

# **UACES 44<sup>th</sup> Annual Conference**

**Cork, 1-3 September 2014**

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# **The Prospect of the EU's Arms Embargo against China after Lisbon Treaty: from the Perspective of European Defence Industrial Policy\***

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## **Abstract:**

The EU has maintained the arms embargo against China nearly 30 years. To present, the literature on this issue almost focuses on the different cognitions between Chinese and European on human rights, security; the US and Japan's diplomacy pressure on the EU for the regional balance. As an important stakeholder of embargo policy, European defence industries have been neglected. Whether scale economics or power project, arms export usually is the important measure to the maintenance, development of defence industry and national security strategy. With the Lisbon Treaty, based on the consolidated institutional framework of Common Security and Defence Policy (CSDP), the institutions and rules on arms transfer have proliferated at the EU-level (European Defence Agency, European Commission, European defence package), hence, there is room for future intensified industrial consolidation and the industrial lobby towards the EU's decision-making procedure.

In this paper, the authors explore the role of European defence industries play in the decision-making of lifting arms embargo against China. For the trans-European

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\* The authors are grateful to the discussions with Prof. Dr. Michael Brzoska, the Institute for Peace Research and Security, the University of Hamburg, Prof. ZHENG Shaoyu, and Mr. WU Jian, at Equipment College, PLA, Prof. ZENG Li, National University of Defence Technology, PLA. The usual disclaimer applies.

defence industries, the market share and profits from Chinese will impetus to its lobby to the EU. Considering embargo as a part of export control, under the pressure from the defence industries, the possibilities of the EU will adjust the scope and depth of export control. Three subsections, as following, organize the paper:

- ♦ The implications of arms embargo on the sender's defence industries and its industrial policy;
- ♦ The impact of Lisbon Treaty on European defence industrial policy;
- ♦ European defence export in the first decade of the 21<sup>st</sup> century;
- ♦ The defence market opportunities of China and the feasible outlook of EU-China defence industrial relations.

**Key Words:** Arms Embargo; CDSP; EU-China Relations; defence industrial policy

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To present, the nearly 30-year EU' arms embargo against China is the most controversial topic within the EU-China relations. On the side of Chinese, whether governmental officers or scholars, have been seeing the embargo as the block to the present and future EU-China relations and out-of-date political discrimination. For the EU, the arms embargo has no matter with bilateral relations, which is relevant of human rights record within China. The US and Japan understand the embargo as the measure of keeping the regional balance. As the important internal player related to the arms embargo, European defence industries, what are the practical role and potential implications on the future of arms embargo against China has been neglected. In this paper, the author will organize this paper which focuses on the following questions:

- ◆ What are the practical and potential effects of arms embargo on the defence industry theoretically;
- ◆ What are the roles of pan-European defence industries within the defence industrial policy-making;
- ◆ What are the Chinese market opportunities for European defence industries?

Arms embargo is the ultimate end of export control, which denies the target actor access to all or certain military goods and technologies. International arms market is considered as imperfectly competitive. In the past one decade and half, the arms embargoes have often adopted to back up the EU's political position on the basis of the resolution of UNSC (Vanessa Shields: 2005). What the security concern is that the arms purchased may be used against the supplier. With the spread of military-civilian dual-use technology, the pains resulted from the embargo extend to the economic and social life. Through embargo, the initiators wish to coerce the target government into changing its conduct, avoiding military conflict. Hence, Arms embargo becomes one of the optimal instruments of foreign policy. Successful sanction will enhance the initiator's international reputation (Baldwin 1985). For example, as normative power, human rights record is the criteria for the EU's weapon export. Security concern, reputation constitute the impetus for arms embargo.

Whether economic profits/loss does affect the policy-making communities about arms embargo? The competitiveness of defence industry is strategic significance to nation security. Defence industry is characterized with strategic industry on military and economic dimension. Since the end of the Cold War, with the soaring fixed cost of R&D, the declining

domestic demand, and the fiercer international competition by globalization, the industries seek the enlarged export market under the survival pressure. As far the European industries, the uncertain financial prospect in Europe Continent, military expenditures and technology have led to considerable changes in the defence industries and in the relations between it, the state and the military. This means that economic incentives for initiator to adjust the decisions on arms embargo. In a word, arms embargo involves the dimension of security, economic and political profile.

International arms transfers have facing the paradoxical goals: on the one hand is promoting the defence industrial base; the other is the limitations on the quality and quantity of weapon systems for nation security. The nature of the exporter's interaction in the policy-making of export controls and export raises the question of coordination in both export control and industrial policies. A failure to coordinate in one of these two policies tends to increase the incentives to deviate from an agreement to coordinate in the other policy, therefore, highlighting the importance of a unified approach to arms trade regulation. As the above-mentioned, considering the connections of export control and industrial policy, the impacts of arms embargo should be assessed within the inter-discipline framework of political, economic and security.

### **The Impacts of Arms Embargo on the Initiator & Target's Defence Industrial Policy**

As far the impacts of arms embargo on the defence industries, not only target country, also initiator state. It is the immediate impression, for initiator's defence industries, arms embargo means the government pursues the practical and potential goal, at the cost of economic benefits from the target market. Most target countries of embargo are developing countries. For them, first and foremost, embargo impacts on the development of defence industrial capabilities in the target. Through the absorption of already existing foreign technology, the industrializing states initiate the process of technology development. In a word, this is a path from imitation to innovation. On the basis on the observation of newly industrializing economies in Asia, Linsu Kim and Richard Nelson distinguish 'duplicative imitation' and 'creative imitation' in the phase of imitation. The former, in which products are closely copied or no technological improvements. The latter aims at 'generating imitative products but with new performance features' (Linsu & Richard 2000: 3-5).

Creative adoption is considered as the next level of technology development, in which products are inspired by existing foreign-derived technologies but differ from them significantly (Tai Ming Cheung, 2011: 325-354). For Chinese defence economy, the present stage is still creative imitation. Acquiring foreign technology is an approach that offers the opportunities for the nurturing of domestic industrial capabilities. The capabilities of reverse engineering in the target country is one of the variables that should be assessed, whether adjusting arms embargo or not. Through reverse engineering, the defence industries in target countries can manufacture the similar weapons and export them, which means the initiator shall maintain, even stricter embargo to prevent the competitor to access its existing market.

For the imperfect competition of arms trade, there is high possibility that the other international colleagues take over the target market. The initiator has suffered tremendous economic losses, and its security and political concerns have been further infringed. It confirms that multilateral arms embargoes are more successful than unilateral ones (Brozka, 2008: 1).

Following the traditional perception, defence industry is a passive component of nation security architecture. In other words, the states occupy the central position in defence market, in which government determines the defence economy on scale, structure, entry & exit, prize and profit, efficiency, ownership and technology. For defence industries, it is hardly to change the determination of government's arms embargo. First, security concern overwhelms economic interests in the bound of international anarchy. Defence export makes profits for industries on the basis of hindering nation security potentially; second, there is no accurate statistical data to support the arguments of defence industries on economic loss. Defence industries directly determine the capability-building of nation security. Hence, no possibility of defence industrial bankruptcy may be driven by governments. Promoting healthy, competitive and strong defence industrial base is important content within the framework of nation security strategy.

In the past, state-owned defence industries can be regarded as the extension of government. With the privation of defence industries in the Post-Cold war, there has been a trend states and industries independent increasingly, which has enhanced the strategic interaction between industries and government. Under the context of globalization, the

transnational technology flows have prompted more countries to join the supplier club in international arms market, such as China, South Africa. Arms embargo, for these newcomers, has played the central role to maintain the technology gap and protect the existing market. Arms export, as one of power approaches, has been utilized to maintain the regional influence and balance.

What should be taken into account when making the assessment to the impacts of arms embargo on defence industries depends on the following agendas:

- the internal arms market of initiator;
- the dynamic capability-development of defence industries in target county;
- the arms import of target country from other seller;

### **European Defence industries and its Defence industrial Policy**

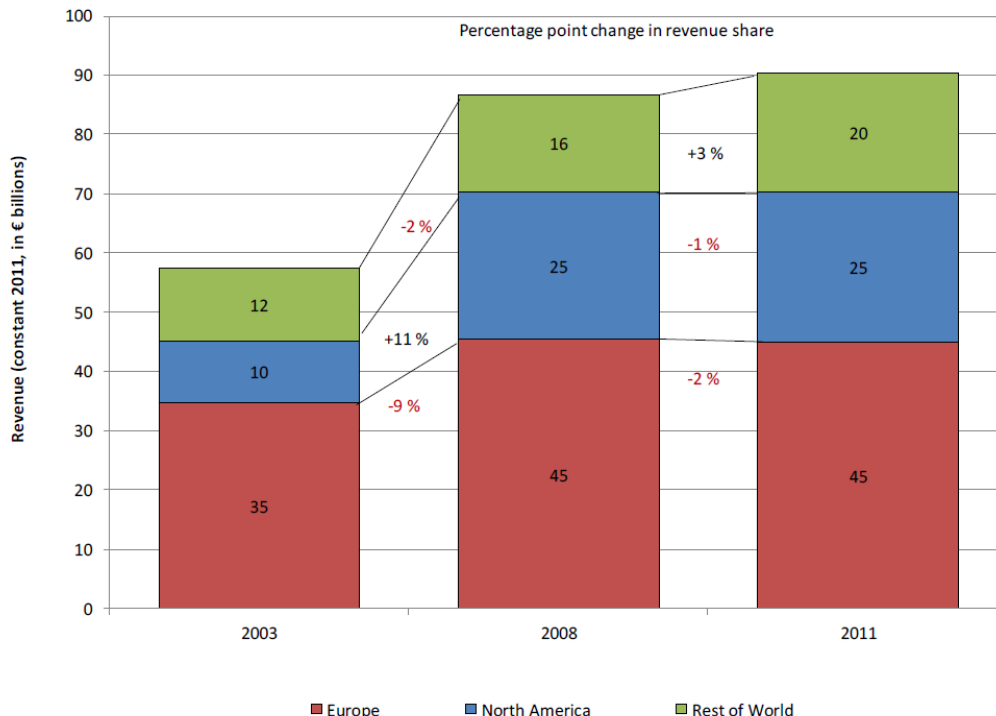
With the ambition of global security actor, the defence integration within the intergovernmental framework of EU increasingly has extended to the defence industries since the 1990s. 'Europe should be ready to share in the responsibility for global security and in building a better world' (European Council, 2003: 1). Throughout the process of Common Security and Defence Policy (CSDP), who inherited from European Security Defence Policy (ESDP), defence capability-building was defined as the most important composition, which specified in the Helsinki Headline Goal of 1999, the European Capabilities Action Plan of 2001, the 2010 Headline Goal of 2004, and the Capability Development Plan of 2008. The consensus has been reached by industrialists and high-officials. 'The defence industry, the defence markets are fundamental instruments in a European policy to give us greater independence and sovereignty in defence [...]', as Antonio Tajani said, 'you cannot have a common foreign policy unless you have a common security and defence policy'.

As the above-mentioned the interplay between defence industries and state, defence industries, as an important actor of market, are participate in in the process of industrial policy-making with influential profile. As far the European is concerned, defence industrial policy has focused on the internal market-building to improve the efficiency of procurement. For the fragmentation, all of the funding on defence procurement spent by the EU's member states annual is about 30 billion euro, not on a single market but rather on 27 different national market (EDA, 2006).

As the supplier of defence capabilities, throughout more 20 years, the similarity with the US defence industry, there has the trend is central of transnational M&A with European Defence that led to the giant defence groups are equal with the American counterparts on scale and profits-making, BAE Systems, EADS and Thales (Daniel Keohane, 2008). The European defence industrial consolidation was launched in the early of 1990s, led to defence industrial champion on a national level, which aimed to the future mergers to be expected on European level. According to the statistics from the Stockholm International Peace Research Institute (SIPRI), since 2003, BAE Systems, EADS and Finmeccanica of Italy have always been on the world top 10 list of weapon manufacturer.

Within the context of decreased defence spending, the performance of European defence industries have done well. As the following chart, the revenue growth mainly has been attributed to growth in the North American defence market. Meanwhile, the lion's shares of revenue in the European market has kept comparatively stable under the pressure of financial crisis.

**Chart 11: CSIS ESDS Index: Revenue by Geographic Origin (2003, 2008, 2011)**



Not only the giant defence groups, also have the industrial associations emerged. In April 2004, three industrial associations – EUROSPACE, the European Defence Industries



Group (EDIG) and the European Association of Aerospace Industry, which are the representatives of European aerospace and defence industries, merged together and established the *AeroSpace and Defence Industries Association of Europe* (ASD). The ASD has 28 member associations from twenty countries, together representing more than 2,000 companies, many of the small and medium-sized businesses. With annual sales of €163 billion, the industry employs 700,000 Europe-wide, and has a further 80,000 companies in its supplier chain.<sup>1</sup> For the integration of capability and industry, Mr. Klaus Eberhardt, President of ASD said “Our industry faces two basic imperatives: first, to address growth markets outside of Europe jointly rather than as competitors, and to push forward with consolidation of the industry in Europe with all our might”, declared Eberhardt, insisting that, “It is simpler and more efficient to initiate the process of consolidation ourselves – and above all to actively shape it – than to leave the matter entirely to politicians”.<sup>2</sup> Empirically, ‘ASD functions as a privileged contact partner of the Commission and of EDA (European Defence Agency). This means that any decisions about armament-industrial focuses and programs within the EU are essentially taken with the involvement of the ASD and leading European arms companies’.<sup>3</sup> *The Code of Best Practice in the Supply Chain* approved by ASD and agreed by the EU Member States participating in the EDA on April 27, 2006.

The establishment of trans-European defence industrial associations, without any doubt, the more intensified lobby towards the EU directly, whether the policy-making or R&D program. In the draft process of European Constitutional, the working group on defence invited a number of experts to give advice on what important aspects should be included in the treaty text. As well as a number of people with military background, such as ex-NATO and EU foreign policy chief Javier Solana, French defence minister Alain Richard and the chair of the EU Military Committee, Gustav Hagglund, three of the thirteen experts represented the interests of the arms industry: Corrado Antonini, president of the European Defence Industries Group (EDIG).<sup>4</sup> EADS’ chief-lobbyist in Brussels, Michel Troubetzkoy,

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<sup>1</sup> “Rheinmetall CEO Klaus Eberhardt elected President of the Aerospace and Defence Industries Association of Europe”, Oct. 10, 2011, [http://www.rheinmetall.com/en/rheinmetall\\_ag/press/current\\_topic/news-details\\_768.php](http://www.rheinmetall.com/en/rheinmetall_ag/press/current_topic/news-details_768.php).

<sup>2</sup> Ibid.

<sup>3</sup> Sabine Lösing edited, *The EU as a Driving Force of Armament*, Nov. 2012, <http://www.imi-online.de/download/EU-DriverArmament.pdf>.

<sup>4</sup> Frank Slijper, *The Emerging EU Military-industrial Complex: Arms Industry Lobbying in Brussels*, Amsterdam: Transnational Institute, May, 2005, <http://www.uk.peacelink.org/gmd/docs/20.pdf>; Martin Broek & Wendela de Vries, *The Arms Industry and the EU Constitution*, London: the ENAART (European Network against Arms Trade) Research Group, Jan. 2006, p. 22, <http://www.enaat.org/publications/ArmsIndustry-EUConstitution.pdf>.

was exceptionally open about their influence on EU-policy, praising his company's influential role in the establishment of the EDA and their privileged access to Valéry Giscard d'Estaing and Michel Barnier – both key figures in the Convention on the Future of Europe which prepared the content of the Lisbon Treaty.

At St. Malo in 1998, French-British joint declaration recognized that 'the Union must have the capacity for autonomous action, backed up by credible military forces, the means to decide to use them and a readiness to do so, in order to respond international crisis'. The European Security and Defence Policy (ESDP), as a composition of CFSP, was established historically, at Cologne Summit of European Council in June 1999. In December 2003 the European Council formally adopted 'A Secure Europe in a Better World' as the European Security Strategy (ESS), in which the EU calls for 'develop a strategic culture that fosters early, rapid and when necessary, robust intervention', and show the ambition that it 'can add particular value by developing operations involving both military and civilian capabilities'.

Within the framework of ESDP, European Defence Agency (EDA) established in 2004, designed to develop defence capabilities, improve armaments cooperation, and strengthen the European defence industrial base, and creation of European defence market. Compared with the *Organisation Conjointe de Coopération en matière d'Armement* (OCCAR) and the Western European Armaments Group (WEAG) in the 1990s, the EDA is the first procurement agency at the European level, which means the missing link between the capability development and the armaments phase. The decision to create the EDA formally brought the defense industry policy area into the EU (Crollen, 2003; Hartley 2006; Jones, 2007).

Defence industries, have been immune from European integration process, since the establishment of the European Economic Communities, which has been mentioned, as Article 223, *the Treaty of Rome*. Article 346, TFEU (formerly Article 296 TEC) allows EU countries to exempt defence and security contracts if the application of European law would undermine their essential security interests:

(1)(a) allows EU countries to keep secret any information the disclosure of which they consider contrary to the essential interests of their security;

(1)(b) allows EU countries to take measures they consider necessary for the protection of their essential security interests in connection with the production of/ trade in arms, munitions and war material (specified in the 1958 list) Measures taken under Article 346 (1)(b) may not adversely affect competition on the common market for products not specifically intended for military purposes.

Offset are designed to protect the domestic small and medium enterprises in short term to overcome the large costs of breaking into the international market. The authors have no intention to illustrate the details of the fragmented market as the result of offset. According to the EDA, the average offset obligation among EU member states between 2000 and 2006 was 135% of contract value, and that direct offsets account for only 40% of total offsets (EDA 2007). It is the possibility for member states to use Article 346 as a justification for the use of offset policies. Hence, restricting the application of Article 346 is the central to the defragmentation process of European defence market. 'Though comprehensive data are unavailable, we believe that in recent years less than half of defence procurement has been carried out in accordance with the public procurement regulations of the EU internal market; Member States in general have relied on the "national security exception in Article 296 of the Treaty establishing the European Community to make the bulk of their defence purchases on a national basis'. Under the protection of Article 346, equipment procured within national boundaries in the EU amounted to 75% of total procurement in the EU in 2009 (EDA 2009).

The application of Art. 346, TFEU *de facto* conflicts with the Article 101(1), TFEU:

prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market.

Hence, Art. 346, TFEU, is just limited exception, not exemption from internal market. Just only the procurement for the purpose of "military", however, the other non-warfare, such as clothing, food, obviously cannot be categorized into military purpose. Hence, such non-military procurements are under the application scope of Art. 81(1), TEC, i.e., the public procurements. The inconsistency among the legal systems of EU sets aside the space for an integrated EU defence market in legal sense.

The entry into force of the Lisbon Treaty in December 2009, the EDA also now inserted within the legal framework of the CSDP, thereby reinforcing the leading role that the Member States want to assign it in pushing forward the development of EU operational capabilities and the EU as a military actor on the international scene. Article 45 of the *Lisbon Treaty* defines EDA's major tasks:

- contribute to identifying the Member States' military capability objectives and evaluating observance of the capability commitments given by the Member States;
- promote harmonisation of operational needs and adoption of effective, compatible procurement methods;
- propose multilateral projects to fulfil the objectives in terms of military capabilities, ensure coordination of the programmes implemented by the Member States and management of specific cooperation programmes;
- support defence technology research, and coordinate and plan joint research activities and the study of technical solutions meeting future operational needs;
- contribute to identifying and, if necessary, implementing any useful measure for strengthening the industrial and technological base of the defence sector and for improving the effectiveness of military expenditure.

*The Lisbon Treaty* does not change the nature of CSDP remains an intergovernmental affair, however, the intergovernmental institutions that are featured with supranational elements (Piotr Tosiek). For example, the Head of the EDA, is in the role as High Representative of the Union for Foreign Affairs & Security Policy/Vice-President of the European Commission. On the other hand, supranational institutions within the EU have been actively participated in defense affairs, as such Commission and the European Court of Justice (ECJ). Directive from the Commission, together justification from the ECJ, makes progressive breaking through in the integrated defence market. Since 1990s, the European Commission has appealed to the European Court of Justice against Spain, Belgium, Greece and Italy's abuse of Article 346. The European Court of Justice have safeguarded the authority of the European Commission on interpreting Art. 346.<sup>5</sup>

Although the decreased defense budget from the pressure of financial crisis, the spending

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<sup>5</sup> ECJ *Commission vs Spain*, decision C414/97, 16<sup>th</sup> Sep. 1999; ECJ *Commission vs Belgium*, Decision ECJ *Commission vs Italy*, Decision C337/05, 8<sup>th</sup> April 2000; ECJ *Commission vs Greece*, decision C214/98, 16<sup>th</sup> Dec. 2000; ECJ *Ellinika Nafpigia AE vs Commission*, C246/12P, 28<sup>th</sup> February, 2013.

on defense equipment decreased by only 0.9 percent annually 2001~2009 (Joachim Hofbauer, 2010: 5).

In December 2006, the European Commission issued “*INTERPRETIVE COMMUNICATION on the application Art. 296 of the Treaty in the field of Defence Procurement*” for the application of Art. 296 in defence procurement. In order to facilitate an integrated defence market, the European Commission has launched European Defence Package, including one communication and two directives aiming to offset the disadvantages caused by fragmented markets since 2007, which has intention intensify competition on the European armaments markets and bring the current fragmentation of the European arms market to an end.<sup>6</sup> As the first document in European Defence Package, Communication (2007) COM 764, improving the functioning of the internal market for defence products through legislation, as one of the measures, meanwhile, in which, the US market, not the other else, is significant to European. In May 2009, the EU issued Directive 2009/43/EC on simplifying terms and conditions of transfers of defence-related products within the Community to solve the problems of fragmented markets and the legal conflicts between defence and public procurement. In July 2009, the EU issued Directive 2009/81/EC 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. According to the updates of EU common military list agreed by the European Council, the Commission had updated Directive 2009/43/EC 3 times from 2010 to 2012.

In July 2012, European Commission released the report on transposition of 2009/43/EC, that is, “The Commission received an official notification of the national legislation transposing the Directive from a majority of Member States (20). The Commission launched infringement procedures for non-communication under article 258 TFEU against the Member States which did not communicate the national rules transposing the Directive. At the moment 7 Member States have not yet communicated transposition. 1 Member

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<sup>6</sup> European Defence Package, *A Communication on A Strategy for a Stronger and More Competitive European Defence Industry*, Dec. 5, 2007, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0764:FIN:EN:PDE>; Directive 2009/43/EC, May, 9, 2009, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:146:0001:0036:en:PDE>; DIRECTIVE 2009/81/EC, Jul. 13, 2009, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:216:0076:0136:en:PDE>.

State has communicated partially”.<sup>7</sup>

In October 2012, the European Commission published the report on implementing Directive 2009/81/EC, that “three Member States had notified complete transposition of the Directive to the Commission by 21 August 2011, and a fourth Member State notified complete transposition in September 2011. The Commission therefore opened infringement procedures against 23 Member States (Article 258 TFUE) by sending letters of formal notice. As a result, by March 2012, 15 additional Member States had notified complete transposition. For the remaining eight Member States the Commission continued the infringement procedure by issuing reasoned opinions to them. By June 2012, two of these Member States had completely transposed while two Member States had only partially transposed the Directive”.<sup>8</sup>

Internal market is the mainstream of European approach to defence capability-building. From the Defence Package to present, with the progressive development of integrated defence market, the political willing drives the giant defence group into the intra-European transfer. The Europeanization of Code of Export Control of should be considered as the other variables within the framework of CSDP. The EU has its 1998 Code of Conduct on Arms Exports (Code of Conduct hereafter), which affects the possible Sino-EU arms trading (Council of the European Union, 1998). European exports of dual-use items and technologies are governed by a single primary legislation adopted at the EU level that is binding upon all member states—the 2009 EU Dual-Use Regulation (Oliver Bräuner, 2013). More specifically, ‘the arms embargo on China does not cover a large proportion of sensitive items which are, on the contrary, covered by the Dual Use Regulation. This is a legally binding instrument directly applicable in EU Member States. It sets out all the requirements which need to be met and the procedures to be followed for the granting of an export license’ (EU COUNCIL SECRETARIAT: 2005). The US market is more significant than the other, accompanying the consistent position of the US on arms embargo against China, it is easy to understand the role of US in the decisions about lifting or not.

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<sup>7</sup> European Commission, *Report from the Commission to the European Parliament and the Council on transposition of Directive 2009/43/EC simplifying terms and conditions for transfer of defence-related products within the EU*, Brussels, June 29, 2012, COM (2012) 359 final, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0359:FIN:EN:PDE>.

<sup>8</sup> European Commission, *Report from the Commission to the European Parliament and the Council on transposition of Directive 2009/81/EC on Defence and Security Procurement*, Brussels, Oct. 2, 2012, COM (2012) 565 final, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0565:FIN:EN:PDF>.

## **The Present and Predictable Defence Economy in China**

Defence modernization has been China's national strategic goal since 1949. In the early of 1970s, defence modernization is one key element of Four Modernizations articulated by Prime Minister, ZHOU Enlai. To present, XI Jinping's articulation of 'China's dream; Powerful military dream'. Contextual and direct factors are utilized the analysis on China's modernization efforts. The former includes a range of external factors in China's national security environment that shape China's threat perceptions, strategic outlook and contingency planning. Direct ones refer to a range of financial, political and technological factors more internal to China (David Shambaugh, 2005: 67-104). In the post-Cold, Revolution of Military Affairs (RMA), the tensions around Taiwan and neighbouring and inspirations for global power, constitute the contextual factors to China's efforts to defence modernization.

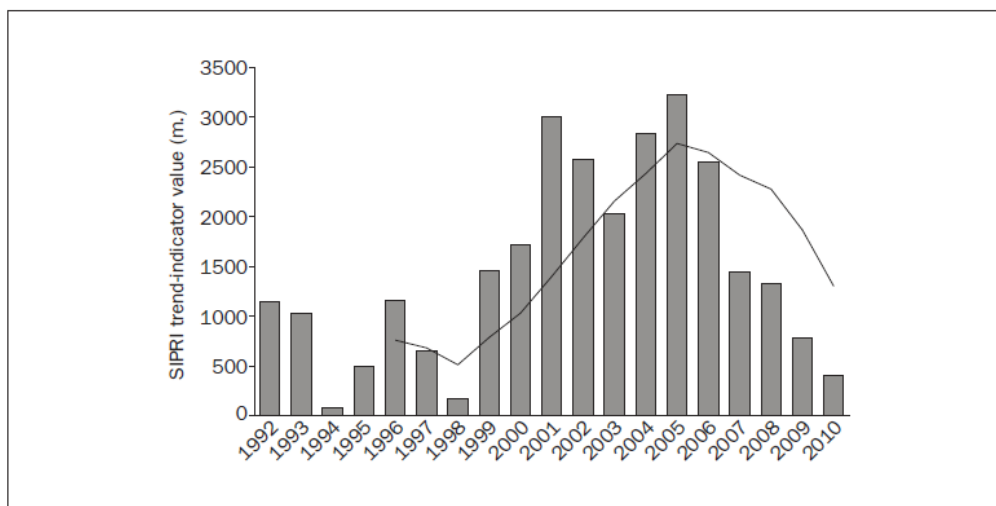
In the 1950s, with the assistances from the USSR, China started its defence modernization journey. In the mid of 1970s, China switched its attentions to the U.S. and its alliances. Reverse engineering, as prominent character, accompanying the defence items and technologies import. However, self-reliance, is the core principle of defence industrial strategy. Even if the honeymoon of China-western defence exchange, Then-Minister of National Defense, Zhang Aiping said, 'introducing advanced foreign technology is not just our purpose but is a means to improve our technological level and production capacity. Our purpose is to improve our ability to carry out self-reliance' (ZHANG Aiping, 1985: 7).

Since Tiananmen incident in 1989, China still has acquired the defence items made in Europe, including sonar and radar systems, diesel engines, landing craft, light helicopters and naval guns from the UK, Germany and France, according to the international arms transfer database of SIPRI.

It is should not be misunderstood the member state regarded the arms embargo as trifling matter. According to the international arms transfer database of SIPRI, the most of European arms delivered to China after 1989 are the fulfilments of the signed contracts. The analysis attributes the slow technological progress in China's defence industries in the 1980s and 1990s to the slow adaptation of new technologies in the rest of China's state-owned sector (Keith Crane, 2005: 144).

China's large-scale international purchasing from Russia and Ukraine from the mid-1990s to 2007, to some extent, supports Keith's argument. In the period of 2003~2007, China accounted for nearly half of total Russian weapons exports. The most significant purchases had focused on the weapon platforms, which have included advanced fighter aircraft, modern destroyers with advanced air defence and anti-surface capabilities, long-range land-based air defence systems, advanced diesel-electric submarines, jet engines, and advanced defence electronics technologies. At present, the proportion of Russian-made weapons and their imitations within Chinese military equipment systems is large, especially in fighter planes and air defence missiles. In the early of 21<sup>st</sup> century, the optimistic tone about PLA shopping list for EU technology has prevailed in transatlantic communities (Eugene Kogan, 2005: 31-34). Even if the embargo were lifted, how to realize the compatibility between European compositions and Russian platforms is a serious problems for European defence industries.

On Chinese-Russian arms trade, the year of 2006 is watershed. Since 2007 there has been a prominent decline in Russia's arms deliveries to China. Besides the obstacle from Russian side, the technology development of Chinese defence economy is internal factor, which is boosted by the political discourse in Beijing's policy-making community and financial reform (François Godement, 2013).



**Figure 3.1.** The volume of Chinese arms imports from Russia, 1992–2010

(Source: Linda Jakobson, et. al.: *China's Energy and Security Relations with Russia: Hopes, Frustrations and Uncertainties*, SIPRI Policy Paper No. 29, 2011)



J-11B is a typical example of reverse engineering. Through absorbing and mastering Russian technology and knowledge, Chinese undertook its imitation of SU-27, which they referred to as the J-11B. Based on the cheaper price, China's arms export to South Asian, African and Latin American countries. For European defence industries, reverse engineering capabilities in China are simply nightmare. It is the evitable fact that the EU-China competitions in African market (Siemon t. Wezeman and Pieter d. Wezeman, 2014). Z-9 helicopter, derived from French AS-365, has been exported to African. If the EU wish to keep its influences on China's defence industries, maintaining the current embargo, it should monitor the defence technology of industrialized process in China. Based on the mutual industrial advantage, through similar technology export, to gain the market share. The lessons of Y-10 transporter program in the 1980s should be learned again.

## **Conclusion**

With the entry into force of the Lisbon Treaty, the supranational elements integrated into intergovernmental institution, as such the EDA, representing the linking of demand and supply side of defence capability. The integrated defence market-building is the approach to be adopted by the EU, which strength the interactions between defence industries and European institutions. With the formation of single defence market, the member states increasingly loss the control of defence industries. The EU may make more coherent mechanism to implement embargo. The prospect of lifting arms embargo is gloomy. The effects of arms embargo against China is limited, whether the defence economy in China or the expected behaviours involving human rights. The failure of arms embargo can be chalked up to Russian's export and the technology development in China's defence industries. Based on the mutual industrial advantage, the EU is possible to make its mark on China defence economy.

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