The Evolving Boundaries of Defence: An Asse... Recent Shifts in Defence Activities

Defence Offsets: Regulation and Impact on the Integration of the European Defence Equipment Market [*] ☆The views expressed in this chapter are those of the author alone and not necessarily of the European Commission.

Gueorgui Ianakiev

DEFENCE OFFSETS: REGULATION AND IMPACT ON THE INTEGRATION OF THE EUROPEAN DEFENCE EQUIPMENT MARKET ☆

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ABSTRACT

The use of offsets is one of the main characteristics of international defence trade. The rising costs of defence equipment and the significant contraction of defence spending have resulted in an environment that favoured the use of offset policies, the latter becoming increasingly demanding in both quantitative and qualitative terms. The chapter analyses the role of offsets on the process of integration of defence equipment markets, with a specific focus on the EU. Particular attention is given to the offset-relevant regulation and practice and to their recent evolution in the EU following the adoption of European Directive on

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defence and security procurement (81/81/EC). Offsets play a dual role with regard to the integration of defence industries: on one hand they can be trade-distorting and contribute to the survival of inefficient suppliers in arms importing countries; on the other hand, they can contribute in overcoming barriers that may otherwise prevent some potentially efficient suppliers from accessing the supply chains of the big system integrators. The chapter draws the attention on the need to complement the regulatory evolution by further initiatives aiming at improving the access of non-incumbent suppliers to the supply chains of the large defence system integrators.

The use of offset policies has become, over the past decades, one of the most prominent features of international defence trade (For an overview see Martin, 1996; Brauer & Dunne, 2004). The rising unit production costs of defence equipment (Kirkpatrick, 1995, 2004; Pugh, 1986, 1993) and the significant contraction of defence spending that followed the end of the Cold War has resulted in the combination of a higher level of competition for exports contracts between large arms producing countries on one hand, and an increased emphasis on maintaining or building some specific industrial capacities in arms importing countries on the other hand. This environment favoured the recourse to offset policies that progressively became increasingly demanding in both quantitative and qualitative terms.

Offsets can be defined as provisions to an import agreement, between an exporting foreign company, or possibly a government acting as intermediary, and an importing public entity, that oblige the exporter to undertake activities in order to satisfy a second objective of the importing entity, distinct from the acquisition of the goods and/or services that form the core transaction. The incentive for the exporter results from the conditioning of the core transaction to the acceptance of the offset obligation. Offsets must also possess the property of additionality, that is 'the extent to which, as a consequence of the offset obligation, the prime contractor buys from his customer quantities of goods and services, over and above what he would have bought in the absence of the offset agreement'.[1]

The presence of offset requirements is one of the main characteristic features of international arms trade. It also is one of the most controversial ones. Offsets have progressively gained such importance that the debate related to them started obscuring the attention given to the core contracts

to which they are attached. A widespread negative preconception appears to be present in the literature leading to the understanding that offsets are distortion-creating practices that are mainly aimed at supporting inefficient local suppliers in importing countries.

As such they could be regarded as a factor of resistance against the integration of the Defence Technological and Industrial Base (DTIB). The issue is of particular importance in Europe, where longstanding national defence industrial policies have resulted in a fragmented market, costly duplications and comparatively small production series with the resulting consequences in terms of unit costs rise. It is important to note the high importance of intra-European arms sales. According to SIPRI data, over the period 2004–2008 for instance, the EU represented by far the largest destination of exports of major conventional weapons by EU exporters with 33%, while Asia, coming second, represented 22% and the Middle East 19%.[2]

Evidence is however also present that under some conditions the use of offsets can lead to the internationalisation of the large system integrator's supply chains through the discovery of new efficient suppliers in arms importing countries that can replace less efficient incumbent suppliers. This duality of the effects of offsets on the integration of the DTIB poses not only an important analytical challenge, but also has very important consequences with regard to the definition of an adequate regulatory framework regarding offsets in Europe.

In section 'Offsets in International Defence Trade' we will characterise the importance of offsets in international defence trade, with specific emphasis on the situation in Europe. Section 'Offset-Relevant Regulation at the International Level: The GATT/WTO' is dedicated to the description of the relevant regulation framework that has existed at the international and at the European level. This leads in section 'Defence Offsets in the European Union' to analyse the use of offset requirements in Europe. Section 'The Challenge of Tackling Defence Offsets' will introduce some recent changes that affect the regulation framework, especially the introduction of 81/81/EC,[3] and section 'The Introduction of Directive 2009/81/EC and its Consequences' will approach the consequences of the changes in regulation on the organisation and on the functioning of the European defence industry and market. Section 'Offsets: A Driver of Integration or Disintegration of the DTIB?' then explores the consequences of the regulatory changes with regard to the objective of integration of DITBs in Europe by taking into account the dual influence of offsets and their potential to be a vector of both integration and disintegration.

OFFSETS IN INTERNATIONAL DEFENCE TRADE: IMPORTANCE AND REGULATION FRAMEWORK

Offsets generate debates in both importing and exporting countries. While importing countries expect to maximise potential benefits for their own economy, these obligations may imply a net cost in export reduction and support to the DTIB of exporting countries.

Offsets in International Defence Trade

Offsets become popular in the 1970s, following, in particular, several highly symbolic agreements such as the joint purchase of F-16 by Belgium, Denmark, the Netherlands and Norway concluded in 1975, or the sale of F-5 combat aircraft to Switzerland also negotiated during the same period. In these transactions, the offset agreements played an important role in both securing the deal for the successful contender and shaping the perception that important economic benefits could be obtained by arms importing countries through compensation requirements. The F-16 deal, often referred to as 'the deal of the century', for instance provided the defence industries of the four European buyers with a participation in the production of every F-16 sold in the world, including those acquired by the US Air Force. It was also instrumental in the huge commercial success of the F-16 combat aircraft.

The general term offset of course covers a wide variety of transaction types. It is possible to establish different typologies of offsets based on their link with the core transaction or on the nature of the compensatory transactions. First, it is possible to distinguish direct from indirect offsets, the former covering activities directly linked to the goods and services that form the object of the main contract. Another distinction can be made between defence-related and civil offsets. Finally, a very large array of activities can be used in order to comply with offset requirements. The list of the different categories of offsets used by the United States (US) public institutions for instance includes the following: technology transfer, Subcontracting, co-production, credit assistance, training, licensed production, investment, purchases and other.

From the 1970s on, offset demands have been systematically increasing, both in value and qualitatively in terms of industrial and technological intensity. The objectives of offset policies vary widely from one country to another. Some countries aim at sustaining a viable defence sector able to

sustain the national defence and to limit external dependence. They will normally concentrate on defence offsets, and will put a comparatively high emphasis on direct ones. Other countries may show a higher interest in indirect offsets because of the highest flexibility that they allow in trying to induce the establishment of industrial relation between national enterprises and the foreign system integrators. Finally, some countries that do not possess a sizeable defence industry and are not interested in acquiring capacities in this field may concentrate on civil offsets.

Progressively, an increasing number of countries were introducing official or unofficial offsets policies. The *Offset Guidelines Quarterly Bulletin* published by Countertrade & Offsets (CTO) currently provides information on the offsets policies of 75 countries worldwide. The evolution of the average offset percentage, i.e. the ratio of the value of offset agreements to the value of the related exports, illustrates well the increasingly demanding nature of defence offset policies.

Fig. 1 is based on the data, collected by the United States Department of Commerce (US DoC), on offset agreements concluded by US firms during the period 1993–2011.[4] The reports on 'Offsets in Defense Trade' published by the US DoC represent the only source of aggregated data on offsets available. Their coverage is by definition limited to agreements and

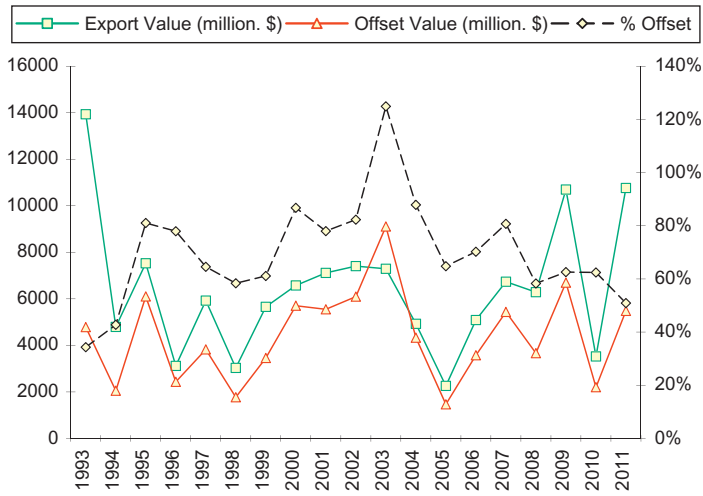

Fig. 1. Offset Agreements by US Defence Companies (USD million). *Source:* US DoC (2013).

transactions operated by US firms. Considering however that the United States is the largest exporter of defence equipment, the data set provides a good illustration of the global trends.

During 1993–2011 US firms entered in 830 offset related defence export contracts. The total value of the offset agreements concluded during the period was of approximately 83,73 USD billion. From Fig. 1 it is visible that the offset percentage[5] was following an increasing trend between 1993 and 2003. In 2003 it culminated at an historical high of almost 125% on average. Following the 2003 record, the offset percentage fell down and over the last four years covered by the data set available it varied between 51% and 63%. It is important to note the substantial instability of the series presented in Fig. 1: individual large agreements can influence the values for the years where they are concluded.

Offset-Relevant Regulation at the International Level: The GATT/WTO

At the international level the main body of legal rules relevant for offsets can be found at the level of the regulations of the World Trade Organisation (WTO) and its predecessor the General Agreement on Tariffs and Trade (GATT).

It is first worth noting that offsets can be approached as a specific form of countertrade. As such they are covered by the contributions analysing the compatibility of the latter with the WTO/GATT rules on international trade. In an article published in 1986,[6] Michael R. Czinkota and Anne Talbot reached the conclusion that countertrade contradicts several basic principles as well as some specific provisions of the GATT. In particular, the authors argued that countertrade is inconsistent with the principle of multilateralism and with the aim at reducing trade distortions. The former of those principles is breached by the fact that countertrade tends to favour bilateral commercial relations at the expenses of open multilateral and non-discriminatory trade. Through the additional costs that it introduces and by potentially supporting inefficient producers countertrade equally contravenes the latter principle. The authors also found countertrade to be in contradiction with the principles of transparency, consultation and compensation.

The GATT's principles are at the heart of the process of liberalisation of international trade initiated in the second half of the 1940s. The main objective of the latter is to reduce or suppress existing protectionist barriers and create an increasingly open world economy. Free trade should

generally contribute in improving global welfare by allowing countries to specialise and an efficient international division of labour to emerge, thus avoiding costly duplications and the artificial survival of economically inefficient industries in some countries. In this regard offsets can be considered as a specific type of protectionist measure that contributes in maintaining inefficient enterprises in the market through the obligations imposed to foreign contractors. Offsets, as countertrade in general, also allow for the possibility to operate subsidies in a less transparent way thus reducing the risks of detection (Banks, 1985).

Czinkota and Talbot (1986) also argue that countertrade is likely to contravene some specific provisions of the GATT: the most-favoured-nation and non-discrimination clauses defined in Article I of the GATT agreement, the national treatment principle of Article III, the prohibition of quantitative restrictions of article XI, the subsidy code and Article XVII regarding state trading enterprises.

Offsets equally breach the provisions of some more recent agreements that form part of the WTO regulatory system. Such an example is the Agreement on Trade-Related Investment Measures (TRIMs) prohibiting all such measures contravening to the principles of national treatment and the prohibition of quantitative restrictions.[7]

Another piece of WTO legislation even introduces an explicit prohibition of offsets. Article XVI (1) of the Government Procurement Agreement (GPA) reads as follows: 'Entities shall not, in the qualification and selection of suppliers, products or services, or in the evaluation of tenders and award of contracts, impose, seek or consider offsets'.[8]

National security exception clauses have however been systematically incorporated in the GATT/WTO Agreements, thus limiting the application of the prohibition of offsets in the defence sector. The GPA is no exception, as article XXIII provides for the above-mentioned exemption.[9] It is worth noting that offsets are also common in some civil sectors such as commercial aircraft or large energy plants, but until now no case has been made attempting to enforce the ban of offsets.

Defence Offsets in the European Union

Europe has traditionally been at the avant-garde of offsets requirements. The US DoC reports frequently emphasise this fact by demonstrating that the conditions required by the European countries are on average more demanding than those imposed in the rest of the world. Over the

1993–2006 period the offset percentage for agreements concluded with European countries was of 97.74% while for agreements with non-European countries it was of only 46.73%.[10]

The only estimation of offset agreement's value and offset percentage in Europe is provided in a study on offsets ordered by the European Defence Agency (EDA).[11] On the basis of data covering the 2000–2006 period it was estimated that offset agreements represented approximately 5,65 EUR billion per year.[12] The average value of the offset percentage was estimated at 135%, with the values for individual countries varying between 72% and 237%.

Until recently, almost all European Union (EU) Member States possessed some form of offset policy. The CTO's *Offset Guidelines Quarterly Bulletin* editions of 2005–2006 listed information on the offsets policies and practices of 23 out of the current 27 EU Member States. Even large arms exporting countries such as France and Germany, which are often wrongly perceived as not accepting offsets 'as a matter of policy',[13] were ranked in the Top 20 countries with regard to the value of offset transactions executed by US defence firms during the period 1993–2006.[14] The United Kingdom systematically occupied the first rank with offset transactions totalling more than 7 USD billion over the period. In the Top 20, 13 countries were European, 12 of them EU Member States, the remaining one being Switzerland.[15]

Eastern European countries also progressively found a place amongst the largest offset demanders. At the end of the Cold War these countries were generally characterised by the presence of comparatively large national defence industries, mainly specialised in the production of defence equipment of Soviet origin. As a consequence of the collapse of internal defence spending and of the loss of their traditional markets, these industries quickly faced important difficulties. Some countries, such as Poland, reacted by relying on offsets in order to support and modernise their defence sector. In 2003 Poland decided to purchase 48 F-16 combat aircraft from Lockheed Martin. The deal included a very stringent offset agreement that was valued at over 6 USD billion for a core contract of approximately 3.5 USD billion (Markowski & Hall, 2004[16]). The resulting offset transactions projected Poland at the 4th place in the above-mentioned Top 20 countries with regard to the value of offset transactions executed by US firms. Another important offset agreement was concluded by Poland in relation to its purchase of armoured vehicles from the Finish enterprise Patria.

With regard to regulation, it may seem that the offset-relevant regulatory framework in the EU is quite similar to the one that characterises the GATT/WTO. The European Commission has traditionally been of the

opinion that offsets are contrary to some of the basic principles of EU primary law, in particular those pertaining to the free movement of goods and services. As in the case of the WTO, the most relevant consequence of these principles is the ban of quantitative restrictions on trade. It is in this sense that offsets appear as being particularly problematic. The use of offsets can also be considered contrary to the principles of non-discrimination (on basis of nationality), equal treatment and transparency.[17]

Additionally, offsets infringe specific rules concerning public procurement that are defined in Directive 2004/18/EC. Above all, including offsets amongst the contract award criteria is not permitted even if the contract is awarded on the basis of 'the most economically advantageous tender'[18] criterion.

The Commission's approach has favoured an open and transparent public procurement process for defence equipment in view of facilitating the emergence of a more integrated European Defence Equipment Market. Member States, in particular those with large defence industries, have however been widely using their defence procurement policies in order to support national manufacturers. In doing so, they have relied on a wide interpretation Article 346 of the Treaty on the Functioning of the EU (TFEU).[19]

Defence procurement in the EU has therefore escaped, to a large extent and over several decades, the need to respect the above-mentioned principles and rules thanks to the extensive reliance on the exemption introduced by Article 346 TFEU. The latter have been traditionally considered by EU Member States as a general exemption that allows them to almost completely isolate the defence procurement process from the EU internal market regulation framework. One particular consequence of that was the widespread of offsets in intra-European defence trade. However, in contrast with the situation at the WTO level, recent evolutions in the European context may lead to changes with potentially substantial consequences for the defence sector in Europe.

REGULATING OFFSETS IN THE EU AND THE INTEGRATION OF THE EUROPEAN DTIB

The Challenge of Tackling Defence Offsets

One can wonder whether the wide interpretation of the provisions of Article 346 TFUE on which the EU Member States usually rely finds support in

the ECJ jurisprudence and in the Commission's case practice. However, progress on this point was slowed down by the lack of rules, within the general regime on defence procurement in place in the EU, taking into account in an appropriate manner the specificities of defence procurement. The additional initiatives introduced in the framework of the Regime on defence procurement of the EDA have also produced limited effects, in particular because of their non-legally binding nature.

In 2006 the Commission, recalling the ECJ's case law, published an 'Interpretative Communication on the application of Article 296 (now 346) of the Treaty in the field of defence procurement'[20] stating clearly that the derogation provided for in article 346 TFUE does not lend itself to a wide interpretation. The need for relying on this derogation has to be demonstrated by the Member States on a case-by-case basis with a justification provided about the fact that an essential security interest is at stake (industrial and economic interest cannot serve as justification). It is also necessary to establish the connection between this essential security interest and the specific public procurement and justify the necessity of the non-application of the specific EU public procurement rules in order to protect the relevant essential security interest.

The Commission has however not immediately enforced the above-described interpretation in the field of public procurement. As mentioned before, the main reason for this is to be found in the fact that it was widely acknowledged that the general public procurement regime in the EU was not fully adapted to the specificities of the defence sector. As long as adequate rules for defence procurement were not introduced, it was difficult to enforce a stricter interpretation of the use of the national security derogations.

The difficulty in tackling defence offsets through regulatory means is however far from being a specifically European problem. In the US an intense debate regarding offsets has been present for decades. Despite heavy pressure to reduce offsets granted in defence sales to foreign countries, pressure originating from groups such as labour unions and subcontracting enterprises and usually channelled through the Congress, the US Administration's policy has been surprisingly stable.

While officially ascertaining the trade distortive and economically inefficient nature of offsets, the US policy has remained loyal to the benign neglect approach already defined in the Duncan Memorandum of 1978[21] as a result of which the US government does not participate in offsets but leaves them under the responsibility of the US defence industry. The strong opposition from the latter has been the main reason why almost none of

the frequently proposed anti-offset legislations has ever been adopted, the fear being that any reduction in the industry's flexibility to offer offsets could result in losing export contracts to foreign competitors. In this respect it can be mentioned that each issue of the US DoC report on offsets contains a quantitative analysis of the effects of offsets on the US defence industrial base and defence preparedness. The reports have always reached the conclusion that the global effect of offsets on the US defence industry is positive because the work and jobs that they maintain through the exports realised outweigh those that they transfer abroad.[22]

A pragmatic approach to offsets, similar in some aspects to the one of the US defence industry, is also present in the European context. A policy paper on offsets published in 2001 by the European Defence Industries Groups (EDIG, 2001) advanced that within Europe, in the absence of a truly integrated defence equipment market, offsets can be an effective tool for opening the industry's supply chains to competition. Therefore, as long as the market has not reached the necessary level of integration, offsets will have a role to play that cannot be considered as producing purely negative consequences on the industry's structure.

In the recent years however, the increasing intensity of offset requirements, in particular as expressed in the form of offset percentages, started raising some worries at the levels of both industry and European institutions. The offset percentages put forward in some deals could lead to the fear that an offset race was ongoing.

A first attempt to regulate offsets in the EU was made in the framework of the EDA: on 1 July 2009 the Agency introduced a Code of conduct on offsets as an integral part its Regime on defence procurement. In addition to the implementation of transparency obligations requiring participating Member States to publish information on their offset policies on the Offset Portal available at the Agency's Internet site, the Code's most important feature is the introduction of a 100% cap on the offset percentage that can be imposed. The code also emphasises that the implementation of offsets should contribute to the emergence of capability driven, competent and competitive European DTIB, by favouring centres of excellence and avoiding unnecessary duplications.

The EDA's Code of conduct on offsets is however a voluntary and non-legally binding document and its real influence still needs to be demonstrated. Another legal instrument is expected to have much more stringent and far reaching consequences on the European defence equipment market in general and on offsets in particular: Directive 2009/81/EC, adopted during the summer of 2009, provides for the first time at the EU level

a common set of rules regarding public procurement in the defence and security sectors.

The Introduction of Directive 2009/81/EC and its Consequences

In December 2007, the European Commission launched an initiative aimed at tackling the weaknesses caused by the fragmentation of the European defence market and known as the 'Defence package'. In an addition to a general Communication on A Strategy for a Stronger and More Competitive European defence Industry[23] and of a Directive on Intra-EU Transfers of Defence-related Goods[24] aimed at reducing the obstacles for intra-EU trade of defence products, the Defence package introduced for the first time a proposal for a common set of rules at the EU level regulating the public procurement of defence and security related products and services.

As previously mentioned, the lack of public procurement rules fitting the specific needs of the defence sector has been one of the main reasons why defence procurement has previously been subject only to a limited control at the EU level. This gap was finally bridged by the adoption in 2009 of Directive 2009/81/EC as part of the above-mentioned 'Defence package'. The latter's provisions are defined in order to allow tackling issues of particular importance in the defence procurement process such as security of supply and security of information.

Following the transposition of the Directive, the procedures it provides for 'should be considered as the standard procedures for defence and sensitive security procurement',[25] the recourse to Article 346 TFEU being thus limited to exceptional cases. While offsets are not mentioned in the Directive, its introduction will have very important consequences in that respect. Offsets will be above all impacted by the general shift of defence procurement from an Article 346 TFUE base to the new regime established by Directive 2009/81/EC. Additionally, the presence of the Directive will also enable the Commission to be more active in enforcing the strict interpretation of the exemption of Article 346 TFEU which has further consequences with regard to offsets.

The European Commission generally shares the wide agreement existing on the fact that offsets can potentially result in trade distortions, in particular by securing business for inefficient suppliers located in importing countries and which would have not obtained such opportunities without offsets. The latter would therefore contribute in creating distortions of the international division of labour, in maintaining inefficient producers, in

avoiding necessary restructuring, and in upholding large over-capacities in the sector.

Taking into account that offsets can be contrary to the basic principles of the Treaty, the Directive can neither authorise them, nor regulate them.[26] The transposition of the Directive will therefore require EU Member States to review their national legislation and to suppress any form of mandatory offset policy. The new legal framework equally rules out the use of offsets as a contract award condition or as a criterion for the selection of the successful tenderer.

It is also expected that the European Commission will exert a higher degree of scrutiny on contracts awarded under Article 346 TFEU, which will make the recourse to offsets difficult even when the Directive does not apply. As mentioned above, using Article 346 TFEU requires a case-by-case justification of the necessity to impose requirements that may be contrary to EU law in order to protect an essential security interest. An important precision is that the justification should be provided for each specific requirement. Therefore, the fact that a specific contract will be awarded under Article 346 TFEU does not mean that offsets could be attached to this contract.

For the use of offsets to be possible, i.e. for them to fall under the exemption provided under Article 346 TFEU, Member States will need to demonstrate that offsets themselves are necessary for the protection of a specific essential security interest. Providing such a justification will generally be impossible for civil offsets, which have the additional flaw of being in contradiction with the provisions of Article 346 TFEU (1) (b) requiring that the conditions of competition for products 'which are not intended for specifically military purposes' should not be adversely affected. As far as defence offsets are concerned, while a justification remains possible at the theoretical level, in practice the need for offsets in order to defend a specific essential security interest will be difficult to demonstrate especially if we consider that the Directive incorporates specific provisions aiming at the protection of Members States' security of supply and security of information requirements.

A possible exception may exist in situations regarding relations with suppliers located outside the EU. In this particular case it is not impossible that some specific requirements could be justified on grounds of security of supply when the latter is spelled out at the EU level. In general rule however, the effective enforcement of the principles described in this section should result in a substantial contraction of offsets, or at least of their visibility and formal nature. This represents a major shift for the defence

market in the European Union, the potential consequences of which are treated in the next section.

Offsets: A Driver of Integration or Disintegration of the DTIB?

Considering the figures quoted in section 'The Challenge of Tackling Defence Offsets' above it is obvious that offsets are a very important factor for the defence sector. It would be unconceivable to pretend that several decades of intensive offset policies have not produced any effect on the defence industry's organisation, internationalisation and efficiency.

The nature of the influence of offsets on the defence market and industry remains however ambiguous. First, a negative preconception is clearly present, sometimes impacting on the impartiality of the analysis performed. Second, discussions have been seriously plagued by diverging definitions (See also Hall & Markowski, 1994), the variety of forms that offsets can take and the resulting lack of a truly unified analytical framework. Third, the number of reliable studies available is more than limited, mainly because of the highly sensitive nature of offsets and the resulting lack of available data.

While everybody seems to agree on the potential distortions that offsets may create, one of the major shortcomings of the economic literature of offsets is to be found in the fact that a vast number of authors are already satisfied with this level of analysis. They remain thus unwilling to consider that offsets may sometimes produce positive effects or, more importantly, that they could be approached as an indicator for some crucial deficiencies of the defence equipment market rather than as an independent phenomenon.

Ianakiev (2005) demonstrated that the introduction of offsets can have powerful consequences on the exporting system integrator's incentives to search for partners in the importer's economy and to establish industrial relations with them. The incentives resulting from the conditioning of the core contract to the establishment of industrial connections with local companies can be strong enough to push the system integrator to start working with local suppliers that are less efficient than its existing partners as long as the extra costs incurred are not offset by the profits of the core contract. This effect is also reinforced by the capacity of exporting firms to successfully transfer most of the offset-induced extra costs to the importing government by integrating them ex ante in the proposed price. This confirms the trade-distorting potential of offsets.

However, if substantial supplier search and switching costs exist, spontaneous search by system integrators may be rather limited in the absence of offsets. Ianakiev (2005) shows that in such a situation, a possible outcome of the use of offsets could be the discovery of unknown suppliers, more efficient than the incumbents or at least efficient enough so that they could become second source (thus potentially contributing positively in terms of security of supply) and with which a long-term partnership could be established. This theoretical result confirms findings present in several surveys and in a number of case studies on offsets showing that in some occasions more efficient suppliers are discovered,[27] this leading to an improvement of the supply-chain efficiency in terms of costs or technological performance.

If we consider that the system integrator's supply chains have initially been set up in sheltered national markets, the joint effect of policy induced protection and supplier search and switching costs may substantially reinforce the position of incumbent suppliers (Ianakiev & Mladenov, 2008). This is especially true for an industry in which price competition has not been particularly acute. It is even possible to demonstrate that full liberalisation and suppression of protectionist measures may have only a limited effect on the international allocation of activities provided that supplier search and switching costs are perceived as being high enough to inhibit the exploration for new partnership opportunities. In the presence of supplier search and switching costs, protection results in a hysteresis effect even after the removal of protectionist regulation.

The industrial structure that previous protection has induced can effectively survive the latter's disappearance. Potentially efficient suppliers can therefore be pushed out of business because they are unable to contest the incumbents' positions. In this context offsets can also be a driver for integration in the EU defence equipment market by making it possible to overcome the barriers preventing the spontaneous emergence of trans-border industrial relations.

The duality of offset's impact on the integration process in the European defence equipment market has important consequences with respect to the recent evolution in the EU regulation framework. The reduction of offsets that should result from the evolution of the regulation framework will of course limit the risks of offset-induced distortions of the defence equipment market. It is however also possible that it may reduce the ability of some potentially efficient firms to access the system integrator's supply chains. Most vulnerable in this respect will be small and medium size enterprises (SMEs) and enterprises located in small and medium size countries that do not possess large system integrators.

The main resulting risk is the one of a possible decrease in the degree of contestability of the incumbent supplier's positions through the suppression of a powerful instrument for forcing access to the system integrator's supply chains. It will therefore be crucial to accompany the efforts to restrict the use of offsets by strong initiatives aimed at ensuring that a level playing field exists not only at the level of public procurement but also at the supply chains one.

It is particularly important to incentivise system integrators to improve their supply-chain management practices and to increasingly favour open competition at the subcontracting level. Directive 2009/81/EC already incorporates dispositions intended to enhance competition at the subcontracting level. Article 21 and Title III of the Directive provide in particular for the possibility for the contracting authority to require the successful tenderer to subcontract a share, not exceeding 30%, of the contract. In contrast with offsets, the selection of the subcontractors has to be based on a competitive procedure opened to all interested European enterprises without any form of discrimination on basis of nationality. It is however uncertain whether and to what extent Member States will make use of the Directive's subcontracting provisions.

Initiatives aimed at reducing the informational barriers and deficiencies can usefully complement the above-mentioned efforts to promote open selection procedures at the supply-chain level. Centralised publication of subcontracting opportunities can be a very useful tool in this respect. Unfortunately, the past experience with the dedicated part of the EDA's Electronic Bulletin Board, established in the framework of the Code of Best Practice in the Supply Chain, has not been fully satisfactory. International industry seminars, better focused on the needs of system integrators, in which a sizeable presence of SMEs is ensured can also contribute positively in this respect.

CONCLUSION

The wide presence of offsets represented in the past few decades one of the most prominent characteristics of international defence trade. As described above, Europe has traditionally been a leader in this respect. The fact that the European Union has also taken the lead in attempting to put the phenomena under control and to improve enforcement of the rules prohibiting these practices may appear surprising, especially if we consider the long

lasting and often vocal criticism of offsets coming from the other side of the Atlantic. However, taking in consideration the high value of intra-European arms trade, there is a clear logic in limiting the sources of distortions while trying to build an increasingly efficient, competitive and genuinely integrated European defence equipment market.

If this ambition is to have real chances of success it will however be necessary to better understand the imperfections currently affecting the European defence equipment market and to acknowledge the fact that offsets may also have played, in some circumstances, a positive role in the process of integration of the European defence equipment market. Creating open competition and easy access at the level of the large system integrators' supply chains is one major challenge that lies ahead. If the use of offsets is to be restricted in the future, new instruments should be quickly put in place in order to ensure that this evolution does not result in driving out of the market potentially efficient suppliers only because of the obstacles that they are facing with regard to the access to the system integrator's supply chains.

NOTES

1. Udis and Maskus (1991).
2. SIPRI (2009).
3. Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC (2009).
4. United States Department of Commerce (2013).
5. The offset percentage is the ratio of the value of offset agreements to the value of the related exports. It is the most adequate measure of the level of offset requirements, offsets agreements value being very sensitive to year by year changes in the value of related exports sales.
6. Czinkota and Talbot (1986).
7. The illustrative list provided in Annex to the TRIMs Agreement states the following: 'TRIMs that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require: … (a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production …'.

8. In the GPA offsets in government procurement are defined as '… measures used to encourage local development or improve the balance-of payments accounts by means of domestic content, licensing of technology, investment requirements, counter-trade or similar requirements'.

9. Article XXIII (1) of the GPA provides that 'Nothing in this Agreement shall be construed to prevent any Party from taking any action or not disclosing any information which it considers necessary for the protection of its essential security interests relating to the procurement of arms, ammunition or war materials, or to procurement indispensable for national security or for national defence purposes'.

10. United States Department of Commerce (2007). In the more recent issues of its report on *Offsets in Defence Trade*, the DoC no longer provides information on the regional distribution of offset agreements.

11. FOI and SCS (2007).

12. The study covers 24 EDA's participating Member States. Denmark, Bulgaria and Romania are not covered. The first country because it decided not to participate in the EDA, the last two because the study was conducted before their accession to the EU and the EDA.

13. FOI and SCS (2007). op. cit., 4.

14. US DoC (2007). op. cit., 5–3.

15. Turkey, which is a candidate country for EU membership also ranked in the top 20. However, according to the classification adopted in the US DoC reports on offsets, Turkey is accounted for in the Middle East and Africa group.

16. Markowski and Hall (2004).

17. Directorate General Internal Markets and Services, European Commission (2010a).

18. *Ibid*, p. 5.

19. Article 346 TFEU (former Article 296 of the EC Treaty) reads as follows:

> '1. The provisions of the Treaties shall not preclude the application of the following rules:
>
> (a) no Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security;
>
> (b) any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the internal market regarding products which are not intended for specifically military purposes …'.

20. European Commission (2006).

21. In May 1978, US Deputy Secretary of Defence Charles Duncan signed a document stating formally that the US administration will not, as a general rule, enter in offset agreements, thus leaving the full responsibility in that matter to the industry. The Duncan Memorandum was to a large extent a result of the difficulties that the US Department of Defence experienced in the 'Peace Alps I' deal (sale of F-5 combat aircraft to Switzerland) where it had guaranteed the offset obligations contracted by the exporting US firms.

22. The analysis performed in the US DoC reports is however quite simplistic and relies on a number of assumptions that are both questionable and prone to substantially influencing the outcome.

23. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A strategy for a stronger and more competitive European defence industry (2007).

24. Directive 2009/43/EC of the European Parliament and of the Council of 6 May 2009 simplifying terms and conditions of transfers of defence-related products within the Community (2009).

25. Directorate General Internal Markets and Services, European Commission (2010b).

26. Directorate General Internal Markets and Services, European Commission (2010a).

27. A survey by Martin and Hartley (1995) on the experience of British exporting firms with offset requirements provides the following result: 'In six of the 11 offset sales the respondents said that the offset obligation had led to the discovery of new, lower cost, sources of supply and in all six cases the intention was to continue to do business with new sources once the offset obligation had been fulfilled'. The same possibility is confirmed by the study on offsets order by the EDA. Another example is provided by Redlich and Miscavage (1996): 'Members of the client company recognised that by acting as a catalyst to bring representatives from numerous parts of the corporation to Israel, the need to develop offsets opened up opportunities that otherwise would have gone unnoticed, or still worse, gone to the competition. Of the 100 potential projects, over 30 were rated as top priority initiatives. Several were signed and executed towards the end of 1993, prior to any selection of the plane or the engine, due to their enormous relevancy and contribution to the needs of the company'. (Redlich & Miscavage, 1996 in Martin, 1996, p. 404).

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