Looking In and Looking Out:
Understanding China’s Non-Membership of the Wassenaar Arrangement

A THESIS

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Abstract

As a part of the Multilateral Export Control Regimes (MECR), the Wassenaar Arrangement (WA) is an important tool to prevent the illicit acquisition and accumulation of conventional weapons, dual-use items and technologies. Engaging and involving countries that manufacture and possess these sensitive items can reduce the risk of such items and technologies falling into the wrong hands. Given that China is currently a significant source country for many types of conventional weapons and dual-use items, understanding China’s non-membership of the WA and the reasons for its non-membership can aid in future dialogue between China and the WA, thereby strengthening the WA and the international nonproliferation regime.

This thesis first examines four major reasons behind China’s non-membership of the WA from U.S., Russian, and Chinese perspectives and since the formation of the WA until the present day. In addition, an assessment of these four reasons is conducted. The assessment shows that China was willing to join the WA at various junctures but its membership was not accepted because it was unable to meet requirements for WA membership. Over time, China became frustrated over repeated failures in obtaining WA membership and interest in membership began to wane. Importantly, as China’s own industrial and economic development progressed, China saw little benefits of WA membership. Other factors considered in this study include China’s own behavior in exporting Chinese-origin weapons and high-tech products to non-WA countries and the implications of China’s still developing domestic export control regime. Lastly, arguments that the WA is used as a tool by western powers to hinder China from getting access to the high-tech items is also considered.

This study concludes that the objective of the WA, namely the control of proliferation-sensitive items and technologies, has been sidetracked and failure to include China in the WA hinders the effectiveness of the WA as a whole. Due to China’s domestic development and increasing global clout, inclusion of China in the WA will strengthen existing export controls and international nonproliferation.
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Acronyms

AG: Australia Group
CCL: Commerce Control list
CNC: Computer Numerical Control
COCOM: Coordinating Committee for Multilateral Export Controls
EAR: Export Administration Regulation
EXBS: Export Control and Related Border Security
INECP: International Nonproliferation Export Control Program
MECR: Multilateral Export Control Regime
MTCR: Missile Technology Control Regime
NSG: Nuclear Suppliers Group
WA: Wassenaar Arrangement
WMD: Weapons of Massive Destruction
CHAPTER 1. INTRODUCTION

1.1. Problem diagnosis

The Wassenaar Arrangement (WA) is widely recognized as one of four major Multilateral Export Control Regimes (MECR) that help address international security and stability by strengthening international nonproliferation efforts and by attempting to prevent undesired transfer of conventional arms and dual-use items and technologies to nefarious actors. As an economic powerhouse and major international power, China is a primary manufacturer, supplier, and developer of a large number of advanced conventional weapons, dual-use items and related technologies. Therefore, engaging China on nonproliferation issues and developing China’s relationship with the WA is an essential step towards strengthening the international nonproliferation regime. Unfortunately, since the establishment of the WA in 1996, China has not become a member of the WA, despite attempts at engagement between the two parties.

1.2. Research questions

This paper seeks to understand the reasons behind China’s non-membership of the WA and how China and the WA can engage each other to strengthen the regime. It has been almost twenty years since the WA was established and in this time the world has seen significant changes in international security environment. Consequently, prospections of the WA, as with other MECRs, differ among the international community. Even among member or participating states in the WA, the value and the priorities of the WA are not identical across the board.

For example, the WA is often seen as being dominated by western countries like the U.S. Nevertheless, Russia is a member of the WA and it is beyond doubt that western countries and Russia often times have divergent geopolitical interest and different, if
not conflicting security outlooks. Similar to Russia, China and western countries do not always see eye to eye in geopolitics. In studying the different reasons for China’s non-membership of the WA, the difference in Russian and Chinese approaches to the WA can also be reviewed. For this purpose and in an attempt to gain a comprehensive understanding of this topic, this paper attempts to examine reasons for China’s non-membership of the WA from the perspectives of U.S., Russian, and Chinese observers.

Unfortunately, states are often unwilling to articulate their exact motivations and reasons for their behavior and interpretations towards particular subjects or topics. Thus, potential reasons for China’s non-membership of the WA are drawn mostly from the different perspectives sourced from official documents, academia, and publicly available records of engagement between China and the WA. In addition, in the two decades since the WA’s formation, China has experienced tremendous transformation. This paper also links the various developments of the past two decades in influencing the dynamic of China’s approach towards the WA. By looking at the various perspectives and the changing dynamics of the past twenty years, this paper assesses the strength and reasoning of different arguments. Through this process the strongest reasons that explain why China is not a member of the WA are identified. Finally, any recommendations or implications towards progressing China’s engagement with the WA will be discussed.

1.3. Political and scientific relevance

The reasons for undertaking this identification and assessment of China’s approach to the WA predominately revolve around the desire to see the international nonproliferation regime strengthened by more inclusive MECRs. Reflecting on why China is not included in the WA helps shape understanding of China’s approach to the international nonproliferation regime and allows for increased dialogue between China and other appropriate international institutions, entities, and stakeholders.
Despite the importance of understanding why China is not a WA member, much of the existing literature that attempts to explain China’s non-membership in the WA is often repetitive and outdated. This applies equally to material from U.S., Russia, and Chinese perspectives. Given this, much of the material neither reflects contemporary geopolitics nor the current state of engagement between China and the WA. Nevertheless, a comprehensive literature review is provided in order to understand previously established explanations of China’s non-membership of the WA and to serve as points of reflection regarding possible changes in China’s approach to the WA during the twenty years since the WA has been formed.

1.4. Theoretical approach

Theory, or conceptual framework provides a method to interpret facts and phenomena. Therefore, theory on regime formation in the international relations realm can also be used to explain why China is not a member of the WA. Due to the range of literature available in studying why China is not a member of the WA, it is important to understand why particular regimes and institutions such as the WA are formed and why these bodies are comprised of some states but not others. Regardless of the existing views of regime and institution formation (mainly Howard, Gordon and Oran), this paper argues institutions or regimes are ultimately formed to serve, or at least be not detrimental to, the interest of the actors which initiated such formation. Likewise, after formation of a particular institution or regime, the inclusion or exclusion of various actors can be explained by the same rationale with


3. By saying in a broad sense, this paper focuses on the big picture of whether a well-directed purpose in general can be achieved by all the participants within the regime. For example, the UN, although members share diversities in terms of their interest, the main goal is the same – to save succeeding generations from the scourge of war.
the interest of existing members of the institution or the regime being the first priority for that particular institution or regime.

Undoubtedly, WA, as a MECR, contributes to strengthening the global nonproliferation regime. However, states will always place their own national interests first and this remains true in regards to states’ contributions and participation with elements of the global nonproliferation regime.

1.5. Methodology

The literature analysis is conducted to summarize the different perspectives related to the dialogue between China and the WA. A comparative study is necessary and serves as a valuable approach to providing insight on the WA decision-making and proceedings. The approach will compare certain WA members’ national export control restrictions on certain “military end-users” particularly in regards to WA-member Russia and WA-nonmember China. This will help inform identification and analysis of potential factors driving China’s exclusion from the WA.

Finally, a case study approach will be applied. For the purpose of this paper, several case studies involving the export for WA-controlled technologies including the semiconductor industry and lithography equipment will also be used to provide supplementary information with regards to contemporary factors driving China’s non-membership of the WA.

1.6. Sources

The primary sources used in this paper are comprised of statements from State Council of the People’s Republic of China, the Ministry of Foreign Affairs of the People’s Republic of China, the Ministry of National Defense of the People’s Republic of China, as well as official news agencies. The secondary sources consist of articles written by diplomats, who participated in the WA negotiations. These diplomats served in delegations from the U.S. and Russia. Additional secondary
sources include, books chapters, reports and articles on China’s engagement with the WA by academic experts and researchers. Yet more sources vary in their openness and transparency with regards to the topic under discussion. Beyond this problem with transparency, the validity and reliability of yet other resources is hard to confirm. Finally, email correspondence with individuals with first-hand knowledge of China’s engagement with the WA are also used. Such correspondence provide an inside perspective in attempting to answer the research questions and to provide incentive for future research.
CHAPTER 2. RELEVANT FACTS OF THE WASSENAAR ARRANGEMENT AND CHINA

2.1. The transformation from COCOM to the WA

The origin of the WA can be traced back to when the United States, along with its allies, established the Coordination Committee on Multilateral Export Controls (COCOM) to prevent high technology and products from flowing into Communist Bloc states, namely, the Soviet Union (USSR), China as well as Soviet-led allied and affiliated states. COCOM represented a product of the Cold War, but its influence on and transformation into the WA came after the collapse of Soviet Union and the end of the Cold War.

The collapse of USSR and the subsequent end of the Cold War led to increasing pressure to dissolve COCOM. Such pressure mainly came from Germany and France and resulted from the shift in priorities from strategic defense to economical development. In addition, there was a perception that COCOM could not address nonproliferation in the new era. Therefore, a new regime to reform and continue the mission of COCOM was in urgent need. A Middle East arms control initiative led by the P-5 and closely related to British Prime Minister John Major’s endeavor of creating the UN Register of Conventional Arms, was proposed by President Bush. However, China unexpectedly ended its participation in the initiative talks among the P-5 in September 1992 because the U.S. finalized a sale of 150 F-16 Fighting Falcons fighter jets to Taiwan. Beijing considered this to be a violation of the spirit of the August 17, 1982 U.S.-China Communiqué on Arms Sales to Taiwan. Beijing believed the sale “violently interfered” with China’s internal political affairs and severely

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6. Ibid.
sabotaged the Sino-US relations. As a consequence, the P-5 talks were permanently halted in late 1992. After the failure of the P-5 talks, a similar proposal was made through the G-7 countries: Canada, France, Germany, Italy, Japan, the United Kingdom, the United States. This was aimed at preventing sensitive industrial equipment transfers to four problematic states: Iran, Iraq, Libya, and North Korea. Unfortunately, this proposal was aborted at the end of President George H. W. Bush’s administration.

The idea of the WA came into being from an accidental talk between Presidents Clinton and Yeltsin. The U.S. was concerned that Russia was trading arms with Iran, considered to be a the rogue country by the U.S. However, Russia did not make any compromises in terms of its trade with Iran. One Russian official straightforwardly expressed that “Iran is our partner. It was our partner; it is our partner; it will be our partner.” On the flip side, Russia was concerned about America’s arms sale to Saudi Arabia and Israel. Finally, after a marathon of two years’ negotiation, the U.S. and Russia decided to settle their mutual dispute and agreed to discuss what would eventually become the WA. As for China, the U.S. was indifferent on involving China in the negotiations of what would subsequently become the WA. This indifference is attributed to the circumstances of the failure of the previous P-5 talks. As for other

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10. James A. Lewis.


12. Ibid. P. 44.
countries, regardless of their own individual interests, they followed the U.S. position and did not engage China on initial negotiations for the WA.\textsuperscript{13}

\subsection*{2.2. WA – the new MECR}

Through the efforts of the initial negotiating countries, the WA was established in 1996 and became one of four multilateral export control regimes (MECR) in support of the nonproliferation regime. The WA mainly includes control lists and information exchange procedures. Member states of the WA include the world's major arms manufacturing and exporting countries, including the United States, the United Kingdom, Japan, France, Germany, and Russia. Although the WA attempts to standardize control lists and practices among member states, member states carry out state control over the implementation of these control lists and practices at the national level. Moreover, governments, at their own discretion, decide whether to allow or refuse the transfer of an item and, on a voluntary basis, to notify other WA member states of the relevant information. The WA provides a forum by which members may coordinate and share export control practices and policies.

The WA specifically includes four key tenants: First, the exchange of information regarding controlled exports is limited to exports to non-Member States and notifying is not required in regards to trade between Member States. Second, Member States may voluntarily notify each other about approval and refusal of transfers. A state's notification of a refusal to transfer a particular item does not obligate other Member States to refuse similar transfers. Third, the exchange of information is kept confidential by the WA and is regarded the same as privileged. Fourth, each state's notification mechanism for permitting or refusing exports is based on "decision of their own discretion", and all measures are implemented by all countries at their own discretion. Although the U.S. plays a leading role, the WA allows states to sell items in accordance with their own will and the WA’s informal

\textsuperscript{13} James A. Lewis.
nature means that there is no enforcement mechanism.14

2.3. The WA Control List, EAR Control List and “China Rule”

The WA Control List of conventional arms, dual-use goods and technologies include nine categories: Category 1-Special Materials and Related Equipment; Category 2-Materials Processing; Category 3-Electronics; Category 4 - Computers; Category 5-Part 1 Telecommunications, and Part 2-“Information Security”; Category 6-Sensors and “Lasers”; Category 7-Navigation and Avionics; Category 8-Marine; Category 9- Aerospace and Propulsion. Each categories include five clusters of items: systems, equipment and components; test, inspection and production equipment; materials; software; technology.

When comparing the WA control list with Export Administration Regulations (EAR) Commerce Control list (CCL) of the U.S., although both are used as guides on controlling sensitive exports, the extent of control is different. In terms of the categories, the WA list is very similar to the CCL. The WA list includes 9 categories whereas the CCL has 10 categories, which includes the 9 categories corresponding to the WA list as well as the category 0 – nuclear material, equipment and others. In terms of the items, both the WA and the CCL include Group A- Systems, equipment and components; Group B-test, inspection and production equipment; Group C-materials; Group D-software; Group E-technology. In terms of the specifics, the U.S. CCL and related procedures impose controls beyond WA commitments.

For example, compliance with the EAR and the corresponding CCL lists licensing procedures, reasons for control, country group, license exception, and the concrete parameters of controlled items requires a thorough understanding of regulations and minute details imposed by the U.S. In terms of the country group, it is

worth mentioning the China Rule”\textsuperscript{15}.

In the 2000s, Washington established the so-called China Rule. As the name indicates, China is the focus of the rule. The U.S. specially modified the export control rules to target sensitive exports to China, reflecting an increasing concern of the U.S. regarding acquisition of high tech goods by China. The China Rule includes two parts: First, it imposed tighter controls on a limited number of technologies if they are knowingly intended for military end-use in China (the Military End-Use List), and second, it established a mechanism aimed at facilitating trade with trusted civilian end-users in China (the Validated End-User program, VEU).\textsuperscript{16}


\textsuperscript{16} Ibid. P. 314
CHAPTER 3. LITERATURE REVIEW: A 3-STAGE OVERVIEW INTO CHINA’S NON-MEMBERSHIP OF THE WASSENAAR ARRANGEMENT

The literature covered in this literature review is divided into three periods corresponding to significant events in the relationship between the WA and China.

The literature review, on a chronological basis, focuses on understanding the reasons of China’s non-membership across three distinct periods of time: the 1990s, the 2000s, and the 2010s. The literature review starts from the earliest accessible literature that describes the relevant historical record, the current situation, and the potential of China’s future involvement with the WA. Such methodology of reviewing the relevant literature gives the reader different perspectives on explanations of China’s involvement based upon the historical context at a given time. Similarly, the chronological methodology also helps structure and articulate the core arguments of this paper by providing a more coherent approach based upon the changing dynamics of the relationship between China and WA during various periods of time.

3.1 From formation of the WA to initial engagement between the WA and China

As mentioned before, when introducing the process of transformation from Cold War-era COCOM to the WA, the P-5 initially held talks about replacing COCOM with another institution or regime with a similar mission while taking into account the changing geopolitical environment following the Cold War. These talks were discontinued in 1992. In these circumstances, China’s involvement in talks or negotiations towards a COCOM successor entity did not occur again until 2004. Throughout this period of time, to encompass the formation of the WA in 1996 as a successor of the COCOM, many sources consider China to be a holdout. Records of American officials at that time in newspapers attested to this perspective. For example, in a news article dated September 20, 1995, journalist R. Jeffery Smith quoted an
American official who states China as being a holdout. R. Jefferey Smith’s article further highlights U.S. officials as saying China was not invited to negotiations about WA’s formation because U.S. and allied concerns about China’s alleged exports of weapons to Pakistan, Iran and other nations of concern. The perception of China being a holdout and the exact reason for why China was a holdout is repeated verbatim in reports relevant to the WA in 2004 and 2006 respectively.

Beyond views that see China as being a hold out on, a more comprehensive analysis for why China did not participate in negotiation for the COCOM successor during this initial period of time is proposed by Goldman. Goldman highlights multiple variables that factored into China remaining outside the export controls process of which the WA is a part of. Goldman notes that China’s relationship with export control systems is influenced by China’s desire for national sovereignty and nationalistic sensitivities within China. China remained a protective actor in terms of its decision-making and policy implementation, with a desire to prevent outside influence on its national policy, especially when it comes to sensitive issues such as export controls and transfers of products or services.

Goldman also argues that China was long excluded from the WA negotiation process. The exclusion was due concerns about China’s role in supplying arms and

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dual-use items to countries of concern such as Pakistan, Iran and North Korea. This variable is quite similar to reasons provided by R. Jeffery Smith.

Given that concerns about exports by China to countries of concern may have contributed to its exclusion from initial talks regarding the WA, the lack of support within China, on a domestic level, to connect export controls to national security is yet another variable to be considered. China’s exports to countries’ of concern can be viewed as a result of this disconnect. With domestic support of international nonproliferation norms still developing during this time, other countries were reluctant to include China in already sensitive talks.

Final variables mentioned by Goldman and Pollack are related to the economically and geographically lucrative arms trade. For instance, the Chinese arms industry during this time was undergoing reform resulting in the Chinese state no longer being prepared to subsidize these industries. As a result, the importance of exporting Chinese arms in contributing to the financial well-being of these arms industries grew importance. This particularly encouraged the case for arms exports to South Asia and Middle East. As international nonproliferation norms had yet to be appreciated, the financial well-being of arms industries and the potential goodwill with buyers of such arms and sensitive products outweighed any other considerations.

Sources covering this period of time are largely complementary to each other in viewing China’s exclusion from the WA as being the result of China’s own actions and internal attitude towards nonproliferation, the international arms trade, and unwillingness to allow outside influence or constraints on what were seen as Chinese norms.


23. R. Jeffrey Smith. P. A15

24. Charles A. Goldman and Jonathan D. Pollack. P.15

25. Ibid. P.15
internal affairs.

Whatever the case in regards to why China was not asked to participate in initial WA talks, on 19 December 1995, the first High Level Meeting (HLM) of the WA was held in Wassenaar without the participation of China and finally reached an agreement. At the meeting it was decided to implement a newly agreed upon control list and information exchange mechanism effective from November 1, 1996.26

3.2 From initial dialogue with the WA to Chinese indifference

Although China established and strengthened its export control regime by subsequently incorporating developments in the WA pertaining to controls on arms and dual-use items, actual interaction between the WA and China was lacking in the immediate period after the formation of the WA. In terms of China’s strengthening of its export control regime and incorporation of WA developments, China’s export control mechanism for conventional arms began with the establishment of the Regulations of the PRC on the Administration of Arms Exports as promulgated by the State Council and the Central Military Commission in October 1997. This was subsequently amended in 2002 with the promulgation of the Administrative List of Export of Military Products, which lists for the first time specific military goods controlled by the regulations. The Regulations cover the scope and the parameters of military products, the decision-making structure, and the management procedures for relevant export controls. China’s control on dual-use items and technologies was standardized by issuance of Export Control Regulations covering 183 dual-use technologies. This was further amended in 2002 by various inclusions of dual-use items and technologies from the WA’s core list.27


Formal outreach between China and the WA only became extensive in 2004. This dialogue came about as the WA approached China at the end of 2003 in hopes of establishing a bilateral discussion mechanism with China. Both sides agreed and first held talks in Vienna from April 29 to April 30, 2004. This milestone serves as the beginning of the second period of time covering engagement between China and the WA.

Sources covering this period mainly include official announcements from the Ministry of Foreign Affairs of the People’s Republic of China, and National Security White Papers released by the Ministry of National Defense of the People’s Republic of China. In this initial stage of dialogue between China and the WA, sources appear to indicate mutual interest on the part of both parties. Table 2 in Appendix A shows a detailed record of rounds of talks between Chinese delegations and the WA officials in Vienna.

A good starting point in considering China’s attitude towards the WA during this period of time is the White Paper of National Defense of China. As the only government report that explicitly clarifies China’s policy and behavior on the matter of national defense, the details of the document is of vital importance. This is especially true due to the relatively opaque nature of China’s decision-making process in regards to national security and nonproliferation. Table 3 in Appendix B highlights the sections that mention the WA in the White Book of National Defense of China spanning the period from 1995 to 2017.

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Aside from the aforementioned official documents, sources from this period indicate that Chinese export control policy for conventional arms were more or less aligned with existing international arrangements and there was little to gain from China from being a member of the WA. Additionally, the failure of China’s attempt to join one of the other MECRs, the Missile Technology Control Regime (MTCR), continues to be a source of frustration among Chinese policy makers. This frustration has resulted in a lack of interest in membership with the WA.31

Indeed, there exists a wide spectrum of opinion and perspective within China and the WA participating states on past, present, and possible future dialogue between China and the WA. As such, the China Programme at SaferWorld strived to gather and represent the views of officials and experts from China and the WA participating states in an accurate and balanced way.32 For its part, SaferWorld has invited parties from both China and the WA to forums on this very issue.

Similarly, Ambassador Phillip Griffiths, Head of the WA Secretariat, met with the Permanent Representative of China to the UN in Vienna to discuss the potential benefits of Chinese Wassenaar Arrangement (WA) membership. Ambassador Griffiths followed up informally in January, 2013 and reiterated that lines of communication remained open with regard to advancing any interest China may have in pursuing membership. He did not receive a concrete response.33

3.3 Fast-forward to the present day: Why is China still not a member?

Even though the WA and China did not continue direct engagement34, China
increasingly recognized the value of nonproliferation and export control norms.\textsuperscript{35} Despite this recognition of nonproliferation regime, there is indication that China continues to see the WA as a Cold War relic designed to control the flow of arms and dual-use items from Western states including the United States.\textsuperscript{36} This context, China sees the WA as a means of hampering Chinese development and progress.

A Government Accountability Office (GAO) report in 1997 pointed out that the United States was concerned by the possibility that Hong Kong returning to China would actually increase China’s access to high-tech products. After GAO found that Hong Kong would stick to the previous system, the United States’ concerns over the issue decreased.\textsuperscript{37}

Some Chinese observers submit that the United States continues to use WA to restrict the trade of high technology goods to China, thus hampering Chinese national development. Xu, researcher at Chinese Academy of Science and Technology for Development, contends that the WA is led by the United States, and thus, consequently the WA is largely controlled by the United States. Whenever a WA member attempts to export high-tech products to China, the U.S. will seek to intervene and block such a transfer.\textsuperscript{38} She gives the case of when the Czech Republic’s company ERA attempted to sell the “VERA-E Passive Radar” to China. In this case the United States applied pressure on the Czech Republic in order to block

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\textsuperscript{36} Scott Jones.


the transfer. It is worth mentioning that the VERA-E passive surveillance system (PSS) is promoted as being able to detect stealth aircraft, such as the U.S. F-117 Nighthawk Fighter and B-2 stealth strategic bomber.\(^3\) On the other hand, the rationale made by the U.S. in blocking the trade was that China might re-export the technology of VERA-E to states of concern such as Iran and Pakistan.\(^4\)

Xu also argues that the WA restricts China’s civilian high-tech development and beneficial international cooperation.\(^4\) According to Xu, in 2006, China concluded an agreement entailing cooperation in launching Italian satellites with the Italian company Acatel Alenia Space. Under U.S. pressure, Italy cancelled the agreement resulting in economic and reputational loss.\(^4\) Similarly, another Chinese view frames high-tech cooperation between China and WA member countries in the context of tensions between China and Western countries, particularly the U.S. In this respect, European countries are under pressure from the U.S. in their dealings with China in high-tech fields such as aviation, aerospace, information, and biotechnology.\(^4\)

Another Chinese observer, Ren Guoliang, speaking from his own personal experience, states that while attending the Fifteenth China International Machine Tool Show in April 2017, he came across five-axis computer numerical control (CNC) machine tools manufactured by Germany and Japan. These machine tools were being exhibited and crucial to the fabrication of complex components with both military and civilian applications. These machine tools are thus controlled as sensitive items on


\(^4\) Ibid.
various control lists. When Mr. Ren approached the respective vendors to consult about the price, the responses he received were exactly the same. The exhibitors were not willing to sell to China. Ren believes this response reflects continuing barriers to high-tech transfers to China as a result of outdated geopolitics. His point of view is consistent with that of Xu in a belief that Western countries are intentionally attempting to exclude China by restricting access to certain technologies and goods.

As advanced CNC machine tools are key to China’s manufacturing industry, controls on CNC machine tools creates potential opportunities to hamper Chinese national development. Ren believes that the U.S. has almost absolute veto power over transfers of CNC machines to China. He sees no sign of such restrictions being eased. Correspondingly, the import of five-axis CNC machine tools to China have suffered. Beyond the actual hardware, the CNC controlling software system, considered as the brain of CNC machine tools, is even more strictly controlled. In similar light, such machine tools which have been successfully exported to China are functionally restricted or are inherently of lower performance. Furthermore, restrictions with end-use of transferred machines, such as the incorporation of GPS tracking, severely hinders core Chinese industrial manufacturing and freedom.

According to Chinese observers, the rationale of many WA members in limiting their exports to China is changing. While U.S. opposition to such transfers remains, the reasons have evolved. Whereas before, limiting exports was mainly aimed to restrict the military development of China, now these same countries are also attempting to


45. Ibid.


47. Ren G. et al. P.563.
hinder civilian development due to fears resulting from creating competition from competing national industries.

The importance of five-axis CNC machine tools and high technology goods in general to Chinese national industrial and economical development is seen when looking at the areas identified as being deficient in China’s National Mid- and Long-Term Science and Technology Development Plan for 2006-2020 (hereafter referred to as the “Plan”). The Plan, which sets a number of priorities, also identifies priorities where China falls short in its science and technology realm. The research priorities in the Plan include, the exploration, development and utilization of complex geologic oil and gas resources in the energy field; multi-parameter rapid detecting technology of the ocean bottom in the environment field; new type of information functional material and components in manufacture field; transportation infrastructure construction and maintenance technology and equipment in transportation field; intelligent perceptive technology, new broad band wireless mobile communication, modern service industry information support technology and large-scale application software in information industry and modern service industry field, etc. These are all areas where the WA transfer controls may be applicable.48

Given that there is a perception that the WA and some countries, such as the U.S., continue to exercise controls on sensitive exports as a means of hindering national development of competitors, China’s current attitude towards the WA is most likely influenced in part by the question of the WA’s true intentions. While Chinese own domestic development works to address identified shortfalls in technological and scientific development, China may also see membership with the WA as being less and less beneficial and at too great a cost to national decision-making.

3.4 A third view: Russian Perspectives

In reviewing factors influencing the relationship between China and the WA, a Russian perspective on the situation provides additional insight. Russia is an example of a country that is both a member of the WA, but whose geopolitical outlook and priorities is often different or at odds with the U.S. and other WA members. More to the point, Russia and China often have similar views regarding outside influence over national decision-making and geopolitical priorities. Given this, it is worth examining Russian perspectives on China’s relationship with the WA.

How Russia was included in the negotiations to form the WA and the issue of Russian participation was the most contentious of the two-year-long negotiations to create a “New Forum” to replace COCOM. But ultimately the negotiations succeeded in creating a successor for COCOM, culminating in the establishment of the Wassenaar Arrangement (WA). Russia’s role in the WA is important as it might be considered to be a counterweight against more restrictive interpretations on controls such as advocated on occasions by the U.S. As party to initial negotiations regarding the formation of the WA, Russia was concerned that the WA would follow exactly in COCOM footsteps. Given that COCOM implemented restrictive measures on transfers to the USSR and allied and affiliated countries and that Russia believed it was not acceptable to incorporate a predetermined list of proscribed countries, Russia thus sought to make this a condition for the WA. At the same time, the United States was considering a list of countries of concern, which included China. Russia, along with other countries, rejected this notion and the list was aborted.

Aside from serving as a counterweight to more restrictive controls, Russia is also

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50. James A. Lewis.

important to this discussion on China’s relationship with the WA as Russia appears to favor WA membership for China. For example, in the Implementation Program of Treaty of Good-Neighborliness and Friendly Cooperation Between the People’s Republic of China and the Russian Federation issued in 2001, Article 5.5 specifies that Russia will help China to become a member of the WA.52

Russia’s relationship to the WA and a Russian perspective on China’s relationship with the WA provides a point of reference for an understanding of China’s approach to the WA. For instance, Russian observers are open to the possibility that Russia’s initial inclusion in the WA was due to fears in some quarters that Russia might transfer items or technologies of concern to actors of concern. For Russia’s part, its position is in line with the stated goal of the Initial Elements of the WA, i.e. prevention of destabilizing accumulations of conventional weapons. At the same time, Russia opposed and continues to oppose excessive transparency in the supply of arms and dual-use goods, taking a position that too much transparency affects economic and commercial interests. Moreover, there is understanding that Russian participation as a member of the WA does not guarantee it will have unconditional access to advanced technologies and products from other WA members.53

Russian views of China’s relationship with the WA includes a belief that the relationship is more of a political problem than an economic one during the 1990s, as pointed out by Revenko, a member of the Russian delegation in the WA negotiations.54 In his opinion, part of the problem with China’s relationship with the


53. An e-mail interview with Nikolay Revenko, who participated in the WA negotiation as well as Russia’s formation of export control regime.

WA is that the United States did not approve of membership of countries that, in its opinion, are likely to pursue independent policies, and thus, preventing the WA decision-making from being dominated by the U.S. He uses U.S. opposition to China’s inclusion in other MECRs as evidence. For instance, the United States, for the longest time, opposed the invitation of China to the Nuclear Suppliers Group (NSG) and only gave its consent when it became clear that the NSG was ineffective without Chinese participation.

Despite this, Revenko personally does not believe that Western or U.S. concerns about advanced technology or product transfers facilitating Chinese industrial, economic, and military development are the primary reasons for China’s inability to become a WA member. He points out that Russia is a WA member, and yet is still unable to freely trade high-tech goods and items with other WA members. Presumably the same would apply to China in the event that China does become a WA member.

3.5 A summary of literature review

In reviewing the literature consulted about China’s relationship with the WA, the following possible reasons for China’s non-membership are identified:

1) The Chinese government does not want outside influences to interfere with internal political decision-making on export control issues and places an emphasis on national sovereignty and is mindful of nationalistic sensitivities;

2) After attempts to join the WA, in part for national development, China grew frustrated after repeated failure and began to lose interest to join the WA.

3) China’s behavior of exporting sensitive items to concerned countries due to geopolitical and economical interest, as well as, China’s relatively weak export control regime characterizes China as a country of concern. This

55. The email interview with Nikolay Revenko.
undermines China’s potential WA membership;

4) China sees the WA as a COCOM-like tool being used to prevent China from acquiring the high technologies from WA members. As a result of this, China believes that its membership was intentionally frustrated by certain WA members.
CHAPTER 4. Assessment and Analysis

In an attempting to understand why China is not a member of the WA, the reasons identified in consulted literature are appropriate to varying extents during specific periods of time. However, the current discussion in such literature fails to prioritize the reasons and their relevance to the situation as it is currently. China’s relationship with the WA changes as historical and geopolitical contexts change. Therefore, the reasons behind China’s non-membership are far from easy to understand.

This chapter aims to assess the appropriate reasons for China’s non-membership given particular contexts, and in regards to changes in history and geopolitics. This papers tries to map out trends and dynamics regarding China’s relationship with the WA and hopes to better inform discussion that is applicable to the present day.

Given the four reasons identified for China’s non-membership of the WA as identified below, a separate assessment for each reason will be given.

1) The Chinese government does not want outside influences to interfere with internal political decision-making on export control issues and places an emphasis national sovereignty and is mindful of nationalistic sensitivities;

2) After attempts to join the WA, in part for national development, China grew frustrated after repeated failure and began to lose interest to join the WA.

3) China’s behavior of exporting sensitive items to concerned countries due to geopolitical and economical interest, as well as, China’s relatively weak export control regime characterizes China as a country of concern. This undermines China’s potential WA membership;

4) China sees the WA as a COCOM-like tool being used to prevent China from acquiring the high technologies from WA members. As a result of this,
China believes that its membership was intentionally frustrated by certain WA members.

4.1 Assessment for the reason 1

In the 1960s and 1970s, China was very suspicious of the motives of Western countries in advocating for international arms control and nonproliferation. China felt that China should be governed by decision-making that was independent from outside influence and that national sovereignty should be maintained at all times. China regarded efforts at arms control and nonproliferation as attempts by superpowers to establish their nuclear dominance at the expense of developing countries. With this hostile background, it was understandable for China to question the motive of the international nonproliferation regimes established by the Western powers. For its part, China perceived increased regulations on preventing the flow of sensitive items and technologies as a sham to spread and perpetuate Western hegemony. The aim of such regulations was to interfere with other countries’ internal policy-making and implementation.

In the 1960s, U.S. National Intelligence Estimates (NIE) routinely warned that China’s revolutionary fervor had the potential to cause another war with heightened danger if China developed a nuclear weapons capability. Throughout the decade, Communist Chinese leaders often dismissed the possibility of nuclear war and emphasized the unavoidable victory of the ‘people’s war’ against U.S. imperialism and Soviet revisionism. At the same time, the Chinese government embarked on a propaganda campaign to exaggerate advances in its nuclear program and downplayed the risks presented by possible nuclear counter-strikes against the Chinese mainland. In reality, the country’s belligerent rhetoric was a bluff based on the great disparity in

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nuclear capabilities between China and the U.S. However, the U.S. responded as expected with President Kennedy perceiving a Chinese nuclear test as “likely to be historically the most significant and worst event of the 1960s. The Kennedy Administration considered the Chinese threat so great that they authorized contact with the Soviet Union regarding a joint preventive action against China.

The apprehension associated with a Chinese nuclear test at the time was also fueled by the U.S.’s concern about China as a result of Chinese policies such as the Cultural Revolution. The Revolution aimed to remove remnants of traditional and capitalist ideologies from China and establish Maoist philosophy as the dominant narrative. While claiming to advance Chinese society, the movement led to friction between China and Western powers in the post-WWII era. In this context, the U.S. was concerned that China could develop submarine-launched ballistic missiles (SLBM) and would use them in a way to mimic a Soviet strike, thus triggering a global nuclear war. However, China downplayed these concerns stating that nuclear weapons would only be for self-defense and became the first country to make a No First Use pledge. This pledge maintained that China would not initiate nuclear war with a country that had no nuclear weapons. Additionally, they would also not participate in a nuclear arms race to compete with the superpowers at the time.

With such a hostile context, it was understandable for both the U.S. and China to be suspicious of each other’s motives and intentions. As China perceived increased regulation of nuclear weapons as a sham designed to put China and other developing countries at a disadvantage and as the Cold War pitted Communist ideologies against Western ideologies, China therefore was not included in many initial discussions for bilateral and international treaties. China initially critiqued attempts by Western


powers and, increasingly, the Soviet Union to control nuclear weapons through international treaties and bilateral agreements such as the Non-Proliferation Treaty and the 1961 Partial Test Ban Treaty.\(^6\) However, China would gradually change its stance over time.

China’s attitude towards nonproliferation and controls on sensitive technologies and goods began to shift with the adoption of the famous four-character policy Reform and Opening Up (gǎigé kāifàng) policy in the late 1970s. The change began to see results in the 1980s under the leadership of Deng Xiaoping who created a broad initiative to “join the world.”\(^6\) During the subsequent years and with advice from a domestic panel of nuclear experts, China developed statements supporting the international nonproliferation regime and joined Zangger Committee in 1997, as well as the NSG in 2004.\(^6\) Although not a member of MTCR, China sought membership in 2004 and the process remains ongoing. In addition, China’s new-found confidence in and engagement with institutional aspects of arms control and nonproliferation underscored, however subtly, a desire for a future order that would be more representative of its members and one not based on bipolarity or unipolarity, but on multipolarity.\(^6\)

It can be concluded from the aforementioned background that China’s perception towards MECEs has experienced a great shift over the course of many years. Initially, China was suspicious towards what it perceived to be a Western-led export control regime that would negatively affect its internal politics. This changed after decades of observation and evaluation and it is obvious that China is more willing to take part in


\(^6\) *Ibid.*

the nonproliferation regimes and MECRs. Therefore, it is safe to argue that previous Chinese concerns of the nonproliferation regime and MECRs like the WA negatively impacting Chinese national sovereignty and nationalistic sensitivity is less today than compared to before.

4.2 Assessment for the reason 2

Perhaps influenced by China’s past aversion to the nonproliferation regime, China at first did not link China’s export control policy with national security and believed export control was detrimental to national development. However, as engagement with the nonproliferation regime began to become more prestigious for states, China began to show more interest in the potential for WA membership in aiding its national development. In regards to the WA, China began to lose interest after repeated failure for the membership. Moreover, China’s attempts to join the WA were rebuffed by the United States on grounds of national security. At the same time, advances in China’s own domestic development began to decrease the importance of WA membership for China.

Government sources from this period indicate that Chinese export control policy for conventional arms were more or less aligned with the existing international arrangements and there is little to gain for China from being part of the WA. China’s frustration with the WA mirrored the China’s attempt to join one of the other multilateral export control regimes, the Missile Technology Control Regime, continues to be a source of frustration among Chinese policy makers by preventing policy makers from totally committing to membership of the WA.64

Taking a look at the appendix A and B, it is obvious that the official interaction between China and the WA was very little before 2004, during 2004 and 2008, the interaction became more frequent. However, after 2008, China seems to have lost

64. Chin-Hao Huang.
interest in joining the WA. It can be concluded that the validity of reason 2 – China’s unwillingness to join the WA since it does not see any benefits to its nation–underwent a strong-weak-strong process.

4.3 Assessment for the reason 3

Regarding the perception that China’s non-membership with the WA is the result of China being a proliferation risk, two ideas standout in connection with this perception. First, China keeps selling advanced technologies and weapons to non-WA members out of economical and geopolitical interest; Second, China is weak in its export control regime. Appropriately, this reasons in attempting to explain China’s relationship with the WA will be addressed in two sections.

a) The economical and geopolitical interest makes China a country of concern

Since the 1980s, the U.S. has repeatedly asserted that Chinese exports of missiles and their associated components pose a great threat to the nonproliferation regime, including MECR intensions, specifically, MTCR provisions, despite China not having participated in initial negotiations on many of the relevant nonproliferation-related regimes and institutions. Most of these objections were due to Chinese exports to Pakistan, Iran, and Syria.65

The perception that China sees transfers of sensitive technologies and items more through the lens of economic and geopolitical benefit instead of nonproliferation is further complicated with the introduction of Reform and Opening-up Policy adopted in the 1970s and 1980s. During this period of time, China gradually understood the significance of the economy-oriented pattern of development.66


previous policy of arms trade aimed based upon ideology and at helping socialist or
developing countries counter hegemonic powers, such a policy shifted towards a more
revenue-driven purpose. China became increasingly involved in the international arms
trade. This arms trade was without additional political precondition on the part of
China, in a sharp comparison with the arms export policies of the U.S. Additionally,
Chinese-origin weapons and sensitive technologies is characterized with low price
and similar design to prolific Soviet Union and Russian-style military kit, making
Chinese arms quite popular in developing countries like Pakistan.67

China’s sale of missiles, missile production knowledge and materials, and
technical training for nuclear-related industries to developing countries, some of
which are labeled by the West and the U.S. as proliferators and countries of concern,
represent one of more contentious issues for China and the nonproliferation regime.
For example, where China sees the potential for business and financial gain, Western
countries regard ballistic missiles are having great potential for destabilizing actions
due to the relatively short flight times and destructive potential, creating incentive for
use in any potential first strikes. The sample case is the transfer by China to Saudi
Arabia of ballistic missiles. The sale of Dong Feng 3 (CSS-2) to Saudi Arabia was
especially controversial as it was an intermediate-range ballistic missile capable of
carrying a nuclear payload.68 This sale raised concerns about Chinese proliferation
activities as such high profile sales required official government consent.

In recent years, China has established itself as one of the key players in the global
arms trade with increasing volume, quality, and technological sophistication of
weapons exported. In addition to countries in the Middle East and South Asia, China’s
clients has expanded over the last decade to include countries in Latin America, such
as Venezuela and Socialist leaning states in the Bolivarian Alliance for the Peoples of

67. Ibid.

68. Ibid.
Our America (ALBA). Between 2011 and 2015, China sold weaponry worth $373 million to Venezuela with an additional $500 million contract in 2012 covering self-propelled artillery and armored personnel carriers. Bolivia made deals worth $58 million in 2012 and $113 million in 2012 involving China’s Panther helicopters and Karakorum trainer jets. Peru, who is also a key economic partner for the United States, purchased FN-6 portable surface-to-air missiles followed by multiple rocket launchers in 2013. Developing countries are increasingly turning to Chinese suppliers for low-cost alternatives for their military equipment.69

In addition to generating profit necessary for economic development, the arms sales are in tune with China’s goal of being recognized as a great power and of developing diplomacy influence. Chinese relations with African countries is representative of this. Reports by the Aviation Corporation of China (AVIC) suggest that at least 80% of the aircraft in African air forces are Chinese-made.70 While most of arms sales have been for less complex equipment such as armored personnel carriers, these low-cost sales have helped China secure its strategic goal of developing energy imports from the resource rich nations, particularly in Africa. On the diplomatic front, they have also aided China in building soft power, as evidenced by a 2014 poll that showed China had higher approval rates among sub-Saharan countries than in other regions in the world.71 With China’s own growing economic and technological capacity, China may challenge both the U.S. and Russia for exports of more advanced military equipment and sensitive technologies. In the long run, this strategy was seen to help China to improve diplomatic relations and economic ties with many countries and, at the same time, serve to potentially diminish U.S.


70. Ibid.

71. Ibid.
As a result of Chinese policies and actions, China was deemed as one of the countries of concern, especially considering its willingness to provide nuclear assistance to other countries in exchange for either financial benefit or reciprocal benefit. This is best embodied in the 1990s when, according to Clinton Administration officials, China was not invited to join the WA because of concerns by the United States and its allies regarding Chinese weapons exports to Iran, Pakistan, and other shortcomings in meeting membership criteria. In fact, this concern is perhaps reasonable in 1996 when China was just beginning to view nonproliferation in a more positive light.

As previously referenced, in a 1995 news article, journalist R. Jefferey Smith supported American sentiment regarding China as being a holdout of old Communist ideologies. The article framed China’s exclusion from the initial WA talks as being based on Western concerns about Chinese weapons exports to Pakistan, Iran, and other non-WA nations. This perception of China as a holdout continued to influenced U.S. actions and were cited verbatim in the 2006 WA talks.

As the concerns increased among multiple nations regarding Chinese arms exports to countries of concern, Chinese leaders faced increased pressure to regulate their technology exports, especially those that could be used to develop weapons of mass destruction (WMD). However, China’s ballooning export industry makes it hard for the government to monitor and regulate exports of sensitive technologies such as dual-use technologies. Although international pressure produced a set of commitments from Chinese leaders, “rudimentary” regulatory regimes made such


commitments to export controls impossible to implement, thus raising concerns about China’s obligations.  

As China’s international image improved, Chinese leaders embarked on developing an image of China as a responsible superpower. It was recognized that the traditional objections to linking arms exports and transfers of sensitive technologies with the nonproliferation regime due to economic and geopolitical considerations left China isolated. Moreover, China also acknowledged the threat to regional and global security posed by WMD proliferation in the Middle East, South Asia, and East Asia. If one country initiated aggressive nuclear action, it would threaten China’s economic and security interests in the region. Furthermore, developing international confidence about China’s arms control and export control system would help in creating a stable international climate that would support the country’s economic modernization.

b) China’s weak export control regime makes it a country of concern

China’s still developing institutional capacity in addressing export control commitments makes it hard for some observers to comprehend and gauge its nonproliferation commitment. Since China was relatively late in recognizing the significance of international nonproliferation regime, it is natural that China has a weaker comprehensive system for export control compared to some other countries. For decades following the initiation of economic reform, China lacked an effective system in terms of export control of the nuclear industry. The capacity building process took China more than a decade, which finally made China engage with the global nonproliferation regime. The increased in many well-informed experts helped China become open to nonproliferation initiatives, which gained increasing acceptance rather than previous categorical resistance.  


understanding that China’s weak export control regime made it a state of concern.76

China’s lax and unsupported export control system began to change in the late 1980s and early 1990s due to the fact that international community was constantly exerting pressure on China regarding exports of conventional military and WMD-related goods. In the 1990s, Chinese leaders began to realize that being a supplier of WMD-related items and technologies to proliferator countries created a negative international image. With this in mind, China started to implement an export control system based upon law. The Chinese government started to announce laws as well as regulations embodying the leadership’s desire for greater control over exports of dual-use items and related technologies.

Evidence shows that China made progress in controlling the export of sensitive items to countries with possible illicit purposes. Yi listed three cases where the Chinese government was able to timely prevent the sale of phosphorus sulfide, glassed steel distillation equipment (a dual-use item on the Australia Group control list), and sodium cyanide to suspicious state actors in 1998, 2002, and 2004 respectively.77

In addition, Chinese conventional arms export controls have become increasingly compliant with the WA guidelines and control lists over the years. This is despite the fact that China’s membership with the WA is unlikely in the near future. China first issued arms-related export control regulations in 1997 and in October 2002, it promulgated the revised Regulation of the People’s Republic of China on administration of arms export. In November 2002, China also issued its first public military products export control list, apparently referencing the WA control list during


its development.\textsuperscript{78} The Chinese Military products export control list appears to encompass most of the technologies on the WA list, but has broad categories of goods with vague definitions rather than specifying individual technologies and components to the degree outlined by the WA. It is, therefore, unclear whether the Chinese control list covers all items listed by the WA.\textsuperscript{79}

It is stated in 2015 reports that there are still some gaps between China’s domestic arms control and dual-use transfer control policies and the priorities and standards of multilateral export control regimes.\textsuperscript{80} However, due to the great diversity of legal and administrative systems worldwide, there is no single method to present the legal basis and operating structure of an export control system in order to be considered to be a potential Participating State to the WA.\textsuperscript{81} In order to identify the gaps, this paper also discusses the comparisons made by various nonproliferation and export control experts and observers as follows.

According to some Chinese sources, China’s export control policies for conventional arms are more or less aligned with the existing international arrangements and there is little to gain from being part of the WA.\textsuperscript{82} One the other hand, other Chinese sources working with China’s Ministry of Commerce, made a comparison focused on numbers and names between the Chinese control list and the WA control list. The comparison found that while there are overarching similarities, there are also differences. A very large part of the items included on the WA’s control list are captured in a number of Chinese regulations and their relevant control lists

\textsuperscript{78} Scott Janes.

\textsuperscript{79} Ibid.

\textsuperscript{80} SaferWorld. Jan 2015.


\textsuperscript{82} Chin-Hao Huang.
(including: Regulations on Nuclear Dual-Use item and Related Equipment and Technologies; Regulations on Export Control of Missiles and Missile-related Items and Technologies; Regulations on Export Control of Dual-Use Biological Agents and Related Equipment and Technologies; Regulations on Certain Chemical and related Equipment and Technologies; and the Control list of Computers of China).

However, there are discrepancies, particularly with regard to the items in Category 5 (Part 1 - Telecommunications) of the WA’s List; Category 5 (Part 2 - Information Security); and Category 8 (Marine). There are also discrepancies with the number of items covered in the WA’s Categories 3 (Electronics), 6 (Sensors and Lasers) and 9 (Aerospace and Propulsing). Moreover, while the WA’s List of Dual-Use Goods and Technologies has two nested subsections - ‘sensitive’ and ‘very sensitive’ goods – there is no such distinction within Chinese control list.  

Finally, there is currently no updated and comprehensive assessment of the Chinese Government’s complex decision-making structure related to export controls. This means that the way in which China’s control lists, regulations, and policies compare with internationally accepted standards, as benchmarked by the multilateral export control regimes such as the WA, is unclear to outside observers.  

In order to throw light upon whether China is qualified to join the WA, this paper looks at the procedure and the requirement to become an official member of the WA. The requirement is included in Appendix C. Membership applications to the WA are examined on a case-by-case basis. Since a comprehensive assessment cannot be

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84. Ibid.

found, it is hard to tell if China meets all the requirements. However, by examining past cases of membership, interesting conclusions can be drawn. For example, in 2012, Mexico’s membership was approved by the WA.\textsuperscript{86} The process through which Mexico joined the WA is shown in the following graph:\textsuperscript{87}

![Diagram showing the process of Mexico joining the WA](image)

Although not specified, the assessment of Mexico’s export control system is conducted in the “Inter-agency coordination” portion of the application process. More importantly, Mexico must have met the requirement for the WA as included in this paper as Appendix D for approval of its application.

The Mexican membership application with the WA received U.S. support through programs such as the U.S. Export Control and Related Border Security (EXBS) Program. This program, designed to help countries develop and improve their strategic trade and related border control systems and compliance with United Nations Security Council Resolution 1540, has been a vehicle in strengthening Mexico’s national export control system. Likewise, the International Nonproliferation Export Control Program (INECP) of the U.S. Department of Energy also provided Mexico


\textsuperscript{87} General Directorate of Foreign Trade. Mexico’s Experiences in Establishing an Export Control System Ministry of Economy. Vienna, Austria June 2016.
Like Mexico, China also previously sought membership with the WA and China received some export control-related assistance and training from U.S. government agencies, notably the INECP of the U.S. Department of Energy. However, unlike Mexico, China is producing indigenously developed dual-use goods and technologies in vast amounts and is thus more of a strategic competitor to the U.S. in key industry sectors. This may provide explanation as to the lack of progress on Chinese WA membership.

In the official acceptance statement of Mexico as a WA member, the following text was released:

*Approval for the admission was given by a consensus of 40 member countries and implies the recognition of Mexico as a secure nation for dual use goods and technology and a reliable destination for investment in the production of these types of goods.*

*The process, which began June 17, 2011, will endorse Mexico as more secure and competitive country with better export control and access to cutting-edge technology with only limited presence in the country until now.*

*Furthermore, Mexico's admission to the Arrangement will give national industry access to a potential high-technology export market of around an additional US$10 billion per year.*

*It should be mentioned that Mexico is a relevant exporter of high technology...

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goods and has enormous potential in the sector, making export controls a requirement for the country's development.\textsuperscript{90}

According to the statement, the emphasis is on how Mexico, by gaining membership in the WA, can more easily access advanced technologies from other WA members. No reference is given to the aim of the WA. This paper further argues that countries’ intentions in joining the WA, such as Mexico, are no longer in accordance with original aim of the WA, mainly - to contribute to regional and international security and stability, and to prevent the destabilizing accumulation and acquisition of conventional arms and dual-use goods and technologies by terrorists.\textsuperscript{91}

The conclusion of the two-part assessment is that China is a country of concern only because it is still trading with particular countries, some of which are labeled by Western powers as proliferators, due to geopolitical and economic reasons. However, while China’s export control system is still developing, China should no longer be considered as a country with weak export control system, especially in terms of the existence of control lists and procedural policy compared with those of the WA. The efforts made by China in developing and implementing its own national export control system provide evidence that China is committed to nonproliferation norms and to repeat past assessments about the weakness of China’s export controls is an excuse to exclude China from joining the WA.

\textbf{4.4 Assessment for the reason 4}

The final reason to review in regards to why China has yet to join the WA is the idea that the WA is developing into a quasi-COCOM tool used by some WA members, particularly the U.S., to prevent China from acquiring advanced technologies from

\begin{itemize}
\item \textsuperscript{90} Secretaria de Economia. \textit{Mexico Accepted as a Member of the Wassenaar Arrangement} \url{http://www.2006-2012.economia.gob.mx/trade-and-investment/foreign-trade/news/8062-mexico-accepted-as-a-member-of-the-wassenaar-arrangement} (Accessed September 28, 2017)
\item \textsuperscript{91} Wassenaar Arrangement. \textit{Introduction to the Wassenaar Arrangement}. Available at \url{http://www.wassenaar.org} (Accessed December 9, 2017)
\end{itemize}
Early in the WA’s history, Philip Griffiths, then Head of Secretariat of the WA, pointed out that the WA does not target at specific countries in a lecture at Moscow State Institute of International Relations.\(^2\) Although this predominate view in the international community makes clear that the WA mandate does not target specific states as COCOM did, questions still remain especially for China. To some, the WA, as expected, targets some of the most illiberal states, such as Iran, Iraq, North Korea and Libya.\(^3\) In the same light, the WA does not target states that have greater capabilities to undermine Western interests, but were undergoing considerable economic and some political reform, such as the People's Republic of China, Brazil or Argentina. Furthermore, from the Chinese perspective, while Pakistan is seen by many WA members as a country of concern, there is less worry among these same countries with regards to India. Both Pakistan and Indian remain outside of the NPT and the nonproliferation regime, but treatment between the two are not the same in regards to access to many advanced technologies.

Perceptions of the WA being a tool used to target specific countries is further informed by the discussion on MECR in general being seen as a tool by “Northern countries” in maintaining economic and industrial advantage over “Southern countries”.\(^4\) Alluding to the North-South social-economic divide, at the outset of the WA’s establishment, it was the perspective of many Southern countries that export

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\(^4\) The author infers to the conception of “Northern countries” and “Southern countries” adopted by Andrew Latham and Brian Bow in the article “Multilateral export control regimes: bridging the North-South divide.” International Journal 53.3 (1998): 465-486. Western countries (or Western world) mentioned has the same implication with “Northern countries”, i.e., “Northern” is used for states that are economically and technologically developed. While the core members of this group (for example, the United States, Canada, Britain, France) are all predominantly white and culturally European traditions, some are not (for example, Japan). Similarly, “Southern” is used for states that are in varying degrees developing, non-aligned, and non-Western.
controls, especially when coordinated within multilateral regimes, were illegitimate, unnecessary, and “discriminatory.” Critics of export controls argue that MECRs are little more than “‘white nations’ clubs” created to deny developing countries access to needed military and commercial technologies.95

In the present day, some scholars have hypothesized that the WA restricts high technology imports into China to hamper technological development in the country. The influence of the U.S. on the WA is seen to be particularly biased in favor of more restrictive transfers and impeding access to certain goods and technologies. A good example of this is the semiconductor industry which is one of the most profitable globally. Since WA members cannot share their technology with China, China’s semiconductor industry is a generation or two behind other countries like the US and Taiwan.96 Although most of the production for semiconductors occurs in Mainland China, the majority of technical design decisions are made by global companies such as Nokia, Apple, and Samsung in their home countries. Moreover, these same countries ban the export of such technology to China. For example, Taiwan and the U.S. prohibit the export of sub-65-nanometer process technologies, making China unable to realize the 32-nanometer standard for its domestic purposes.97 The result of these prohibitions is that the majority of profits go to non-Chinese companies which own the intellectual property rights.

In recent years, the reasons for banning exports of advanced technologies and goods to China have changed for many of the WA’s members. The long-term justification of controlled transfers or bans to prevent the development of military technologies in China is no longer the main priority. As the Chinese economy and


97. Ibid.
national bargaining power continues rising, the technological limits are becoming more obvious in both military and civil applications. However, today many WA member countries frame exports to China in light of national competition and limit sensitive exports to not give an economic or technological advantage to a potential competitor. In this context, the WA to some extent represents how the U.S. influences WA members to limit technological imports to countries seen as strategic competitors. Moreover, the U.S. does not perceive a problem with the existing structure, but rather laments the lack of executive power given to WA committees, thus preventing it from consolidating influence over the WA.

Therefore, China’s continued rejection from the WA indicates how there continues to be a bias against some countries by other countries. Over time, China has established policies and agreements regarding arms control and export control with provisions closely matching those of the WA. Although China had negative views of the WA and the nonproliferation regime in general, China later recognized the importance of nonproliferation agreements and serves to actively contribute in this realm. However, many WA members have yet to change their perceptions of China’s stance on the issue and are concerned with China’s technological and economic progress, thus leading to continued discrimination against China.

This continued bias and ideas that the WA is gradually developing into a quasi-COCOM regime that is selective biased against certain countries like China is supported by specific case studies. Two such case studies are provided below:

Case study 1: Lithography Equipment


99. Xu Y. et al.

100. Yuan, Jingdong, Phillip C. Saunders, and Stephanie Lieggi.
Lithography equipment is considered to be core equipment in microchip production and is also the item where domestic Chinese chip developers fall short. When it comes to semiconductor devices, the most apparent technical gap between China and Western countries lies in lithography equipment. Moreover, due to the huge financial requirements and the high standards of production, the research and development of lithography equipment are largely limited to only a few enterprises. For example, Japanese companies Canon and Nikon produced lithography equipment in the past and also partnered with U.S.-based Intel to compete against the Dutch company ASML. However, the ensuring Japanese financial crisis and negative demographics of Japan led to a 20-year long recession of the industry, resulting in large competitive disadvantage of Canon and Nikon over ASML. Consequently, Canon almost quit the lithography equipment business and though Nikon can produce 20nm lithography equipment, the fact that the market is firmly controlled by ASML prevents Nikon from making further investments in research and development.

The result is that ASML is the leading supplier in lithography equipment and the size of 14nm can be achieved for volume production of advanced technology extreme ultraviolet (EUV) lithography. Due to the huge cost of research and development, ASML efforts has received funding from Intel, Taiwan Semiconductor Manufacturing Company Limited and Samsung.

In comparison, China’s own lithography equipment enterprises are dwarfed by the competition. Specifically speaking, enterprises such as the Shanghai Micro Electronics Equipment Co., Ltd, the 45th Research Institute of China Electronics Technology Group Corporation, AdvanTools (China) Co., Ltd, Xianteng Photoelectric Technology Co., Ltd and Wuxi Yingsu Semiconductor Technology Co., Ltd. are active in the production of lithography equipment. However, even the most technologically successful, Shanghai Micro Electronics Equipment Co., Ltd, has only been able to develop 90nm lithography equipment under volume production.

Actually, Shanghai Micro Electronics only successfully produced 90nm
lithography equipment a few years ago, though the mainstream international standard at that time was 65nm. Nevertheless, since the most important light source for the manufacture of lithography equipment was imported, Chinese lithography manufacturers such as Shanghai Micro Electronics were subjected to a limited supply of core components by foreign countries, hence preventing Shanghai Micro Electronics from launching a timely volume production of 90nm lithography equipment.

Chinese industries was further undercut since 65nm lithography equipment can be freely imported into China from Western countries and Chinese enterprises are now in a position to purchase lithography equipment more advanced than domestically produced ones. According to the article 3.B.1.f.1.b of 2016 Wassenaar Control List (latest list): lithography equipment capable of producing a pattern with a ‘Minimum Resolvable Feature size’ (MRF) of 45 nm or less is among the controlled items. The standard of 45 nm was adopted in the year of 2015 according to the Summary of Changes List of Dual-use Goods & Technologies and Munitions List as of 25 March 2015. As a result of the absence of transfer controls on equipment higher than 45 nm to China, Chinese developers such as Shanghai Micro Electronics’ research on lithography equipment core components were negatively impacted with fewer domestic supporters.

The stark reality is that both the Chinese domestic and the international market in lithography equipment are largely taken by foreign enterprises. This circumstance combined with the restrictive supply and technical limitations of the light source in 90nm lithography equipment means that Chinese developers like Shanghai Micro Electronics are unable to maintain stable production of Chinese developed lithography equipment and the massive financial input for research and development has basically generated no fruitful results. The situation also means that young talent will be drawn away from Chinese companies and to global companies where they feel their talent can best be utilized.
To sum up, the problems faced by Chinese enterprises such as Shanghai Micro Electronics include limitations on component supplies imposed by Western countries; the lack of core equipment for production, an insufficient funding of scientific research, and the exodus of technical talents. However, China is working to resolve this issue on a national level as the newly released national policy indicates that limitations faced by domestic manufacturers in light source and objective lens is effectively solved, potentially indicating a period of rapid development of Chinese domestic lithography equipment technologies.101

Nevertheless, WA member countries have discretion on decisions whether or not to transfer particular technologies or goods. This requires each WA member to utilize national decision-making and leaves open the possibility of carrying out diversified high-tech cooperation. Hence, the opportunities of cooperation with the WA members are for all the 34 members, rather than for only one or several countries, and the high-tech cooperation should be in all directions and diversified. Since reform and opening-up over the past 30 years, our country have achieved a number of symbolic achievements in the fields of Information, new energy sources, biotechnology and modern agriculture, new type materials, mastered a number of important and critical technologies and industrial core technologies. Many high-tech research achievements are in the front rank of the world. So there is a possibility for our country to learn from one’s strong points to offset one’s weakness and to deepen the cooperation with other countries. In future, international technological cooperation work of our country should be carrying out diversified high-tech cooperation with the WA member countries to discover the cooperating potential and improving the level of high-tech cooperation.102


102. Ibid.
Corresponding to the 9 fields in the control list of military and civilian products of WA, there are several countries who are advanced in some single field among the 34 member countries. The technical level of these countries is in the front rank of the world in some technology or some field and they are the key countries we can carry out international technology cooperation, like the US, Germany, Japan, the UK and France etc.

**Case study 2: Integrated circuit industry and anisotropic plasma dry etching equipment**

Another case which illustrates the use of restrictions on transfers of technology to hinder economic and industrial competition from China involves anisotropic plasma dry etching equipment. European countries and the U.S. worry that China’s fast-growing integrated circuit industry may threaten existing competitive edge. As a result, most pieces of high-end integrated circuit production equipment are controlled and must receive approval for export. In the case of plasma etching machines, controls were implemented for many years. It was only when the Chinese company AMEC developed similar machines were such restrictions lifted.

Beyond export controls, the U.S. government also attempts to prevent China’s development by disapproving of Chinese companies’ mergers & acquisitions of U.S. companies in the circuit industry field. In the last two years, a number of Chinese M&A activities attracted and failed to obtain approval. For example, San’an Optoelectronics Co. Ltd. (China)’s proposed acquisition of California-based Global Communications Semiconductors, LLC (GCS) was blocked by the Committee on Foreign Investment in the United States (CFIUS). The proposed acquisition was block due to fears arising from national security considerations from the U.S.

Developed countries led by the U.S. continue to implement very strict restrictions on exports of advanced technology goods to China. Since 2011, the U.S. government has carried out the export control reform. Although these reforms have eased the export restrictions on some items, export restrictions for China is still very strict. In
2014, the U.S. moved to tightened export controls on integrated circuits and microprocessors to China. In 2015, the U.S. stipulated “no export license exemption for RPL is allowed” for China.\(^\text{103}\) This means that an export license would be required for products, including equipment and parts, returning to China after repair or replacement in the U.S.

As of the end of 2015, the U.S. tightened export license restrictions on export, re-export and transfers involving China’s 82 companies or organizations, including scientific research institutions such as China Academy of Launch Vehicle Technology, China Aerospace Science & Industry Corp, AVIC, research institute of China Electronics Technology Group Corporation and Beijing Aviation Yangpu Venture and its subsidiaries.\(^\text{104}\)

In addition, the U.S. also attempts to hinder China’s research and development process for high-end instruments in the equipment manufacturing field by through implementation of export restrictions on its advanced technologies and limiting contact of Chinese scientists and technicians with these technologies. Similarly, the U.S. monitor the end use exported items, which severely affecting security of China’s equipment manufacturing industry.\(^\text{105}\)

Actions by Western countries, particularly the U.S., in controlling or blocking access by China to selected industries and technologies is well established in present day and does leads to questions about the WA’s intentions towards China. Similarly as China continues to conduct domestic research and development on sensitive and dual-use items and technologies, repeated attempts by China and Chinese-based

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\(^\text{105.}\) Ibid.
entities to acquire or gain contact with restricted technologies and products from foreign countries and entities have drawn increased scrutiny by U.S. and Western regulators. Thus the current geopolitical context has created an atmosphere in which trust is lacking on both sides and which, undermines the WA and, potentially, elements of the nonproliferation regime. These problems continue to influence China’s perspective on WA membership.

4.5 Analytical conclusion

The analysis shows that the reasons for China’s non-membership of the WA are multifaceted and vary from time to time. However, the reasons and the degree in which they influence the engagement between China and the WA can be seen in a constructivism perspective. The validity and dynamics of the reasons are summarized in the following table. The validity across time is also addressed in this table.

<table>
<thead>
<tr>
<th>No.</th>
<th>Reason</th>
<th>Validity (From Initial WA Formation to Present Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Chinese government does not want outside influences to interfere with internal political decision-making on export control issue and emphasizes national sovereignty and is mindful of nationalistic sensitivities.</td>
<td>Strong → Weak</td>
</tr>
<tr>
<td>2</td>
<td>After attempts to join the WA, in part for national development, China grew frustrated after repeated failure and began to lose interest to join the WA.</td>
<td>Strong → Weak → Strong</td>
</tr>
<tr>
<td>3a</td>
<td>China’s behavior of exporting sensitive items to concerned countries due to geopolitical and economical interest characterizes China as a country of concern. This prevents China’s WA membership.</td>
<td>Strong</td>
</tr>
<tr>
<td>3b</td>
<td>China’s relatively weak export control regime characterizes China as a country of concern. This prevents China’s WA membership.</td>
<td>Strong → Weak</td>
</tr>
<tr>
<td>4</td>
<td>China sees the WA as a COCOM-like tool being used to prevent China from acquiring the high technologies from WA members. As a result of this, China believes that its membership was intentionally frustrated by certain WA members.</td>
<td>Weak → Strong</td>
</tr>
</tbody>
</table>

In reviewing this table it can be seen that some reasons for China’s
non-membership of the WA remain valid throughout the existence of the WA, while other have become less valid over time and due to changing Chinese priorities and/or shifting geopolitical context. Yet more reasons have decreased in validity during various points in time, only to return in strength in present day considerations of China’s engagement with the WA.

At the outset of the WA’s formation, China had a hostile attitude towards the WA as it believed regulatory regimes to be a Western ploy to perpetuate their political ideals and hegemony. However, two factors reduced China’s initial hesitation to join the WA. First, China gradually realized the importance of export control regimes for reasons of prestige and secure and second, China realized that participating in the global nonproliferation regime and supporting initiatives such as the WA would not interfere with Chinese national sovereignty or internal politics.

Regarding China belief in the WA’s ability to help Chinese national development, the assessment is more complicated. While China initially showed no signs of interest in joining the WA, this changed as the WA came into existence. With the opening of dialogs between the WA and China, China demonstrated interest in joining the WA for a few years. Unfortunately, due to frustrations and perceptions that existing WA members were biased towards China, China began to lose interest in join the WA again. This second turnaround is perhaps attributed to China’s realization that national development could occur without membership with the WA. Subsequently, China did not see any benefits or prospects of WA membership and official dialogue between China and the WA remain frozen to the present day.

Even as China has lost interest in WA membership, China continues to see the economic and geopolitical benefits of selling arms and other sensitive products and technologies to countries outside the WA and which are, in some cases, labeled as proliferation risks. The result is that China is sometimes also a country of concern for WA members, especially the US. While China’s attitude towards sales and transfers to countries outside the WA remain fairly consistent, China has made progress in
developing its own domestic export control system. Over time, China has established a domestic export control system with requisite control lists and authorities and, though questions remain about implementation, China has demonstrated its commitment to nonproliferation norms by contributing to international export control agreements and initiatives. These have included the Nuclear Suppliers Group (NSG) and the Treaty on the Proliferation of Nuclear Weapons. Accordingly, arguments attempting to explain China’s non-membership with the WA as the result of China’s weak domestic export control system have lost a significant degree of credibility.

Finally, the idea that the WA has developed into a tool for the U.S. to restrict China’s economic and industrial ability and access to advanced technologies and products remains a strong explanation, with documented justification, as to why China remains outside the WA. This reason might have been weak at the formation of the WA, but has strengthen in recent years as the U.S. increasingly sees China as a strategic competitor. This thus appears to be the dominant reason why China currently remains outside the WA and why WA member countries and the U.S. have not seriously pushed for renewed engagement with China.
IV. Conclusion

Given the assessment of the various reasons why China is not a member of the WA, what should be done in the current context? Perhaps there is need to reevaluate the mission of the WA to focus more on non-state actors and, thus, increase effectiveness and strengthen the global nonproliferation regime. As stated by early observers of the WA, “Can Wassenaar work? The success is grim.”106 This sentiment was shared among many who cover initial negotiations on the WA and through the WA’s initial years.107

A large part of the current dynamic between the WA and China appears to be influenced by the relations between China and the U.S. While China is focused on national development and economic and geopolitical gain, the U.S. increasingly views Chinese motives and intentions with suspicion, if not outright hostility. The U.S. wishes to maximize trade profit with China under the condition of preserving its own military and technology preeminence.108 This has resulted in mutual distrust in many areas, including nonproliferation initiatives such as the WA, and has led China to view U.S. dominated regimes and institutions like the WA with increasing distrust.

Ideally WA member countries should see through the situation and approve of WA membership for China so that China can play its part in strengthening the nonproliferation regime. Considering the fast development of China and China’s own domestic research and development, it is less useful to keep China outside the WA than to partner with China for mutual benefit. With China already producing large quantities of arms and China’s increasing technological and industrial proficiency, the WA without China will potentially become less and less effective. Strategic


107. Lewis, Austin, and Judith Goldstein. The Effectiveness of the Wassenaar Arrangement as the Non-Proliferation Regime for Conventional Weapons.. (2015).

competition between the U.S. and China not only weakens international efforts to prevent arms and sensitive technologies and products from falling into the hands of illicit actors, but also might harden attitudes in both China and the U.S. towards each other. Similar to how reasons for China’s non-membership with the WA changed with time and context, this hardening of attitudes between the two countries has the possibility of causing shifts in geopolitical relations to a point where China’s non-membership of the WA merely becomes a reference point in history.
## Appendix A

### Table 2 Documented engagement between the WA and China

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Dialogue</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1996</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1997</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>1998</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>1999</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>2000</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>2001</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>2002</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>2003</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>April 29-30, 2004</td>
<td>○</td>
<td>During the talks [dialogues], the two sides [China and WA] exchanged in depth views on issues in the field of the export control for conventional arms and dual-use goods and technologies. Mutual understanding are [is] enhanced and the two sides learned from each other’s experiences to strengthen the export control. 109</td>
</tr>
<tr>
<td>10</td>
<td>May 2005</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>June 2006</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>December 2007</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>November 2008</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>2009</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>2010</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>2011</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>2012</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>2013</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>19</td>
<td>2014</td>
<td>○</td>
<td>Dialog organized by SaferWorld</td>
</tr>
<tr>
<td>20</td>
<td>2015</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>2016</td>
<td>○</td>
<td>Dialog organized by SaferWorld</td>
</tr>
<tr>
<td>22</td>
<td>2017 (till November)</td>
<td>×</td>
<td>-</td>
</tr>
</tbody>
</table>

○ dialogue was held  
× No dialogue was held or information was not found.

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## Appendix B

### Table 3 Mention of the WA in the White Paper of National Defense

<table>
<thead>
<tr>
<th>No.</th>
<th>White paper of China MOD</th>
<th>Published date</th>
<th>WA</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China: Arms Control and Disarmament (White Paper)</td>
<td>November, 1995</td>
<td>✗</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>White Paper: China’s National Defense in 2000</td>
<td>October 16, 2000</td>
<td>✗</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>White Paper: China’s National Defense in 2002</td>
<td>December 9, 2002</td>
<td>✗</td>
<td>-</td>
</tr>
</tbody>
</table>
| 5   | White Paper: China’s National Defense in 2004 | December 27, 2004  | ✔  | China has established a dialogue mechanism with the Wassenaar Arrangement and kept contact with the Australia Group. It has also strengthened information exchanges and law-enforcement cooperation on non-proliferation with relevant countries.  


| 6   | White Paper: China’s National Defense in 2006 | December 29, 2006  | ✗  | -                                                                                                                                          |
| 7   | White Paper: China’s National Defense in 2008 | January 20, 2009   | ✔  | China values and actively carries out international exchanges and cooperation in the field of non-proliferation and export control. China has held regular arms control and non-proliferation consultations with a dozen countries and the EU, and non-proliferation dialogues with NATO. China also maintains dialogues and exchanges with multinational export control regimes such as the Australia Group and the Wassenaar Arrangement.  

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Date</th>
<th>WA was mentioned</th>
<th>WA was not mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>White Paper: China’s National Defense in 2010</td>
<td>March 31, 2011</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>White Paper: The Diversified Employment of China’s Armed Forces</td>
<td>April 16, 2013</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>White Paper: China’s Military Strategy</td>
<td>May 26, 2015</td>
<td>×</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>White Paper: China’s Policies on Asia-Pacific Security Cooperation</td>
<td>January 1, 2017</td>
<td>×</td>
<td>-</td>
</tr>
</tbody>
</table>

○ WA was mentioned
× WA was not mentioned
Appendix C

When deciding on the eligibility of a state for participation, the following factors, inter alia, will be taken into consideration, as an index of its ability to contribute to the purposes of the new Arrangement:

- Whether it is a producer/exporter of arms or industrial equipment respectively;

- Whether it has taken the WA Control lists as a reference in its national export controls;

- Its non-proliferation policies and appropriate national policies, including: Adherence to non-proliferation policies, control lists and, where applicable, guidelines of the Nuclear Suppliers Group, the Zangger Committee, the Missile Technology Control Regime and the Australia Group; and through adherence to the Nuclear Non-Proliferation Treaty, the Biological and Toxicological Weapons Convention, the Chemical Weapons Convention and (where applicable) START I, including the Lisbon Protocol;

- Its adherence to fully effective export controls. 112