

EU ATTEMPTS TO LIFT ARMS EMBARGO ON CHINA AND SECURITY BALANCE IN EAST ASIA: IMPLICATIONS FOR EAST ASIAN INTEGRATION PROCESS*

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“Observe coolly; react calmly;
solidify our foothold; never reveal our talents;
strengthen our defence; and never take the lead”

Den Xiaoping

This paper aims at examining whether arms embargo is a necessary and efficient tool to keep the balance of power in East Asia. Here it is argued that even despite the fact that arms embargo remains intact, the balance of East Asia is already being changed in favour of China. To illustrate it, firstly the paper will briefly examine the EU attempts to lift embargo, nowadays situation, and outlines some future trends. Secondly, it will study China's trends in terms of military budget, military capabilities, research and development expenditures and technology transfer from Europe.

Key words: EU, China, arms embargo, East Asia, security balance

1. INTRODUCTION

It goes without saying that East Asian integration is an enormous and vague project, where hardly anybody can determine its scope and limits. However, sound Sino-Japanese relations are a keystone to a successful implementation of an integration process in the region. Leaving apart economic calculations and discourse on history and how it affects the prospects of the integration, this paper delves into security matters, specifically into the issue of arms embargo on China imposed by the European Union and discusses whether the lifting would affect the balance of power in East Asia.

While the EU argues that the lifting would not affect regional security environment, the US and Japan insist that lifting arms embargo on China would cause a shift in the balance of power in East Asia. On the other side, Beijing has been arguing that arms embargo is a remnant of the past¹ and by being remained intact, the embargo is a political leverage. From

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¹ Ting Wai, *EU-China Relations: Economic, Political and Social Aspects*, Report delivered at the Third European Union Studies Association Asia-Pacific Conference, Keio University, Tokyo, 8-10 December 2005, p. 21.

the discussion it is clear that while for Japan and the US it is a matter of hard security, for the EU it is a matter of trade and multilateral world.²

Meanwhile the European Union does not make attempts to lift embargo and quite on the contrary, it calls China to improve the situation with human rights, especially after China's passing of the anti-secession law in March 2005 (clearly aimed at Taiwan) and during the escalation of the situation in Tibet and worsening Beijing-Lhasa relations before the Olympic games 2008.³

This paper aims at examining whether arms embargo is a necessary and efficient tool to keep the balance of power in East Asia. Here it is argued that even despite the fact that arms embargo remains intact, the balance of East Asia is already being changed in favour of China. To prove it, firstly the paper will briefly examine the EU attempts to lift embargo, nowadays situation, and outlines some future trends. Secondly, it will study China's trends in terms of military budget, military capabilities, research and development expenditures and technology transfer from Europe.

To address above issues Realism theory of International Relations and Constructivist approach are used in the paper. In author's opinion Realism is most applicable for this study inasmuch as there are not many liberals or constructivists among decision-makers in the institutions like the European Commission, Ministry of Foreign Affairs of Japan, Pentagon, etc. Constructivist method makes possible to interpret security in a wider scope as an area associated not strictly with military and power performance.⁴ Besides, it would make possible to point out and analyse the problems in the security dialogue and give some prescriptions keeping in mind that benefits of cooperation are not always material.

The author describes and analyzes a variety of primary documents, interview materials (with Japanese and European officials) and secondary sources revealing the policy practices, of China and relationship and activities between the EU, China, the US, Japan and their individual and joint policy practices. The issue of the EU arms embargo on China was touched upon in the works of Nicola Casarini, Marcin Zaborowski, Jonathan Holslag, Ting Wai and others.⁵ However, to the author's knowledge, there has not been a paper focused exclusively on this issue from the perspective of integration in East Asia and therefore this article can be regarded as a case-study to test the possibility of East Asian integration.

2. ARMS EMBARGO ISSUE: HISTORY AND PRESENT SITUATION

The EU imposed embargo on arms exports to China in 1989 after Tiananmen Square incident, and in 2003 – when the security issues were either absent or certainly not at the forefront of

² Personal consultations with the Japanese and European Commission officials, Brussels, September 2008; Europeans favour multilateralism that means rule of international law whilst "multipolarity" means the rule of few big, powerful states and instability.

³ See: European Parliament resolution of 10 April 2008 on Tibet (No. P6_TA(2008)0119); European Parliament resolution of 10 July 2008 on the situation in China after the earthquake and before the Olympic Games (P6_TA-PROV(2008)0362).

⁴ For details, please see: Barry Buzan, Ole Waever, and Jaap de Wilde. *Security: A New Framework for Analysis*. London: Lynne Rienner Publishers, London, 1998.

⁵ See for instance: Marcin Zaborowski, *EU-China Security Relations*, Paris: EU Institute for Security Studies, February 2008; Jonathan Holslag, "The European Union and China: The Great Disillusion," *European Foreign Affairs Review*, No. 11, 2006, pp. 555-580; Ting Wai, *EU-China Relations: Economic, Political and Social Aspects*, Report delivered at the Third European Union Studies Association Asia-Pacific Conference, Keio University, Tokyo, 8-10 December 2005; Nicola Casarini, "The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership," *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006.

European considerations - it decided to re-consider this issue due to global changes that took place since that time.⁶ In addition, in the same year the EU and China agreed to form a strategic partnership. Europe grasped China as a new opportunity to achieve multilateral world order.⁷ The strategic partnership with China and lifting arms embargo were attempts to counterbalance US unilateral policy especially in the light of the outbreak of war in Iraq. In December 2003 during the Italian presidency the European Council gave mandate to the European Commission and institutions concerned “to re-examine the question of the embargo on the sale of arms to China.”⁸ Ex-president of France Jacques Chirac and ex-chancellor of Germany Gerhard Schroeder were particularly enthusiastic about lifting the embargo, as it might facilitate the selling of their arms to China, while arguing that they are not going to export high-tech weapons. In June 2004 during the Irish Presidency, the European Council “invite[d] the Council to continue its consideration of the arms embargo in the context of the EU’s overall relations with China.”⁹

The European plans, however, have led to a sharp criticism from Japan and the US. Australia also opposed EU decision.¹⁰ Japan strongly opposed this attempt motivating it by “delicate East Asia’s security balance.”¹¹ In the US both the Republicans and the Democrats have argued that the proposal to lift the arms embargo is cynical ploy to open doors for the European defence industry and that, even if arms sales remain limited, the EU is casting aside more than a decade of human rights concerns for economic gains.¹² The US House of Representatives voted to pass a resolution condemning the EU’s moves toward lifting its arms embargo on China. The resolution alleged that lifting the embargo could destabilize the Taiwan Strait and put the US Seventh Fleet at risk. Moreover, the US policy-makers adopted a series of initiatives clearly indicating the US opposition to the lifting and some of them warned that if the EU ignores US security concerns the US will place restrictions on technology transfers to EU member states.¹³ And it is a threat for European defence companies since they are still largely dependent on the US defence technologies, not to mention the importance of the US market for them. American retaliation could have taken the form of sanctions targeting specific defence contractors that sell sensitive military-use technology of weapons systems to China. Undoubtedly, possible US restrictions on technology transfers to Europe were a serious warning for European defence industry.

Perhaps the main mistake European Union made was absence of prior consultations with the US on the lifting embargo. It was only after the public announcement of the European Council on the embargo Annalisa Giannella, Javier’s Solana Personal

⁶ Marcin Zaborowski, *EU-China Security Relations*, Paris: EU Institute for Security Studies, February 2008, p. 1.

⁷ Jonathan Holslag, “The European Union and China: The Great Disillusion,” *European Foreign Affairs Review*, No. 11, 2006, p. 569.

⁸ European Council, *Brussels European Council, Presidency Conclusions*, No. 5381/04, Brussels 12-13 December 2003, p. 19.

⁹ European Council, *Brussels European Council*, No. 10679/2/04 REV2, 17-18 June 2004, p.16, item 77.

¹⁰ Interview, Delegation of the European Commission in Japan, 26 June 2007.

¹¹ See for instance: Japan-France Summit Meeting and Dinner Hosted by Prime Minister Koizumi, 27 March 2005. <http://www.infojapan.org/region/europe/france/summit0503.html>; Japan lodges fresh protest to EU plan to lift China arms embargo, 16 September 2005, *EU business website*.
<http://www.eubusiness.com/Trade/050916160630.2zdp4yfa>

¹² Ellen Bork, *Human Rights and the EU Arms Embargo*, Memorandum of Opinion leaders, Washington, Project for the New American Century (PNAC), 22 March 2005 cited in Nicola Casarini, “The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership,” *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 35.

¹³ Unites States Senate, Republican Policy Committee (John Kyl, Chairman), *US Generosity Leads the World: The Truth about US Foreign Assistance*, 22 February 2005. cited in Nicola Casarini, “The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership,” *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 35.

Representative on Non-Proliferation of Weapons of Mass Destruction, visited US, Japan, Australia and other concerned countries to explain why the Europeans were considering lifting the EU arms embargo on China.¹⁴ After all, this attempt to lift embargo weakened relations of the EU with the US and, moreover, negatively influenced on the image of the former as independent and unified unity in the eyes of China.

To improve the situation in December 2004 the European Council stressed that a revised and stricter Code of Conduct will be put in place. Adopted in 1998, the EU Code of Conduct on Arms exports lays down eight criteria against which member states assess applications to export military equipment. Among the criteria several take into account concerns expressed by some partners of the EU, especially the US.¹⁵ In October 2005, the EU member states adopted a *User's Guide to the EU Code of Conduct on Arms Exports* aiming to help members states (especially export licensing officials) apply Code of Conduct.¹⁶ Yet, the Code of Conduct is not legally binding and the Council in its Sixth Annual Report of the EU Code of Conduct on Arms Exports declared that a number of EU members states have partially sidestepped the embargo by supplying China with components for military equipment, particularly engines for aircraft, frigates and submarines. The report shows that the values of licenses for arms exports to China increased from 54 million Euro in 2001 to 210 million Euro in 2002 and 416 million in 2003. France, Italy and the UK accounted for almost all of the sales.¹⁷ Thus, notwithstanding the embargo, some EU governments have been able to sell components for arms and the European Parliament urged to make Code of Conduct legally binding for all EU member states.¹⁸

Though officially not legally binding, the embargo remains intact and after 2005 elections in Germany when Angela Merkel became the Chancellor of Germany attempts to lift embargo have actually disappeared from the European agenda. In the meantime, it is clear that the European and American security perspectives on China are not identical and indeed they are increasingly divergent. Recently the continuing development of the EU as a global security actor as well as the European security interests and the expansion of China's interests overlap in the some areas and regions (Africa, Middle East).¹⁹ As it will be demonstrated below, such overlapping of interests have not brought an awareness on the European side that China becomes global and possesses both opportunities and risks inasmuch as European companies continue exporting technologies to China being attracted by Chinese market and consumption capacity.

Being directly involved in the maintenance of balance of power in East Asia especially with regards to cross-straits relations, the US and Japan act much stricter towards mainland China trying to avoid arms race between Beijing and Taipei.

For the Europeans the US remains staunchly opposed to any policy change on the embargo and the EU is concerned about making a move that could undermine the post-Iraq transatlantic *rapprochement*. "However, the importance of transatlantic considerations in this

¹⁴ Interview, Delegation of the European Commission in Japan, 26 June 2007.

¹⁵ Council of the European Union, *EU Code of Conduct on Arms Exports*, Brussels, 8 June 1998.

¹⁶ Council of the European Union, *User's Guide to the EU Code of Conduct on Arms Exports*, 13296/05, PESC 853, COARM 43, Brussels, 14 October 2005.

¹⁷ Council of the European Union, *Sixth Annual Report of the EU Code of Conduct on Arms Exports*, Brussels, November 2004; see also: SIPRI, *TIV of arms imports to China, 1993-2006* (http://www.sipri.org/contents/armstrad/output_types_TIV.html), whereby France, Germany and UK sells arms to China.

¹⁸ European Parliament, *European Parliament resolution of 13 March 2008 on the EU Code of Conduct on Arms Exports – failure of the Council to adopt the Common Position and transform the Code into a legally binding instrument*, Strasbourg, P6_TA(2008)0101.

¹⁹ Marcin Zaborowski, *EU-China Security Relations*, Paris: EU Institute for Security Studies, February 2008, p. 1.

decision seems exaggerated if not misjudged. After all, America's other close allies," - notes Marcin Zaborowski, - "Israel and Australia are selling arms to China, which so far has not led to any major friction in Washington's relations with these states."²⁰ Yet, according to SIPRI estimations neither Israel, nor Australia sell weapons to China. Israel made its last transaction in 2001.²¹

Japan, the US on one side and Europe on the other look differently at the issue of arms embargo on China. While for Europe lifting arms embargo is connected with human rights and multilateral world system, for Japan and the US it is a matter of hard security.²² When the word "China" is mentioned in Europe, the first reaction that a European has is "violation of human rights" but not "threat to won security." Here lays the main divergence in the views on China, its military budget and capabilities.

In the meantime China possesses three risks.²³ The first risk is a threat to direct neighbours, i.e. hard security. The second is the export of Chinese arms model abroad. There are already some precedents, like Sudan and Zimbabwe. On one side China does not interfere into domestic politics of countries. On the other it exports its military model there ignoring the issue of human rights and democracy. The third risk is environment and economy. The Europeans are concerned with the second and the third risks inasmuch as it relates to their interests in Africa and on the globe. At the same time, as Japanese diplomats note, Europe does not take seriously the security environment in East Asia.²⁴ Unfortunately it is not possible to find any sources that could shed the light on the progress of East Asia Strategic Dialogue between the EU and Japan launched in 2005. For Europeans it is a forum to exchange opinions and understand each other's positions on security balance in East Asia not necessary leading to operational conclusions²⁵ while Japanese do consider this dialogue so efficient since everybody holds own position and is not ready to change it.²⁶

Moreover, Japan does not believe that there will be transparency in China's military budget.²⁷ At least it does not count that it will be achieved in the near future. As such, Japan has made steps towards closer cooperation but China remains a non transparent country in terms of military expenses. In addition, Japan views China as a rising and non-transparent country with big population, big territory, control of the party, strong army.²⁸ And the main concern of Japan is to know true intentions of China to modernizes its army.²⁹

Europe assumes that economic cooperation will foster convergence on other issues as well. By increasing China's dependence on European capital, consumers and technologies, it aspires to achieve a spill-over of influence to other domains. This liberalist approach implies that interdependence will make China automatically a responsible stakeholder in world peace and stability. Moreover, developing China as a trading nation also has to trigger an interior evolution that eradicates the germs of nationalism and xenophobia. Aside from this rather spontaneous fine-tuning, commercial ties permit active steering as well. As China's development relies increasingly on Europe, economic sanctions and cooperation become more powerful tools for influencing its transition. Thus, economic, political and societal linking is sought to smooth differences in other domains, but it is also expected to add to Europe's

²⁰ Ibid, p. 4.

²¹ SIPRI, *TIV of arms imports to China, 1993-2006* (http://www.sipri.org/contents/armstrad/output_types_TIV.html).

²² Interview, Delegation of Japan to the European Commission, September 2008.

²³ Ibid.

²⁴ Ibid.

²⁵ Interview, Delegation of European Commission to Japan, 26 June 2007.

²⁶ National Institute for Defense Studies, Ministry of Defense of Japan, 27 September 2007.

²⁷ Personal consultations with Japan's high-rank military officer, Tokyo, 27 August 2008.

²⁸ Ibid.

²⁹ Interview, National Institute for Defense Studies, Ministry of Defense of Japan, 27 September 2007.

active-steering capacity.³⁰ However, such active entrepreneurial approach of Europe in the military sphere has created a situation when Europe is starting to fear the reborn state in which it infused substantial investments, aid, political efforts, and patience.³¹

All in all, though officially embargo stays intact, there are some cases of selling the weapons from EU member states (namely France, Italy, the UK) to China. We may say that US and Japan uphold realistic approach and oppose the lifting while the EU advocates liberal view on relations with China in military sphere. Now it is worth examining the China's military budget.

3. CHINA'S CURRENT TRENDS

3.1. China's military budget

In 2008 China's defence budget increased by 17.6% and composed \$59 billion (Figure 1), which is 1.7% of China's GDP, and \$45 per capita. Jiang Enzhu, a spokesman for the National People's Congress, said that the 2008 budget would fund only a "moderate increase" in weapons purchases. Most of the additional funds would go toward higher military salaries, rising oil costs and training programmes, he said. He noted that the country has a long-standing plan to modernize its forces.³² From 2003 to 2007, China's national defence spending increased by an annual average of 15.8%, while government revenue increased by an annual average of 22.1%.³³ Hence, China argues that its military budget is mainly spent on army modernization and on salaries. However, Beijing does not specify the number and type of People's Liberation Army (PLA) armaments, which causes speculations in other countries, especially the US, on that point.

The US places China's military expenditures for 2008 between \$97-\$139 billion, where the higher estimate is around 4% of China's GDP. Regardless of the exact figure, officials from the US Pentagon intelligence service consider that the Chinese defence budget remains the second largest in the world. The Japanese Ministry of Defence shares concerns over China's military budget non-transparency with the US. The Pentagon report said China's near-term focus remains on preparations for potential problems in the Taiwan Strait. Moreover, China's nuclear force modernization, its growing arsenal of advanced missiles and its development of space and cyberspace technologies are changing military balances in Asia and beyond³⁴ Accordingly, though the embargo remains intact, the security balance is already being changed in favour of China in East Asia.

Figure 1. Defence Expenditures of China: 1996-2007

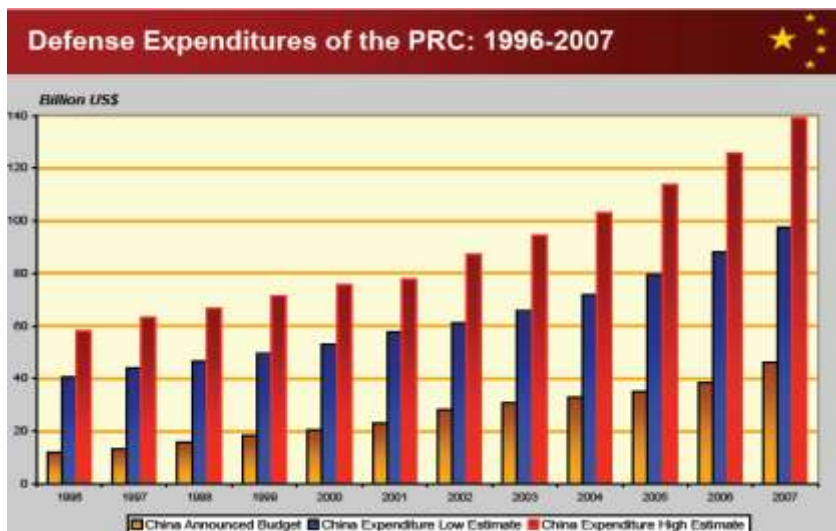
³⁰ Jonathan Holslag, "The European Union and China: The Great Disillusion," *European Foreign Affairs Review*, No. 11, 2006, p. 567.

³¹ *Ibid*, p. 578.

³² "China's Official Military Budget to Grow by 17.6% in 2008," *Defense Industry Daily*, 6 March 2008.

³³ *Ibid*.

³⁴ Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2008*, p. 29.



Source: Office of the Secretary of Defense, Annual Report to Congress: Military Power of the People's Republic of China 2008, p. 29. The graphic depicts China's official defense budget since 1996, and associated Department of Defense estimates of actual defense expenditures. Announced budgets are from State Council announcements during the annual National People's Congress meeting. Department of Defense estimates include projected expenses for strategic forces, foreign acquisitions, military research and development, and paramilitary forces. All figures are in 2007 US dollars.

The US Defense department argues the resources for PLA modernization include domestic defence expenditures, indigenous defence industrial developments, dual-use technologies, and foreign technology acquisition – all of which are driven by the performance of the economy.³⁵ As China's defence industries develop, the PLA is relying on acquisition of foreign weapons and technology, primarily from Russia, to fill near-term capability gaps. China also

harvests spin-offs from foreign direct investment and joint ventures in the civilian sector, technical knowledge and expertise of students returned from abroad, and state-sponsored industrial espionage to increase the level of technologies available to support military research, development, and acquisition. Beijing's long-term goal is to create a wholly indigenous defence industrial sector able to meet the needs of PLA modernization as well as to compete as a top-tier producer in the global arms trade. China is already competitive in some areas, such as communications, with leading international defence firms.³⁶ As it will be described below, the primary goal of China is to develop domestic space industry that would allow China to achieve hegemony both in civilian and military domains. Nonetheless, the US already regards China's modernized PLA being already a competitor to the US army in communication technologies.

At the same time, a slightly different take comes from the Stockholm International Peace Research Institute (SIPRI), which placed China behind the United States and Britain in total defence spending in 2007, but 2nd to the United States in purchasing power parity at \$140 billion to Washington's \$547 billion.³⁷ According to SIPRI estimates in 2007 China's military expenditures reached \$58.3 billion, which is 5% of world share military expenditures.

The modernisation and the growth of China's Peoples Liberation Army (PLA) does not raise the same concern in the EU as it does in the US. The EU recognises that China's rise must inevitably be reflected in the military and defence spheres. However, whilst the growth of China's military spending does not alarm the Europeans, Brussels is increasingly concerned about the lack of transparency in this process. In particular, the EU is sceptical about the actual level of the PLA's budget and its military objectives. Consequently, the EU has taken steps to develop its capacity to assess the PLA and China's defence policy.³⁸ While

³⁵ Ibid, p. 31.

³⁶ Ibid, p. 31.

³⁷ See: SIPRI, *Military Expenditure: SIPRI Yearbook 2008: Armaments, Disarmament, The 15 Major Spender Countries in 2007*.

³⁸ Marcin Zaborowski, *EU-China Security Relations*, EU Institute for Security Studies, February 2008, p. 4.

the US debate remains focused on the rapid growth in China's defence spending, the Europeans point out that even if China spends twice as much as it declares this is still a small fraction of the Pentagon's nearly \$500 billion budget.³⁹

Unfortunately, it was not possible to get information on European assessment of China's military defence budget, but it is clear that it views it not as sensitively as the US. Europeans take the increase of China's military budget as necessity to modernize the PLA. Contrary to the US, they are worried not so much about the increase of expenditures as about non-transparency of the military budget. While China explains increased military budget by rising oil costs and training programmes as well as increased military salaries, the US regards China's domestic defence expenditures, along with indigenous defence industrial developments, dual-use technologies, and foreign technology acquisition as main sources for the PLA's modernization, which enable China's modernized nuclear force, advanced missiles as well as space and cyberspace technologies to change the security balance in East Asia.

3.2. China's military capabilities

The military budget is directly linked with China's military capabilities. Due to non-transparency of the budget it is hard to estimate China's military capabilities. As mentioned above, official Beijing declares that China's defence expenditures mainly comprise expenses for personnel, training and maintenance, and equipment. Personnel expenses mainly cover salaries, insurance, food, clothing, and welfare benefits for officers, non-commissioned officers and enlisted men as well as for civilian employees.⁴⁰ Training and maintenance expenses cover troop training, institutional education, construction and maintenance of installations and facilities, and other expenses on routine consumables. The equipment expenses mainly cover research on, experimentation with, and procurement, maintenance, transportation and storage of weaponry and equipment. The defence expenditures cover not only the active forces, but also the militia and reserve forces. Also covered by the defence expenditure are costs to support part of the retired officers, education of servicemen's children and the national economic development, as well as other social expenses.⁴¹ However, China does not provide specific details on the number and type of PLA armaments and maintenance schedules, nor the alignment of units, troop movements, training records or defence spending.⁴²

Beijing realizes that Chinese army must import advanced weapons and military technology from other countries through "military diplomacy," which envisages military exchange, cooperation with the neighbouring countries and regions, and China's involvement in global security to build a stable and favourable international security environment. To achieve it China feels strongly that it must actively proceed on a "revolution in military affairs (RMA) with Chinese characteristics." In order to achieve the RMA, it is faced with the task of the "informationization" of the PLA. However, the "mechanization" of the PLA to strengthen the mobility and protection of PLA units is still less than complete. Having witnessed the first Gulf War and the Kosovo War, where precision guided weapons were extensively employed, China realized that major conflicts in the 21st century will be "information warfare," and that their outcome will be determined by C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) capabilities as well as by advanced space

³⁹ Ibid.

⁴⁰ *China's National Defense in 2006*, Information Office of the State Council of the People's Republic of China December 2006, Beijing, Chapter 9. Defence Expenditure.

⁴¹ Ibid.

⁴² National Institute of Defense Studies of Japan, *East Asian Strategic Review 2007*, Tokyo, March 2007, p. 126.

technologies.⁴³ With this in mind, the PLA set the “dual-historical task” of simultaneous mechanization and informationization. Afghanistan and Iraq wars impressed the leadership of the People’s Liberal Army (PLA) with the level of informatization. It was reflected in the Chinese defence white paper, *China’s National Defense in 2006* whereby it declared “the strategic goal of building informationized armed forces and being capable of winning informationized wars by the mid-21st century.”⁴⁴

Therefore, the PLA pursues its goal by means of science and technology. It works to accelerate change in the generating mode of war fighting capabilities by drawing on scientific and technological advances. The PLA seeks to raise its capabilities of independent innovation in weaponry and equipment, as well as defence-related science and technology, and strives to make major breakthroughs in some basic, pioneering and technological fields of strategic importance. It is stepping up its efforts to build a joint operational command system, training system and support system for fighting informationized wars and enhance the building of systems integration of services and arms.⁴⁵

Taking above into consideration lifting the EU arms embargo would potentially allow China access to military and dual-use technologies that would help it improve current weapon systems. Moreover, due to the facts that certain arms and technologies have been transferred by European countries despite the embargo, China could have started working on its future advanced weapon system. Ending the embargo could also remove implicit limits on Chinese military interaction with European militaries, giving China’s armed forces broad access to critical military “software” such as management practices, operational doctrine and training, and logistics expertise. Moreover, if the embargo is lifted, China’s strategy would likely center on establishing joint ventures with EU companies to acquire expertise and technology.⁴⁶ In the medium to long term, however, China is likely interested in acquiring advanced space technology, radar systems, early-warning aircraft, submarine technology, and advanced electronic components for precision-guided weapons systems.

In the 1990s – early 2000s China has been modernizing the conventional weapons arsenal. In 2006-2007 China has decreased the import of military weapons by 62%.⁴⁷ China imported helicopters, radars, airplane engines and missiles as well as Kilo-type submarines (Figure 2).

Figure 2. Russian Arms Sales to China, 2001-2005

Equipment	Year	Quantity
Su-30MKK aircraft	2001	38
Kilo-class submarines	2002	up to 8
SOVREMENNYI II-class destroyers	2002	2
S-300PMU-1 surface-to-air missile system	2002	4 battalions
Su-30MK2 aircraft	2003	24
S-300PMU-2 surface-to-air missile system	2004	8 battalions
AL-31F aircraft engines for the F-10 fighter	2004	100

⁴³ National Institute for Defense Studies, Ministry of Defense of Japan, 27 September 2007.

⁴⁴ *China’s National Defense in 2006*, Information Office of the State Council of the People’s Republic of China December 2006, Beijing, Chapter 2. National Defence Policy.

⁴⁵ Ibid.

⁴⁶ *Annual Reports to Congress: Military Power of the People’s Republic of China 2006*, Office of the Secretary of Defense, pp. 22-23.

⁴⁷ Andrey Terekhov, Viktor Myasnikov, “China transfers to self-sufficiency in Russian weapons [Kitay perehodit na samoobespecheniye Rossiyskimi vooruzheniyami],” *Nezavisimoye Voyennoye Obozreniye*, 4 April 2008.

http://nvo.ng.ru/notes/2008-04-04/8_china.html

Simultaneously, China assembled airplanes upon Russian license. All in all, China would need

IL-76 transport aircraft	2004	10
RD-93 aircraft engines for the JF-17 fighters	2005	100
IL-76 transport aircraft	2005	40
IL-78 tanker aircraft	2005	8

Source: Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2006*, p. 21. Note: Quantity indicates numbers of units in the purchase agreement. Actual deliveries may be spread across several years.

Russian military equipment less and less, which is its intentions. Meanwhile "... the defence industry of China is developing due to import of license and equipment from Russia, which allows China to increase its own production," acknowledges SIPRI researcher Paul Holtom.⁴⁸ At the same time Moscow fears that its military products would be copied by China. For instance, Russia exported Su-27k and now China has very similar airplane J11B. In the air force China possesses more than 150 SU-27, SU-30 and possibly SU-33. In naval force China bought Kilo-class submarines and Sovremenny II class destroyers. Thus, firstly because of copyrights Russia is not in a hurry to export more weapons to China. Secondly, China has almost re-modernized its army and therefore it does not need more units of weapons from Russia. Therefore, it can be expected that Russia's export to China would decrease in the coming years. In addition, to counterbalance China, Russia also sells its weapons to India, which makes China very unsatisfied with this fact.

The most noticeable development in the overall balance of air warfare capabilities in Northeast Asia is China's increased deployment of Su-27 and Su-30 fourth-generation fighters. In sheer terms of number of fourth-generation fighters owned, China already rivals Japan and may take the lead in the near future.⁴⁹ If that happens, the balance in air power would greatly shift in China's favor, with Japan losing the qualitative superiority it has so far enjoyed. As such, the regional strategic balance is changing, and thus is a critical concern for both Japan and the United States.⁵⁰

In addition, Japan and the United States are the only countries that operate full-scale airborne warning and control system (AWACS) capabilities in East Asia, and the qualitative strategic superiority enjoyed by both nations largely derives from those capabilities. However, some security experts hold that it is only a matter of time before China puts full-fledged AWACS capabilities into operation.⁵¹

Finally, from global perspective lifting the EU arms embargo could accelerate weapons proliferation to countries that the EU wants to remain isolated. Beijing's track record in transfers of conventional arms and military technologies suggests EU or other third party sales to China could lead to improvements in the systems that Chinese companies market abroad, including to countries of concern (in the Middle East, Africa). Hence, for the US and Japan the main concern about China is a discrepancy between what it declares and what is really pursues. The problem of transparency complicates the situation around PLA's capabilities as well as around the lifting.

From market viewpoint, lifting the EU embargo would also lead to greater foreign competition to sell arms to the PLA, giving Beijing leverage over Russia. In order to secure its share on the Chinese defence market, hypothetically the US would start selling weapons to China too. Then China would be very selective in weapons it would buy inasmuch as it has almost finished to re-modernize its army and according to the strategy development it is planning to export arms itself (it may have potential customers in Africa and Central Asia).

⁴⁸ Ibid.

⁴⁹ National Institute of Defense Studies of Japan, *East Asian Strategic Review 2008*, Tokyo, March 2007, p. 214.

⁵⁰ Ibid.

⁵¹ Ibid, p. 213.

As demonstrated, even despite the embargo intact, the security balance in East Asia is already changing in favour of China especially in communication technologies, possibly air warfare technologies. China's primary goal is advanced technologies, including space ones. Therefore, now we will examine what China does in research and development area.

3.3. China's R&D expenditures, Research centres

During Cultural Revolution scientists and scholars, and science and technology were oppressed. In 1978 at the 4th National Conference on Science and Technology Deng Xiaoping made clear that along with industry, agriculture and army, science and technology is the fourth point of modernization.⁵² Since then the expenditures on R&D have been gradually increasing (Figure 3). Though not considerable in terms of GDP ratio (increase from 0.6% in 1995 to 0.8% 2006), China increased expenditures on R&D.

In 1978 the slogan "Science and Technology is the leading productivity power" emerged.⁵³ Next, after announcement of three reformations (state enterprises, financial, administrative) and in order to employ population, the emphasis was made on the development of private business in high-tech sector. Later, in addition to traditional high-tech, there were set high-tech companies in information technology, biotechnology and pharmaceuticals.

In 2006 the State Council of China adopted the Guidelines on National Medium- and Long-Term Program for Science and Technology Development (2006-2020), whereby it states that "by 2020, the progress of science and technology will contribute at least 60 percent to the country's development. Meanwhile, the country's reliance on foreign technology will decline to 30 percent and below."⁵⁴ Thus, instead of dependence on imported technologies, China is going to rely upon its resources. According to the guidelines, China will push enterprises to spend more on research and development while state financial investment will be used to mainly develop basic research.

The Guidelines defined eleven sectors where the technological development is given priority. These key industries are energy, waters resources, mining resources, the environment, agriculture, manufacturing, communications and transport, information industry and modern service industries, population and health, urbanization and urban development, public security, and national defence. With regards to the last sector, national defence, it is envisaged that "China will reform the current scientific and technological management system and combine and coordinate the military and civilian research organizations."⁵⁵ In this view China encourages military organizations to shoulder up the tasks of scientific research for civilian use. At the same time, civilian research institutes and enterprises are also allowed to take part in national defence research projects.⁵⁶

Figure 3. China's Expenditure on Science and Research in 1978-2004 (mln yuan)

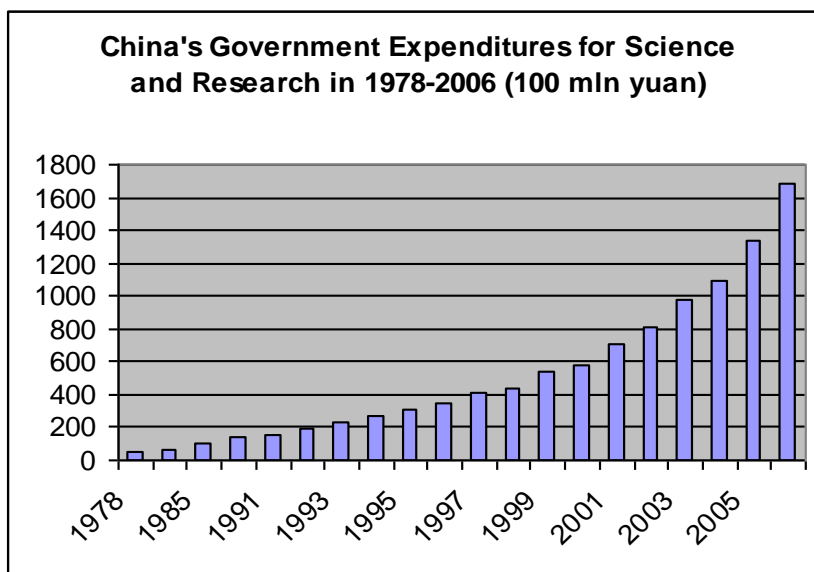
⁵² National Institute of Science and Technology Policy (NISTEP), MEXT, *Syuyona Kuni ni Okeru Shisaku Doko Chiyosa Oyobi Tassei Koka ni Kakaru Kokusai Hikaku Bunseki [Comparative Analysis on S&T Policies and Their Achievements between Major Countries]*, NISTEP Report No. 81, May 2004, p. 284.

⁵³ Ibid, pp. 284-319.

⁵⁴ *China Issues Science and Development Guidelines*, 9 February 2006, Chinese Government's Official Web Portal: http://www.gov.cn/english/2006-02/09/content_183426.htm

⁵⁵ *China Issues Guidelines on Science and Technology Development Programme*, 9 February 2006, Chinese Government's Official Web Portal: http://www.gov.cn/english/2006-02/09/content_184426.htm

⁵⁶ Ibid.



Source: China Statistical yearbook 2007 <http://www.stats.gov.cn/tjsj/ndsj/2007/indexeh.htm>

domestically.⁵⁷ Actually, China has no shortage of well-trained scientists, engineers, mathematicians or other technical experts. A considerable majority of Chinese scholars educated abroad over the last two decades are working on key research projects in China thus applying both knowledge and high-tech technologies to conduct research independently or in cooperation with foreign colleagues. Nowadays China's research and development is especially active in atomic nuclear power energy, space industry, high energy physics, biology, computer science, electric communications, where China attained or is approaching advanced level. Such tremendous development cannot *not* worry its counterparts both from viewpoints of competition and adaptation new conditions dictated by Chinese growth.

To conclude, China's primary goal in military area is to have advanced space technologies. China and the EU have agreed to open their research programmes to accommodate the increasing number of joint research projects. More and more Chinese have been invited to participate in the EU-funded 7th Framework Programme for research, Technology Development and Demonstration Activities (RTD) for the period 2007-2013 and China is attracting Europeans into projects under its research programmes.

Constant increase of expenditures on research and development, establishment of research centres, granting favourable tax regime to these centres and joint projects with foreign institutions and states on R&D provide a sound basis for China's aspiration to become the exporter of technologies in the future. Moreover, since Beijing is uniting civil and defence research, it would not be hard for China to produce and export its own advanced weapons. Obviously, emergence of China as arms exporter would restructure the world weapons market. In order to achieve the goals as fast as possible, China is active in importing high technologies and in the next section we are going to study European technology transfer to China.

3.4. European Technology Transfer to China

It is obvious that in an increasingly globalised economy China is likely to depend on its capacity to maintain and develop its comparative advantages in high-technology goods. The Chinese government has emphasised the need for FDI to be coupled with the transfer of more

China possesses considerable economic and human resources to implement its strategy. It welcomes the establishment of research centres and even provides favourable tax regime for them. It is also concerned with brain drain and prefers scientists and researchers not to leave the country thus creating appropriate conditions for research

⁵⁷ Interview, Research Centre for Advanced Science and Technology (RCAST), University of Tokyo, 27 April 2006.

advanced technologies to China.⁵⁸ In an effort to develop high-tech industries, Chinese foreign import technology policies have become increasingly selective and restrictive in the type of imports and investments that are allowed or officially encouraged. In particular, there have been increased emphases on industry-specific investment and high-technology imports. Owing to it China has become the world's first exporter of information technology products, though, as discussed previously, the large proportion of these exports come from foreign companies established in China that import research-intensive, high value-added components.

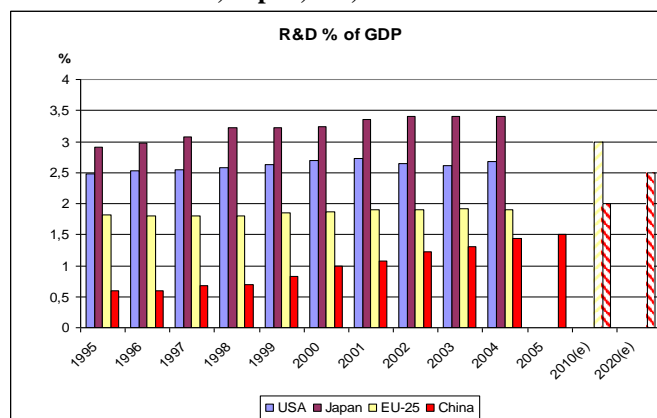
Innovative technologies are tools to implement successful strategies to stay competitive on the world market. In 2006 the European parliament acknowledged, “[whereas] China has tripled its expenditure on research and development in the past five years... Europe must rise to this challenge in order to continue to benefit from world trade in future.”⁵⁹

(Figure 4) As demonstrated herein, research and development is not only

trade and competitiveness in the world but also security, i.e. sophisticated weapons, social expenditures and the competitiveness in the many areas, not exclusively trade.

All in all, access to China's attractive market is often used as leverage to get foreign partners in larger joint ventures to provide their technology on terms that most Western companies would not be ready to accept anywhere else.⁶⁰ By purchasing high-tech goods off the shelf, China does not have to pass through the development process itself. However, the government is also chasing more actively for technological development and knowledge.⁶¹ Thus, in its EU Policy Paper, Beijing appeals to Europe to ease restrictions on high-tech exports, and vows to tap the enormous potential of technological cooperation.⁶² The Chinese side would like to see EU participation in IT promotion. Space technology, high energy physics, polar exploration and development, life science, biotechnology, bio-diversity, resources, environment and human health are other major areas of interest. China succeeded in plugging into European expertise in several of these fields. In terms of technology transfer, EU countries already are China's biggest supplier of technologies and equipment.⁶³ By the end of September 2004, China had introduced 18 363 technologies from the EU with a contract value of \$79.4 billion.⁶⁴ Below I will briefly demonstrate how actively China and Europe cooperate in science and technology area.

Figure 4. R&D Expenditures in GDP in China, Japan, EU, USA



Source: MEXT, *Indicators of Science and Technology 2005*.

⁵⁸ For details see: Olena Mykal, “China within Global Technology Transfer Policy of Japan: Implications for Europe,” *Asia-Pacific journal of EU Studies*, Vol. 4. No. 2, pp. 137-66.

⁵⁹ European Parliament resolution on prospects for trade relations between the EU and China (2005/2015(INI), *Official Journal of the European Union*, 28.9.2006, C 233 pp. 103-111, item M.

⁶⁰ Nicola Casarini, “The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership,” *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 30.

⁶¹ Jonathan Holslag, “The European Union and China: The Great Disillusion,” *European Foreign Affairs Review*, No. 11, 2006, p. 573.

⁶² State Council, *China's EU Policy Paper* (State Council, Beijing, 2005), section II.1.

⁶³ Jonathan Holslag, “The European Union and China: The Great Disillusion,” *European Foreign Affairs Review*, No. 11, 2006, p. 562.

⁶⁴ Huang Qing, “China-EU Relations: More Vigorous. More Mature,” *People's Daily*, 16 December 2005.

To start with, in September 2003 China joined the European satellite navigation project Galileo contributing 230 million Euro. As a natural cause it leads to technology sharing between Europe and China, which allows China to develop the satellite guided navigation technology by Chinese domestic industry. Moreover, China's goal is to reach military superiority in space, which is a key element to achieving operational objectives of the PLA. Although most of China's space programmes have mainly commercial and scientific purposes, improved space technology has the potential to significantly improve Chinese military capabilities.⁶⁵ The European side rejects American worries that China could gain a military advantage from Galileo. The European Commission argues that the Public Regulated Service (PRS) would be withheld from China and any other non-EU participants in the system. The PRS is a encrypted signal, meant to guarantee continuous signal access in the event of threats or crisis. Unlike other Galileo signals, the PRS will be accessible even when the other services are not available, making it suitable for security- and military-related uses.⁶⁶ Yet, as Nicola Casarini acknowledges, "there is still a fair amount of unpredictability as to what China will be able to use – or not to use – in the end. However, in any case research work on Galileo will assist China in fostering the development of its own, independent satellite navigation system. In fact, as already happened in the past, China will almost certainly be able to sue foreign technology to upgrade its indigenous space capabilities."⁶⁷

Secondly, France, Germany and the United Kingdom lobbied hard to convince Beijing to purchase Airbus aircraft instead of its American rival Boeing to secure the share of the rising China's defence budget.⁶⁸ The Airbus - whose corporate parent is European Aeronautic Defence and Space - partnership with China dates to 2005, when the company opened a design center in Beijing. In June 2006, Airbus agreed to set up an A320 assembly line in Tianjin. That line, which is still under construction, is expected to make about four planes a month by 2011. In November 2007 Airbus received orders from Chinese airlines for 160 passenger planes worth about \$14.8 billion. In return, Airbus promised "to award to Chinese companies at least 5 percent of the supply contracts for its next-generation widebody jet, the A350-XWB."⁶⁹ Outside of euro-zone such jet was offered only to Russia.⁷⁰ Airbus said it would involve its Chinese partners in the development of the 300-seat A350 plane in Harbin, where the site is expected to be ready in 2009. Airbus said that its initial guarantee of 5 percent of the work "may be enlarged based on the future business plan." In addition, Airbus signed a memorandum of understanding with the National Development Reform Commission that granted risk-sharing supply contracts to Chinese manufacturers for many of the A350's moving parts, including wing flaps and tail rudders. Hence, Airbus has increasingly offered

⁶⁵ William S. Murray III and Robert Antonellis, "China's Space Program: The Dragon Eyes the Moon (and Us)," *Orbis*, Autumn 2003, pp. 645-52, cited in Nicola Casarini, "The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership," *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 29.

⁶⁶ Gustav Lindstrom, Giovanni Gasparini, "The Galileo Satellite System and its Security Implications," *Occasional Paper* (Paris: European Union Institute for Security Studies), 2003, No. 44, p. 19.

⁶⁷ Nicola Casarini, "The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership," *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 29.

⁶⁸ Jonathan Holslag, "The European Union and China: The Great Disillusion," *European Foreign Affairs Review*, No. 11, 2006, p. 570.

⁶⁹ Nicola Clark, David Laguea, "Airbus Part of \$30 Billion in Contracts with China," *The New York Times (electronic edition)*, 27 November, 2007.

⁷⁰ European Aeronautic Defense and Space (EADS), corporate parent of Airbus, in March 2007 agreed to give 5 percent of the work on the A350 to Russian companies as part of a \$4.4 billion deal that committed the Russian carrier Aeroflot to buying 22 planes. See: Nicola Clark, David Laguea, "Airbus Part of \$30 Billion in Contracts with China," *The New York Times (electronic edition)*, 27 November, 2007.

China projects that over time will make Chinese producers critical suppliers of components and sub-assemblies for some of the most important Airbus products.⁷¹

Thirdly, French nuclear company Areva won an \$11.9 billion agreement to build nuclear reactors as well as to supply technology and uranium to China that tries to reduce its dependence on coal. Areva is expected to build two third-generation reactors at Taishan in the southern Chinese province of Guangdong under a contract with China Guangdong Nuclear Power. In response the Chinese company agreed to buy 35% of the production of Areva's uranium-mining subsidiary, UraMin, which plans to obtain the nuclear fuel from its three mines in Africa. In addition, Europe and China could become long-term partners in nuclear fuel processing after Areva signed a separate deal with the China National Nuclear Corporation to study whether to build a reprocessing plant for spent fuel.

Finally, the telecommunications equipment maker Alcatel-Lucent, the engineering group Alstom and the utility groups Suez and Électricité de France also have large contracts in China. Alcatel-Lucent, the world's biggest maker of telecommunications gear, received orders worth 750 million euros to expand the networks of China's two largest cellphone carriers. The French utility Suez signed agreements with two cities, Chongqing and Tianjin, for water and waste management services, while engineering group Alstom received a contract worth 43 million euros to supply electronic equipment for the subway system of Shanghai. Eurocopter, a division of EADS, was expected to sign a contract with China's military for 10 helicopters worth 80 million euros.

Abovementioned cases confirm the value of China as a market for European technology despite tensions over human rights, trade and the environment. To generalize, the accumulation of the transferred technologies and their application in domestic researches (without investing so heavily in research previously done by Europeans, Americans or Japanese) supposes that little by little China becomes or already became the leader in R&D. As Nicola Casarini notes, "Europe has become over the years a source for advanced technology that would otherwise be more difficult (if not impossible) to obtain from the US or Japan."⁷² Access to advanced technology not only ensures competitiveness over medium to longer term, but it is also a prerequisite for the modernization of Chinese industry and by default army. Therefore, given the pattern of technology transfer between Europe and China, the practical impact of the embargo is highly questionable. Moreover, though Europeans want to establish a system where China depends on Europe, there is an opposite side of the "coin": Europe becomes increasingly dependent on China.

4. CONCLUSION - IMPLICATIONS FOR EAST ASIAN INTEGRATION PROCESS

The EU attempts to lift arms embargo on China have a direct influence on the future of East Asian integration and limited impact on security balance in the region inasmuch as it is already changing in favour of China. Firstly, in spite of the embargo some EU member states sell weapons to China. Secondly, unlike the US and Japan, Europe does not consider increase of China's military expenditures as an alarming sign of its militarization. Therefore, it is quite skeptical about China's actual military expenditures arguing that still they are far

⁷¹ Claud Fouquet, "La France engrange 9 milliards d'euros de contrats avec la Chine," *Les Echos*, 6 December 2005 (Tue), p. 6, cited in Nicola Casarini, "The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership," *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 30.

⁷² Nicola Casarini, "The Evolution of the EU-China Relationship: from Constructive Engagement to Strategic Partnership," *Occasional Paper* (Paris: European Union Institute for Security Studies), No. 64, 2006, p. 29.

from almost \$500 billion Pentagon budget. Thirdly, in the US (and possibly European) estimations China's modernized nuclear force, advanced missiles, communication, space and cyberspace technologies are changing the security balance in East Asia. Fourthly, China and the EU are actively involved in joint research projects, where Galileo is most illustrative case. Constant increase of expenditures on research and development, establishment of research centres, granting favourable tax regime to these centres provide a sound basis for China's aspiration to become a producer and exporter of both civilian and military technologies in the future. Finally, though being aware that R&D are closely connected with dual-use technologies and advanced weapons, Europe actively transfers production together with technologies to China as in the case with Airbus.

Therefore, given the scope of cooperation between Europe and China, the practical impact of the embargo is doubtful. It should be also stressed that while US (and Japan) upholds monolipolarity, the EU attempts to counterbalance it by *inter alia* attracting China into a construction of multilateral world order. However, emergence of China as a global player with not clear intentions possesses risks due to non-transparent military expenditures, changing military balance in East Asia, hasty and selective technology import.

As demonstrated, the arms embargo is not so much an effective tool to contain China and motivate it to improve domestic situation with human rights due to extensive relations between Europe and China and other ways European technologies to be introduced in China's defence area. The EU arms embargo is a litmus paper that gives an idea how the US, Japan on one side and Europe on the other views China's military capabilities: it indicates unlikeliness of common vision between China and Japan on regional integration. Therefore, unless properly nurtured, nowadays Sino-Japanese relations would continue to be locked in the pattern of interdependence in economy and rivalry in politics.