Master's Thesis of International Studies

US-China Tech War
– Unilateral and Multilateral Trade Responses against China's Forced Technology Transfer–

미중 기술 전쟁: 중국의 기술 강제 이전에 대한 일방적 대응과 다자적 대응

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Do Yeon Park

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Dukgeun Ahn

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Confirming the master's thesis written by
Do Yeon Park
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Chair	Jiyeoun Song	(Seal)
Vice Chair	Minjung Kim	(Seal)
Examiner	Dukgeun Ahn	(Seal)

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지도교수 안 덕 근

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서울대학교 국제대학원
국제학과 국제통상전공
박 도 연

박도연의 석사학위논문을 인준함

위원장	송 지 연	(Seal)
부위원장	김 민 정	(Seal)
위원	안 덕 근	(Seal)

Abstract

In 2018, the Trump Administration initiated the U.S.-China Trade War by publicly denouncing China's unfair trade activities. The belligerent attitude of the U.S. toward China has not changed even after President Biden replaced Trump's place, and the trade conflict has evolved into technology conflict and reorganization of global supply chains. Among many other unfair trade activities listed in the Section 301 Report by the United States Trade Representative (USTR), misappropriation of foreign technology has long been a concern to the U.S. The U.S. particularly has started to sensitively react to issue regarding technologies and intellectual property rights, since the advanced-technology industries of China started to grow rapidly and simultaneously threatened the U.S. position of technological hegemony in the international society.

As the tension continues to intensify, technology transfer has emerged as an imperative problem to tackle between the U.S. and China. This paper seeks to analyze the U.S. measures related to technology transfer of China by classifying them into unilateral and multilateral responses. Unilateral measures include Section 301 investigations on intellectual property issues, 'Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA)' that was legislated to restrict China's investment in U.S. industries, and 'Entity List' that regulates the export of U.S. technologies. As a form of multilateral response, the U.S. had filed two cases on intellectual property rights against China through the WTO system. Along with these two cases, China's WTO Protocol of Accession will be analyzed in depth to examine China's obligations and commitments regarding intellectual property rights protection within the WTO system. The additional analysis of the recent

WTO case filed by the EU against China on technology transfer provides how such obligations and commitments can be used as a legal basis.

By comparatively analyzing the unilateral and multilateral responses, it has been noted that unilateral measures implemented by the U.S. negatively influence the economy, industry, and citizens of its own, and further undermine the multilateral regimes of the international society. On the other hand, although multilateral responses provide unified and comparatively fair resolutions, the lack of agreements related to 'Forced Technology Transfer (FTT)' has been their biggest limitations. As a way forward for the U.S. and China conflicts, this paper suggests the formation of practical agreements that can efficiently address the FTT issues through multilateral consensus.

Keyword: Forced Technology Transfer, Intellectual Property Rights, U.S.-China Trade War, Section 301, Unilateral Response, Multilateral Response

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Table of Contents

List of Abbreviations

BIS	Bureau of Industry and Security
CFIUS	Committee on Foreign Investment in the United States
DSB	Dispute Settlement Body
FIRRMA	Foreign Investment Risk Review Modernization Act of 2018
FTT	Forced Technology Transfer
ICT	Information and Communications Technology
IP	Intellectual Property
IPR	Intellectual Property Rights
JV	Joint Venture
M&A	Merger and Acquisition
NEV	New Energy Vehicle
NME	Non-Market Economy
SOE	State Owned Enterprise
TID	Technical Information Document
TRIMs	Trade-Related Investment Measures
TRIPS	Trade Related Aspects of Intellectual Property Rights
TT	Technology Transfer
USTR	United States Trade Representative
WTO	World Trade Organization

List of Tables

List of Figures

Chapter I. Introduction

1.1. Study Background

U.S.-China trade war marked a new beginning of international political economy in 2018, when the Trump administration started to point its finger at China for unfair trade activities. The overall attitude of the U.S. toward China has not changed even after President Biden replaced Trump in 2020. Among many categories of unfair trade practices discussed during the Trump administration, misappropriation of foreign technology by China has continuously been a major concern to the U.S. The U.S. has become more sensitive to the matter, particularly since Chinese advanced-technology industries have been growing by leaps and bounds in recent years and started threatening the global technology leadership of the U.S. As China's forceful transfer of technology has been raised as a serious issue, China's investment into U.S. entities has been restricted, and export of U.S. technology to China has been strictly regulated.

Has the problem of technology transfer suddenly begun like a bolt out of the blue? The answer is no. Intellectual Property Right (IPR), which is the core value that lies at the center of technology, has been a deep-seated issue ever since Washington and Beijing first became trade partners in 1979. From the beginning, the concept of IPR was too "capitalist" for China to understand and respect. Under the system of Chinese Communist Party (CCP) where the works of intellectuals had been treated as public products, the protection of IPR needed some time to be accepted both in the legal system and social norms.[1] Compared to the past, China

[1] Wang, Y. (1993). "The Politics of U.S.-China Economic Relations: MFN, Constructive

has sought many changes by legislating IPR protection laws, and meeting the standards set by the international society. Despite such efforts, however, the friction between the U.S. and China has been continuously aggravated.

1.2. Purpose of Research

This article seeks to answer two major research questions: what the implications of unilateral and multilateral responses of the U.S. against China's forced technology transfer are, and what the ideal way forward for both great powers to address the issues of forced technology transfer is. For the convenience of discussion, responses through unilateral measure enforcement will be addressed as unilateral responses or unilateral measures, and responses through a multilateral trading system will be addressed as multilateral responses or multilateral measures. In order to address the questions, comparative analysis between the unilateral and multilateral measures will be used as a research methodology. For unilateral responses, Section 301, FIRRMA, and Entity List will be studied to demonstrate their influence not only on China but also on international society. To analyze multilateral measures, efforts made under the WTO, including intellectual property related cases and China's accession protocol negotiations, will be discussed in depth. The recent EU-China TT Case will be additionally analyzed to illustrate how the accession protocol can be utilized as a legal basis within the WTO system.

With international trade environment changing more rapidly than ever, it is crucial to comprehend the conflicts between the two great economies, the U.S. and China. By analyzing both unilateral and multilateral trade measures of the U.S.

Engagement, and the Trade Issue Proper." *Asian Survey*, 33(5). pp. 441-462.

on technology transfer and intellectual property rights issues, the study can provide an overall road map of how these issues have been handled between the U.S. and China. Based on this road map, why the current use of both measures is not adequate enough to address the issue will be evaluated. The study poses a significant value by suggesting what needs to be improved from the limitations of the unilateral and multilateral trade responses.

To firstly help understand what forced technology transfer (FTT) is, the article begins by demonstrating the concept of both technology transfer and forced technology transfer (TT). Through the explanation on FTT, its relationship with IPR, and differences between TT and FTT, the overall history of technology and IPR between the U.S. and China will be illustrated. Additionally, some policies of China that yield forced technology transfer will be reviewed. The policies are based on the Section 301 Report published by the United States Trade Representative (USTR) in 2018 after their investigation against China's acts, policies, and practices related to TT, IPR, and innovation.

In Chapter 3, unilateral responses of the U.S. against China will be analyzed. Section 301 will be mainly discussed, as the past Section 301 investigations on China comprehensively describe the issues of IPR and TT. Furthermore, other policies and legislations, including FIRRMA and Entity List, to regulate China's influence will be studied to better understand some aspects of China's technology-related movements that are the major concerns of the U.S. In Chapter 4, multilateral responses of the U.S. will be discussed. Responses made through World Trade Organization (WTO) will be mainly focused on, as WTO is the most representative multilateral trade regime that both the U.S. and China are part of. Along with two intellectual property right cases that the U.S. brought

against China in the WTO, China's WTO Protocol of Accession will also be considered in order to analyze the significance of measures taken within multilateral regimes.

Chapter 5 will examine the limitations and implications of both unilateral and multilateral responses that are analyzed by the former chapters. Moreover, the chapter seeks to find some indications based on the limitations of both measures, and attain a way forward for the U.S. and China to take from the current status quo of continued conflicts. Lastly, Chapter 6 will conclude the article by summarizing and organizing the overall contents.

Chapter II. Forced Technology Transfer

2.1. Intellectual Property Rights and Forced Technology Transfer

Before discussing the forced technology transfer issue between the U.S. and China, it is imperative to understand what forced technology transfer is and why it can be problematic. Forced technology transfer, also referred to as FTT, is a government practice that forcefully requires foreign companies or investors to transfer important technology in return for the domestic investment or market access.[2] The technology compelled to be transferred primarily includes intellectual property, such as trademarks, computer software, trade secrets, and others. Thus, often time it is evident that the lack of intellectual property protection can lead to unwilling transfer of technology. Although the term FTT was popularized during the Trump Administration, the term has been used for around two decades, with the USTR using it in 2002 Special 301 Report.[3] As long as the term FTT has been used, the intellectual property rights protection has also been a major concern for both the U.S. government and industries for a long time, especially with China. Intellectual property protection issue was raised during the first U.S.-China trade agreement negotiations in 1979.[4] As U.S. industries started doing business with China, many firms loudly underlined the lack of protection of intellectual property within China.

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[2] Lee, J. (2020). "Forced Technology Transfer in the Case of China." *Boston University Journal of Science and Technology Law*, 26(2). pp.324-352.
[3] USTR. (2002). *Special 301 Report.* Washington. United States Trade Representative.
[4] Wang, Y. (1993). "The Politics of U.S.-China Economic Relations: MFN, Constructive Engagement, and the Trade Issue Proper." *Asian Survey*, 33(5). pp. 441-462.

Since its accession to the World Trade Organization (WTO) in 2001, China has been increasing its IPR protection to meet its obligations under the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the WTO. Despite its effort, China is often considered to be reluctant to effectively protect intellectual property rights. In fact, China produces around 80 percent of counterfeit products in the world, and currently is the world's largest producer of pirated and counterfeit goods.[5] China is also well-known for infringing on patents, with pharmaceutical and other high-tech industries that can benefit from others' technology. As intellectual property rights and technology transfer are closely related to each other, lack of IPR protection in China naturally ran its course and reached the issue of forced technology transfer.

Technology transfer can easily be found from various types of multinational firms in the world. It is often the case that those firms that are based in the U.S., Europe, and many other places voluntarily decide to transfer their technology to other firms. If a multinational company has a supplier that provides an essential input, it is in its best interest for the company to provide necessary technology to the supplier to ensure they can produce more reliable and higher quality products.[6] A problem arises when the technology transfer is not left for the concerned parties to arrange, and government forcefully requires transfer of critical technology in exchange for market access. FTT can be demanding even if foreign firms gain access to huge Chinese market for two reasons. First is because foreign

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[5] Mercurio, B. (2015). China, Intellectual Property Rights, and the WTO: Challenging but Not a Challenge to the Existing Legal order. In Toohey, L., Picker, C. & Greenacre, J. (Eds.), *China in the International Economic Order: New Directions and Changing Paradigms*. pp.293-318.

[6] Branstetter, L. (2018, August 3). *What is the Problem of Forced Technology Transfer in China?*. Econofact. https://econofact.org/what-is-the-problem-of-forced-technology-transfer-in-china

companies are compelled to disclose some valuable information that they would not disclose in other free market conditions. Secondly, the transferred technology could give rise to the creation of a direct competitor both in Chinese and international market.

Often time FTT does not appear as a formally written form of laws or regulations, but is found as a *de facto* form of practices, making it difficult to identify that such practices exist. In case of China, although it is specifically stated in the *Made in China 2025* (MIC 2025) document that its goal is to replace western companies with Chinese ones in key industrial sectors, it is not easy to find the FTT implemented as a *de jure* in practice.[7] In the next section, some distinguished policies used by the Chinese government to force technology transfer of foreign companies will be demonstrated.

2.2. China's Technology Transfer Policies

2.2.1. Foreign Ownership Restrictions

Among China's policies, acts, and practices, there are two well-known FTT policies, first of which is implemented through the foreign ownership and investment restriction. China has been actively making use of Joint Venture (JV) requirements and foreign equity restrictions, whether it be formal or informal, on foreign investors who wish to invest in Chinese industries.[8] These acts can be easily found on China's *Catalogue of Industries for Guiding Foreign Investment*,

[7] U.S. Chamber of Commerce. (2017). *Made in China 2025: Global Ambitions Built on Local Protections*. Washington. United States Chamber of Commerce.
[8] USTR. (2018). *Findings of the Investigation into China's Acts, Policies, and Practices related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974.* Office of the United States Trade Representative.

which obligates U.S. companies to form "cooperative arrangements" with Chinese partner in case of investing in certain industrial sectors of China. Through such requirements, U.S. firms or investors are precluded from entering into Chinese market unless they are companied by Chinese firms, and are often faced with pressure for technology transfer.

Some examples can be found from the 2018 USTR investigation, through which the USTR noticed that the U.S. companies can only enter the Chinese market if they form a partnership with Chinese companies through JV agreements in the new energy vehicle (NEV) sector.[9] Based on the new market access rules of China that were issued in 2017, foreign automobile manufacturers are required to transfer essential technologies to their Chinese JV in order to demonstrate their "mastery" of the corresponding technology.[10] The Foreign Investment Catalogue further requires that the investment of Chinese companies must not be less than 50 percent in the automobile manufacturing industry, whereas investment made by foreign firms must not be more than 50 percent in telecommunications service sectors.[11] Once a foreign firm creates a joint venture with its Chinese partners, it is not left with many alternative choices but to provide its confidential technology related information and trade secrets due to the importance and size of the Chinese market.

2.2.2. Administrative Review Process

Another notable FTT policy enforced by the Chinese government is the

[9] *Ibid.*
[10] *Ibid.*
[11] Lee, J. (2020). "Forced Technology Transfer in the Case of China." *Boston University Journal of Science and Technology Law*, 26(2). pp.324-352.

use of administrative approval process to demand technology transfer. In order for a foreign firm to provide products or services, or to establish operations in the Chinese market, it must undergo numerous steps of administrative approval process. Problems emerge as most of the relevant provisions and rules are vaguely worded, allowing Chinese authorities to have wide range of discretion to make use of the administrative process to compel technology transfer, or to protect domestic competitors. It has been reported by some U.S. firms that while the language in Chinese business registration forms can be unclear, government officials in person make their expectations for technology transfer clear without leaving any paper trail.[12] It can be more problematic as the administrative review process is often implemented in association with the JV requirements, as local JV partners generally work as the applicant for the investment approval process on behalf of foreign investors. Throughout the administrative review process, there is a possibility for the Chinese JV partner to influence the approval requirements as it has the ability to interfere in the communication channels between government officials and the foreign investors.

Another mechanism of the Chinese government to pressure technology transfer is to request for key technical information in return of the administrative approvals. The issue of forced revelation of key technology can be exacerbated especially when it is not only made to the government officials, but also to other parties. Such a situation can occur when Chinese government includes mandatory review process by "expert panels," who are consisted of domestic competitors, academia, and others who may earn the benefit of acquiring the confidential

[12] USTR. (2018). *Findings of the Investigation into China's Acts, Policies, and Practices related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974.* Office of the United States Trade Representative.

information of the foreign firms. The disclosed information may contain some crucial technologies, such as databases of design, source codes, and many other intellectual properties of U.S. industries.

Chapter III. Responses through Unilateral Measures of the U.S. against China

3.1. Section 301

3.1.1. Overview of Section 301 and Special 301

Section 301 of the Trade Act of 1974 provides the USTR with authorities to initiate investigation and impose sanctions on foreign trade partners if there exists any form of unjustifiable, unreasonable, or discriminatory burdens that negatively affect U.S. trade.[13] The term "Section 301" often collectively refers to sections from 301 to 310, which are titled as "Relief from Unfair Trade Practices." While Section 301 describes the authorities and responsibilities given to the USTR, Sections 302 through 310 demonstrate procedural regulations for Section 301.[14] Originally designed to empower the President in resolving trade issues, Section 301 had its decision making power transferred from the President to the USTR through the Omnibus Trade and Competitiveness Act of 1988. With the amendments made by the Omnibus Trade and Competitiveness Act of 1988, Special 301 and Super 301 actions were included as additional categories. Thus, there are currently three types of Section 301 actions, which consist of original Section 301 for unfair trade, Special 301 for intellectual property protection, and Super 301 for annual listing of priority practices of other countries that negatively affect the U.S. trade.[15]

According to Special 301, the USTR must identify countries with trade

[13] Schwarzenberg, A. (2022). "Section 301 of the Trade Act of 1974." *In Focus*. Congressional Research Service.
[14] Trade Act of 1974, Title III Relief from Unfair Trade Practices.
[15] Puckett, A. and Reynolds, W. (1996). "Rules, Sanctions and Enforcement under Section 301: At odds with the WTO?" *The American Journal of International Law*, 90(4). pp.675-689.

barriers caused by insufficient protection for intellectual property. Pursuant to Section 301, the USTR must annually publish the Special 301 Report, through which countries are classified into three major categories: “priority foreign country,” “priority watch list,” and “watch list.” Priority foreign countries are the ones that have maintained the most egregious practices and have not engaged in negotiations to address relevant trade issues.[16] Once a country is identified as a priority foreign country, the USTR has 30 days to decide whether or not to initiate an investigation on the trade regulations and policies of the identified country. Countries classified as priority watch list have some, but not all, of the criteria for priority foreign country, as their policies do not contain effective protection for intellectual property.[17] Lastly, countries on the watch list have practices or barriers relevant to intellectual property that are of particular concern to the U.S.

As Section 301 permits unilateral actions of the U.S., the use of Section 301 have been the subject of heated debate, especially after the establishment of the WTO and the framework of multilateral resolutions. In fact, the U.S. had used Section 301 actions mainly to build cases for WTO dispute settlement system, or to put pressure on countries to engage in bilateral negotiations with the U.S. The recent use of Section 301 authorities by the Trump Administration, however, received much criticism for his willingness to unilaterally retaliate against countries under Section 301.

In this chapter, the past Section 301 investigations on China that are relevant to intellectual property will be discussed in depth. For the convenience of discussion, investigations and actions taken by the USTR, including that of Special

[16] USTR. (1994). *Special 301 Report.* Washington. United States Trade Representative.
[17] USTR. (1992). *Special 301 Report.* Washington. United States Trade Representative.

301, will be referred to as Section 301 in this article.

3.1.2. IP Investigation in 1991

Triggered by Deng Xiaoping's speech on the necessity of respecting creative works in 1979, China started to make its progress toward entering into international market and acknowledging the value of intellectual property by adopting the PRC Patent Law for the first time in 1985.[18] Despite the existence of huge gap between the newly adopted Chinese laws and the long-established Western norms, the United States welcomed China's effort with a hope of opening up new market opportunities. Such atmosphere, however, quickly turned into frustration as American enterprises continuously encountered Chinese infringement on intellectual property. After the Tiananmen incident in 1989, the frustration developed into animosity against China among politicians and businessmen. It was reported by American companies that the loss of sales due to Chinese piracy had been estimated to be higher than $400 million annually within two years after the Tiananmen Incident.[19] In both 1989 and 1990, China had been identified as a "priority watch list" country for its deficiencies in copyright laws and patent protection.[20]

On April 26, 1991, the USTR issued the Special 301 Report, in which China was classified as a "priority foreign country."[21] China, along with India and Thailand, had been on "priority watch list" for two consecutive years since 1989.

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[18] Wang, Y. (1993). "The Politics of U.S.-China Economic Relations: MFN, Constructive Engagement, and the Trade Issue Proper." *Asian Survey*, 33(5). pp. 441-462.
[19] Goldberg, M. and Feder, J. (1991). "China's Intellectual Property Legislation." *The China Business Review,* 18(5). pp.8-11.
[20] USTR. (1989). *Special 301 Report.* Washington. United States Trade Representative; USTR, (1990). *Special 301 Report*. Washington. United States Trade Representative.
[21] USTR. (1991). *Special 301 Report.* Washington. United States Trade Representative.

The report indicates that there had been no significant progress despite the U.S. administrative efforts to negotiate mutual resolutions for intellectual property issues. Being a major trading partner with the U.S., China still did not provide copyright protection or pharmaceutical patent protection for U.S. companies and workers. The USTR noted that considerable losses were made to U.S. industries due to prevalent intellectual property piracy in China. After a month of releasing the 1991 Special 301 Report, the USTR officially initiated a Section 301 investigation against China.[22] According to the Federal Register of May 26, 1991, some deficiencies in China identified by the USTR include failure to provide patent protection for chemicals, absence of copyright protection for creative works of the U.S., insufficient protection of trade secrets, and lack of effective enforcement. Pursuant to Section 304, the USTR announced that the determination of the investigation will be made by November 26, 1991, or by February 26, 1992, if extension of investigation period is necessary.

In response to the 301 investigation, China issued new legislation on intellectual property protection in June 1991.[23] The legislation includes Chinese Copyright Law (CCL), and Software Regulation, which is an implementing legislation of the CCL. The CCL and Software Regulation, however, did not make an adequate solution as both of them provide protection for foreign computer programs only if an agreement or treaty were made with the right holder's home country beforehand. Unsatisfied with what China had offered, the USTR declared January 16, 1992, as the date of imposing sanctions that are worth of $700 million on Chinese products. China made a threat to retaliate if any form of sanction is

[22] 56. Fed. Reg. 24878 (USTR 1991)
[23] Wang, Y. (1993). "The Politics of U.S.-China Economic Relations: MFN, Constructive Engagement, and the Trade Issue Proper." *Asian Survey*, 33(5). pp. 441-462.

imposed by the U.S.

Both Washington and Beijing, nevertheless, were able to make a breakthrough by signing the Memorandum of Understanding (MOU) on January 17, a few hours after the deadline set by the USTR. The MOU is consisted of seven articles, first of which is the improved protection under the Patent Law of China.[24] In Article 2, China agrees to provide patent protection for chemicals, such as pharmaceutical and agrichemicals. In Article 3, China promises to accede to Berne Convention and Geneva Convention by April 1, 1992, and June 30, 1992, respectively. With China joining the Berne Convention, foreign software that were first published outside of China was finally able to receive protection in China. Article 4 highlights China's agreement on preventing the disclosure of trade secrets, while Article 5 underlines Both governments' efforts to provide efficient remedies and procedures to prevent intellectual property rights infringement. In Article 6, both Washington and Beijing agree to have prompt consultations on intellectual property rights issues, especially related to the MOU. Lastly, in Article 7, the U.S. government agrees to terminate the Special 301 investigation against China in recognition of the Chinese government's efforts to make such improvements on intellectual property rights.

As a result of the 1992 MOU on intellectual property, the USTR ended the investigation on January 27, 1992.[25] It also made a decision to revoke its decision on identifying China as a priority foreign country on its Special 301 Report.

[24] Cambridge University Press. (1995). "People's Republic of China-United States of America: Memorandum of Understanding on the Protection of Intellectual Property." *International Legal Materials*, 34(3). pp.676-684.
[25] 57. Fed. Reg. 3084 (USTR 1992)

3.1.3. IP Investigation in 1994

After signing the 1992 MOU, trade relations, especially those of intellectual property, between Washington and Beijing seemed to be getting normalized in a satisfactory manner. In 1992 Special 301 Report, China was placed on the "Watch List," which is two levels below of where China was identified in a year ago.[26] China's accession to Berne Convention and the Universal Copyright Convention (UCC) in 1992 raised expectations for an improved level of copyright protection, such as protections for sound recordings and software.[27] Its amendment of patent law and provision of administrative protection were evaluated to greatly improve the patent protection in China.

On November 30, 1993, however, China's status in Special 301 changed from the Watch List to a Priority Watch List. It was estimated that in late 1993, the copyright piracy in China had caused the loss of U.S. industries to reach around $415 million per year, while software industries amount for $225 million alone.[28] USTR Mickey Kantor claimed that despite some improvement made in China's intellectual property laws, the lack of actual enforcement power prevents effective protection for U.S. companies and workers.[29] The discontent of the U.S. is also demonstrated through the National Trade Estimate Report on Foreign Trade Barriers (NTE Report), annually issued by the USTR. While the 1993 NTE Report praises continued effort of the Chinese government to improve its domestic laws

[26] USTR. (1992). *Special 301 Report.* Washington. United States Trade Representative.
[27] USTR. (1993). *1993 National Trade Estimate Report on Foreign Trade Barriers*. Office of the united States Trade Representative.
[28] Newby, K. (1995). "The Effectiveness of Special 301 in Creating Long Term Copyright Protection for U.S. Companies Overseas." *Syracuse Journal of International Law and Commerce*, 21. pp.29-64.
[29] Prohaska, F. (1996). "1995 Agreement regarding Intellectual Property Rights between China and the United States: Promises for International Law or Continuing Problems with Chinese Piracy." *Tulsa Journal of Comparative and International Law*, 4(1). pp.169-183.

and regulations, the 1994 NTE Report specifies some deficiencies in China's implementation of laws. Although China had been upholding its commitments made in the MOU, it had failed to amend the copyright law, which still did not provide criminal penalties for copyright infringement.[30] Furthermore, the National Copyright Administration (NCA), which is an enforcement agency designated by the Chinese government, neither had enough funding nor staff to fully function as an agency. The failure of China to adequately enforce copyright regulations had yielded more than $800 million of loss in U.S. industries in 1994.

The USTR once again initiated its investigation under Section 301 Provision against China on June 30, 1994, after identifying China as a priority foreign country on its 1994 Special 301 Report.[31] While China has implemented most of its commitments under the 1992 Memorandum of Understanding with the U.S. government, the USTR argued that China had failed to create an effective intellectual property rights enforcement regime. Some major problems the USTR had listed regarding China's enforcement regime include lack of transparency, inconsistency, and responsibility in the overall enforcement structure. It had also been pointed out that the application of law is inconsistent throughout central, provincial and local governments of China, as the enforcement authorities have failed to coordinate with one another. Other issues consist of non-existence of efficient border control mechanism, criminal penalties, as well as adequate training and education.

On February 4, 1995, after the investigation, the USTR determined that Chinese government's policies and practices pose burdens and restrictions on the

[30] USTR. (1994). *1994 National Trade Estimate Report on Foreign Trade Barriers*. Office of the united States Trade Representative.
[31] 59. Fed. Reg. 35558 (USTR 1994)

U.S. trade, thus decided to impose 100 percent ad valorem tariffs on Chinese products.[32] Similar to what happened during the 1992 IPR negotiations, however, Washington and Beijing were able to reach a new agreement in the very last minute and avoid the implementation of sanctions. Signed on February 26, the 1995 Enforcement Agreement entails enhanced enforcement of intellectual property protection in China and extended market access for U.S. industries in Chinese markets.[33] Some salient features of the agreement include the development of Action Plan organized by the State Council's Working Conference on Intellectual Property. As the Action Plan was designed to eliminate Chinese infringement on intellectual property rights, the Working Conference had the central responsibilities of coordinating and organizing the enforcement of intellectual property rights protection.[34] China also made a significant change in the existing law by permitting foreigners with trademarks to be protected equally as Chinese citizens. In addition, China promised to establish transparent, strong, and responsive enforcement of intellectual property rights at all levels including the central, provincial, and local.[35] China decided to improve the legal transparency through publication of laws and regulations related to intellectual property protection.

As the agreement had been undertaken, the USTR decided to terminate its measure to increase tariffs on Chinese products, and revoked its decision on designating China as a priority foreign country.

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[32] 60. Fed. Reg. 7230. (USTR 1995)
[33] Butterton, G. (1996). "Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement." *Arizona Law Review*, 38(4). pp.1081-1124.
[34] Prohaska, F. (1996). "1995 Agreement regarding Intellectual Property Rights between China and the United States: Promises for International Law or Continuing Problems with Chinese Piracy." *Tulsa Journal of Comparative and International Law*, 4(1). pp.169-183.
[35] 60. Fed. Reg. 12582. (USTR 1995)

3.1.4. Technology Transfer, IP & Innovation in 2017

Before the initiation of Section 301 investigation, China tried to resolve the trade imbalance issue the U.S. On April 6, 2017, President Xi Jinping and President Trump met at Mar-a-Lago in Florida, where China agreed to establish a 100 Day Action Plan to improve commercial and economic relationship between the U.S. and China. Through the action plan, China decided to re-introduce U.S. beef into Chinese markets, whereas the U.S. agreed to import Chinese cooked poultry to U.S. markets.[36] Many believed that the 100-Day Action Plan would be able to prevent the continuation of severe trade war between the two great powers. Such belief was let down when Washington and Beijing failed to make an agreement after the annual U.S.-China Comprehensive Economic Dialogue on July 19, 2017. The U.S. demanded for allowing China's financial service market access, lifting data localization requirements, and removing ownership caps for foreign companies, among others.[37] The dialogue session, nevertheless, ended with neither new joint statement nor new market access announcement.

On August 14, 2017, President Trump issued a Memorandum on China's policies and practices in regard to technology transfer, intellectual property, and innovation to the USTR.[38] The Memorandum instructed the USTR to decide whether or not to conduct an investigation on China's laws and regulations that may harm technology development, intellectual property, and innovation of

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[36] U.S. Department of the Treasury. (2017, May 11). *Joint Press Release: Initial Results of the 100-Day Action Play of the U.S.-China Comprehensive Economic Dialogue*. U.S. Department of the Treasury: Press Releases. https://home.treasury.gov/news/press-releases/sm0082

[37] Lawder, D. & Wroughton, L. (2017, July 20). *U.S., China Fail to Agree on Trade issues, Casting Doubts on Other Issues*. Reuters. https://www.reuters.com/article/uk-usa-china-trade-idUKKBN1A504W

[38] 82. Fed. Reg. 39007. (Presidential Document 2017)

America. The President's Memorandum directs as follows:

> China has implemented laws, policies, and practices and has taken actions related to intellectual property, innovation, and technology that may encourage or require the transfer of American technology and intellectual property to enterprises in China or that may otherwise negatively affect American economic interests. ... The United States Trade Representative shall determine, consistent with section 302(b) of the Trade Act of 1974, whether to investigate any of China's laws, policies, practices, or actions that may be unreasonable or discriminatory and that may be harming American intellectual property rights, innovation, or technology development.[39]

The USTR, in response to the Memorandum of the President, initiated the investigation to determine whether China's policies are in fact negatively affecting the U.S. commerce on August 18, 2017.[40] On April 6, 2018, the USTR announced its determination of the investigation, and found the acts, policies, and practices of China are discriminatory and unreasonable. Through the investigation, four major practices of China that are actionable under Section 301.[41] First is China's use of foreign ownership and investment restrictions through JV requirements and equity limitations for foreign investors. Second, technology regulations of China that compels U.S. firms to license certain technologies on discriminatory and non-market based terms. Third is the Chinese government's unfair facilitation of obtaining crucial technologies and IP of U.S. industries and transferring them to Chinese firms. Lastly, China's unauthorized intrusion into U.S. networks to theft information and trade secrets.

The USTR announced that according to Section 301 provisions, it shall implement appropriate measures in order to eliminate such acts and policies that are detrimental to U.S. commerce and industries. The USTR hence proposed that

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[39] *Ibid.*
[40] 82. Fed. Reg. 40213 (USTR 2017)
[41] 83. Fed. Reg. 14906 (USTR 2018)

the adequate action would be to increase tariffs with an additional duty of 25 percent on certain Chinese-originated goods that are imported into the U.S. The imposing tariffs on Chinese products were approximately $50 billion worth. Criticizing U.S. action to be severely violating China's legitimate rights in the WTO, China also announced its imposition of additional tariffs worth of $50 billion on U.S. products as a retaliatory action.[42] President Trump, stating that the $50 billion tariffs were not sufficient enough as China did not change its practices, modified the Section 301 and additionally imposed $200 billion worth of tariffs on products imported from China. China once again responded with $60 billion worth of tariff imposition on U.S. products, and the tit-for-tat actions continued between the two.

On January 15, 2020, U.S.-China Economic and Trade Agreement, or so called "Phase One" agreement was signed by both parties to prevent further economic struggle. "Righting the wrong of the past,[43]" the agreement addresses issues related to intellectual property protection, technology transfer, new market access in Chinese financial services, and an enforcement mechanism between the two governments that can unilaterally decide trade sanctions when necessary.[44] One of the major outcomes of the agreement is considered to be China's promise to purchase $200 billion worth of U.S. products of agriculture, manufacturing, and energy. Both the U.S. and China voluntarily reduced the tariff imposed by the last round in September 2019 to half on February 14, 2020, which is the day the

[42] Hart, N. & Murrill, B. (2022). "Section 301 Tariffs on Goods from China: International and Domestic Legal Challenges." *Legal Sidebar*. Congressional Research Service.
[43] Pramuk, J. (2020, January 15). "Trump signs 'phase one' trade deal with China in push to stop economic conflict." CNBC. https://www.cnbc.com/2020/01/15/trump-and-china-sign-phase-one-trade-agreement.html
[44] Bown, C. (2021). "The US-China trade war and Phase One agreement." *Journal of Policy Modeling*. 43(4). pp.805-843.

agreement went into effect.

Chapter 1 of the Phase One agreement is on intellectual property, in which many long-standing issues such as trade secrets, trademarks, and intellectual property of pharmaceutical products have been addressed.[45] Both the U.S. and China agreed to protect trade secrets and business information that is confidential in order to optimize the business environment. The IP chapter also requires China to promote an Action Plan, which lays out China's structural changes that need to be undertaken in order to abide by the obligations listed in the chapter. In relation to technology transfer, which is Chapter 2 of the agreement, China agreed not to implement many of the acts, policies, and practices that were discovered during the Section 301 investigation. The listed obligations include no technology transfer requirements for investment or market access, no discriminatory enforcement of laws on foreign firms, and no involuntary disclosure of technical information.[46] China also promised to make significant improvement on transparency and due process regarding the administrative process.

Although there are some conflicting opinions on the effect of the Phase One agreement, it has been a dominant view that the agreement was not fully held up. The recent figures describe that China only purchased 58% of committed amount for the U.S. products and services during the years 2020 and 2021.[47] In addition to the numbers, negotiations for Phase Two agreement, which was promised to return with more important issues, vanished, as Biden administration

[45] Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China (2020)
[46] *Ibid.*
[47] Bown, C. (2022). "US-China phase on tracker: China's purchases of US goods." Peterson Institute for International Economics. https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods

replaced Trump's place in 2020.

3.1.5. Implications of Section 301 Cases

The three Section 301 cases bear similarities in that they are closely related to intellectual property rights of the U.S. industries. As demonstrated by <Table 3-1>, all three cases were able to yield agreements or memorandums, including the 1992 MOU, the 1995 Enforcement Agreement, and the Phase One Agreement.

As many similarities as the three cases share, there exist some significant differences among them as well. One crucial difference that can be found between the IP cases in 1990s and the technology transfer case in 2017 is the intention behind the investigations. The two IP investigations in 1991 and 1994 were conducted to improve market access and to bring China into the international regime that provides certain level of IP protection, whereas the investigation on technology transfer, IP, & innovation in 2017 was mainly conducted in order to curtail the trade deficit of the U.S.[48] The U.S. has been invoking its Section 301 procedures, including Special and Super 301, since 1980s. It is a generally acknowledged fact that the push made through the U.S. Section 301 greatly contributed to the expansion of the multilateral trade regime. For instance, the U.S. was able to open up services markets of Brazil and India and simultaneously strengthen their laws and policies for IP protection through Section 301 procedures. Similarly, its Section 301 investigation against China in 1990s had a clear intention of increasing the market access and intensifying its IP protection laws and

[48] Mavroidis, P. & Sapir, A. (2021). *China and the WTO: Why Multilateralism Still Matters.* Princeton University Press.

enforcement measures. As a result, both cases ended with memorandum and agreement that effectively address IP related issues raised by the USTR in the initiation process of the investigation. As many experts point out, the unilateral measures taken through Section 301 in the past were intended to make countries to start necessary negotiations for them to become members of multilateral trade regime. Furthermore, although Section 301 has long been faced with international criticism for its unilateral power to threaten other countries, the U.S. was able to receive the "implicit support" of almost all industrialized countries in 1980s and 1990s.[49] This is because many other countries who were not able to access markets of China, Brazil, or other developing countries, could finally do so thanks to the push made by the U.S. It is evident that enhanced market access and strengthened IP protection are two major conditions for foreign companies to enter into domestic markets, including that of China.

[49] *Ibid.*

<Table 3-1> Section 301 Cases against China

Product Type	Date of Investigation Initiation	Petitioner	Major issues raised by the U.S.	Result of Investigation	Agreement Made	Relevant WTO Case
IP (301-86)	05/26/1991	Self-initiated by USTR	Deficiencies in China's intellectual property protection including: product patent protection for chemicals, copyright protection for U.S. works, and protection of trade secrets. Absence of effective IP rights enforcement[50]	Terminated after reaching an agreement	The 1992 MOU	N
IP (301-92)	06/30/1994	Self-initiated by USTR	Lack of effective IP rights enforcement regime including: internally inconsistent laws, lack of transparency and responsibility, absence of criminal penalties, and discriminatory agency requirements[51]	Terminated after Negotiation	The 1995 Enforcement Agreement	N
Technology Transfer, IP, and innovation	08/18/2017	President's Memorandum	Unfair technology transfer regime, discriminatory licensing restrictions, outbound investment regime, unauthorized intrusion into U.S. computer networks[52]	Increase of Tariff	Phase One of the Economic and Trade Agreement	DS542: China – IPR Case II

Source: Compiled by the author from the Federal Registers and the USTR Special 301 Reports.

[50] 56. Fed. Reg. 24878
[51] 59. Fed. Reg. 35558
[52] USTR. (2018). Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974: Executive Summary

3.2. Legislations and Policies

3.2.1. FIRRMA

Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA) was legislated during the Trump Administration to restrict Chinese merger and acquisition (M&A) of the U.S. entities. Officially coming into effect on February 13, 2020, FIRRMA "strengthens and modernizes" the current review process on foreign investment done by the Committee on Foreign Investment in the United States (CFIUS).[53] Core responsibility of CFIUS is to approve foreign investment to a level that it does not influence the national security of the U.S. Once CFIUS considers certain investment to be affecting the national security, they can either make the foreign investor to give up on the investment or recommend certain measures to the President. Overview of how CFIUS is organized is described in <Table 3-2> below.

As foreign investment has increased in the fields of advanced technology and critical infrastructure technology especially by Chinese companies, national security and economic security of the U.S. have been considered to be under continuous threats.[54] By tightening the regulations on foreign investment, the U.S. also wished to maintain its international leadership within the field of critical cutting-edge technology. From the perspective of the Trump Administration, Chinese entities' investment under the auspices of the Chinese government was perceived as a danger to both the U.S. national security and the global economic

[53] Jackson, J. & Cimino-Isaacs, C. (2020). "CFIUS Reform Under FIRRMA." *In Focus*. Congressional Research Service

[54] Na, S. & Kim, Y. (2020). "Migukeui FIRRMA balhyowa migukeui daejung tujagyuje [Legislation of FIRRMA and Chinese Investment Restrictions of the U.S.]." *World Economy Focus*. 3(12). Korea Institute for International Economic Policy.

order.

<Table 3-2> Overview of CFIUS

1) Legal Grounds	-Section 712 of the Defense Production Act of 1950 -Exon-Florio Amendment 1988 -Foreign Investment and National Security Act of 2007 (FINSA) -Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA)	
2) Members	The U.S. Departments of the Treasury (chair), Justice, Homeland Security, Commerce, Defense, State, Energy, Office of the USTR, and Office of Science and Technology Policy	9 active members
	Office of Management and Budget, Council Economic Advisors, National Security Council, National Economic Council, and Homeland Security Council	6 observers
	Office of the Director of National Intelligence and the U.S. Department of Labor	2 non-voting, ex-officio members
3) Task & Responsibility	-Review potential influence of foreign investment (M&A or takeover) on national security -Recommend measures to the President	

Source: Compiled by the author from the U.S. Department of the Treasury website

The most significant change through the implementation of FIRRMA is that the extended scope of foreign investment review strengthened the authority of CFIUS. CFIUS used to mainly focus on investments related to M&A, which leads to foreign firms acquiring controls over U.S. businesses, but FIRRMA allows CFIUS to look over non-controlling investments of foreign entities that are related to critical technology, infrastructure, and sensitive technical information document (TID). The U.S. Department of the Treasury announced that this new authority given to CFIUS is applied to foreign investments in three types of businesses. First is a type of firms that manufacture, design, or develop one or more critical technologies, which includes items that are subject to export controls or other

regulatory schemes, and controlled technologies under the Export Control Reform Act of 2018.[55] Second is businesses that operate or supply critical infrastructure, such as transportation, telecommunications, energy, utilities, and others. Lastly, businesses that manage and gather sensitive personal data of U.S. citizens that could be utilized to threaten national security are also subjects to the extended authority of CFIUS. The categories of data are consisted of geolocation, financial, health data, and others. Additionally, FIRRMA also authorized CFIUS to review real estate transactions that include areas closed to U.S. national defense facilities or sensitive government facilities.[56] These review process is to be conducted through voluntary report of self-declaration as it used to. FIRRMA, however, requires mandatory reporting process for certain investment transactions, especially if the investment is concerned with critical technologies or foreign governments.

Although FIRRMA does not explicitly specify target countries, its legislation background reveals that it is an institutional strategy to contain Chinese investments in the U.S. As a matter of fact, the first ever divestment order after the enactment of FIRRMA was made on Chinese corporation named Shiji Group on March 6, 2020.[57] The detailed reason for divestment order was not clarified, but the fact that StayNTouch, a U.S. firm that Shiji made an investment to, has access to sensitive personal information of high-level government officials is presumed to be one of the reasons. As demonstrated by the event, it is evident that not only the M&A of businesses closely related to military, advanced technologies, or national

[55] U.S. Department of the Treasury. (2020). Fact Sheet: Final CFIUS Regulations Implementing FIRRMA.
[56] *Ibid.*
[57] Whalen, J. (2020, March 6). "Trump orders Chinese company to divest ownership of U.S. firm, citing national security concerns." The Washington Post. https://www.washingtonpost.com/business/2020/03/06/trump-orders-chinese-company-divest-ownership-us-firm-citing-national-security-concerns/

security, but also the investments in software, e-commerce, and financial services are part of potential threats to national security under FIRRMA. The strengthened authority of CFIUS precludes direct outflow or transfer of advanced technology, and further prohibits personal information of service users who make use of advanced technology as well. Being wary of the situation of U.S. government perceiving Chinese investment as a national security threat, Beijing simultaneously has been preparing for investment risks and seeking for solutions to alleviate the security concern of Washington. The Chinese Ministry of Commerce made an official statement on how the U.S. should not abuse its national security to increase uncertainty to foreign investors.[58] Meanwhile, TikTok, a major Chinese corporation that was receiving the national security investigation, announced to establish Transparency Center, which was opened in May 2020.

The extended authority of CFIUS through the revision of FIRRMA portrays the attempts of the U.S. to contain China with its domestic investment measures. By perusing which investments are being targeted of the extended review, it is also not difficult to find with which sectors the U.S. feels the most cautious about: critical technologies, critical infrastructure, and personal data. All three sectors are closely related to the development of advanced technology, which is the core part of the ongoing U.S.-China technology war. The three sectors can also be misappropriated to negatively affect a country's national security. Hence, it is indisputable that the U.S. has been trying to forestall any potential threat to its national security, and also to impede China from becoming a technological hegemony.

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[58] Na, S. & Kim, Y. (2020). "Migukeui FIRRMA balhyowa migukeui daejung tujagyuje [Legislation of FIRRMA and Chinese Investment Restrictions of the U.S.]." *World Economy Focus*. 3(12). Korea Institute for International Economic Policy.

3.2.2. Entity List

Another unilateral measure of the U.S. can be found in a form of export control. Since February 1997, Bureau of Inudstry and Security (BIS) of the United States Department of Commerce has started to publish a list of foreign entities under the Export Administration Regulations (EAR).[59] Known as the Entity List, it was originally designed to notify the public of the possible risk of export products being used in programs for weapons of mass destruction (WMD). Its role later expanded to restrict the export of foreign corporations or organizations that are considered to be threatening the national security or contradicting the foreign policy interests of the U.S. Once foreign entities or persons, such as public or private organizations, businesses or research institutions, and individuals, are named on the list, they are required to get a specific license to export or transfer certain items of the U.S., including technologies.[60]

Entity List has been actively used as a form of instruments to stop the flow of advanced technology from Washington to Beijing since the Trump administration. On May 15, 2019, Trump published an executive order and declared a national emergency on national security in relation to information and communications technology (ICT).[61] According to the order, Trump notes that foreign entities have tried to commit economic or industrial espionage against the U.S. through some vulnerabilities in ICT and the related services. It is identified that unrestricted acquisition of U.S. ICT by foreign adversaries has become a

[59] Bureau of Industry and Security. (n.d.). *Entity List.* U.S. Department of Commerce. https://www.bis.doc.gov/index.php/policy-guidance/lists-of-parties-of-concern/entity-list
[60] On the other hand, U.S. entities can still purchase and import products from the firms and organizations that are on the Entity List.
[61] 84 Fed. Reg. 22689 (Executive Office of the President 2019)

serious threat to U.S. economy, foreign policy, and national security. Soon after the Trump's declaration of national emergency, the U.S. Commerce Department added Huawei Technologies Co., Ltd. (Huawei) and its 68 non-U.S. affiliates to the Entity List.[62] At the time Huawei was faced with many allegations, such as engagement in corporate espionage to acquire intellectual property and facilitation of Chinese government surveillance through wireless networking equipment.[63] By being included in the Entity List, Huawei became unable to purchase American technology without the U.S. government license, despite it being one of the largest telecommunications companies in the world. Due to its heavy reliance on U.S. suppliers, Huawei also faced difficulties in selling its products. In 2020, the restriction worsened as the temporary general license that was granted to Huawei was removed and more non-U.S. Huawei affiliates were included in the Entity List.[64] Furthermore, the executive order also provides the definition of "foreign adversary" as follows;

> Any foreign government or foreign non-government person engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons.[65]

The rather ambiguous definition provides broad discretion for interpretation of the U.S. enforcement agencies in determining who the foreign adversary is. Although it is widely understood to target Huawei, the definition poses a challenge to decide the scope of events that adversely influence the national security of the U.S. as

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[62] Shepardson, D. & Freifeld, K. (2019, May 16). *China's Huawei, 70 Affiliates Placed on U.S. Trade Blacklist.* Reuters. https://www.reuters.com/article/uk-usa-china-huaweitech-idUKKCN1SL2VW

[63] Herman, A. (2018, December 10). *Huawei's (And China's) Dangerous High-Tech Game*. Forbes. https://www.forbes.com/sites/arthurherman/2018/12/10/huaweis-and-chinas-dangerous-high-tech-game/?sh=3023bcea11ab

[64] 85 Fed. Reg. 51596. (U.S. Department of Commerce 2020)

[65] 84 Fed. Reg. 22689 (Executive Office of the President 2019)

well.[66]

Today there are approximately 600 Chinese entities that are listed on the Entity List, with seven additional persons being included in the list in August 2022. The newly added entities are consisted of those of space, aerospace, and related technology, and are faced with allegations that they acquired or attempted to acquire U.S. products and technologies for China's military modernization.[67] This new inclusion of space-related entities as well as the incorporation of Huawei and its affiliate exhibit how the U.S. tries to prevent its technology from being misappropriated by foreign entities, especially that of China, in ways that could impair the national security or foreign policy interests of the U.S.

[66] Bu, Q. (2020). "China's Blocking Mechanism: the Unreliable Entity List." *Journal of International Trade Law and Policy*. 19(3). pp.159-180.
[67] BIS. (2022). *Commerce Adds Seven Chinese Entities to Entity List for Supporting China's Military Modernization Efforts*. Bureau of Industry and Security, U.S. Department of Commerce.

Chapter VI. Responses through a Multilateral Trading System against China

4.1. WTO Cases of US against China

4.1.1. US-China IPR Case I (DS362)

On August 13, 2007, the U.S. requested for the establishment of a panel to the Dispute Settlement Body ("DSB") after having unsuccessful consultations with China on June 7 and 8, 2007.[68] There are three major issues that the U.S. wished to address through the WTO system. Firstly, the U.S. raised an issue of China's lack of criminal procedures and penalties applied in cases of trademark and copyright piracy when those acts do not meet certain thresholds. Namely, the acts of counterfeiting and piracy can be punished only if they reach certain level. Second issue is related to how the confiscated products by Chinese customs authorities are disposed. Lastly, the U.S. contended that China denies protection of copyright to creative works of authorship that had not been authorized to be publicized and distributed within China.

According to the claim made by the U.S., the deficiency in criminal procedures and penalties is inconsistent with China's obligations under first and second sentences of Article 61, and Article 41.1 of the TRIPS Agreement. To firstly look at the arguments related to Article 61 of the TRIPS Agreement, the first and second sentences of the article states, *inter alia*:

> Members shall provide for criminal procedures and penalties to be applied at least in cases of willful trademark counterfeiting or

[68] Panel Report. *China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights.* WTO Doc. WT/DS362/R (adopted Jan. 26, 2009) [hereinafter *China – Intellectual Property Rights I*]

> copyright piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of a corresponding gravity.[69]

While the U.S. claimed that the scope of "commercial scale" stated in the article should include commercial activities that make a financial return in the marketplace, China refuted by arguing that "commercial scale" means significant level of infringement activity.[70] The U.S. contended that such China's criminal thresholds make authorities to ignore some important indications of commercial scale piracy and counterfeiting. In addition, as China fails to comply with the first sentence, it also cannot make remedies that can avert IP infringement activities. The Panel, however, concluded that the U.S. did not establish that the criminal thresholds of China are inconsistent to Article 61 of the TRIPS Agreement. Exercising on judicial economy, the Panel did not rule on the U.S. claim under Article 41.1.

The second argument made by the U.S. is that the Chinese customs authorities do not have enough discretionary power to order destruction or disposal of IP infringing items, which is required by Article 59 of the TRIPS Agreement. The Article 59 is about remedies that describes as follows:

> Without prejudice to other rights of action open to the right holder and subject to the right of the defendant to seek review by a judicial authority, competent authorities shall have the authority to order the destruction or disposal of infringing goods in accordance with the principles set out in Article 46. In regard to counterfeit trademark goods, the authorities shall not allow the re-exportation of the infringing goods in an unaltered state or subject them to different customs procedure, other than in exceptional circumstances.[71]

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[69] Article 61 of TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994. [hereinafter TRIPS Agreement]
[70] Panel Report. *China – Intellectual Property Rights I*
[71] Article 59 of TRIPS Agreement

The Panel found that Article 59 cannot be applied to the Chinese Customs measures, because the measures only apply to products made for exportation. Nevertheless, as Article 59 incorporates Article 46 of the TRIPS Agreement, the Panel considered the fourth sentence of Article 46 that states, "in regard to counterfeit trademark goods, the simple removal of the trademark unlawfully affixed shall not be sufficient, other than in exceptional cases, to permit releases of the goods into the channels of commerce."[72] The Panel found that China's measures at issue indicate that the simple removal of the unlawfully-affixed trademark is in fact sufficient to allow releases of the products even in unexceptional cases. Thus, the Panel concluded that the Customs measures of China are inconsistent with the Article 59 of the TRIPS Agreement.

Finally, the U.S. claimed that China's Copyright Law, especially Article 4(1), is inconsistent with Article 5(1) and 5(2) of the Berne Convention as incorporated by Article 9.1 of the TRIPS Agreement, and Article 41.1 and 61 of the TRIPS Agreement. According to Article 9.1 of the TRIPS Agreement:

> Members shall comply with Articles 1 through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6*bis* of that Convention or of the rights derived therefrom.[73]

As Article 5(1) of the Berne Convention (1971) provides that "authors shall enjoy ... the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention,"[74] the U.S. argued that Article 4(1) of Chinese Copyright Law denies automatic and immediate

[72] Article 46 of TRIPS Agreement
[73] Article 9 of TRIPS Agreement
[74] Article 5(1) of the Berne Convention (1971)

protection to certain creative work's authorship. The Panel concluded that the Copyright Law is inconsistent with Article 5(1) of the Berne Convention (1971) as the U.S. had claimed. Furthermore, the U.S. demonstrated that China did not ensure its enforcement measures as required by Article 41.1 of the TRIPS Agreement, for its Copyright Law cannot provide enforcement procedures to works denied copyright protection. Concluding that the Copyright Law is inconsistent to Article 41.1 as U.S. claimed, the Panel exercised its judicial economy with regard to other claims, such as Article 5(2) of the Berne Convention and Article 61 of the TRIPS Agreement. Overall, the Panel concluded by recommending China to bring its Copyright Law into conformity with the TRIPS Agreement.

China immediately followed the recommendations of the Panel and provided WTO with the notice that it had successfully brought its measures into compliance on March 19th, 2010.[75] China implemented the Panel's findings by reforming its Copyright Law as well as other IPR-related laws and regulations. Article 4 of the revised Copyright Law provided that the copyright owners shall comply with related laws and constitutions, and consider public moral and interests when exercising the owned copyrights.[76] It also states that publication and dissemination of copyright works shall be supervised and administered by the State according to the related law. In addition to such revision, China also decided to make a reform on the Regulations for Customs Protection of Intellectual Property Rights. Based on these decisions, the WTO decided that China had fully followed and complied with the WTO's recommendations and findings of the Panel. While

[75] WTO. (n.d.) China-Measures Affecting the Protection and Enforcement of Intellectual Property Rights. https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds362_e.htm
[76] Copyright Law of the People's Republic of China (promulgated by the Standing Committee of the Eleventh national People's Congress, February 26th, 2010)

the amendments do not seem to have brought practical changes, the U.S. acknowledged China's compliance. This is because the U.S. was able to achieve a symbolic win from the Panel's findings, and China did not appeal the case to the Appellate Body.[77]

4.1.2. US-China IPR Case II (DS542)

After instructing the USTR to determine whether to conduct an investigation on China's policies and practices related to technology transfer, IP, and innovation, the President's Memorandum also directs the USTR to pursue WTO dispute settlement system.[78] Accordingly, the USTR requested consultations with Chinese government on March 23, 2018, to initiate its dispute through WTO. In the document of request for consultations by the U.S., it is claimed that foreign patent holders are not only unable to enforce their patent rights against a Chinese JV party once a technology transfer contract meets the end, but also faced with discriminatory and less-favorable contract terms.[79]

More specifically, the U.S. contends that the *Regulations of the People's Republic of China on the Administration of the Import and Export of Technologies* ("Technology Regulations") are inconsistent with Article 3 and Article 28.2 of the TRIPS Agreement, for they grant treatment that are less favorable to foreign IP right holders than to domestic right holders. While Article 28.2 states that patent right holders shall possess the right to assign or to transfer the patent and to

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[77] Gische, E. (2011). "Repercussions of China's High-Tech Rise: Protection and Enforcement of Intellectual Property Rights in China." *Hastings Law Journal,* 63(5). pp. 1393-1415.

[78] 83. Fed. Reg. 14906 (USTR)

[79] Request for Consultations by the United States. *China – Certain Measures Concerning the Protection of Intellectual Property Rights.* WTO Doc. WT/DS542/1 (March 26, 2018)

conclude licensing contracts[80], the Article 3 of the TRIPS Agreement describes:

> 1. Each Member shall accord to the nationals of other Members treatment no less favourable than that it accords to its own nationals with regard to the protection of intellectual property, subject to the exceptions already provided in, respectively, the Paris Convention (1967), the Berne Convention (1971), the Rome Convention or the Treaty on Intellectual Property in Respect of Integrated Circuits.[81]

It can be comprehended that Article 28.2 of the TRIPS Agreement provides patent owners with technology transference rights, and Article 3 is a National Treatment principle that ensures the same treatments between the foreign and domestic parties. On the contrary, Article 24 of the Chinese Technology Regulations, for instance, states that licensors, in many cases foreign firms, of imported technology contract must compensate licensees, Chinese firms, for all liabilities for infringement that are resulted from the use of the technology. Furthermore, Article 29 of Technology Regulations bans technology license contracts from inhibiting Chinese firms from either using the improved technology or from improving the technology. Thus, the two articles of the regulation demonstrate some limited authority given to foreign firms, whereas domestic firms are allowed more freedom from liabilities.

The U.S. additionally argues that the *Regulations for the Implementation of the Law of the People's Republic of China on Chinese-Foreign Equity Joint Venture* ("JV Regulations") are also inconsistent with Article 3, Article 28.1(a), (b), and Article 28.2 of the TRIPS Agreement.[82] Article 28.1 states:

> 1. A patent shall confer on its owner the following exclusive rights:
> (a) where the subject matter of a patent is a product, to prevent third parties not having the owner's consent from the acts of: making, using, offering for sale, selling, or importing for these

[80] Article 28 of TRIPS Agreement
[81] Article 3 of TRIPS Agreement
[82] Request for Consultations by the United States. *China – Certain Measures Concerning the Protection of Intellectual Property Rights.* WTO Doc. WT/DS542/1 (March 26, 2018)

> purposes that product;
> (b) where the subject matter of a patent is a process, to prevent third parties not having the owner's consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.[83]

As demonstrated above, while Article 28.1 of the TRIPS Agreement guarantees exclusive rights of the patent owners, Article 43 of the JV Regulations denies such rights by allowing a Chinese JV partner to use the transferred technology even after the contract expires.

As the request for consultations proceeded, the U.S. and China held consultations on July 19, 2018; however, the consultations did not yield any mutually agreeable resolution to the raised issues.[84] As a result, on October 18, 2018, the U.S. requested for the establishment of a panel to examine the issues. Nevertheless, the work of the Panel got suspended twice on June 11, 2019, and on June 8, 2020, at the request of the U.S.[85] The Panel has currently lapsed as there has been no request from the U.S. to resume its work.

4.1.3. Implications of the WTO Cases

Although the two IPR cases filed by the U.S. against China are both named as "IPR" cases, there exist some differences between the two. One of the differences is how the legal points are made within each cases. The first IPR case in 2007 raises three major points about China's IPR system: deficiency in criminal

[83] Article 28 of TRIPS Agreement
[84] Request for the Establishment of a Panel by the United States. *China-Certain Measures Concerning the Protection of Intellectual Property Rights*. WTO Doc. WT/DS542/8 (October 19, 2018)
[85] Lapse of Authority for the Establishment of the Panel. *China-Certain Measures Concerning the Protection of Intellectual Property Rights*. WTO Doc. WT/DS542/15 (November 6, 2021)

procedures and penalties, lack of custom authority's discretions, and denial of copyright protection for works not authorized within China. Raising these points, the U.S., however, did not provide concrete cases for the Panel to assess. Rather, the case was moved forward as an "as such" case, where the Copyright Law of China is not, as such, consistent with the WTO obligations.[86] The second case of IPR in 2018, specifically identifies China's legal instruments, including certain articles included in Foreign Trade Law, JV Law, JV Regulations, and others. Another difference between the two cases use different articles of the TRIPS Agreement. The articles of TRIPS that were most used in the first case include Article 61, which describes to provide criminal procedures and penalties, and Article 41.1, which states necessary enforcement measure to prevent infringement of IPR. The second case, on the other hand, invokes to National Treatment Principle, Article 28.1 on exclusive rights of the patent owners, and Article 28.2 on technology transference rights of the IPR holder. These two differences between the first and the second IPR cases depict that although the two cases are named under intellectual property rights case, they deal with two different problems. Many of the legal points raised and assessed in the first case cope with the enforcement measures of China's IPR regime, while the second case more focuses on specific laws and regulations that infringes rights of the patent owners and violates China's WTO's NT principle.

Looking at these two IPR cases, the real question under the WTO system is whether there exist any practical dispute settlement system that can efficiently

[86] Saggi, K. & Trachtman, J. (2011). "Incomplete Harmonization Contracts in International Economic Law: Report of the Panel, China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights, WT/DS362/R, adopted 20 March 2009." *World Trade Review*. 10(01). pp.63-86.

address and ameliorate the current FTT issues. While China has been revamping its domestic laws rapidly, is the WTO system that takes more than years suitable to undertake the dispute settlement? The answers to these questions may vary, but the need of WTO reform and updating outdated articles have always been discussed by many experts for a long time. Furthermore, it is also important to understand what other WTO obligations China is bound by other than the TRIPS Agreement. In the next section, China's accession protocol will be analyzed to depict how its articles can be used as a legal basis against China's technology transfer issues.

4.2. China's WTO Obligations on Technology Transfer

4.2.1. China's Protocol of Accession

Although the Protocol of China's Accession to WTO is not constituted as a case that is settled by the WTO DSB, it lays out an important groundwork for the existing multilateral trade responses against China. As an Accession Protocol is consisted of the commitments and obligations of a newly acceding country, China's Accession Protocol often serves as a road map to finding a legal ground for potential disputes by other WTO members. The long negotiation process of China before its accession also efficiently demonstrates the differences between the insufficiency China's laws and regulations had in the past and the expectation from the international trading societies. In order to find those differences, both the Protocol of Accession and Working Party Report will be examined with the focus of technology transfer and intellectual property rights in this section.

On December 7th, 1995, WTO received the accession application from China, which originally applied for GATT 1947 and later asked to transform the

GATT accession Working Party into the WTO one.[87] Once a country submit its accession application, a working party is established to conduct meetings and consultations between WTO members and the acceding country. After successful bilateral, plurilateral, and multilateral negotiations are concluded, the acceding country receives "terms of entry," which it must accept in order to become a full-fledged member of the WTO.[88]

China's accession process lasted for 6 years until it finally became a WTO member on December 11, 2001. During its accession process, many of the existing WTO members were greatly distressed by China's long-established communist regime and its disorderly market. It has been known that almost every foreign entrepreneurs and workers experienced discriminatory processes, unfair trade activities, absence of transparency, and many other regulations that restrict foreigners' access into Chinese market.[89] Among other things, one of the major concerns raised by China's trading partners was related to intellectual property issues.[90] These issues included protections of patents, copyrights, trade secrets, and of course technology transfer. According to the Report of the Working Party on the Accession of China ("Working Party Report"), for example, several member countries expressed concern about Chinese measures with regards to technology transfer. This concern is well-described in Paragraph 48 of the Working Party Report that provides;

Certain members of the Working Party expressed concern about

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[87] China's WTO accession application. *Communication from China.* WTO Doc. WT/ACC/CHN/1 (December 7, 1995)
[88] WTO. (n.d.) Current Status of WTO Accessions. https://www.wto.org/english/thewto_e/acc_e/acc_status_e.htm
[89] Kong, Q. (2000). "China's WTO Accession: Commitments and Implications." *Journal of International Economic Law.* 3(4). pp.655-689
[90] Rumbaugh, T. & Blancher, N. (2004). "China: International Trade and WTO Accession." *IMF Working Paper* No.04/36. International Monetary Fund.

> laws, regulations and measures in China affecting the transfer of technology, in particular in the context of investment decisions. Moreover, these members expressed concern about measures conditioning the receipt of benefits, including investment approvals, upon technology transfer. In their view, the terms and conditions of technology transfer, particularly in the context of an investment, should be agreed between the parties to the investment without government interference. The government should not, for example, condition investment approval upon technology transfer.[91]

As demonstrated in the paragraph, countries believed that transfer of technology, especially in an investment context, should be freely negotiated between the interested parties with no interference from the Chinese government.

As a response to the widespread skepticism, China made a commitment to only impose technology transfer related measures only if it does not violate the TRIPS Agreement and the TRIMs Agreement. Paragraph 49 of the Working Party Report states;

> The representative of China confirmed that China would only impose, apply or enforce laws, regulations or measures relating to the transfer of technology ... or other proprietary knowledge ... that were not inconsistent with the WTO Agreement on the TRIPS Agreement and TRIMs Agreement.[92]

Furthermore, China decided to immediately implement the TRIPS Agreement without any transition period, which is a grace period normally provided to newly acceding countries. Immediate implementation of TRIPS Agreement meant that China had to form adequate enforcement measures that can seize and prevent IPR infringing activities without delay.[93] As a matter of fact, China made a significant revision of its patent law in 2000 to make full compliance to TRIPS Agreement,

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[91] WTO Working Party on the Accession of China. 2001. *Report of the Working party on the Accession of China*. WTO Doc. WT/ACC/CHN/49. (October 1, 2001) [hereinafter Working Party Report]

[92] *Ibid.*

[93] Kong, Q. (2000). "China's WTO Accession: Commitments and Implications." *Journal of International Economic Law.* 3(4). pp.655-689

and made the revised law to be implemented in July 2001.[94] At the Doha Ministerial that was held just before China's accession, there still remained some discrepancies between Chinese laws and TRIPS standards. <Table 4-1> demonstrates the minimum standards that were required by TRIPS Agreement, status of China's laws and regulations before its WTO accession, and China's actions to improve the discrepancies. While areas of patents and trade secrets do not have many discrepancies, the copyright, trademarks, and enforcement areas evidently represent deficiencies in Chinses measures. The high level of TRIPS-compliance in patents and trade secrets is partly owing to the 1992 MOU and the 1995 Enforcement Agreement, the two agreements signed as a result of the Section 301 enforcements, which raised strong complaints about China's lack of protection for patents and trade secrets. Nonetheless, many inconsistencies found in copyright and trademarks made Chinese congress to legislate a revision to laws of copyrights and trademarks to make them compliant with the TRIPS Agreement on October 27th, 2001.[95]

Article 18.1 of China's WTO Accession Protocol states that within one year after the accession, subsidiary bodies of the WTO shall review China's implementation of the WTO Agreement, and that China shall provide information specified in Annex 1A prior to the review.[96] The annex requests China to provide following information with regards to intellectual property regime;

> (a) amendments to Copyright, Trademark and Patent Law, as well as relevant implementing rules covering different areas of the TRIPS Agreement bringing all such measures into full compliance

[94] Maskus, K. (2004). Intellectual Property Rights in the WTO Accession Package: Assessing China's Reforms. In Bhattasali, D., Li, S., & Martin, W. (Eds.), *China and the WTO: Accession, Policy Reform, and Poverty Reduction Strategies.* pp.49-67

[95] *Ibid.*

[96] WTO. 2001. Accession of the People's Republic of China. World Trade Organization

> with and full application of the TRIPS Agreement and the protection of undisclosed information
> (b) enhanced IPR enforcement efforts through the application of more effective administrative sanctions as described in the Report[97]

The requirement of these information depicts two points the existing WTO members wished to ensure: China's compliance with TRIPS Agreement, and improved enforcement measures for IPR protection. Despite China's continued efforts to revising its domestic laws and regulations to meet the international standards, one of the constant obstacles that remains is the lack of efficient enforcement process. The enforcement issue has continuously been targeted by the U.S. for a long period of time. In 1991 Section 301 investigation, 1994 Section 301 investigation, and 2007 US-China IPR Case I (DS362) all brought up the deficiencies in China's IPR enforcement regime. Considering that the most recent WTO's IPR case against China in 2022 is also in regard to its enforcement of IPR, it can be said that there still exist some rooms for improvement when it comes to the enforcement regime of China.[98]

As far as one can see, there is no direct relationship between the technology transfer issues of the U.S. and China's Protocol of Accession. However, China's accession was ardently championed by the U.S., and the prior changes in China's IPR laws and regulations before it joined the WTO were the results of the push made by the U.S. These two facts highlight the role and effort of the U.S. in China's accession, as well as its wish for China that is tailored into U.S.-led international order. If so, how is China's Protocol of Accession directly related to the issue of FTT? The next section demonstrates the only TT case of the WTO that

[97] WTO. 2001. Accession of the People's Republic of China. World Trade Organization
[98] Request for Consultations by the European Union. *China – Enforcement of Intellectual Property Rights. WTO Doc.* WT/DS611/1. (February 22, 2022)

is raised by the EU, which effectively provides how the Accession Protocol, as well as the TRIPS Agreement, can become a legal basis in a technology transfer case.

<Table 4-1> TRIPS Agreement Requirements

	TRIPS Minimum Standards	Pre-WTO Status of Chinese Law	China's Actions
Copyrights and Neighboring Rights			
Term of protection	Life + 50 years; 50 years corporate	TRIPS-compliant	
Data compilations	Copyright	Not protected	Protect with copyright
Broadcast rights	Right to prevent fixation, reproduction, or broadcasting for 20 years, or copyright	Inconsistent with TRIPS	Provide right of communication to public
Discrimination in enforcement procedures	National Treatment	Foreigners could not use local copyright bureaus	Remove discrimination
Trademarks			
Well-known marks	Protected without requiring registration	No criteria for "well-known"; none granted to foreigners	Protect well-known marks; establish criteria
Symbols protected	Rights extend to names, letters, numerals, colors	Certain signs are ineligible	Comply with TRIPS
Patents			
Eligibility	Basic exemptions	Probably TRIPS-Compliant	Clarify compatibility with TRIPS
Pharmaceutical products	Covered; interim marketing rights	TRIPS-compliant	
Term of protection	20 years from filling	TRIPS-compliant	
Rights	Exclude others from production, use, or distribution	TRIPS-compliant	
Burden of proof	Falls on defendant	TRIPS-compliant	
Trade Secrets			
Protection from unfair disclosure	Defines boundaries of unfair practices	TRIPS-compliant	
Test data for pharmaceuticals and agricultural chemicals	Protection from disclosure for unspecified period and unfair use of undisclosed data	Unfair use not prohibited	Protection for 6 years from date of marketing approval
Enforcement			
Sanctions	Civil and criminal sanctions and border measures	In existence but weak enforcement action	Enhance enforcement
Provisional measures	Preliminary injunctions and seizures	Not fully available	Comply with TRIPS
Damages	Adequate to compensate victim of infringement	Generally low or no compensation	Comply with TRIPS
Administrative actions	Enforcement may be through administrative actions	Available but costly and tends to result in small fines	Enhance enforcement
Judicial review	Must be available	Not widely available	Enhance review procedure

Source: adapted from Maskus, K. (2004).

4.2.2. EU-China TT Case (DS549)

Although this study mainly focuses on the technology transfer issues between the U.S. and China, EU-China TT Case yields important value as the one and only WTO case that directly deals with transfer of technology. Even the WTO case directed by the same 2017 President's Memorandum that instructed to initiate Section 301 investigation on China's 'technology transfer' was named as 'IPR' case. Hence, it is meaningful to analyze how the European Union ("EU") raised complaints and made their arguments under the name of technology transfer. Unfortunately, as the case only remains at the consultation process, In this section, China's laws and regulations that are asserted to be in violation of WTO obligations, as well as WTO agreements that support the EU's argument will be examined.

On December 2018, the EU requested for consultations to China with regards to Chinese measures on transfer of foreign technology. The EU raised concerns on various legal instruments used by China and assorted them into six main claims. Firstly, the EU pointed out that China's JV Regulation[99] and JV Law[100] restrict the right of a foreign body to invest in China by requiring them to transfer certain technology to its Chinese JV partner, and prevents a foreign investor to voluntarily decide on which technology to be transferred.[101] For instance, Article 5 of the JV Law states that the technology contributed by a foreign partner to its JV partner is required to be advanced, and appropriate for China's

[99] Regulations for the Implementation of the Law of People's Republic of China on Chinese-Foreign Equity Joint Ventures
[100] Law of People's Republic of China on Chinese-Foreign Equity Joint Ventures
[101] Request for Consultations by the European Union. *China – Certain Measures on the Transfer of Technology.* WTO Doc. WT/DS549/1/Rev.1 (January 8, 2019)

needs. The second claim is on China's NEV Regulation,[102] through which China allows NEV market access for foreign investors under the conditions of performance requirements met by foreign auto manufacturers. For example, first paragraph under Item I(s) of Annex 1 of the NEV Regulation requires foreign enterprises that are to apply for NEV market access in China to master and understand technologies relevant to NEV development and manufacturing. Thirdly, the EU identified SEED FIE Approval Provisions[103] as inconsistent with China's WTO obligations, as it forces transfer of technology, biotechnology, and genetic material in return for the approval of foreign crop seed enterprises. For instance, Article 4(1) of the provisions requires high level of seed breeding and production technology to foreign-invested crop seed firms.

These three claims arranged by the EU are alleged to be inconsistent with Paragraph 7.3 of Part I, and Paragraph 1.2 of Part I of the Accession Protocol that includes China's commitments made under Paragraph 203 of the Report of the Working Party on the Accession of the People's Republic of China to the WTO ("Working Party Report"). Paragraph 7.1 of Part I of China's Accession Protocol states that;

> China shall eliminate and cease to enforce trade and foreign exchange balancing requirements, local content and export or performance requirements made effective through laws, regulations or other measures. Moreover, China will not enforce provisions of contracts imposing such requirements.[104]

The Paragraph 7.1 also articulates that China's means of importation approval, such as import licenses and quotas, shall not be conditioned on performance

[102] New Energy Vehicle Production Enterprises and Product Admission Regulations
[103] Administration of the Examination, Approval and Registration of Foreign-invested Crop Seed Enterprises Provisions
[104] WTO. 2001. Accession of the People's Republic of China. World Trade Organization. WT/L/432 [hereinafter China's Accession Protocol]

requirements, such as the transfer of technology. Paragraph 203 of the Working Party Report similarly states China's commitment on not imposing performance requirements as conditions for importation and investment approval.[105] As all these paragraphs indicate, China is obligated to not impose performance requirements on foreign firms, and technology transfer is specifically stated within the paragraph as a type of performance requirements that shall not be conditioned on. Yet, as the EU asserted in the consultation request, China not only has been demanding foreign investors and firms to meet general requirements, but also has been instructing them to transfer certain technology. Furthermore, Paragraph 1.2 of Part I of China's Accession Protocol include China's commitment made within Paragraph 49 of the Working Party Report that demonstrate China's commitment to not enforce laws and regulations related to technology transfer unless they are consistent with the TRIPS Agreement and TRIMs Agreement. Although there needs to be a thorough legal analysis done by the Panel of the WTO, the forceful requirement of technology transfer on foreign entities evidently depicts the inconsistency of China's measures to its commitment in the Working Party Report.

The fourth and fifth claims made by the EU are related to the JV Regulation and TIER[106] respectively, both of which restrict foreign IPR holders' rights to freely negotiate in licensing and technology-related contracts. For instance, Article 43 of the JV Regulation states that the transferred technology can be continuously used by the imported party even after the expiration of the technology

[105] WTO Working Party on the Accession of China. 2001. *Report of the Working party on the Accession of China*. WTO Doc. WT/ACC/CHN/49. (October 1, 2001) [hereinafter Working Party Report]

[106] Regulations of the People's Republic of China on the Administration of the Import and Export of Technologies

transfer agreement, which is generally no longer than 10 years.[107] Additionally, Article 24 of TIER provides that licensors of imported technology are liable for all infringement from the use of the technology transferred. Both of the regulations are alleged to be inconsistent with Article 28.1(a) and (b), Article 28.2, Article 33, Article 39.1, 39.2, and Article 3(1) of the TRIPS Agreement.

Article 28.1(a) and (b) provides exclusive rights of patent owners to prevent any form of acts related to the patent without the owner's consent.[108] Furthermore, Article 28.2 states that "patent owners shall also have the right to assign, or transfer by succession, the patent and to conclude licensing contracts."[109] The EU asserted that JV Regulation and TIER not only limit these exclusive rights of a patent owner, but also restrict their rights to assign and transfer patents freely. In addition, Article 33 of the agreement specifically requires the term of protection to be at least 20 years, whereas the JV regulation, as demonstrated by the aforementioned example, only provides technology protection no longer than 10 years. Article 39 of the TRIPS Agreement provides requirements for protection of undisclosed information, and Article 39.2 states that "natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent."[110] Because JV Regulation and TIER fail to ensure the exclusive rights of foreign IPR owners, the EU argued that China also fails to provide effective protection of undisclosed information under Article 39.1 and 39.2 of the agreement. Finally, Article 3(1) of the TRIPS agreement illustrates one of the most imperative

[107] Request for Consultations by the European Union. *China – Certain Measures on the Transfer of Technology.* WTO Doc. WT/DS549/1/Rev.1 (January 8, 2019)
[108] Article 28 of TRIPS Agreement
[109] *Ibid.*
[110] Article 39 of TRIPS Agreement

principles of the WTO rules, which is to provide national treatment. The EU maintains that as the regulations prefer Chinese entities and provide less favorable treatment to foreign bodies, they are in a clear violation of Article 3(1) of the TRIPS Agreement.

Finally, the last claim made by the EU refers to China's application and administration of its laws and regulations related to technology transfer. The EU believes that China's application and administration are not impartial and reasonable, as their measures affect negatively on technology exports to China and damage the expected benefits of the EU under the abovementioned agreements. Article X.3(a) of the GATT 1994 states that all member countries need to administer their laws and regulations with "a uniform, impartial and reasonable manner."[111] Similarly, Paragraph 2(A)2 of the Accession Protocol also provides that China shall administer their laws and regulations in the same manner.[112] Therefore, the EU claims that China violated its obligations under Article X.3(a) of the GATT 1994 and Paragraph 2(A)2 of the Accession Protocol.

As arranged in the <Table 4-2>, many of the claims raised by the EU are based on China's Accession Protocol, as well as its Working Party Report that illustrates China's commitment before acceding into the WTO. Moreover, due to high correlation between technology transfer and intellectual property rights, the TRIPS agreement was also used by the EU as a basis of their argument. As the EU did not take any additional action under the WTO, there has been no formation of the Panel for the case, and there is no way of knowing how the Panel would have ruled on EU's argument.

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[111] Article X.3(a) of GATT 1994:General Agreement on Tariffs and Trade 1994, Apr. 15, 1994. [hereinafter GATT 1994].

[112] Paragraph 2(A)2 of China's Accession Protocol.

<Table 4-2> Claims Made by the EU in DS549

No.	China's Laws/Regulations at Dispute	WTO Agreements that China is Alleged to Violate
1	JV Regulation and JV Law	-Para 7.3 & Para 1.2 of Part I of the Accession Protocol (incorporated with Para 49 & 203 of the Working Party Report)
2	NEV Regulation	-Para 7.3 & Para 1.2 of Part I of the Accession Protocol (incorporated with Para 49 & 203 of the Working Party Report)
3	Seed FIE Approval Provisions	-Para 7.3 & Para 1.2 of Part I of the Accession Protocol (incorporated with Para 203 of the Working Party Report)
4	JV Regulation	-Article 28.1(a) & (b), Article 28.2, Article 39.1 & 39.2, Article 3(1) of the TRIPS Agreement -Para 1.2 of Part I of the Accession Protocol (incorporated with Para 49 & 203 of the Working Party Report)
5	TIER	-Article 28.1(a) & (b), Article 28.2, Article 39.1 & 39.2, Article 3(1) of the TRIPS Agreement -Para 1.2 of Part I of the Accession Protocol (incorporated with Para 49 & 203 of the Working Party Report)
6	China's application and administration of laws and regulations	-Article X.3(a) of the GATT 1994, -Para 2(A)2 of the Accession Protocol

Source: Compiled by the author from the Request for Consultations by the EU

There exist, however, some interesting similarities and differences between the TT case and the IPR cases in the previous section. In comparison with DS542, the US-China IPR Case II, both of the cases invoke Article 3, Article 28.1(a) and (b), and Article 28.2 of the TRIPS Agreement. This is because while Article 3 is about national treatment principle, both Article 28.1 and 28.2 illustrates patent owners' rights, such as technology transference right and other exclusive rights. How the

TT case differs from the previous IPR cases can be found from the use of China's Accession Protocol and Working Party Report. Both of the documents depict China's commitment and obligations when it decided to join the WTO. Paragraph 7.1 of Part I of Accession Protocol specifically includes transfer of technology as a type of performance requirement that shall not be imposed by China. Additionally, Paragraph 49 of Working Party Report explicitly describes China's commitment on imposing measures related to technology transfer only when it is not inconsistent with China's WTO obligations. Thus, both paragraphs from the Accession Protocol and Working Party Report may be too specific to be used as an argument in IPR cases, whereas they can be regarded as convincing statements in a case of technology transfer that does not guarantee the rights of foreign IPR holders.

Chapter V. Limitations and Implications of the Unilateral and Multilateral Trade Measures

5.1. Limitations of Unilateral Measures

The previous chapters of the paper discussed three representative unilateral measures implemented by the U.S. in order to respond to China's FTT issues: Section 301, FIRRMA, and Entity List. Section 301 provides the USTR with a powerful authority to conduct investigation against a country that allegedly impairs the trade interests of the U.S. By using this measure, Washington has been able to push China to conclude agreements that result in strengthened IPR protection. FIRRMA grants CFIUS comprehensive power to review investments of foreign entities, especially of those related to critical or sensitive technologies and information. Through the legislation of FIRRMA, outflow of advanced technology and sensitive personal information to foreign countries, particularly China, was forestalled. Lastly, Entity List identifies individuals that potentially jeopardize U.S. national security, and prevents them from exporting and transferring products, most importantly technologies. Being required to achieve specific license, Huawei and other Chinese tech-giants were effectively held back from acquiring American technology.

Throughout the course of history, unilateral trade responses by the U.S. have been confirmed to have a compelling advantage: efficiency. All of the three measures analyzed in the previous chapters had been able to bring out immediate results in ways that could benefit the U.S. interests. Section 301 cases ended up with agreements, FIRRMA and Entity List came to contain Chinese entities that are

potential threats to American technologies. These outcomes not only were yielded in the directions of what the U.S. had hoped, but also were brought up within a comparatively short period of time. Multilateral trade dispute settlement through WTO generally take years, approximately a year and a half for panel proceedings and appellate body review proceedings, and a lot more for implementation and enforcement process. Possible additional damages that happen during the years of WTO dispute settlement procedures cannot be immediately prevented or stopped. On the other hand, unilateral measures can be adopted, implemented, and enforced with the snap of a finger compared to the multilateral measure. For example, Section 301 investigation in 2017 was initiated in August, and the USTR determination to increase tariffs was made in April 2018. If unilateral trade responses are so effective in meeting the needs of the U.S., then what could possibly be their downsides?

The limitations of unilateral trade measures include negative impacts they create both on domestic and international society. To firstly address the domestic influence, it can be divided into three major categories of victims: consumers, industries, and workers. The tariffs imposed by the U.S. as a result of the Section 301 investigation in 2017 have caused the welfare of its own consumer to deteriorate, as the import tariffs almost entirely passed onto the prices of goods consumed by the U.S. citizens.[113] Consumers have had to either bear higher price burden of Chinese products that had been hit by tariffs, or look for other cheaper goods to avoid the costliness. Industries that are both directly and indirectly related to the increased tariffs are also adversely influenced. This is because of the high

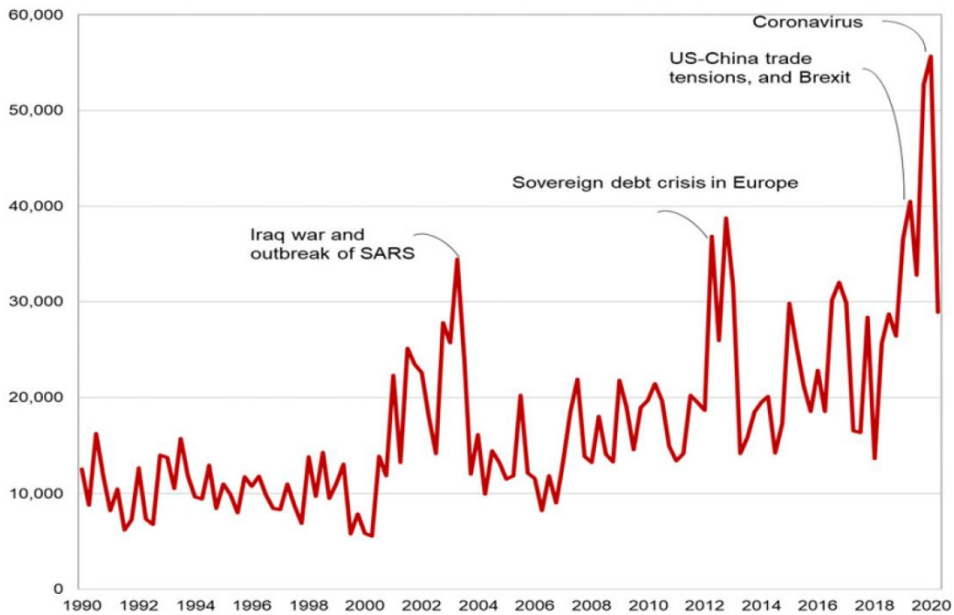
[113] Amiti, M., Redding, S. & Weinstein, D. (2019). "The Impact of the 2018 Tariffs on Prices and Welfare." *The Journal of Economic Perspectives*. 33(4). pp. 187-210.

reliance of U.S. production on inexpensive Chinese raw or intermediary goods. Industries had to pay higher price for Chinese products with higher import tariffs, increasing the overall production cost of the U.S. industries at the end. Moreover, industries that are not directly related to the imposed unilateral measure could also be hit back. For instance, as a form of retaliation against the increased tariff during the Trump administration, China, EU, Canada, and Mexico all imposed higher tariffs on agricultural products of the U.S. Such a retaliation risked the well-being of 3.2 million U.S. farmers, who had nothing to do with the administration's decision on unilateral measures.[114] Lastly, employees who work in the concerned industries also face challenges of maintaining their jobs. Higher production cost leads to higher burden on firms, which may and are likely to ameliorate the situation by restructuring and dismissing the existing workers.

More importantly, unilateral trade policies, particularly of the U.S. against China, can induce some detrimental effect on international trade regime. First off, unilateral trade measures are analyzed to cause increase in uncertainty in the international trade regime. Figure <5-1> demonstrates World Uncertainty Index (WUI), which shows how the level of uncertainty rises whenever huge global events occur. Putting the outbreak of COVID-19 aside, the US-China trade tensions caused an upsurge of uncertainty level. High uncertainty level can never be good; individuals save less, firms invest less, and governments open up less. Because consumers, private entities, and public entities become uncertain of the future, the overall economy is negatively affected by high level of uncertainty. Such a phenomenon goes the same for international trade regime.

[114] Bown, C. & Irwin, D. (2019). "Trump's Assault on the Global Trading System: and Why Decoupling from China Will Change Everything." *Foreign Affairs*. 98(5). pp.125-136.

<Figure 5-1> World Uncertainty Index



Source: Ahir, H., Bloom, N. & Furceri, D. (2018)

Another limitation unilateral trade measures have on international society is that they undermine the structure of multilateralism. It is not too much to say that the WTO system has been at its lowest point ever since its establishment. The Appellate Body has not been functioning due to the veto exercised by the U.S., which at the same time has been imposing and justifying its unilateral trade policies instead of bringing its disputes to the global arena that the whole international society created for. The U.S. and its conflicts with China are not the only reasons to blame, but they certainly played essential roles in halting the efficient dispute settlement process that used to be the shining armor of the global trading system. This is especially problematic, because international trade includes so many countries other than the U.S. and China. For a long period of time, WTO

has been resolving conflicts between countries without imposing retaliatory measures or escalating tensions.[115] The international trading community praised the establishment of a unified system that embodies law and provides predictability for international commerce regime in 1995. Yet, that praise has been covered by the iron curtain created between the U.S. and China.

The Japanese Ministry of Economy, Trade and Inudstry defines a unilateral measure as a retaliatory measure that is imposed without invoking the WTO dispute settlement procedures and is completely based on the country's own criteria.[116] In other words, unilateral measure itself is considered as retaliatory whether or not it is targeting a specific country or organization. Retaliation and revenge only create vicious cycle for those who conduct them, those who receive them, and those who are around them.

5.2. Limitations of Multilateral Measures

Throughout the paper, the use of multilateral trade responses of the U.S. has been investigated with the cases of WTO, as well as the Accession Protocol of China. Many of the legal claims made against China's misappropriation of foreign creative works and technologies are based on the TRIPS Agreement and Accession Protocol. It is understood that the entire TRIPS Agreement prohibits forced technology transfer, as many of its provisions are either directly or indirectly related to the issue.[117] Protocol of Accession also demonstrates the strong commitment of China to refrain from imposing FTT measures on foreign entities.

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[115] *Ibid.*

[116] METI (2002). Part II Chapter 14 Unilateral Measures. *Report on the WTO Consistency of Trade Policies by Major Trading Partners.* Ministry of Economy, Trade and Investment

[117] Mavroidis, P. & Sapir, A. (2021). *China and the WTO: Why Multilateralism Still Matters*. Princeton University Press.

Then should not the multilateralism provided by WTO regime be sufficient enough to address the issues of IPR and FTT? Does the continued use of unilateral measures by the U.S. attribute to the slow and inefficient procedures of the WTO dispute settlement mechanism?

While intellectual property rights issues have been part of the core international trade dispute for a long period of time, the form of technology and advanced technology transfer is rapidly evolving due to fast technological developments. Other new technology-related issues continuously emerge as the global society is receiving new inventions and technologies on daily basis. WTO rules and regulations, on the contrary, have been faced with frustrations of the WTO members for not being able to catch up with the changing trade environment. The Doha Round of negotiations was launched in 2001, yet it has been stalled for years as countries have not been able to reach an agreement on WTO reforms. Because the WTO is run by a consensus-based system, it is extremely challenging to receive consensus and reach a satisfactory conclusion among all 164 WTO member countries. Although WTO members share the desire toward the necessary reform, proposed opinions of member countries significantly differ with varying stances and interests. WTO not being able to make a revision to keep up with the changing trade environment is problematic, because countries will not be able to bring the issues to the WTO and will have to resort to other measures, such as unilateral policies. Digital trade agreement is a notable example of such a case. Because members have not been able to create and conclude a multilateral agreement within WTO, the number of regional agreements on digital trade has rapidly increased. These agreements include Regional Comprehensive Economic Partnership (“RCEP”) led by China, Comprehensive and Progressive Agreement

for Trans-Pacific Partnership ("CPTPP") led by Japan, Digital Economy Partnership Agreement ("DEPA"), and many others. With digital trade becoming more essential than ever, the lack of unified multilateral agreement to set the digital standards may create chaotic disorder in the international trading system.

It is also important to understand that WTO lacks regime neutrality.[118] Considering that the GATT was firstly negotiated among Western countries that share similar values and political regimes, it is only natural that the fundamental values of the WTO system is mostly centered around those countries. These countries have been all ardent supporters of market economy and strongly opposed planned market by the central government. For them, the role of the state is to aid market failures, instead of dictating the outcomes of the market. As WTO acknowledges the regulatory regime of each member countries, market economy and non-market economy are, both in principle and in practice, are not compatible in many ways. While SOEs can receive subsidies from the government in non-market economy, private firms have no choice but to wither or adjust to the environment under market economy. Considering that the many of the complaints raised against China have much to do with its state-owned enterprises and forced technology transfer, it is not too much to say that there always have been and will be conflicts caused by NMEs.

Addressing FTT issues with multilateral trade response bears limitations not only because of its relatively long process of dispute settlement, but also because of the fact that government intervention must be proven. WTO can hold China accountable only if the transfer of technology occurred by the Chinese government. As WTO dispute settlement procedure is for disputes between

[118] *Ibid.*

governments only, China has no responsibility if a technology transfer request came from a private enterprise. As mentioned in the previous chapters, FTT in China mostly occurs as a form of *de facto* practices, and thus makes it challenging to distinguish and prove that such practices are in place. Because of this characteristic of FTT, validating the direct connection between the implemented measures and the government is likely to be an onerous endeavor for a complainant.

5.3. Implications

Evidently, both of the trade measures taken by the U.S. have imperfections. Unilateral response may have short-term advantage of bringing out desired outcomes quickly, but its long-term effects on both domestic and international trade are not so favorable. Multilateral measures under the WTO regime have long been established under the consensus of all WTO members, but they are not as efficient as unilateral ones. Rather than simply weighing the pros and cons of each form of measure, it is important to consider the direction the world trading system must be headed to. GATT and WTO were originally established to overcome the past global challenges, which is to recover world economy and trust that were once brutally destructed by World War II. If having a unified system that can supervise the global trade was the answer to the troubled economy, why should it not be the answer to the current challenges we face? Turning to unilateralism is an easy yet myopic way to address international trade issues, because if the U.S. can, other countries should also be able to become unilateral protectionist at any time. Sooner or later the world will be left with two options: no WTO or better WTO. The answer seems clear.

Making the 'better WTO' should be consisted of two major parts: invigorating negotiation process and renewing the dispute settlement mechanism. Two issues need to be improved simultaneously in order to effectively rejuvenate the multilateral trading system. As discussed earlier, negotiation process of WTO has been stalled for a long time and the Doha Round reached stalemate. If multilateral agreement cannot be reached because receiving consensus from every member is a challenge, plurilateral approaches can act as an efficacious alternative. Opening up a plurilateral negotiation will be able to offer an arena where like-minded countries can engage in meaningful discussions without having to negotiate on trade agreements. Plurilateral engagement has not been taken in place due to the Most Favored Nation ("MFN") principle that prevents countries' free riding issues. Thus, forming a legal framework that can oversee and ensure discriminatory agreements may also be a necessary step toward the reform of WTO. Plurilateral agreements should be established with a clear guideline for the initial signatories to follow and be opened for the interested non-signatories to join in later.[119] This approach will provide member countries to initiate an agreement with less burden than they do with multilateral ones, and consequently encourage active discussions and negotiations on on-going trade issues among members.

Reviving the dispute settlement mechanism has been one of the most debated issues in the international trade community. Once widely revered for its effective two-tier system, WTO dispute settlement process has been faced with critics for two main reasons. First, some members argue that the dispute settlement system is too much focused on proposing prospective resolutions. Other members,

[119] Hoekman, B. & Mavroidis, P. (2021). "WTO Reform: Back to the Past to Build for the Future." *Global Policy Volume*. 12(3). pp.5-12

particularly the U.S., claim that the Appellate Body ("AB") infringes too much on countries' jurisdiction. Although the dispute settlement process reform often pays more attention to the AB system, with which the U.S. has its discontent, improving the Panel process is as crucial as the AB. So far, most of the dispute cases that went through the Panel get appealed to the AB, and many of the complainants and respondents are dissatisfied with the Panel's decisions. Considering the usual number of AB members is only seven, there are too many cases being dropped on the hands of the AB. Thus, enhancing the quality of the Panel's work and curtailing the number of appeal can serve an important cause. While ensuring that the AB members do not abuse or surpass their mandate during the AB process, it is as essential to preserve the "de-politicized" feature of the adjudicators in WTO dispute settlement process.[120] By making necessary reforms to the dispute settlement mechanism in WTO, members will be able to enjoy the flagship system once again with higher satisfaction.

All these reforms and changes, nevertheless, will be able to reach a meaningful end when the major players in WTO are willing to take parts. The major trade powers, especially the U.S. and China, continuously resort to unilateralism instead of reaching new agreements, the discussed reforms will not be as arresting. The U.S. has long been raising complaints with China's SOEs and forced technology transfer. Once the U.S. realized that the existing WTO measures, including the agreements and DSB, cannot effectively address its concern, it has turned to rely heavily on unilateral measures. It is about time, however, for both the U.S. and China to understand that their unilateralism has done nothing but to increase tension not only between the two, but among all trading partners.

[120] *Ibid.*

Invigorating the negotiation process and revitalizing the dispute settlement procedure are both necessary factors to bolster the stagnated multilateral trade cooperation. Under the augmented system of multilateral, the U.S. and China should be able to take seats on the negotiating table to start discussing clear rules to alleviate the growing tensions.

Chapter VI. Conclusion

6.1. Conclusion

Intellectual property rights have always been a vital issue in international commerce. It is not merely about protecting the rights of artists or other forms of producer; rather, it has been about unifying the international level of IPR protection, and further establishing the fundamentals for the development of advanced technologies in the future. With continued evolution of science and technology, the IPR issue has expanded to technology transfer issue. China has been criticized for its domestic policies to forcefully demand technology transfer from foreign companies, especially those of the United States. These policies include mandating foreign firms to form JV with Chinese entities, and both implicitly and explicitly requiring transfer of technology during the administrative review process.

The responses taken by the U.S. to cope with the issues of IPR and TT can be divided into two major category: unilateral and multilateral trade measures. One of the most actively and effectively used unilateral measures is Section 301, through which the USTR forced China to bring resolutions and negotiations when necessary. Through FIRRMA and Entity List, the U.S. had been able to hinder inflow of Chinese investment and outflow of American technology, respectively. While these unilateralism implemented by the U.S. has been proven to be efficient in ways that the measures yield the results in favor of the U.S. within comparatively shorter period of time than multilateral settlement. Unilateral trade policies, however, negatively influence both the U.S. itself and the international society. While domestic consumers, industries, and workers suffer from increased

import tariffs imposed by the U.S. government, the international society face challenges due to increased world uncertainty level as well as undermined multilateral trade system, WTO.

The U.S. nevertheless has also utilized multilateral trade measures through WTO in order to address the issue of IPR and TT against China. These efforts can be found from the US-China IPR Case I (DS362) in 2007 and US-China IPR Case II (DS542) in 2018. While these two cases mainly invoke China's obligations based on the TRIPS Agreement, there also exists China's Protocol of Accession. China's Accession Protocol, along with the Working Party Report, describes in detail the obligations and commitments of China to bring its domestic IPR related measures to the same level as other WTO member countries. The EU-China TT Case (DS549) nicely demonstrate how these obligations in Accession Protocol can be used as a legal basis in a WTO case of technology transfer. Although multilateral trade measures seem more logical and suitable to international society than unilateral measures do, there clearly lies an important limitation: absence of adequate agreements and articles for FTT issues.

Therefore, it is imperative that the better version of WTO is established. The improvement need to be consisted of two major parts: vitalization of WTO negotiation process as well as the dispute settlement procedure. As countries have not been able to conclude new multilateral agreements, plurilateral negotiation should become an option for like-minded countries to engage in meaningful discussions with less burden. It is also essential to reactivate the whole dispute settlement system by improving the quality of the Panel procedure and preventing any power abuse of the AB adjudicators. Most importantly, major trade powers need to realize the importance of multilateral trade regime and be willing to resolve

trade issues under the umbrella of WTO.

Some refer to the trade and technology war between the U.S. and China as the second Cold War, but what is there to prevent it from becoming a hot war? Before the outbreak of Russo-Ukrainian War in 2022, there had been five WTO cases and ten International Center for Settlement of Investment Disputes ("ICSID") cases. Considering the evolvement of the lawfare between Russia and Ukraine to physical warfare, the possibility of U.S.-China trade and tech war becoming a brutal warfare cannot be eliminated. Before it gets too late, it is time for the U.S., China, and surrounding international society to start looking for and embracing a resolution that is neither unilaterally imposed nor multilaterally inefficient.

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국문초록

2018년 트럼프 행정부는 중국의 불공정 무역 행위에 대해 공공연하게 비판하며 미중 무역 분쟁을 시작함으로써 세계 정치 경제의 새로운 막을 올렸다. 이후 트럼프가 재선에 실패하며 바이든이 미국 대통령직에 올랐음에도 미국의 태도는 크게 변화하지 않았으며, 무역 분쟁은 반도체 전쟁과 공급망 재편으로 심화되며 지금까지도 지속되고 있다. 2018년 미국 통상 대표부가 발간한 301조 보고서에 언급되어 있는 여러 종류의 중국의 불공정 무역 행위 중, 해외 기술 남용의 문제는 트럼프 행정부 이전부터 현재까지 지속적으로 거론되어 왔다. 특히 기술 문제의 중심에 있는 지식재산권은 미국과 중국이 무역을 시작한 1979년부터 꾸준히 존재해온 고질적인 문제 중 하나이다. 특히 최근 중국의 첨단 기술 산업이 비약적으로 성장하며 미국의 글로벌 기술 리더십 자리가 위협받자, 미국은 기술과 지식재산권 관련 문제에 더욱 강하게 반응하기 시작했다.

본 연구에서는 이러한 기술 경쟁과 관련하여 미국이 중국에 대해 행한 조치들을 일방적 대응과 다자적 대응으로 나누어 분석한다. 일방적 대응으로는 미중 지식재산권 분쟁이 잘 드러나는 301조를 비롯하여, 최근 중국의 대미 투자를 규제하기 위해 제정된 '외국인 투자 위험 심사 현대화법 (FIRRMA)'과, 미국 기술의 수출을 제제하는 'Entity List'에 대해 살펴본다. 다자적 대응으로는 '세계무역기구 (WTO)'를 통해 미국이 중국을 제소한 두 건의 지식재산권 관련 판례를 살펴보도록 한다. 더 나아가 중국의 WTO 가입의정서를 함께 분석하여 중국이 WTO의 제도에 합류함으로써 지식재산권과 관련하여 어떠한 변화를 이루었는지 알아본다. 이러한 일방적 대응과 다자적 대응을 비교 분석함으로써, 일방적 대응은 오히려 미국 내 경제와 산업, 국민에게 부정적인 영향을 미칠 수 있으며 다자적체제의 기반을 약화시킬 수 있다는 한계가 드러났다. 또한, 다자적 대응은 통일되고 비교적 공정한 규제가 가능하다는 장점이 있지만, 현재 '기술 강제 이전(FTT)'의 문제를 해결하기에

해당 사안과 관련한 협정이나 합의가 부재하다는 한계가 있는 것으로 나타났다. 본 연구는 이러한 대응들의 한계를 통해 앞으로 미중 분쟁이 바르게 나아가야할 방향성으로 다자체계 내의 FTT 협정과 합의 타결을 제안하는 바이다.

키워드: 기술 강제 이전, 지식재산권, 미중 무역 분쟁, 301조, 일방적 대응, 다자적 대응