy must be proactive, aimed at exploring global markets in advance of bids as a means of winning contracts, executing offset projects and identifying local partners. The starting point is to develop an understanding of the customer’s industrial landscape. Trust and close working relationships must be promoted, and openness is essential, so that all stakeholders are aware, and take ownership, of the negative as well as the positive impacts of offset. Offset affordability is the key issue, and the search for solutions must make economic sense to both parties.

At given levels of quality, UK defence manufacturers always compete on cost, and while civil and military routes to market are different, the cost pressures are similar. Therefore, in the context of offset, Indian, Indonesian and Polish markets are attractive, because they comprise relatively low-cost, labour-intensive suppliers. The process of ‘Polanisation’, for example, is concerned with accessing capability via the imposition of rigid requirements, including technology transfer, know-how, sourcing, multipliers and a project value formula. Yet, while this appears to contravene compliance with Article 346, it is a government, not corporate, problem. The real issue is whether overseas firms can do the work. Potential partners will be subject to a thorough prequalification process, as there is always a need to avoid financial penalties. Once trust and confidence in quality are assured, then there may be flexibility on third country exports, as these will enhance the flow of royalty payments.

The seeds for a long-term mutually beneficial relationship are being sown through the potential for partnership outside the parameters of restrictive mandated offset policy.

## 7.7 Partnership – Life beyond Offset?

Crystal-ball gazing into the future is a risky business. Nevertheless, speculation can prove helpful if anchored to the views of experts in the field, especially if there is consensus on the likelihood of unfolding future scenarios. Thus, it is revealing that there exists 100 per cent agreement amongst interviewees that offset will not disappear during the fifteen- to twenty-year timeframe of this investigation. This collective judgement even applies to Europe, where, irrespective of Directive 2009/81/EC, the view is that offset will continue to be demanded, albeit covertly, on mostly all defence contracts. Offset will not disappear, but it will likely gradually morph into a different identity and set of requirements, with other business frameworks emerging to offer alternative solutions to the increasingly challenging and ‘confrontational’ government-mandated offset model. However, the basic premise remains the same: countries demand capability and offshore vendors seek shareholder value.

Thus, the longevity of offset, or indeed any business framework, hinges on whether it delivers on corporate and customer expectations. From the corporate perspective, offset managers are divided as to whether offset does or does not deliver the required benefits. Antagonists argue that offset is a waste of resources. One offset manager put it bluntly: ‘Offset is a distraction from the main purpose of making sales and profit. Invariably, it does not work, and represents a divergence of aims’.<sup>12</sup> Other managers echo this sentiment, stating that their companies seek to avoid offset. One major defence exporter is prepared to discuss offset with customers only after alternative arrangements, such as consultancy and commercial agreements, fail. Its corporate starting position in negotiations is to say no to offset, and, instead, seek to sell on price and quality, with the bait of a discount on price.

By contrast, there is a group of managers who hold mixed views on the impact of offset: some are ambivalent, while others are supportive. One executive argues that good offset is good business, and it is thus recognised as advancing company interests in key markets. In particular, it can increase product value by acting as a competitive discriminator in

competing with the big US contractors. Under the right conditions, offset carries the potential to catalyse growth through access to new capability, but there are challenges associated with formulating and agreeing appropriate business propositions. Another manager also offers qualified support of offset, arguing that the customer must offer a minimum critical mass of capability and procurement volume. The problem is that most developing countries suffer the common malady of low volume and constrained technological absorption capacity, and, therefore, the principal challenge is to create a negotiating position that overcomes absorption and scale barriers. Pragmatism is essential, accepting that while offset poses difficulties, it can also create opportunities, provide solutions and encourage ‘ownership’. For this to happen, offset authorities need to display management flexibility and maturity, but these attributes are rarely in evidence. Innovative and feasible solutions are possible, but only if staid attitudes and bureaucratic systems can be overcome.

Customer governments clearly hold a positive view on the worth of offset, otherwise demand for it would disappear. This perspective is surprising as the evidence, to date, does little to support the view that offset has had a material impact on industrial and technological development. Offset has not contributed to the accelerated industrialisation of recipient states, certainly not through the creation of large numbers of local sustainable skilled jobs, or indigenous R&D, or supply chains. Although there is some evidence that offset has maintained, though not created, skilled jobs and capacity in industrialised countries,<sup>13</sup> and created pockets of high value manufacturing capability in developing states,<sup>14</sup> this is the limit of what can legitimately be claimed.<sup>15</sup> There is simply no basis for arguing that offset will act as the driving force for industrial and technological transformation of civil/military capability, and certainly not in developing countries. Thus, the questions that need to be asked are why do countries still clamour for offset? Why do emerging states continue to live the dream that offset will catapult them into industrial and technological maturity? These questions are difficult to answer, but likely rest on the ‘Lemming herd mentality’ principle, that everyone else cannot be wrong.

Yet, the sense of disenchantment with offset has begun to spread beyond offshore vendors. Some offset authorities now appear to be questioning the benefits of offset. In October 2017, Oman terminated a contract with Raytheon after it became aware that an offset premium had been built into the procurement contract.<sup>16</sup> The existence of a ‘cost

premium' is a controversial issue, not least because the economic rationale for offset is clearly undermined in the event that the value it generates is less than the cost incurred. Several offset managers therefore suggest that the risk-free option is for customers to seek discounts through buying off-the-shelf. The problem with this approach, though, is that the offset authority's agenda is focused solely on demanding offset, even in the absence of business viability. Under such circumstances, offset is disruptive. Customers and vendors need to work together to ensure projects succeed. Smart 'optimal' solutions are required, whereby the vendor employs offset to leverage an in-country presence, while also accommodating customer requirements to build-up of local indigenous capability. This may mean that Brazil, located on the top rungs of the technological ladder, enjoys R&D investment; Malaysia, lower down the ladder, benefits from the infusion of dual-use technologies and systems integration; and for poorer states, low-skilled work is the appropriate first step on the ladder. However, the days of fish farms have long since disappeared.

Finally, returning to the purpose of this chapter, a policy question that needs to be asked, but often is not, is whether offset policy is fit for purpose. Increasingly, the answer is no. In 2014, for instance, Kuwait suspended its offset policy after criticism that overly bureaucratic processes acted as a disincentive to foreign investment.<sup>17</sup> There also appears to be difficulties with the UAE's offset model. It is estimated that large numbers of overseas vendors possess undischarged liabilities, with only single-digit numbers of contractors achieving their offset credit targets in 2016.<sup>18</sup> There are numerous operational difficulties with the UAE's implementation of its complex and demanding offset policy. India's offset policy also appears to be struggling to deliver on its objectives.<sup>19</sup> The revealed difficulties of offset regimes in major country markets lend weight to the judgement that industrialising states may decide to reform, downgrade or even abandon the use of offset. The term, offset, will remain part of their policy lexicon, but its meaning will become more opaque. Across Europe, a common understanding of offset has been lost since the launch of the 2009 Directive. East European states in particular are adopting differing interpretations, often reducing the transparency of reciprocal investment and raising the policy question, when is an offset an offset?

Offset was previously taken for granted, but over recent years the traditional view of the concept has been under scrutiny. The frictions and problems that have arisen between vendors and customers may lead to

the evolution of business frameworks beyond offset. Stakeholder convergence is required to remedy offset's structural fault-lines, and, thus, the obvious way forward is one that is nuanced towards partnership; indeed, the process has already begun. This is not to state that offset will disappear; rather, that it will diminish in importance to become just one of a spectrum of partnership options. These will include national, regional and global defence-industrial collaboration, including partnership triages, such as the UAE (financial sponsor), Algeria (land systems buyer) and Germany's AG corporation (technical partner) in the procurement of military vehicles.<sup>20</sup> Moreover, as manufacturing capabilities progress, co-development procurement will increasingly become attractive, and not just with advanced states, such as South Korea, but also with industrialising countries, such as India with the Hawk fighter programme.

These alternative business frameworks to offset are categorised under what is termed 'industrialisation strategy', capturing partnering solutions that do not involve mandatory regulation. Government will also likely be more 'hands-on', engaging proactively to underpin, and even underwrite, institutional partnership arrangements. These might include government-to-government programmes, such as the UK-Saudi defence programme, but with technology transfer linked potentially to the Kingdom's Vision 2030 strategic plan, or to the promotion of SMEs, both nationally and internationally, or to 'social' investment into educational and health initiatives. Government is likely to adopt a more interventionist role in the replacement of offset. Defence is not a free market, and government does have a role to play in the orchestration of resources. The Australian non-mandatory model is a good example of where offset has been abandoned, but offshore investment through partnership is still required.

## Conclusion

The French proverb: *Plus ça change, plus c'est la même chose*, neatly encapsulates the sense of the 4P offset transition curve: a process detailing the movement from prescription to partnership, but where the underlying pressures for stakeholder convergence remain unaltered. The effectiveness of offset policy is where all stakeholders gain, but this is presently not happening. Offset is not working, and this is attested by this study's primary research findings and supported by

academic studies. As a consequence, there exists modest beginnings of what looks like an emerging trend towards non-mandated partnerships between vendors and customers, and going beyond that to include governments, also. It need not have been like this, but offset has proved too confrontational. The means and ends of partnership are the same as offset, but the former is likely to be more effective based on greater flexibility, trust and the pursuit of a mutually advantageous long-term strategic vision.

## References and notes

1. However, note that some countries confusingly define offset to include other forms of countertrade, such as barter and counter-purchase.
2. See R. Matthews. *The UK Offset Model: From Participation to Engagement*. Whitehall Report 1–14. RUSI. July 2014.
3. D. Kimla. *Military Offsets & In-Country Industrialisation – Market Insight*. Frost & Sullivan Report, March 2013.
4. This figure was first mentioned in in a paper by Thomas Mathew, ‘Getting the Defence Offset Policy Right’. Economic Times. 5 December 2008. Many publications refer to a lower number of around eighty, referring to countries possessing full-blown countertrade and offset guidelines.
5. See Matthews. *The UK Offset Model*.
6. E-mail correspondence with Adrian Dalton, former Head of the MoD Industrial Participation Unit, 21 March 2018.
7. See C. Clark. ‘Buy America, Again. Sigh’. *Breaking Defense*. 19 April 2017. <https://breakingdefense.com/2017/04/buy-america-again-sigh/> (accessed 29 March 2018).
8. Hellenic Resources Institute. *Article 223 – The Treaty Establishing the European Community*. Rome: 25 March 1957. [www.hri.org/docs/Rome57/Part6.html#Art223](http://www.hri.org/docs/Rome57/Part6.html#Art223) (accessed 29 March 2018).
9. An excellent evaluation of the Australian procurement model is the paper by C. Stone. Prioritizing Defence Industry Capabilities: Lessons for Canada from Australia. Policy Paper, The School of Public Policy, University of Calgary. January 2014.
10. ‘India’s Policies Full of Ambiguities, Empty of Credits’. *Countertrade and Offset*. 35(21): 2017.
11. US-UAE Business Council. *The UAE Offset Program*. March 2017. <http://usuaebusiness.org/wp-content/uploads/2017/03/UAE-Offset-Program-Final.pdf> (accessed 29 March 2018).
12. Interview with UK company offset manager, 27 November 2017.
13. See Matthews. *The UK Offset Model*.

14. For evidence, see R. Matthews, Maharani Curie and Fitriani. ‘Challenges Ahead for Indonesia’s First Defence Offset Policy’. *Defence Review Asia* (April 2012), and Balakrishnan, Kogila. ‘Defence Industrialisation through Offsets: A Case Study of Malaysia’. *Journal of Peace and Defence Economics*. 2009. 20(4): 341–58.
15. See Matthews. *The UK Offset Model*; and M. Chinworth and R. Matthews. ‘Defence Industrialisation through Offsets: The Case of Japan’. In S. Martin (ed.), *The Economics of Offsets: Defence Procurement and Countertrade*. Harwood Academic Press (1996).
16. ‘Omani MoD Shocked to Discover Offsets Cost Money – Demands Reimbursement From Raytheon’. Countertrade and Offset. 2017. 35(19).
17. ‘Kuwait Suspends Offset Programme in Investment Drive’. *Oxford Business Group*. 3 November 2014. <https://oxfordbusinessgroup.com/news/kuwait-suspends-offset-programme-investment-drive> (accessed 12 April 2018).
18. Interview with a UK offset manager. 27 November 2017.
19. ‘Minister – Make in India Policy a Failure’. Countertrade and Offset. 2018. 36(5).
20. Defence Web. ‘Algerian Factory Unveils New Locally Assembled Truck for Algerian Military’. 16 March 2015. [www.defenceweb.co.za/index.php?option=com\\_content&view=article&id=38381:algerian-factory-unveils-new-locally-assembled-truck-for-algerian-military&catid=50:Land&Itemid=105](http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=38381:algerian-factory-unveils-new-locally-assembled-truck-for-algerian-military&catid=50:Land&Itemid=105) (accessed 12 April 2018).