

# Patent-based Disputes in the US Import Trade with China: With Special References to the Parallel Development of MIC 2025 & AMP 2.0 and ITA2

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*The current scale of the import trade of the US with China is significant and has the potential to be more in near future. However, patent-based disputes, especially in terms of Section 337 investigation, have also been increased in recent years. In the context of parallel development of national innovation strategies of China's "Made in China 2025 Plan" and the American "Advanced Manufacturing Partnership," along with the latest expanded "Information Technology Agreement" in the WTO trading system, the implications for optimally resolving patent-based disputes in the US import trade with China is highly significant for two countries. These disputes may even impact the world trade, since bilateral trade between China and the US accounts for a considerable proportion. Thus, both China and the US should take precautions and appropriate measures to guard against such potential frictions in*

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*order to attain mutually beneficial outcomes in resolving such disputes.*

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## I. INTRODUCTION

Today, technological innovation has evolved to be one of the most significant strategic tools for enhancing industrial productivity and competitive capacity in many countries. For China, especially after the adoption of “Made in China 2025 Plan” (“MIC 2025”)<sup>1</sup> in May 2015, the future development blueprint of innovative strategy, especially in advanced manufacturing technology, has become much clearer. Meanwhile, as the US is one of the most innovative countries in the world,<sup>2</sup> its innovation strategies are certainly noteworthy in this regard. Furthermore, the US has recently been attaching much greater importance to advanced manufacturing technology. Since the enforcement of its re-industrialization strategy in 2009 and the subsequent policy measures, the US has been continually strengthening its advanced manufacturing and the related innovation capacity. Along with the parallel implementation of the innovation strategies in manufacturing in China and the US, and the subsequent enforcement of the expanded Information Technology Agreement (“ITA2”)<sup>3</sup> from 2016 in the WTO system, more patent-based disputes may possibly be emerged in the US import trade with China. Accordingly, this article aims to delineate and analyze the noteworthy implications for optimally resolving such kind of disputes by contextualizing the research into the latest parallel development of MIC 2025 & AMP 2.0 and the ITA2 in the global trading system of the WTO.

This paper is composed of six parts including a short Introduction and Conclusion. Part two will outline the current status of patent-based disputes in the US import trade with China. Part three will briefly examine the future innovation strategies in manufacturing contained in MIC 2025. Part four will outline the innovation strategies in manufacturing, including the latest AMP 2.0, which is contained in the overall reindustrialization strategy. Part five will analyze the implications of exploring feasible and mutually effective beneficial measures for optimally resolving patent-based disputes in the US import trade with China in the

context of the parallel development of MIC 2025 & AMP 2.0, along with the ITA2 in the WTO.

The authors will take a scholarly neutral standpoint in the analysis of such implications, in terms of exploring the motivations of China and the US to resolve such disputes and what endeavors both countries can respectively and jointly make to optimally resolve such disputes.

## **II. THE CURRENT STATUS OF PATENT-BASED DISPUTES IN THE US IMPORT TRADE WITH CHINA**

### **A. The Current Import Trade of the US from China**

The significance of bilateral trade between China and the US has been emphasized by both sides. The latest statistics shows that: “In 2015, China surpassed Canada to become the US’ largest trading partner based on two-way merchandise trade, accounting for 16.0 percent of the total US merchandise trade.”<sup>4</sup> Specifically, as to the current general status of import trade of the US with China, on one hand, the total quantity of the imported products from China is significant and steadily increasing. “In 2015, China remained the largest source of US merchandise imports. US merchandise imports from China amounted to \$481.9 billion, an increase of 3.2 percent over 2014.”<sup>5</sup> On the other hand, as to the latest merchandise trade deficit, “the US merchandise trade deficit with China, which rose by 6.6 percent, or \$22.6 billion, to \$365.7 billion in 2015, and remained higher than the US trade deficit with any other trading partner. The expansion of this deficit with China was attributable to an increase in US merchandise imports from China, accompanied by a decrease in US exports to China.”<sup>6</sup>

In addition, the patent-based disputes in the US import trade with China in terms of Section 337 investigation have been increased in recent years, especially in contrast with the 1980s when Chinese enterprises were first involved in such investigations.<sup>7</sup> In the latest context of the parallel development of innovation strategies in MIC 2025 and the AMP 2.0 and ITA2 in the WTO, the implications for optimally resolving patent-based disputes in the US import trade with China is highly significant for two countries and may even impact the world trade, of which the bilateral trade between China and the US accounts for a considerable

proportion.<sup>8</sup>

### **B. Enforcement Mechanism of Section 337 in the US<sup>9</sup>**

The enforcement mechanism of Section 337 is not only one of the integral components of the whole trade related legal regime, but also one of the key sectors in the intellectual property enforcement mechanism of the US. Today, patents are universally regarded as one of the most significant competitive instruments for hi-tech enterprises to commercially compete in the global markets. In the context of increasing pace of technological development, patent holders prefer the most efficient available approach for resolving their patent-based legal disputes.

Section 337 investigations before the ITC generally last twelve to fifteen months with trials usually occurring six to nine months after initiating the investigation. In contrast, patent-infringement suits in the six fastest district courts of the US require twenty months.<sup>10</sup> Besides, this remedy can offer the complainants a significant benefit of much broader jurisdictional reach than that of a federal district court. It is mainly because the statute confers *in rem* jurisdiction<sup>11</sup> with ITC. Section 337 investigations are not substantially based on *in personam* jurisdiction over the manufacturer, but on jurisdictional power directly over the imported goods.<sup>12</sup>

Furthermore, the remedies available to the complainants at the ITC are injunctive rather than pecuniary in nature. On one hand, there exist exclusion orders which can effectively prohibit further importation of infringing products into the US territory. On the other, the ITC can issue cease and desist orders which prohibit the continued sale of such infringing products which have already been imported into the US. These two remedies complement each other to provide successful complainants with effective legal protection. In particular, a general exclusion order can not only block imports of infringing products manufactured or imported by the respondents, but also block imports of infringing products manufactured or imported by any other companies that are not named as respondents.

### **C. The Current Status of Patent-based Disputes in the US Import Trade with China**

“The number of new Section 337 investigations instituted by the Commission has remained at elevated levels over the past several years. New investigations peaked in calendar year 2011 at 69 investigations.”<sup>13</sup> Among them investigations

involving Chinese enterprises are noteworthy with regard to both the annual number and the main factors which triggered investigations. More precisely, almost all investigations involving Chinese enterprises are patent-based investigations. Table 1 indicates the number of Section 337 investigations involving Chinese enterprises as respondents and the number of patent-based investigations among them.

**Table 1: The Number of Section 337 Investigations involving Chinese Enterprises**<sup>14</sup>

Year	Total number of investigations	Number of investigations involving Chinese enterprises as respondents	Number of patent-based investigations involving Chinese enterprises as respondents
2010	56	19	19
2011	69	18	16
2012	40	14	12
2013	42	13	13
2014	39	13	12
2015	36	10	10

### III. THE FUTURE INNOVATION STRATEGY IN MANUFACTURING CONTAINED IN MIC 2025

#### A. The Current Innovation Capacity Gap between China and the US

It is undeniable that the current innovation capacity in Chinese manufacturing is insufficient. During the Summit Forum of Chinese Top 500 Enterprises in the August of 2015, the report of the developmental trend of Chinese large enterprises, prepared by China Enterprise Association and China Entrepreneur Association, indicates that: “Although the number of patents held by the Top 500 Chinese enterprises is steadily increasing, the capacity for indigenous innovation is still inadequate.”<sup>15</sup> These top enterprises are generally acknowledged as both the dominant force and the backbone of Chinese indigenous innovation. This can be deemed as the core reason why Chinese manufacturing is still not particularly renowned for its innovation capacity, although China has previously been dubbed

as a ‘World Manufacturer.’

Current general level of China’s innovation capacity is closely related to patent issues. There are two typical examples. First, “World Intellectual Property Indicators 2015” issued by the WIPO show:

The estimated number of patents in force worldwide rose from 7.2 million in 2008 to 10.2 million in 2014 (annual growth of 6.1%). The USPTO recorded the most, with 2.53 million patents (24.7% of the world total), followed by the JPO with 1.92 million (18.8%). Patents in force at SIPO more than doubled, from 0.56 million in 2010 to 1.2 million in 2014.<sup>16</sup>

Evidently, the recorded number of patents in force in the US is much larger than that in China. Secondly, according to “2015 US Patent Rankings” issued by IFI CLAIMS® Patent Services, there is only one Chinese enterprise in the TOP 50 list and only three Chinese enterprises in the TOP 100 list.<sup>17</sup> To a certain extent, these latest patent-related facts reflect the relatively inadequate innovation capacity of Chinese enterprises.

The deficiency of innovation capacity may be one of the core reasons why the communiqué of the fifth plenary session of the 18th session of the central committee of the China Communist Party in 2015 regards the concept of ‘innovation’ as the first and foremost concept of development among all 5 concepts. Likewise, in the whole text of this communiqué which is less than 6000 words, the word ‘innovation’ appears 27 times.<sup>18</sup>

## **B. The Explicit Innovation Strategy in Manufacturing in MIC 2025**

Today, science and technology are developing in an unprecedentedly rapid speed. Undoubtedly, innovation has already evolved to be one of the most significant impetuses for the economic development globally. Especially technological innovation has become one of the most crucial strategic tools for enhancing the national competitiveness in many countries. China is certainly not an exception to this trend. CHINA ECONOMIC DAILY reported:

Among more than 100 executive meetings of the State Council during this Administration, there were 21 meetings related to the scientific and technical innovation, which denotes the fact that the scientific and technical innovation is

currently deemed as the core element in the whole national development.<sup>19</sup>

The State Council of China released the MIC 2025, China's first ten-year action plan focusing on promoting manufacturing. From the outset, this plan emphasizes the significance of manufacturing in China's national economy by regarding manufacturing as "the main constituent of the national economy, the foundation for sustaining the country, the instrument for rejuvenating the country, the base for reinforcing the country."<sup>20</sup> As to the current status, MIC 2025 explicitly points out:

Compared with the world advanced level, our national manufacturing is only on a massive scale instead of being strong. There especially exist obvious disadvantages in respect of the capacity for indigenous innovation, the efficiency of utilization of resources, the level of industrial structure, the level of informatization, quality efficacy, etc. The task for transformation and upgrading of manufacturing and leapfrogging development is pressing and arduous.<sup>21</sup>

The current general status of Chinese manufacturing is objectively stated herein to reflect the urgent necessity for significant improvement in some key areas, especially indigenous innovation. Furthermore, the essential reason why the capacity for indigenous innovation is listed as the first and the primary factor may be attributable to the following two factors. First, retrospectively, is the relative deficiency in innovation and relatively low quality of indigenous innovation. These two elements led to the current disadvantages in manufacturing. Second, prospectively, indigenous innovation will surely play a crucially active role in the transformation and upgrading of manufacturing in the future. Thus, China is eager to substantially strengthen its innovation capacity.

In addition, MIC 2025 underlines the significance of indigenous innovation by putting it on principal positions in different parts. *E.g.*, in the second part which explicitly states the strategic guidelines and objectives, 'innovation-driven' is listed as the first and foremost guideline. Similarly, the third part of the plan sets out the strategic tasks and emphasizes, "enhancing the innovative capacities in national manufacturing." It is highlighted as the overriding one in all the nine strategic tasks and emphases. China has clearly focused the indigenous innovation while designing and implementing the first ten-year policy guideline for developing more advanced manufacturing. Eventually, MIC 2025 puts forward a definite three-step timeline

for the intended development to reach the most advanced level of manufacturing by 2049.<sup>22</sup>

### **C. The Subsequent Relevant Measures**

After the official issuance of MIC 2025, China took some huge strides forward on some vital issues, in terms of releasing some other relevant national plans or policies containing some elements or measures. To different extents, it can actually undergird the implementation of the innovation strategy in MIC 2025 as follows.

#### *1. August 11, 2015*

The PRC Ministry of Industry and Information Technology released its “Implementation Plan for the ‘Action Plan for the Implementation of the National Intellectual Property Strategy.’”<sup>23</sup> The first part of this implementation plan explicitly pointed out that the actual enforcement of this plan is “focused on the key points and pivotal sections of the ‘Made in China 2025 Plan’ and the ‘Internet plus’ action plan,” in order to “reinforce China through manufacturing with powerful sustenance and insurance.” Similarly, this implementation plan also explicitly stresses the significance of innovation. In the whole text which only contains less than 3000 words, the importance of the role of innovation is emphasized 14 times in different paragraphs. Obviously, the internal logic of stressing the importance of innovation in this implementation plan and in MIC 2025 is inherently coherent. This policy logic can be briefly interpreted as ultimately achieving the objective of reinforcing China through promoting manufacturing by means of stimulating and protecting innovation.

#### *2. September 29, 2015*

China issued “The technology roadmap of the key fields in ‘Made in China 2025 plan.’”<sup>24</sup> A general objective of this roadmap is to make significant breakthrough in the 10 selected strategic industries and reach the leading position or the advanced level in these 10 industries around the world.

#### *3. December 22, 2015*

The State Council of China released “Several opinions on expediting the enhancement of China through intellectual property rights under the new



circumstances.”<sup>25</sup> Some aspects of this document directly or indirectly link to the enforcement of the innovation strategy in manufacturing contained in MIC 2025. *E.g.*, it explicitly points out the aim of “promoting the accelerated development of advance manufacturing, reaching the intermediate and top levels.”<sup>26</sup>

#### *4. December 30, 2015*

The General Office of the State Council released the “Development planning for building up the national standardization system (2016-2020).”<sup>27</sup> This document clearly states that: “By focusing on ‘Made in China 2025 Plan,’ to devise the planning on the standards of smart manufacturing and equipment upgrading and formulate standards for key technologies...”<sup>28</sup>

#### *5. April 15, 2016*

“As part of the efforts to implement the nation’s innovation-driven development strategies and to turn Shanghai into a global innovation center, the State Council issued a circular to promote comprehensive innovation reforms in Shanghai.”<sup>29</sup> This nationwide strategy would, to some extent, be conducive to boosting the achievement of the strategic objectives of the innovation strategy in MIC 2025.

#### *6. May 19, 2016*

“The offprint of a guideline on China’s innovation-driven development has been published by the People’s Publishing House. This blueprint was released on May 19 by the Communist Party of China (“CPC”)’s Central Committee and the State Council. It pledges that China will be an ‘innovative nation’ by 2020, and “an international leader in innovation by 2030.”<sup>30</sup> This guideline also directly interconnects with the innovation strategy in manufacturing. *E.g.*, it aims to “gradually promote the manufacturing onto the top of the value chain.”<sup>31</sup> This latest national institutional design of innovation-driven development will definitely invigorate the implementation of the innovation strategy in MIC 2025.

#### IV. THE INNOVATION STRATEGY OF MANUFACTURING IN THE OVERALL REINDUSTRIALIZATION STRATEGY<sup>32</sup>

No matter how many related substantive and procedural elements have been amended, the core tenet of Section 337 is to protect the US industries from unfair foreign competition especially in terms of infringement of intellectual property rights.<sup>33</sup> It is different from patent law which directly aims at protect private exclusive rights in exchange for certain social tradeoffs. Besides, the legal protection of Section 337 investigation can be seen as the implementation of certain trade policies. It means the US does its best to spur the development of domestic manufacturing. In particular, the significance of innovation is highly emphasized in all the endeavors. Since 2009, the US has been taking a series of measures to implement the reindustrialization strategy. They are listed below.

On June 24, 2011, the White House released a report, *Report to the President on Ensuring American Leadership in Advanced Manufacturing*.<sup>34</sup>

On July 17, 2012, the White House released a report, *Capturing Domestic Competitive Advantage in Advanced Manufacturing*.<sup>35</sup>

On October 27, 2014, the White House released a report, *Accelerating US Advanced Manufacturing* (“AMP 2.0”).<sup>36</sup> This report contains the latest development of the innovation strategy in the US manufacturing. In the part of recommendations in this latest report, among all the three pillars, the first and foremost pillar is ‘Enabling Innovation.’<sup>37</sup> This explicitly indicates the importance which is particularly attached by the strategy of accelerating the US advanced manufacturing in the future.

On December 22, 2015, The US Commerce Department’s National Institute of Standards and Technology (“NIST”) issued a Notice of Intent to fund up to two institutes as a part of the National Network for Manufacturing Innovation (“NNMI”).<sup>38</sup> As one of the latest measures taken by the US, the Secretary of Commerce Penny Pritzker addressed:

Today marks a major milestone for the future of American innovation. The collaborative, cutting-edge technologies being designed, developed and commercialized at our NNMI institutes are essential to America’s long-term economic growth, competitiveness and job creation.<sup>39</sup>

It clearly reflected that the specific innovation strategy in the US manufacturing is being greatly reinforced. This measure could be regarded as one of the specific implementations of the updated “Strategy for American Innovation”<sup>40</sup> which was released by the White House on October 21, 2015.

On September 19, 2016, Secretary of Commerce Penny Pritzker announced the appointment of 30 leaders to serve on the National Advisory Council on Innovation and Entrepreneurship (“NACIE”). Their main task is to recommend “policies and programs designed to make US communities, businesses, and the workforce more globally competitive.”<sup>41</sup>

The US generally emphasizes the role and influence of innovation, although its general innovation capacity is actually at the highest level globally. With regard to its general status of domestic manufacturing, as stated in a report issued by the Economics and Statistics Administration of the US Department of Commerce, “in 2010, China overtook the US as the world’s largest manufacturer. But the US remains a major manufacturing power - home to less than five percent of the world’s population but generating more than one-sixth of global manufacturing activity.”<sup>42</sup> Indeed, the US is still a major manufacturing power, especially in the domain of technology-intensive advanced manufacturing.

Since its implementation of the reindustrialization strategy in 2009, the global competitiveness of its manufacturing has been steadily enhanced. In parallel, as the world’s largest manufacturer and the largest source of the US imports, China is also taking all the possible measures, including this latest “Made in China 2025 Plan,” in order to upgrade its industrial structure. Briefly, there may perhaps emerge some competition in the domain of advanced manufacturing between the two countries. As a result, the patent-related trade disputes in the US import trade with China, which are detrimental to both sides to different extents, might also escalate in near future. Consequently, both China and the US have sufficient driving force to respectively and jointly take feasible and effective measures to optimally resolve such disputes. The corresponding implications are analyzed below.

## **V. THE IMPLICATIONS OF EXPLORING FEASIBLE AND EFFECTIVE MEASURES FOR OPTIMALLY RESOLVING PATENT-BASED DISPUTES IN THE US IMPORT TRADE WITH CHINA IN THE CONTEXT OF THE PARALLEL DEVELOPMENT OF MIC 2025 & AMP 2.0 AND THE ITA2 IN THE WTO**

### **A. The Possible Rise of the Quantity of Patent-based Disputes in the US Import Trade with China in a Specific Future Context-A Prime Example of ICT industry**

#### *1. The Related Status of the Docket of Section 337 Investigations*

Throughout the entire history of Section 337 enforcement mechanism, roughly more than 90 percent of the investigations have been patent-based. According to the above-mentioned report released by the US Department of Commerce, the top four patent intensive-industries are computer and peripheral equipment, communications equipment, semiconductor and other electronic components, and other computer and electronic products.<sup>43</sup> Moreover, the latest Budget Justification of the ITC indicated:

Although the spectrum of products and IP rights at issue in Section 337 investigations is quite broad, the docket has been and will likely continue to be dominated by investigations involving the importation of sophisticated electronic devices, such as smart phones and smart televisions. There is substantial overlap between the industries that dominate our IP docket and the four industries determined in a Department of Commerce study<sup>44</sup> to be the most patent-intensive industries in the US.<sup>45</sup>

In addition to pointing out the significance of protective effect of Section 337 investigations to the domestic patent-intensive industries, it further emphasizes such significance to the whole US economy by stating:

The study found that the wages of private sector workers in IP-intensive industries were 42 percent higher than workers in non-IP-intensive industries, with the difference even higher for workers in patent-intensive industries. The

Commission's IP enforcement efforts may thus contribute to strengthening the US economy and employment.<sup>46</sup>

Therefore, based on the above-cited paragraphs in this Budget Justification of the ITC, the protective function of the legal mechanism of Section 337 investigations is evidently and significantly targeted to the further development of the US domestic industries, especially to the ICT industry, and even to the US economy and employment.

### *2. The Possible Expansion of ICT Products Imported from China in the Context of the ITA2 in the WTO*

With regard to the global trade of ICT products under the WTO system, the recent negotiations on the expansion of ICT products have been successfully conducted in 2015. The WTO released:

The expansion of the ITA, agreed at the Nairobi Ministerial Conference in December 2015, eliminates tariffs on an additional 201 IT products valued at over \$1.3 trillion per year. Negotiations were conducted by over 50 WTO members but all 162 WTO members will benefit from the Agreement as they will all enjoy duty-free market access to the markets of the members eliminating tariffs on these products.<sup>47</sup>

As mentioned above, China is currently the largest source of both the US imports and its merchandise trade deficit. Furthermore, China has become the biggest trading partner of the US'. As the closest bilateral trade partners and two main participants of ITA2,<sup>48</sup> China and the US will benefit from further trade liberalization on ICT products. They will also presumably conduct much more bilateral trade in this field.

### *3. The Possible Rise of Patent-based Disputes in the US Import Trade with China in the ICT Industry*

There are four main factors affecting the rise of patent-based disputes in the US import trade with China in the ICT industry. First, from the perspective of China, the ICT industry is one of the ten designated key fields in the innovation strategy of MIC 2025.<sup>49</sup> Thus, more innovated ICT products would be manufactured and

accordingly more of such products would possibly be exported to the US. Secondly, in the context of the ITA2, the bilateral trade of ICT products between China and the US would significantly prosper in future. As a result, much more ICT products from China would possibly be exported to the US. Thirdly, the ICT industry is currently not only the most patent-intensive industry in the US, but also is the most frequently embroiled industry in patent-based Section 337 investigations.

If the most patent-intensive industry in the US would not change significantly, the ICT industry would possibly be the most frequently embroiled industry, or at least one of such industries, in patent-based Section 337 investigations in the future. Fourthly, investigations initiated by NPEs perhaps will proportionally increase because “the percentage of all patent lawsuits and accused infringers attributable to NPE-instituted litigation is even higher in the information technology (“IT”) industry.”<sup>50</sup>

Based on these four factors, on one hand, many more Chinese ICT products would possibly be imported to the US, and, on the other, the ICT industry would possibly still be the most frequently embroiled industry in patent-based Section 337 investigations, especially investigations initiated by NPEs. Eventually, there would be an intensification of patent-based disputes with regard to ICT industry in the US import trade with China, unless feasible and effective measures could be respectively and jointly explored in the future.

## **B. Why China Has Adequate Motivation for Exploring Such Measures?**

China has adequate motivation for exploring feasible and effective measures to optimally resolve such patent-based disputes with the US. Currently, among all the factors which keep China healthy and sustainable in the area of bilateral trade relationship, in terms of optimally resolving patent-based disputes with the US, the integration of innovation strategy in MIC 2025 and the ‘Going-Out’ strategy undoubtedly should be stressed.<sup>51</sup>

In order to effectively accomplish such strategic objectives in MIC 2025, China focuses on not only enhancing its innovation capacity, but also enforcing the relevant IP strategy. It is undeniable that not all the products manufactured domestically could be sold to domestic consumers, especially under economic globalization. As a result, some portion of all the made-in-China products have to be sold in foreign markets. MIC 2025 does not neglect this aspect. In its third

part, which states the strategic tasks and emphases, the task of “rais[ing] the internationalized development level of manufacturing” is listed as the ninth task.<sup>52</sup>

Briefly speaking, China plans to:

comprehensively utilize two kinds of resources and two kinds of markets; promote a more active opening strategy; more satisfactorily combine bring-in and going-out; explore new opening fields; enhance the standard and level of the international collaboration; further the international arrangement of key industries; and provide Chinese enterprises with guidance to enhance their international competitiveness.<sup>53</sup>

Furthermore, MIC 2025 underlines the necessity of accelerating the steps of Chinese enterprises’ going-out.<sup>54</sup> In other words, Chinese enterprises are greatly encouraged to explore more overseas markets. This fact clearly indicates that the national ‘Going-Out’ strategy has been systematically integrated into the blueprint of the future transformation and upgrading of manufacturing.

As to the essence of the ‘Going-Out’ strategy, the former chairman Hu Jintao reported at 18th Party Congress:

China “should continue to attach equal importance to export and import, better coordinate trade and industrial policies, and make China’s exports more competitive in terms of technology, brand, quality and service... Chinese companies should expand overseas presence at a faster pace, enhance their operation in an international environment, and develop a number of world-class multinational corporations.”<sup>55</sup>

As regards the relationship between the enhancement of the indigenous innovation capacity and the effective achievement of the goal of ‘Going-Out’ strategy, there exists inherently close relation and interaction. To sum up, when the Chinese enterprises improve their global competitiveness through enhancing the indigenous innovation capacity, it would lead to the effective achievement of the goal of ‘Going-Out’ strategy. In the current global economic climate, as the markets have already been highly globalized, overseas markets are crucial to many Chinese enterprises. They would like to achieve more commercial profits through expanding overseas markets. Furthermore, the effective enforcement of ‘Going-Out’ strategy would help to “accelerate the improvement of core competitive capacities by virtue

of utilizing global resources, redesigning business process, integrating industrial chain and the market operation of capital, etc.”<sup>56</sup> Therefore, the innovation capacity would definitely be enhanced by the effective adoption of ‘Going-Out’ strategy. Consequently, the optimal interaction between the enhancement of the innovation capacity and the effective enforcement of ‘Going-Out’ strategy can substantially attain the expected objectives of MIC 2025.

### **C. Why the US also Has Adequate Motivation for Exploring Such Measures?**

The US also has adequate motivation for exploring such measures especially by way of controlling Section 337 investigations initiated by PAEs, basically because such kind of investigations would not be conducive to the realization of the legislative tenet of neither Section 337 of Tariff Act of 1930, nor the US Patent Law.

Certainly, the US has adequately justified rights and power to utilize the legal instrument of Section 337 investigation to protect the domestic industries against unfair competition and unfair acts. However, the specific Section 337 investigations initiated by PAEs would not only undermine the trade relations with other trading partners, but also damage its own domestic public interests without protecting the related domestic industry.

In recent years, the ITC has evolved to be more attractive to patent holders who seek to enjoin parties from importing articles that infringe the US patents based on Section 337 of the Smoot-Hawley Tariff Act of 1930,<sup>57</sup> especially after the Supreme Court’s 2006 *eBay Inc v MercExchange LLC* (“eBay”) decision.<sup>58</sup> To some extent, the *eBay* decision which seemingly has no direct relation with Section 337 investigations has brought more patent holders to the ITC to seek injunctions. In this regard, patent litigations in the federal judicial system and the patent-related Section 337 investigations have a much closer interrelationship after the *eBay* decision. In essence, one of the key elements of this interrelationship is the public interest. There is no specific statutory provision in the US Patent Act<sup>59</sup> which provides that public interest can preclude the remedies for patent infringement under some specific circumstances. Nevertheless, the statute which regulates Section 337 proceedings, contains such provisions that expressly state the significance of public interest when determining an appropriate remedy.

In 2011, the ITC amended its Rules of Practice and Procedure concerning



public interest. The revised Rules aim at “improving the Commission’s procedures and ensuring the completeness of the record with respect to the required analysis concerning the public interest”<sup>60</sup> without changing “the Commission’s substantive practice with respect to its consideration of the public interest factors in its determinations relating to the appropriate remedy.”<sup>61</sup> After this amendment, complainants have been burdened with additional costs in collecting adequate information concerning statutory public interests even before putting forward the complaint. This legal obligation for complainants is intended to justify the desired remedy by virtue of indicating no harm to statutory public interest even at the initial stage of the whole proceedings.

A statistical analysis shows: “Since the *eBay* decision, district courts have been willing to deny permanent injunctions after a finding of patent infringement - something that was virtually unheard of prior to *eBay*.”<sup>62</sup> Indeed, the probability of being successfully granted injunctions in judicial system dramatically decreased after the *eBay* decision.<sup>63</sup> Chien and Lemley pointed out:

Patent-assertion entities, or ‘patent trolls,’ use the threat of injunction to hold up product-producing companies in patent suits. The Supreme Court’s 2006 decision in *eBay* ... largely ended that practice... But it has had the unintended consequence of driving patent assertion entities to ... the International Trade Commission, in hopes of obtaining injunctive relief no longer available in district courts.<sup>64</sup>

It reflects the extrinsic factors which affected recent investigations after the *eBay* case which was adjudicated outside the ITC. Even the ITC confirmed this influence by indicating:

Since the US Supreme Court’s 2006 *eBay* decision, which has made it more difficult for patent-holders that do not themselves practice a patent to obtain injunctions in district courts, exclusion orders have increasingly been sought by non-practicing entities<sup>65</sup> (NPE) that hold US patents.<sup>66</sup>

A study also indicated this trend that: “NPEs represent an increasing percentage of total ITC actions. Fully 25% of ITC Investigations in 2011 were filed by an NPE and 51% of respondents hauled into the ITC were in response to an NPE complaint.”<sup>67</sup>

Recently, not many of the Section 337 investigations are filed by NPEs and that the ITC does not apply the same standards as those in *eBay* decision. However, this Supreme Court case has tremendous impact on the ITC to make certain adjustments concerning statutory public interest. Besides, there are already some suggestions for the adoption. *E.g.*, a commenter proposed that: “While NPEs may not greatly impact the ITC, currently, Congress should anticipate more litigation by NPEs at the ITC and should consider requiring the Commission to apply the *eBay* factors.”<sup>68</sup> With regard to the recent NPE-related issues, meanwhile, evidence shows:

The direct costs of NPE patent assertions are substantial, totaling about \$29 billion accrued in 2011. This figure does not include indirect costs to the defendant’s business such as diversion of resources, delays in new products, and loss of market share... the recent surge in NPE litigation is a significant social problem associated with billions of dollars of socially wasteful expenditure each year.<sup>69</sup>

Consequently, this kind of significant social problem is the negative externality<sup>70</sup> essentially incurred by NPE patent assertions whether in federal courts or in the ITC.

To date, no matter how many related substantive and procedural elements have been amended since the enactment of Section 337, the core tenet of this section is consistently to protect American industries from unfair foreign competition in terms of infringement of intellectual property rights. It is different from patent law which directly aims at protecting private exclusive rights in exchange for certain social tradeoffs. This is unequivocally confirmed by the related congressional statement of purpose.<sup>71</sup> Because most of the investigations are patent-based, those industries are related to patented items which are manufactured and sold rather than mere licensing and other activities without any tangible products.

Although the phenomenon of patent holdup is currently not extremely severe in the ITC, relevant precautions should also be taken in advance. After all, in the 2009 Saxon case, a patent assertion entity asserted that three patents “had purchased against several mobile phone manufacturers, raised the specter of ‘patent troll’ suits in the ITC.”<sup>72</sup> Consequently, the recent developments are somewhat favorable to curb the existing patent troll suits by virtue of adequate considerations concerning statutory public interests, so as to optimally achieve the ultimate legislative goals of Section 337.

## VI. CONCLUSION

In the specific context of innovation policy in manufacturing, with the furtherance of MIC 2025 and the gradual enhancement of innovation capacity of Chinese enterprises, there might be more higher-levelled competitions between China and the US concerning advanced manufacturing. *E.g.*, “[E]mblematic of the shift to an innovation-driven development model are new policy initiatives in China’s semiconductor industry that seek to accelerate the transition from catching up with global industry leaders to forging ahead through innovation.”<sup>73</sup> As a consequence, the bilateral trade-related patent frictions between China and the US might expand within the field of semiconductor industry. Thus, both the US and China should take precautions and measures for such possible frictions, in order to ultimately attain a mutually desirable win-win result. All types of individual and joint efforts would steadily pay off and finally come to fruition, which would be beneficial not only to the bilateral trade, but also to the world trade. The authors would proposed respective measure for China, the US and both countries as follows.

### A. The Proposed Respective Measures for China

Today, the US has justification to utilize the legal armour of Section 337 to protect its domestic industries, unless some current provisions could be proved as contravening certain valid international law contained in GATT<sup>74</sup> or in TRIPS. Before that, other countries, including China should respect the enforcement of Section 337 which is under the US sovereignty.

Thus, in order not to infringe the US patents when exporting products to the US, Chinese enterprises should make ample preparations before embarking upon such export trade. If doing adequate patent retrieval, *e.g.*, the related products would not unintentionally infringe certain US patents.

In short, Chinese enterprises which are exporting their products to the US need to take more feasible and effective measures and ample preparations to avoid potential or inadvertent infringements. In order to smoothly achieve the goal of ‘Going-Out’ strategy, the Chinese government should advise Chinese enterprises to devise and enforce certain mechanisms to facilitate the above-mentioned preparations before exportation to the US. An appropriate mechanism will help enterprises to efficiently evaluate whether the exported products would infringe

certain US patents before actual exportation.

### **B. The Proposed Respective Measures for the US**

According to the analysis above, even though the US actually has justification to protect its domestic industries by means of the enforcement mechanism of Section 337, there is still adequate motivation for the US to monitor the negative influences of a specific type of Section 337 investigation initiated by PAEs. In this regard, such investigations are almost exclusively beneficial to PAEs so that they would be conducive to the realization of the legislative tenet of neither Section 337 of Tariff Act of 1930, nor the US Patent Law. Furthermore, such investigations can not only significantly injure certain statutory public interests in the US as explicated above, but also undermine the development of mutually beneficial bilateral trade with other countries including China.

The proposed respective measures for the US to focus on appropriately restricting the eligibility of PAEs as plaintiffs could be helpful to avoid such negative influences, meanwhile without sacrificing the intended effects of protecting domestic industry in the import trade.

### **C. The Proposed Joint Measures for Both Parties**

Sometimes, only individual measures may not be enough to optimally resolve such patent-based disputes. If necessary, China and the US can take some feasible and effective joint measures to fundamentally resolve such disputes for the future trade in the afore-mentioned context.

The US and China could further make full use of all the existing mechanisms, mainly in terms of existing high-level talks regarding trade-related topics. If it is possible to resolve such disputes by existing high-level talks, it would be the most efficient, cost-effective, and feasible approach in this regard. Both China and the US have adequate intrinsic motivation to conduct such high-level talks to obtain mutually beneficial results. China and the US have already conducted many productive high-level talks on related topics.

Currently, there are two types of such talks. One is the China-US Joint Commission on Commerce and Trade (“JCCT”). The US Secretary of Commerce Penny Pritzker and US Trade Representative Michael Froman, together with Chinese Vice Premier Wang Yang, co-chaired the 26th JCCT in Guangzhou,

China, on November 21-23, 2015.<sup>75</sup> In this session, China and the US achieved many results concerning integrated circuit industry development plans, trade policy compliance, standards and intellectual property, technical regulations, technology policy, etc. The other is the US-China Strategic and Economic Dialogue (“S&ED”). The eighth session of the S&ED was held in Beijing, China, on June 5-7, 2016. It can be clearly reflected from the list of outcomes of the Strategic Track<sup>76</sup> that the topics in the S&ED is much more comprehensive than those in the JCCT which was only focusing on commerce and trade. Consequently, both sides are proposed to include related topics necessary for the future sessions of JCCT to seek mutually satisfactory solutions. If the possible patent-based disputes were sufficiently stringent so that only the JCCT talks are not sufficient, China and the US could further negotiate in the future S&ED sessions.

All the respective and joint efforts would steadily pay off and finally come to fruition. It would be eventually beneficial not only to the bilateral trade, but also to the world trade as a whole.

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