

Statement of Mark Allen Cohen
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June 8, 2018
Before the U.S.-China Economic and Security Review Commission

These comments are submitted to the US-China Economic and Security Commission (the “Commission”) in my personal capacity. I want to thank the Commission for the opportunity of again appearing before it. My last appearance before the Commission was on January 28, 2015, when I discussed the relationship between antitrust and IP policies in China on behalf of USPTO.¹ I have also been pleased to testify before your sister commission, the US China Congressional Commission, on rule of law and its relationship to intellectual property protection in China, which is also of great concern to me.²

My focus today will be on how to engage China on intellectual property issues, rather than the important standards concerns which the Commission has also identified.³ However, even

¹ See Mark Cohen, “Hearing on the Foreign Investment Climate in China: Present Challenges and Potential for Reform” (January 28, 2015), https://www.uscc.gov/sites/default/files/Mark%20Cohen_testimony.pdf. Note all links to web pages in this testimony were viewed during May 2018.

²See Mark Cohen, “Ownership with Chinese characteristics: Private Property Rights and Land Reform in the PRC” (February 3, 2003), <https://www.cecc.gov/sites/chinacommission.house.gov/files/documents/roundtables/2003/CECC%20Roundtable%20Testimony%20-%20Mark%20Cohen%20-%202.3.03.pdf>.

³Those aspects of the proposed topics that focus on IP that are: Describe the current Chinese regulatory and informal challenges US companies face regarding IP (whether patent, copyright, trade secrets) rights. Have these challenges appeared in other contexts, and in what way are these challenges unique? How have these challenges evolved? [Describe the Chinese standards setting bodies and processes In what ways does the Chinese technical standards setting process mirror the U.S. or other countries’ standards setting processes, and in what ways is it unique? What challenges do Chinese technical standards present for U.S. companies with Chinese operations, Chinese suppliers, or selling into the Chinese market?]; What domestic policy tools and sources of leverage does the United States have at its disposal to address Chinese IP [and technical standards] challenges? How have these police tools and sources of leverage been used in the past? Which agencies or actors were responsible for employing these tools? What gaps emerged from that experience? What multilateral policy tools and sources of leverage does the United States gain by working with other countries on Chinese IP [and technical

within the topic of intellectual property, the questions that the Commission has posed are broad. I will respond today in three categories: (a) what are the current IP challenges that US companies face in China today; (b) have past strategies been successful/what are the tools (domestic/international) that the United States had at its disposal; and (c) policy recommendations.

I. Current IP Challenges and the Section 301 Report

USTR's extensive Section 301 report, which was released on March 22, 2018,⁴ (the "301 Report") gave voice to many long-standing concerns of myself and others, including foreign businesses, regarding China's efforts to become an innovation superpower as well as US government strategies to address China's innovation strategies. Based on discussions I have held in China with foreign businesses over the past several months, I believe that there is also widespread industry support for the 301 Report. However, many have also expressed concern about: negotiating strategies, choice of tools to address concerns (tariffs), and topics that may not be fully addressed in the report.

a. The Section 301 case discusses critical but oft-ignored topics and deserves support

In my experience, we have only recently, as a government, systematically addressed the technological mercantilism our trade, science, and IP diplomacy with China. However, we are not well organized as a government to address these matters. The United States has historically prioritized other important concerns such as trademark counterfeiting, copyright piracy, criminal enforcement of intellectual property, and worldwide traffic in counterfeit goods, which continue to cause great harm to US industry and the global economy.

As an example of this disinterest, the "IP Enforcement case" (DS/362) that the US brought in 2007 at the WTO against China did not implicate patents, trade secrets, technology licensing or civil enforcement of intellectual property. Indeed, in media interviews and speeches at that time, I argued that these issues were still important but were temporarily "orphaned."⁵

As another example, forced technology transfer, which is at the heart of the 301 Report, was not a significant topic of discussion in the decade following China's WTO accession. Japan, however, officially raised issues concerning discriminatory treatment of foreigners in China's

standards] challenges?; Assess the success of the strategies used by the US government and industry to address challenges posed by Chinese IP [and standards] policies. What are the gaps? How could the United States increase the effectiveness of its efforts? The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What are your recommendations related to Congressional action related to the topic of your testimony?

⁴ In the interest of full disclosure, I was on leave from USPTO from November 27 – March 30 and did not participate beyond the initiation of this report. In any event, my opinions are derived from my general understanding of the bilateral environment and are my own alone.

⁵ See, e.g., Mark A. Cohen, "China's Orphaned Issues" in "Politics and IP in China Explained", Managing IP (Oct. 2008) at 24.

technology licensing regime at the WTO in 2002⁶, arising from the Administration of Technology Import/Export Regulations (the “TIER”) enacted by China one day before it acceded to the WTO (Dec. 10, 2001)⁷, which is now the subject of a WTO dispute between the US and China.⁸ As I testified to the Commission in 2015⁹, these regulations impose discriminatory obligations on US licensors to China to provide non-waivable indemnities against third party risks, mandatory ownership of improvements by the licensee, and reasonable access to foreign markets which do not attach to a Chinese technology export or a domestic Chinese licensing transaction. The United States waited 17 years to raise this issue to the WTO.

There are numerous examples of USG disinterest in technology licensing: the comprehensive 2010 USITC Report on indigenous innovation in China did not discuss the Administration of Technology Import/Export Regulations.¹⁰ In testimony by USTR on IP issues in 2006 before this Commission, the terms “innovation”, “patents”, “civil enforcement”, “trade secrets” and even “courts” do not appear.¹¹ The Model BIT that was the basis for negotiations with China similarly does not enumerate technology licensing as an “investment”.¹² In 2016, staff for this Commission prepared an excellent report on the proposed BIT which similarly did not discuss technology licensing.¹³ At about the same time as this report, when USPTO raised the issue of ownership of improvements to technology in bilateral technical cooperation on

⁶ See WTO, Sept 10, 2002, IP/C/W/374, Responses from China to the questions posed by Australia, the European Communities and their member States, Japan and the United States Review of Legislation at Para. 68; WTO, IP/C/W/430 Nov. 16, 2005, Transitional Review Mechanism of China, Communication from Japan.

⁷ CCPIT Patent and Trademark Law Office, “Regulations on Technology Import and Export Administration of the People’s Republic of China” (December 10, 2001), <http://www.wipo.int/wipolex/en/details.jsp?id=6585>

⁸ See Delegation of the U.S., “China—Certain Measures Concerning the Protection of Intellectual Property Rights” (March 23, 2018), https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=244046&CurrentCatalogueIdIndex=0&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True .

⁹ See Mark Cohen, “Hearing on the Foreign Investment Climate in China: Present Challenges and Potential for Reform” (January 28, 2015), https://www.uscc.gov/sites/default/files/Mark%20Cohen_testimony.pdf, at pp. 7 – 8; see also my testimony before the House Judiciary Committee (June 7, 2016). Mark Cohen, “International Antitrust Enforcement: China and Beyond” (June 7, 2016), <https://www.uspto.gov/about-us/news-updates/statement-mark-cohen-house-committee-judiciary>.

¹⁰ United States International Trade Commission, “China: Intellectual Property Infringement, Indigenous Innovation Policies, and Frameworks for Measuring the Effects on the U.S. Economy” (November 2010), <https://www.usitc.gov/publications/332/pub4199.pdf>.

¹¹ See Timothy P. Stratford, “China’s Enforcement of Intellectual Property Rights and the Dangers of the Movement of Counterfeit and Pirated Goods into the United States” (June 7, 2006), https://ustr.gov/archive/assets/Document_Library/USTR_Testimony/2006/asset_upload_file166_9552.pdf

¹² See “2012 Model Bilateral Investment Treaty” (2012), <https://www.state.gov/documents/organization/188371.pdf> . Compare, Article 2 of the TIER, which provides “technology import and export ... means acts of transferring technology ... by way of trade, investment, or economic and technical cooperation.... includ[ing] assignment of the patent right, assignment of the patent application right, licensing for patent exploitation, assignment of technical secrets, technical services and transfer of technology by other means.” (http://www.wipo.int/wipolex/en/text.jsp?file_id=182583).

¹³ Lauren Gloudeman and Nargiza Salidjanova, “Policy Considerations for Negotiating a US-China Bilateral Investment Treaty” (August 1, 2016), <https://www.uscc.gov/Research/policy-considerations-negotiating-us-china-bilateral-investment-treaty>

clean energy¹⁴ to the GAO, this matter was identified as a “potential discrepancy” only. Since that time, this dissenting position regarding the discrimination foreigners face in China’s licensing regime has become the dominant position, as evidenced by the WTO case filed by the Trump Administration.¹⁵

There had been prior efforts to better understand China’s licensing policies in recent years. USPTO, which I represented, repeatedly raised concerns about China’s licensing regime at JCCT and other meetings during the second half of the Obama Administration¹⁶ - at about the time I returned to the US Government. We also organized three separate programs on this topic with the State Intellectual Property Office and the Ministry of Commerce,¹⁷ as well as a program comparing licensing practices with Taiwan.¹⁸ I believe the lack of focus on licensing did not reflect a range of concerns of the highly competitive licensing sector of the US economy.¹⁹

USTR has ably documented other significant challenges in China’s IP protection in both the 301 Report and its Annual Special 301 Report on global IP issues (the “Special 301 Report”).²⁰ I will use the balance of my time to address some areas where there are opportunities for improvements which may have not received adequate attention by USTR or this Commission. These include: the establishment of specialized IP courts and the expected establishment of a national appellate IP court, as well as numerous reforms and experiments in handling of IP litigation; the publication of cases of all types, including over 400,000 IP cases²¹; expanded

¹⁴Government Accountability Office, “US China Cooperation, Bilateral Clean Energy Programs Show Some Results but Should Enhance Their Performance Monitoring” (July 2016) “The U.S. Patent and Trademark Office has identified a potential discrepancy between Chinese law and the bilateral U.S.-China Science and Technology Agreement upon which the IP Annex to the CERC Protocol is based, according to U.S. Patent and Trademark Office officials. These officials stated that the potential discrepancy is related to ownership of any improvements made to IP licensed between U.S. and Chinese entities....” (<https://www.gao.gov/assets/680/678214.pdf>, at p. 27).

¹⁵ See U.S. Chamber of Commerce, “U.S.- China IP Cooperation Dialogue” (2016) <http://www.theglobalipcenter.com/wp-content/uploads/2017/06/ChinaReportEnglishFinalPDF.pdf> at pp. 7-9. (“The current China technology import and export regulations that have impaired or threaten to impair greater technological collaboration between China and other countries... All of the Dialogue experts believe that the freedom to contract should be honored in cross-border technology collaboration.”)

¹⁶ See Hon. Bruce Andrews, “Remarks at Conference Hosted by the United States Patent and Trademark Office and George Mason University” (June 8, 2016), <https://www.commerce.gov/news/deputy-secretary-speeches/2016/06/us-deputy-secretary-commerce-bruce-andrews-delivers-remarks-0>

¹⁷ Mark Cohen, “Two Upcoming Events: Innovation and Technology Licensing” (March 14, 2017), <https://chinaipr.com/2017/03/14/two-upcoming-events-innovation-and-technology-licensing/> (MofCOM program); Mark Cohen, “USPTO/SIPO Program on Patent Licensing and Technology Transfer—A Quick Readout on a 41 Billion Dollar Business” (April 28, 2015), <https://chinaipr.com/2015/04/28/usptosipo-program-on-patent-licensing-and-technology-transfer-a-quick-readout-on-a-41-billion-dollar-business/>

¹⁸ Conor Stuart, “USPTO Senior Counsel on China Mark Cohen on Patent Monetization and Protections in China and Taiwan” (April 28, 2017), http://en.naipo.com/Portals/0/web_en/Knowledge_Center/Feature/IPNE_170428_0701.htm.

¹⁹ Thomas T. Moga, “Tech Transfer Turning Point?”, *China Business Review* (Sept-Oct 2010), at 30.

²⁰ Office of the U.S. Trade Representative, “Special 301” (2018), <https://ustr.gov/issue-areas/intellectual-property/Special-301>

²¹ <http://en.iphouse.cn/>; for statistical studies see <http://en.iphouse.cn/report.html>. IP House is one of several IP or legal database services, including a government-run judicial database.

protection for software and business method patents; and pharmaceutical-related IP reform and technological protectionism in the IP system. I do not believe that I can fairly cover all IP concerns in the few pages allotted to me; I have therefore selected these issues as being representative of other developments.

b. IP improvements in China also require USG support and legal analysis

Specialized courts: China's creation of specialized IP courts, and particularly, the Beijing IP Court, has captured the attention of academics and practitioners alike. This court has undertaken notable experiments in such areas as citation to cases and use of case law; drafting of shorter and more to the point judicial opinions; the introduction of dissenting opinions and en banc decisions by judges; experimentation with amicus briefs; and diminished role of behind the scenes adjudication committees. Many of these experimental reforms had been long sought after by US industry associations²² and the Bar,²³ albeit – as with licensing - largely outside of the 301 context. These reforms have also been accompanied by increased transparency. According to one estimate, the Beijing IP Court is publishing 95% of its cases.²⁴ Foreigners also generally appear to be treated fairly. For example, in 2015, foreigners reportedly won 100% of their infringement cases in this court.²⁵

High success rates are not limited to this one court. A doctoral candidate at Berkeley Law, Renjun Bian, looking specifically at China-wide patent litigation in 2014, has concluded that “foreign [invention] patent holders were as likely to litigate as domestic [invention] patent holders, and received noticeably better results – higher win rate, injunction rate, and average damages.”²⁶

More comprehensive data of this type has increasingly become available resulting from the decision by the Supreme People's Court to make judicial decisions publicly available beginning in 2014.²⁷ Amassed cases now total as much as 470,000, and have been the subject of

²² U.S. Chamber of Commerce, “U.S.- China IP Cooperation Dialogue” (2013), http://www.theglobalipcenter.com/wp-content/uploads/2013/01/US_China_IP_Cooperation_FINAL-FULL.pdf; Mark A. Cohen “The Widening Impact of China's Publication of IP Cases” (April 10, 2018), <https://chinaipr.com/2018/04/10/the-widening-impact-of-chinas-publication-of-ip-cases/>; “Historic USA-China IP Event” (2012), <http://www.cafc.uscourts.gov/announcements/historic-usa-china-ip-event-0>; He Jing, “Will China Welcome Amicus Briefs in Patent Cases?” (December 14, 2015), http://en.anjielaw.com/jobs_detail/newsId=337.html.

²³ Mark Cohen, “China as An IP Stakeholder” (June 2, 2012), <https://chinaipr.com/2012/06/02/china-as-an-ip-stakeholder/#more-402>.

²⁴ Max Goldberg, “Enclave of Ingenuity: The Plan and Promise of the Beijing Intellectual Property Court” (May 19, 2017), https://elischolar.library.yale.edu/ceas_student_work/4.

²⁵ Jacob Schindler, “The Beijing IP Court Gave Foreign IP Plaintiffs a Perfect 65-0 Win Rate in 2015, Reports One of its Judges” (July 4, 2016), <http://www.iam-media.com/blog/Detail.aspx?g=8dc59dc8-6405-4b86-b241-27e89afc6089>.

²⁶ Renjun Bian, “Many Things You Know about Patent Infringement Litigation in China Are Wrong” (October 1, 2017). Available at SSRN: <https://ssrn.com/abstract=3063566> or <http://dx.doi.org/10.2139/ssrn.3063566>

²⁷ See Benjamin L. Liebman, Margaret Roberts, Rachel Stern and Alice Wang, “Mass Digitization of Chinese Court Decisions: How to Use Text as Data in the Field of Chinese Law” (June 13, 2017). 21st Century China Center

analytical studies on a range of issues.²⁸ Trade authorities' utilization of this database has unfortunately been limited, despite the United States having specifically requested China to make its IP cases available in 2005²⁹ as part of a so-called "Article 63 request" at the WTO; a JCCT outcome in 2015 that required both the United States and China to engage on development of judicial IP case databases; and a high-level U.S. delegation in 2016 that further discussed this topic.³⁰

IP case data assessment: Although this judicial data is invaluable, I believe it is too early to make comprehensive assessments on how foreigners are treated in Chinese courts, as we still need to better engage and understand these databases, and additional adjustments to data should likely be made based on the quality of the right being asserted, the quality of the lawyers handling the matter, how many cases are being rejected entirely, handling of motions and settlements that may not be reported, comparisons to other countries, etc. However, the data provides important insights on judicial behavior and may be used to expose weaknesses in the Chinese system. The Commission may want to hold a separate hearing to discuss this important development, its strengths and weaknesses, and its implications for rule of law and commerce at some time in the future.

Software protection and business method patents. Another notable area where China has made improvements is in protection of software and business method patents.³¹ Changes in statutory and case law as well as USPTO practice in recent years, much of it addressing patent "trolls" or other forms of abuse, has made it more difficult to obtain these rights by deeming them too "abstract" and to enforce these rights, through making injunctions and other remedies less easily available. As Professors Madigan and Mossoff of George Mason University have noted in their recent paper *Turning Gold to Lead*, "other jurisdictions like China and the European Union become forerunners in securing the new innovation that drives economic growth and flourishing societies."³² These pro-IP changes in China are coupled with other

Research Paper No. 2017-01; Columbia Public Law Research Paper No. 14-551. Available at SSRN: <https://ssrn.com/abstract=2985861> or <http://dx.doi.org/10.2139/ssrn.2985861>.

²⁸ <http://www.iphouse.cn/report.html> (statistical reports) and <http://www.iphouse.cn/>.

²⁹ WTO, IP/C/W/461, Communication from the United States, Request for Information Pursuant to Article 63.3 of the TRIPS Agreement (Nov. 14, 2005).

³⁰ US Fact Sheet: 26th Joint Commission on Commerce and Trade. <https://www.commerce.gov/news/fact-sheets/2015/11/us-fact-sheet-26th-us-china-joint-commission-commerce-and-trade>; Mark Cohen, "US-China Conclude High Level Exchange on Judicial Reform and Commercial Rule of Law", <https://chinaipr.com/2016/08/06/us-china-conclude-high-level-exchange-on-judicial-reform-and-commercial-rule-of-law/>.

³¹ Mark Cohen, "SIPO Publishes Proposed Revisions to Patent Examination Guidelines" (October 27, 2016), <https://chinaipr.com/2016/10/27/sipo-publishes-proposed-revisions-to-patent-examination-guidelines/>; See Steve Brachmann, "Revised Chinese Patent Guidelines Mean Better Prospects for Software, Business Methods Than U.S." (December 20, 2016), <http://www.ipwatchdog.com/2016/12/20/chinese-patent-software-business-method/id=75978/>.

³² Kevin Madigan and Adam Mossoff, "Turning Gold to Lead: How Patent Eligibility Doctrine Is Undermining U.S. Leadership in Innovation" (April 13, 2017). George Mason Law Review, Forthcoming; George Mason Law & Economics Research Paper No. 17-16. Available at SSRN: <https://ssrn.com/abstract=2943431>.

factors including: massive Chinese investments in AI, big data, and other software-dependent industries; limited foreign market access in China in many IT-intensive areas; the increasing global dominance of Chinese IT companies with the reservoir of data they have acquired; and China's huge supply of STEM talent, to likely pose a significant threat to US IT companies in the future.

IP Reform for pharmaceuticals. Another area where significant progress is expected is pharmaceutical IP protection. During the past few years, the China Food and Drug Administration (CFDA) has proposed several notable reforms in pharmaceutical IP protection that may significantly stimulate the development of innovative pharmaceutical products in China as well as their timely introduction into Chinese and foreign markets. These include: creating a patent linkage regime, similar to our Hatch-Waxman regime³³ whereby CFDA regulatory approval is denied to infringing products; providing opportunities for protection of clinical data against unfair appropriation by third parties; and patent term extension to compensate for regulatory delays in introducing innovative, patented medicines. In fact, on May 30, 2018 Berkeley Law concluded a half day program on the incentives provided by these proposed laws for start-up drug discovery firms in the Bay Area to an overwhelmingly supportive audience.

Of course, promised changes in the patent laws by themselves do not guarantee that foreigners will be afforded adequate protection. For example, the United States has sought for several years to improve China's handling of pharmaceutical patent applications by permitting post-patent filing supplementation of pharmaceutical data, and has obtained commitments to that effect, but with limited success.³⁴

c. Challenges requiring re-evaluation

Treatment of foreigners by China's patent office. In seeking to address the impact of Chinese industrial policies on protection of IP, I believe that we should increasingly utilize big data type analyses, which are also left out of the 301 Report. One of the approaches that can provide answers for that question in terms of patent office practice is found in the research of Profs. Gaétan de Rasenfosse and Emilio Raiteri in *Technology Protectionism and the Patent System: Strategic Technologies in China* (2016).³⁵ Using data on about one half million patent applications filed in China, these researchers found no, or only weak, evidence of anti-foreign

³³ The Drug Price Competition and Patent Term Restoration Act (Public Law 98-417).

³⁴ Office of Public Affairs, "U.S.-China Joint Fact Sheet on 25th Joint Commission on Commerce and Trade" (December 29, 2014), <https://www.commerce.gov/news/fact-sheets/2014/12/us-china-joint-fact-sheet-25th-joint-commission-commerce-and-trade> ("The U.S. and China have been maintaining a useful and informative discussion on the supplementation of data, since the 24th JCCT in 2013, and China has made improvements on the practice pursuant to Chinese laws and regulations. Both sides affirm that continued exchanges and engagement on specific cases are beneficial.").

³⁵ See Gaétan de Rassenfosse and Emilio Raiteri, "Technology Protectionism and the Patent System: Strategic Technologies in China" (July 1, 2016). Available at SSRN: <https://ssrn.com/abstract=2803379> or <http://dx.doi.org/10.2139/ssrn.2803379>.

bias in the issuance of patents overall. However, foreign applications in technology fields that are of strategic importance to China are four to seven percentage points less likely to be approved than local applications, all else equal. Given the importance of industrial policy in China and the country's strong focus on indigenous innovation and intellectual property, the empirical results provide a case of technology protectionism by means of the patent system.

Data-driven engagement is particularly persuasive when engaging with China's planned approach to innovation and economic growth. In response to such needs, USPTO launched a China IP Resource Center to support better data-driven analysis. This office works closely with USPTO's Office of the Chief Economist. In addition, since I have relocated to Berkeley, we are launching a series of informal roundtables with experts from various sectors to exchange views on conducting empirical research in China who are also engaged in such empirical research.

II. (a) Have past strategies been successful/(b) what are the tools (domestic/international) that the United States had at its disposal

In general, I believe the currently dispute vs dialogue approach to engaging China on trade-related intellectual property has not achieved its promise. Equally important, there is no single "silver bullet" for resolving many long-standing issues. Instead, coordinated, principled, informed, pro-active and multi-faceted long-term approaches – which may include WTO or non-WTO remedies – seem to work best.

a. Successful strategies

Specialized IP Courts. Perhaps the most notable IP success in recent years is the establishment of specialized IP courts, including the anticipated establishment later this year of a national appellate IP court, similar to our Court of Appeals for the Federal Circuit. The establishment of these courts reflects two decades of engagement by organizations such as the USPTO, the U.S. Court of Appeals for the Federal Circuit and the Federal Circuit Bar Association, including former Chief Judge Randall Rader and a succession of USPTO Directors including Jim Rogan, Jon Dudas, David Kappos and Michelle Lee, as well as my own efforts.

Targeting technical training. USPTO pursued several notable efforts to address weaknesses in China's patent examination system in certain technical areas, including design patent protection for graphical user interfaces and permitting the supplementation of relevant data after the filing of pharmaceutical patents. Similar efforts were undertaken to address trademark prosecution and copyright protection practices and have borne results in many well-defined areas.

USPTO Road Shows. Among the more constructive recent engagements involving China has been the re-initiation of USPTO "road shows" on China IP. In recent years, these "road-shows" have traveled throughout the country several times per year.³⁶ The road-shows introduce a

³⁶ USPTO, "China IP Road Shows" (2018), <https://www.uspto.gov/learning-and-resources/ip-policy/china-ip-road-shows>.

range of USG resources, team up with local experts, collect information on challenges companies face, and educate companies.³⁷ As IP is fundamentally a private right, informed and strategic pressure from US rights holders has the important added benefit of helping the US government in its support of IP advocacy.

Successful engagement pathways. Generally successful engagement follows a similar path: industry might bring an issue to our attention directly or USG may proactively notice it based on our own research; technical engagement commences with discussions among USG experts which might include any necessary training from USPTO. If the issue were susceptible of empirical research, data was obtained to advance our positions. If the issue involved law enforcement or antitrust, a collaborative program with colleagues in relevant agencies might be undertaken. Often this engagement was followed by diplomatic initiatives with foreign governments. US companies or trade associations often further bolstered these efforts with meetings and programs, sometimes involving academic institutions. If necessary, issues might be progressively elevated to include the Under Secretary level (e.g., Director's Office of the USPTO), cabinet level (the Secretary of Commerce) or even higher. Rarely, a case might also result in a decision to file a WTO dispute.

In fact, since China joined the WTO, there have been a total of 20 disputes filed by the United States, of which only two involved intellectual property. The second such case was only filed this past March, after exhausting many of the enumerated steps in the prior paragraph. Although many doubt the efficacy of the WTO, I personally believe that WTO-cognizable disputes should be exhausted before they are dismissed, and that merely raising a reasonable case at the WTO also helps alert all global trading partners of a potential issue which can add additional pressure.

b. Setbacks and weaknesses

WTO case fell short of requiring legal changes. Of course, not all efforts were successful and there have been any number of disappointments. DS/362, the earlier IP case that the US brought against China, is instructive on how best to approach failed engagements. The most significant claims in that case in my estimation involved two matters (a) increased criminal enforcement against counterfeiting and piracy, and (b) increased transparency (via the "Article 63 Request"). Most observers would agree that the United States lost on both of these claims, at least in terms of requiring China to change its laws or produce relevant cases.

It can also be argued with the benefit of hindsight that the US won on both claims. As indicated, China has decided to publish its cases. According to data from 2016, Criminal IP cases have increased since the US "lost" the case. There were 8,352 first instance criminal cases in 2016 involving intellectual property and IP-related crimes, involving 10,431 persons.

³⁷ See Houston, Texas China road show agenda (May 5, 2017) at <http://www.adduci.com/sites/default/files/2017.05.05-tentative-agenda-for-china-ip-road-show.houston.may2017.pdf>.

Depending on how IP crimes are calculated, there may have been an increase of perhaps 11 times since 2006.

Whatever the magnitude of the increase, Chinese officials have told me that China has in fact begun encouraging using criminal remedies to address IP infringement, much as was requested by the USG in the WTO case. I believe however that this does not mean that cases are proceeding in areas of importance to the United States. In 2016 only 207 of these criminal cases involved copyright matters, and only 40 cases involved the critical area of criminal trade secret enforcement (involving 43 people).³⁸ Recently released 2017 data shows that there was a further 35% decline in criminal IP enforcement of trade secrets to only 26 cases.³⁹ As there is no general obligation for WTO members to implement criminal trade secret regimes,⁴⁰ USG should be actively monitoring developments in this area to insure equality of treatment, as well as use all possible tools to prevent and address state-sponsored trade secret theft and support continuing pressure for cooperation on trans-border cases. USG also needs to continue to promote free trade agreements that create an appropriate international standard for criminal trade secret enforcement.

Additional resources less immediately important than coordination and technical personnel: Congress when it looks at IP and similar trade challenges in China is often tempted to provide additional resources to leading trade agencies. I believe that is often an unnecessary first step. When I was at the US mission in Beijing from 2004-2008, there were over 50 US diplomats tasked with IPR duties of various kinds, and an additional 250 USG officials throughout the world concerned with IP issues in China. While this represented a huge commitment of resources, very few of our officials had the “magic” three skills: knowledge of US IPR law and practice, proficiency in Chinese, and familiarity with Chinese law.⁴¹ Much of my time was spent training and informing the USG team on Chinese law and IP priorities that they could address within their areas of expertise. Finally, as trade agencies increased in staffing and size, they often become less inclined to rely on the expertise of other agencies, creating greater potentials for miscoordination unless a priority is placed on sharing of information, economizing resources and training.

³⁸ 中国法院知识产权司法保护状况 (2016年) (Situation With Respect to Chinese Judicial Intellectual Property Protection – 2016) <http://www.court.gov.cn/zixun-xiangqing-42362.html>. There appears to have been a drop in cases in 2017; See “知产保护更严社会满意度更高 (Intellectual Property Protection is More Strict, Society is More Satisfied)”, (April 25, 2018), <https://www.chinacourt.org/article/detail/2018/04/id/3280090.shtml> (2,510 prosecutions).

³⁹ 中国法院知识产权司法保护状况 (2017) (The Current Situation Regarding Chinese Courts’ Judicial Protection of IP (2017) at p. 5 (available from the author).

⁴⁰ TRIPS Agreement, Art. 61 (obligations regarding criminal trademark counterfeiting and copyright piracy).

⁴¹ Government Accountability Office, “Overseas US Government Personnel Involved in Efforts to Protect and Enforce Intellectual Property Rights” to Reps. Conyers, Berman and Coble (February 26, 2009), <http://www.gao.gov/new.items/d09402r.pdf>

Improving diplomatic rank for China-based IP attachés. Currently USPTO has two highly experienced attachés in China, Duncan Willson in Beijing and Michael Mangelson in Shanghai. A third is expected shortly in Guangzhou. These officials are often tasked by the Ambassador, as I was, with coordinating policy and engagement on IP for the US Mission as a whole. Unfortunately, due to USPTO's relatively weak political status in the interagency, they do not command a diplomatic title commensurate with their value and experience (First Secretary). Their rank is also lower than the one IP Attaché that China posts to the US (Counselor). They may consequently encounter difficulties in arranging meetings both within and outside the Embassy, including with visiting Congressional delegations or senior leadership.⁴² Academic⁴³ and non-profit organizations and think tanks, such as The Commission on the Theft of American Intellectual Property⁴⁴ (the "IP Commission") and the USPTO's Patent Professional Advisory Committee ("PPAC"),⁴⁵ have urged that the State Department and Commercial Service elevate their status to no avail thus far.

Defunding of innovation coordination and research agencies. On innovation policies generally, one wonders if the US would not have benefitted today if some of the more important organizations that engage on innovation issues had not been defunded during the past twenty years, notably the Office of Technology Assessment of Congress, which prepared the important report *Technology Transfer to China* in 1987⁴⁶, in which it identified government plans and interference in the market as concerns for US transfers of technology. Many of the individuals who prepared the OTA report were acknowledged experts in the field with knowledge of Chinese, who were often at the beginning of distinguished careers as academics or diplomats. Another defunded organization was the Technology Administration (1980-2007) of the Department of Commerce which also helped in "developing policies to maximize science

⁴² Diplomatic List (Spring 2015), <https://2009-2017.state.gov/documents/organization/244105.pdf> at p. 17 (Ms. Ning Yu).

⁴³ "When it comes to cooperating and consulting about IP issues, some participants argued that there is no formal structure in place in overseas missions to ensure a coordinated presence by the U.S. Patent and Trademark Office or to undertake engagement with foreign counterparts at a suitable diplomatic rank. Structural impediments impact business groups and law firms, both of which have limited "boots on the ground" in China. ...The United States should also align the staffing and processes used for engagement with the Chinese government and commercial entities so as to understand better and advocate for U.S. commercial and IP interests." Columbia University, "China's Economic and Trade Relations" (2012), (<https://www8.gsb.columbia.edu/apec/sites/apec/files/files/ChinConfRpt412.pdf>) at 8.

⁴⁴ "The US should 'Strengthen U.S. diplomatic priorities in the protection of American IP', The IP Commission, "Update to the IP Commission Report" (2017), at p. 17. http://www.ipcommission.org/report/IP_Commission_Report_Update_2017.pdf. The first edition of this report noted that US embassies should "giv[e] appropriate senior rank to [the] IP attaché". "The IP Commission Report" (2013), at p. 75.

⁴⁵ PPAC "support[s] the raising of the current mid-level rank of USPTO IP Attachés by one level, which would give USPTO IP Attachés greater access to senior host government officials, Ambassadors at their respective embassies and senior industry representatives, while also allowing them to accomplish more effectively their mission[.]", letter of November 6, 2017 to President Donald Trump enclosing PPAC 2017 Annual Report at p. 4.

⁴⁶ U.S. Congress Office of Technology Assessment, "Technology Transfer to China" (July 1987), <http://ota.fas.org/reports/8729.pdf>.

and technology's contribution to America's economic growth, support entrepreneurship and innovation, strengthening U.S. technology cooperation with other countries, enhancing research and development in our nation's federal laboratory systems, and creating greater collaboration between government, industry, and universities".⁴⁷ More recently, a useful model for complex collaborative work on innovation has been undertaken by the Department of Defense with the University of California at San Diego. Its research is widely cited in the 301 Report.⁴⁸

Interagency coordination and delineation of responsibilities. Fundamentally, US government structures, particularly diplomatic structures to promote IP protection, need to be realigned in China to address increasingly complex and sophisticated issues that require technical, legal and linguistic expertise and coordination amongst a vast range of government agencies of differing resources, knowledge and authority. In my view, the first step towards resolving this problem is not more money, but smarter allocations of responsibility including providing clearer incentives for agencies to coordinate amongst themselves and with industry.⁴⁹

2(b) What are the tools that the United States has at its disposal.

More WTO IP Cases. Although the US has not actively used the WTO for IP-related disputes with China, I believe that there are additional WTO cases that could be filed if further research supports it, including such areas as: state sponsorship of infringement by SOE's or the Chinese government itself; misuse of antitrust law in a manner inconsistent with the TRIPS agreement; other instances of discriminatory treatment (tax preferences, standardization, procurement, local protectionism, etc.) based on preferences for Chinese ownership of IP rights; discriminatory IP protection and enforcement practices based on empirical research; and perhaps a WTO Non-Violation Nullification or Impairment⁵⁰ case to address the type of systemic issues identified in the Section 301 Report for which there may be no specific violation of a WTO commitment. Non-Violation complaints are not being accepted by the WTO at this time; however, the US might consider building a case that such an effort is necessary and/or that China is in violation of other systemic provisions of the TRIPS Agreement – including the provision requiring that IP be treated as a private right in the Preamble to the TRIPS Agreement.

Expanding markets in other countries. One important defensive tool involves expanding markets in other countries. I am pleased to see that the President appears to be reconsidering

⁴⁷ See Biography of Benjamin H. Wu, former Deputy Under Secretary for Technology

<http://www.asianamerican.net/bios/Wu-Ben.html>.

⁴⁸ Institute on Global Conflict and Cooperation, "Innovation and Technology in China" (2018),

<https://igcc.ucsd.edu/research-and-programs/research/international-security/technology-innovation-security/innovation-technology-china/index.html>.

⁴⁹ USTR, "US-China Trade Relations: Entering a New Phase of Greater Accountability and Enforcement, Top-to-Bottom Review," <https://ustr.gov/sites/default/files/Top-to-Bottom%20Review%20FINAL.pdf> (2006).

⁵⁰ For further background on this provision see Article XXIII, Nullification or Impairment.

https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art23_e.pdf.

the advisability of the Transpacific Partnership, perhaps in light of the difficulties imposed upon our exporters of unilateral retaliation against China.

III. Policy Recommendations

The US experience suggests that innovation flourishes in open ecosystems where there is a free flow of capital, talent and technology. At the same time, the US needs to address mercantilist practices which not only pose competitive threats to the United States but can also undermine the innovative ecosystems that have driven growth in the US economy, such as exist in Silicon Valley. *Any steps taken to reduce collaboration with China or any other country needs to be carefully evaluated about its potential impact on our own technological competitiveness.* Here are some additional legislative suggestions to address China's mercantilist innovation practices:

USG Internal Prioritization Efforts:

1. Congress should optimize USG engagement on innovation and IP, by providing more direct oversight, attention to actual coordination undertaken by agencies, and through personnel and agency awards for coordination of tasks and for agency/academic/industry collaboration.
2. Increased resources may be directed to law enforcement, including Customs, to support outreach and cases involving theft of trade secrets or imports into the US with stolen IP. Mechanisms should be established to facilitate increased sharing of data among companies and the government to form comprehensive risk assessments.
3. USPTO IP Attachés should enjoy diplomatic rank commensurate with their importance, experience and roles.
4. More empirical and forward-looking analyses should be conducted to ensure that USG policy is sufficiently forward looking and geared to China's plans and policies. Competitive threats should be analyzed in advance. Initiatives such as the USPTO's China IP Resource Center should be well funded, work with counterpart offices in other agencies, and become a durable part of our engagement with China.
5. We need to require more, continuous and coordinated training within USG on China's legal and innovation regime so that our engagement is fact-based and well-informed and the expertise of all agencies is fully exploited. USPTO has provided such training on an annual basis, but on a purely voluntary basis.

USG Coordination with Affected Businesses:

6. Additional support should be given to small and medium sized enterprises seeking to enforce their rights such as through Section 337 actions, or that are experiencing retaliation in the Chinese market.
7. We should increase sharing of data and training among companies to develop comprehensive risk assessments. China has "early warning" systems to help its companies assess IP risks overseas; we should look at providing similar support for our companies.

8. We should also make USG comments on proposed legislation public, in whole or redacted form, absent compelling reasons not to share, so that USG positions are well-understood and aligned with industry and, indeed, by the Chinese people.⁵¹

Optimizing IP Strategy in Bilateral Relations:

9. The US should insist on reciprocity in licensing terms with China. As Chinese law imposes onerous discriminatory licensing terms, USG may consider enacting reciprocal legislation to address China's unfair acts. We might encourage our trading partners to do the same.⁵²
10. We should amend the antidumping laws to recognize that the failure to treat IP as a private right is a factor in considering a country as a non-market economy. Currently, the market-orientation of a country's IP regime is not a specifically enumerated factor in determining whether it is a non-market economy, notwithstanding that the TRIPS Agreement requires that IP is treated as a private right.⁵³
11. USG should extend reciprocal treatment for IP legal services between the United States and China involving IP. As China does not permit foreign lawyers to take the Chinese bar, and foreign law firms in China cannot hire licensed Chinese lawyers, US government agencies, including the USPTO, might insist that Chinese companies hire US admitted lawyers who are also US nationals or green card holders if consistent with our international commitments. This could be a modest but important first step in improving the market for legal services by foreign law firms in China as well as insuring accountability of counsel appearing before US government agencies.⁵⁴
12. We should equip our courts, law enforcement and our lawyers with more legal tools to fairly adjudicate disputes with Chinese entities. Adverse inferences might be taken from unnecessary delays in collecting evidence overseas through judicial channels. We might also demand more cooperation from Chinese law enforcement on IP issues of common interest. In addition, denials of due process, threats to the freedom of US litigants or their counsel in China, lack of transparency in court proceedings and retaliation against appropriate use of legal process, etc. should all be vigorously opposed.⁵⁵

⁵¹ See letter of SIPO Commissioner Tian Lipu to USPTO Director Kappos (Sept. 27, 2012), https://www.uspto.gov/sites/default/files/ip/ip_overseas/china_team/Commissioner_Tians_letter_to_Mr_Kappos.pdf.

⁵² Robert T. Atkinson, "China's Strategy for Global Technology Dominance by Any Means Necessary" (November 12, 2015), <http://www.forbes.com/sites/realspin/2015/11/12/chinas-strategy-for-global-technology-dominance-by-any-means-necessary/> : "Congress should pass legislation that requires Chinese entities that license technology in the United States to do so on the same terms that China requires of U.S. entities that license technology there."

⁵³ Tariff Act of 1930, Pub. L. No. 103-465, 1930, codified at 19 U.S.C. § 1677(18).

⁵⁴ Mark A. Cohen, *International Law Firms in China: Market Access and Ethical Risks*, 80 Fordham L. Rev., 2569 (2012). Available at: <https://ir.lawnet.fordham.edu/flr/vol80/iss6/9>.

⁵⁵ See, e.g., Reuters, "InterDigital Execs Fear Arrest and Won't Meet China Antitrust Agency" (Dec. 16, 2013), <https://www.reuters.com/article/us-interdigital-china/interdigital-execs-fear-arrest-wont-meet-china-antitrust-agency-idUSBRE9BF0CW20131216>.

13. We should not give up the battle for the Chinese media. Any significant policy effort undertaken with respect to China that encourages market reform and rule of law should have adequate media outreach in Chinese. Such efforts are critical to cutting through the negative propaganda that often surrounds US trade efforts to encourage Chinese reforms. As a positive example, when I was interviewed by Phoenix TV after the US filed the IP Enforcement case against China (DS/362), I had an audience of over 150,000,000 people for two separate dedicated programs. This public media effort was set up when I served at the Embassy with now Principal Deputy Assistant Secretary for Public Affairs at the State Department, Susan N. Stevenson.

Regulatory Oversight of Innovation Activities:

14. We should actively monitor our government to government technological cooperation and support state government and university-level reviews to ensure that the anticipated benefits of such cooperation are in fact obtained.
15. We should revise the law regarding the Committee on Foreign Investment in the United States (CFIUS) to provide greater coverage over technological threats. At the same time, CFIUS needs to cooperate more deeply with science and technical agencies, including the USPTO to insure its technical analyses are fact-based, well-founded, up to date and that appropriate investment and collaboration is welcomed.
16. We should amend our antitrust laws address to address state-directed technology practices as mandatory pricing terms for Chinese sales or purchases of technology or technology-intensive items, or use of “act of state” or “sovereign immunity” defenses.⁵⁶ Exemptions for US and foreign technology sellers/manufacturers might be created when they want to coordinate strategies where China acts as a state-directed monopolist or monopsonist.

Coordinating Action with Trade Allies:

17. We should closely coordinate with like-minded trading partners on trade-related negotiations, law enforcement and on domestic law changes that could provide a more level global playing field with China. Examples of this might include reciprocal government procurement restrictions; enhanced law enforcement cooperation on criminal activities (as was accomplished in the Sinovel case described in the Section 301 Report);⁵⁷ enhanced sharing of data and intelligence; and collaborative training.

⁵⁶ Stephen Ezell, “Tariffs Won’t Stop China’s Mercantilism. Here are 10 Alternatives”, https://www.realclearpolicy.com/articles/2018/04/23/tariffs_wont_stop_chinas_mercantilism_here_are_10_alternatives_110605.html?mc_cid=493f9ad771&mc_eid=52b2620ab4#!; see also Richard Goldstein and Stephan Bomse, “Second Circuit Squeezes the Juice out of Vitamin C. Jury Verdict” (Sept. 21, 2016), <https://blogs.orrick.com/antitrust/2016/09/21/second-circuit-squeezes-the-juice-out-of-vitamin-c-jury-verdict/>; <http://www.scotusblog.com/case-files/cases/animal-science-products-inc-v-hebei-welcome-pharmaceutical-co-ltd/>.

⁵⁷ Office of the U.S. Trade Representative, “Special 301” (2018), <https://ustr.gov/issue-areas/intellectual-property/Special-301>.

I welcome your questions, and I thank the Commission again for this opportunity. Although many friends and colleagues offered their support for this testimony I, however, exclusively own any opinions, errors or omissions in this report.