Statement of Mark A. Cohen, Director and Distinguished Senior Fellow

Berkeley Center for Law and Technology

University of California, Berkeley Law School

Engaging and Anticipating China on IP and Innovation

Before the Senate Committee on the Judiciary, Subcommittee on Intellectual Property

hearing on

Foreign Competitive Threats to American Innovation and Economic Leadership

April 18, 2023

Chairman Coons, Ranking Member Tillis, Members of the Senate Judiciary Committee, staffers and guests, it is an honor and a pleasure to appear before the Senate today on the important issues confronting the US government in addressing intellectual property protection in China.

My topic today is on *Engaging and Anticipating China on IP and Innovation*.

By way of background, I had worked for nearly 15 years at the USPTO and the State Department on China intellectual property issues, and have over forty years of experience studying and practicing Chinese law and IP law.

During my tenure at USPTO, I helped to restructure many aspects of how the USPTO engages with China. These included establishing a USPTO presence at the US Embassy in China as the first USPTO IP Attaché appointed to handle IP issues in a foreign country, creating a position of Senior Counsel for China in the Office of Policy and International Affairs, establishing an IP Resource Center to provide empirical research support for policy initiatives, and participating in nationwide China IP roadshows to educate US businesses.

I am a recipient of the Meritorious Honor award from President Trump for my work on technology transfer with China, and a Gold Medal Award for promoting rule of law through intellectual property from former Commerce Secretary Gutierrez, which are the highest awards that can be given by the President or the Secretary, respectively. I participated actively in the two cases filed by the United States at the WTO against China. The State Department has rated my Chinese language ability as sufficiently proficient to serve as a translator for the US government.

After leaving the USPTO in 2018, I joined the law faculty at the University of California at Berkeley as Distinguished Senior Fellow and Director of its Asian Intellectual Property and Technology Project. I teach the only comprehensive class in North American on intellectual property law in China, in addition to organizing courses and conferences on international trade,

technology transfer, antitrust and related issues. Outside of these efforts, I also established a Track II Dialogue with China on IP issues under the leadership of Patrick Kilbride and the US Chamber of Commerce, which continues to this day. I also maintain a blog www.chinaipr.com, which you are cordially invited to subscribe to.

I have received numerous private sector awards from organizations such as PhRMA, the US Chamber of Commerce, and the National Law Journal for my work on intellectual property issues in China. In addition to my role at UC Berkeley, I am a member of the National Committee on US-China Relations, an advisory board member of the Aisia Society of Northern California, and a non-resident fellow at: the University of California-San Diego; the National Bureau of Asian Research; the Sunwater Institute; and the Hinrich Foundation. I also have helped draft, and continue to serve, on numerous white paper projects advising course corrections in different aspects of US China technology and trade policy.

Of course, the opinions I express here are my own.

I. Background to the China Challenge

I would like to begin with an explanation of why we continue to know so little about China's IP system. These deficiencies in our knowledge sources also highlight some of the pathways that are available to developing sounder policy.

A. *The Chinese system is dominated by Chinese parties, with foreigners playing an increasingly small role.*

Sadly, many Americans assume to this date that our frustrations are due to our robust involvement in China's IP legal regime. That is simply not the case.

According to official Chinese data, foreign related litigation has long hovered at below 1% of the total. Unlike the USPTO, where foreign applicants are at a rough parity with domestic applicants, Chinese companies and individuals dominate China's patent and IP regimes in all areas. For some types of patents, foreigners file less than 1% of the applications. The consequence of this lopsided arrangement is that foreigners surprisingly know very little about how the Chinese IP system works in practice.

As one example, only about 5 of 621 reported trade secret cases over the past 10 years involved a foreigner as plaintiff, which is about in line with the overall foreign role in IP litigation in China.[1]

This low utilization of the Chinese civil legal system, however, is not indicative of all aspects of China's IP regime. Historically, foreigners actively used China's extensive administrative enforcement regime for trademarks to curtail local infringement activity. In addition, foreigners

[1]Jyh-An Lee, Jingwen Liu, and Haifeng Huang, *Uncovering Trade Secrets in China: An Empirical Study of Civil Litigation from 2010 to 2020*, 17 J. INTELLECTUAL PROP. L. & PRACTICE, at p. 21 (2022), available at: http://dx.doi.org/10.2139/ssrn.4225187, at p. 21.

disproportionately utilize China's court system to bring administrative challenges to final patent and trademark office decisions. We cannot therefore say that whole legal system lacks the confidence of foreign rightsholders.

Low utilization necessarily leads to limited experience and knowledge of the Chinese IP system. One way of addressing the problems caused by low utilization would be to create an ex parte remedy in the United States for trade secret misappropriation or other forms of infringement undertaken by foreign agents. Another, long standing tool, is to conduct a Section 337 investigation to exclude infringing products from entering the United States market. If the infringer is physically located in the United States, conventional IP infringement litigation can also bring some measure of success.

In an ideal world, one would want to stop infringing activity that affects domestic and global markets efficiently by suing to stop manufacturing or sales at the source. During the past several years, many companies have sought to bring litigation outside of China, rather than uitilize the Chinese system perhaps out of lack of experience or concern about its inherent unfairness.

Among the alternatives to bringing litigation in the United States or China, I am concerned that creating an ex parte remedy without requiring that the litigants first try to resolve their matter through legal procedures in the United States, China or elsewhere does little to advance the Chinese IP system. Moreover, the data that we have on certain aspects of China's IP regime is often inadequate to reach a determination that the current system is necessarily ineffective. This is especially true of trade secret litigation. In the Phase 1 Trade Agreement, China committed to reverse the burden of proof in trade secret civil cases by imposing a burden of disproving misappropriation on the accused infringer after the plaintiff has made out a prima facie case of "a reasonable indication" of trade secret misappropriation. Although initial indications are that this system is working well, we still need to wait to fully confirm that this system is working fairly.

I believe that a better approach with respect to trade secret protection and similar sources of frustration would be to encourage utilization of available legal remedies in China (including the improvements mandated by the US-China Phase 1 Agreement), closely monitoring the outcome of these cases by the US government as well as non-governmental actors (such as the Track II Dialogue), requiring publication of decisions, providing for more effective US legal remedies, and consultation with the Chinese government or bringing a WTO case when there is a miscarriage of justice.

I am not saying that ex parte remedies are always ill-advised, only that they should be a last resort and they should not take the place of utilization of the legal system.

I should note that the Track II Dialogue that I have been involved in, has been instrumental in helping to address some long-standing IP issues in China, including helping Michael Jordan to

obtain trademark protection for his brand, ensuring copyright protection for sports broadcasts and advancing a pharmaceutical patent linkage system.

B. *China has a very limited presence of US IP service providers in China, including US lawyers and IP experts.*

According to USPTO data, in China today there are only 39 enrolled patent agents and attorneys from USPTO resident in China.[2] China-based US patent agents constitute about 0.078% of the 49,932 USPTO-admitted patent attorneys and agents (36,701 attorneys, 13,231 agents).[3] This number is also low in comparison to the legal profession generally. By comparison, there are 2,868 New York-admitted attorneys who are resident in China, out of 314,712, or about 0.86% of attorneys admitted in New York State. New York State-admitted lawyers account for nearly 74 times more lawyers in China than the number of USPTO-enrolled patent lawyers, and over 10 times more as a percentage compared to the total number of registered attorneys in New York State when compared to USPTO.[4] To further underscore the limited role played by these 39 US IP professionals in China, there are 61,909 recorded trademark agencies, and 10,614 recorded law firms at China's patent and trademark office.

The small presence of American patent agents and attorneys in China contributes to the limited knowledge of China's IP regime, on the group experience of China's IP regime and is typical of other low levels of resident professional engagement on China-related IP issues. For example, in 2013 US inquiries into the Chinese patent office Chinese language database constituted only 0.95% of total inquiries, or about one eleventh of European inquiries.

On a positive side, due to the limited presence of US IP practitioners in China, the USPTO IP Attaché program, with offices in Beijing, Guangzhou, and Shanghai, is of critical importance to US companies trading with or operating in China. I am proud of the support that has been received for that office, as well as of the USPTO China team, which consists of over 20 professionals with over 200 years of collective experience on Chinese IP matters. I urge the Senate to continue supporting this important effort.

C. *The most important reason is a lack of transparency*.

Transparency is the biggest missing tool in our China IP arsenal. Increased transparency by China would enable rightsholders themselves to take steps to protect their own interests. It would permit the US government to make more informed policy decisions. It would also ensure accountability by IP agencies, the courts, and government institutions. To my great dismay, the Phase 1 Trade Agreement did nothing to improve transparency in China's IP regime. The Phase 1 Agreement effectively left it to the US government to monitor the IP aspects of

[2] https://oedci.uspto.gov/OEDCI/practitionerSearchEntry.

[3]. *New York State Registered Attorneys*, OPENGOVNY https://opengovny.com/attorney [https://perma.cc/TQ8J-8F7C] (last visited: Dec. 20, 2022).

[4] *See* PAR, *supra* note 143.

that agreement. However, neither USTR nor the USPTO can file patents or bring civil litigation on behalf of US rightsholders, and government to government relations between the United States and China are currently difficult to sustain. Moreover, the overwhelming majority of IP enforcement in China is not brought by the government, but by parties suing one another. Transparency is critical because we need to ensure that our companies have the right tools and the right information.

Notwithstanding problems with transparency, business surveys generally show that most US companies are satisfied with China's IP regime, with only a minority claiming unfair treatment.[5] There have also been reports of notable improvements in civil enforcement in many contentious areas. For example, Microsoft achieved "win rates" of 100% in the 63 software piracy cases filed between 2010-2019.[6] Academics and professionals have also reported on high win rates in trademarks and patent litigation. Prof. Bian Renjun at Peking University estimated that the "win rate" in the overall civil patent docket for foreign patent litigants was 80%, while the injunction rate was 90%. These win rates for foreigners are higher than for Chinese litigants in China. Damages for foreign patent litigants in China during the period that she studied, although small, were three times higher than for domestic litigants.[7] There have been numerous other studies documenting these trends.

Here is what some of the data looks like across a range of IP rights, as analyzed by different scholars:

[5] *See* AmCham China, 2023 China Business Climate Survey Report, fig. 40 (19% of respondents claimed unfair treatment by China's IP regime); fig. 57 (21% of respondents claimed that insufficient protection of intellectual property is a barrier to innovation); fig. 60 (36% of respondents report an improvement in intellectual property); fig. 61 (49% of tech and R&D respondents report that intellectual property concerns are limiting their investments in China).

[6] Mark A. Cohen, *An Update on Data=Driver Reports on China's IP Enforcement Environment*, China IPR (July 13, 2020), https://chinaipr.com/2020/07/13/an-update-on-data-driven-reports-on-chinas-ip-enforcement-environment/.

[7] *Id.*

Table 3: Comparison of win rates for selected foreign software copyright plaintiffs (1st instance, 2010-2019, N= 271)

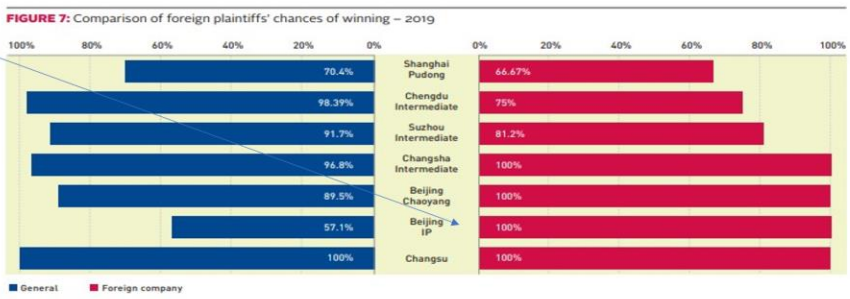
Company Name	Cases	Wins	Win rate
Rhino Software Company	113	83	73.5%
Alt-N Technologies	67	58	86.6%
Microsoft Corporation	63	63	100.0%

Company Name	Cases	Wins	Win rate
Siemens Product Lifecycle Management Software Inc	12	12	100.0%
Autodesk, Inc	10	10	100.0%
Dassault Systèmes	6	6	100.0%

How Good?

"In 2015 (the most recent year that complete data is available) Plaintiffs in Civil IP infringement cases [at the Beijing IP court] won 72.34% of their cases, while the success rate for foreign plaintiffs was 100% across a total of 63 civil cases , prompting foreign firms to reevaluate their prospects in China's civil IP litigation environment." (Goldberg)

Trademarks



Sources: Bailey and Clark (2020), Goldberg (2017), Xia (2020) .

In addition to these empirical studies, there are numerous other positive, well-documented examples from big companies[8] and small.[9]

On the other hand, due to a lack of systemic transparency, it remains difficult to assess objectively how much foreign companies may be disadvantaged by China's IP regime. The problem of unpublished or censored cases haunts any analysis.

For example, certain major cases, such as the largest patent judgment in China, involving Schneider Electric as a defendant, have never been reported. Another major decision that was not reported involved the granting of a preliminary injunction in a patent dispute against Veeco, a United States semiconductor manufacturing equipment supplier, at the request of AMEC, a pillar of China's efforts to achieve independence in the semiconductor sector.[10] China's vast administrative enforcement system, which authorizes its IP agencies to issue fines and order a cessation of infringement, is highly opaque. Most of the patent linkage litigation in China to date has been through that opaque administrative system. These opaque actions by

[8] See statement of Sharon Barner in "Fact and Fiction in US-China Intellectual Property Trade War" (Oct. 8, 2020) https://asiasociety.org/northern-california/events/webcast-fact-and-fiction-us-china-intellectual-property-trade-war. Ms. Barner is Vice President and Chief Administrative Officer of Cummins, Inc., and was the former Deputy Director of the USPTO.

[9] See Marketplace, Episode 900: The Stolen Company (March 15, 2019), concerning Abro Industries, Inc. https://www.npr.org/sections/money/2019/03/15/702643451/episode-900-the-stolen-company.

[10] Mark A. Cohen, *Semiconductor Patent Litigation Part 2 – Nationalism, Transparency and Rule of Law*, (July 4, 2018), https://chinaipr.com/2018/07/04/semiconductor-patent-litigation-part-2-nationalism-transparency-and-rule-of-law/.

China in high profile cases have had the impact of driving out the good news about the improvements in China's IP regime and impeding objective analyses about China's IP system.

In my view, insufficient transparency on IP cases is the single biggest problem in US-China IP relations. Transparency is often adversely affected by bilateral developments. For example, publication of IP cases stopped during the recent trade war, as this chart demonstrates:

US IP Cases Published inChina (2014-2019)
Jan 2014-June 2019 (purple is patents, left is numbers of cases published)

Source: Iphouse.cn

30

II. China's Challenge to the US IP Dominance and Its Potential Consequences

A. China's Growth as a Peer IP System

China today presents a peer-level economic and security threat both in terms of its ability to innovate and of its military and economic strength. Concerns over economic espionage, hacking and other forms of IP theft are real. However, the risks they pose have often been misapprehended, which has often led to misplaced priorities.

Unlike most market-based economies, China's economy is governed by industrial policies. These policies typically govern the full range of legal, social and economic issues in IP, including brand development, development of copyright industries, technological development, standards essential patents, and even certain aspects of China's legal infrastructure. Industrial policies may be adopted at national, provincial and local government levels. In recent years, American officials have paid particular attention to such policies as Made in China 2025.

However, there are a host of other industrial policies. In addition, there are often specific policy goals related to IP, which typically are linked to number of domestic or foreign patents per 10,000 people, or numbers of trademarks per 10,000 enterprises. The scale and breadth of China's use of industrial policies to develop its intellectual property system are often difficult for Americans to comprehend as we expect that IP to be fully market oriented. In fact, the TRIPS Agreement in tis preamble characterizes IP as a private property right. China, however, has a long history as incorporating IP into its national development plans with an active role ofr the state in the procurement, management and enforcement of intellectual property.

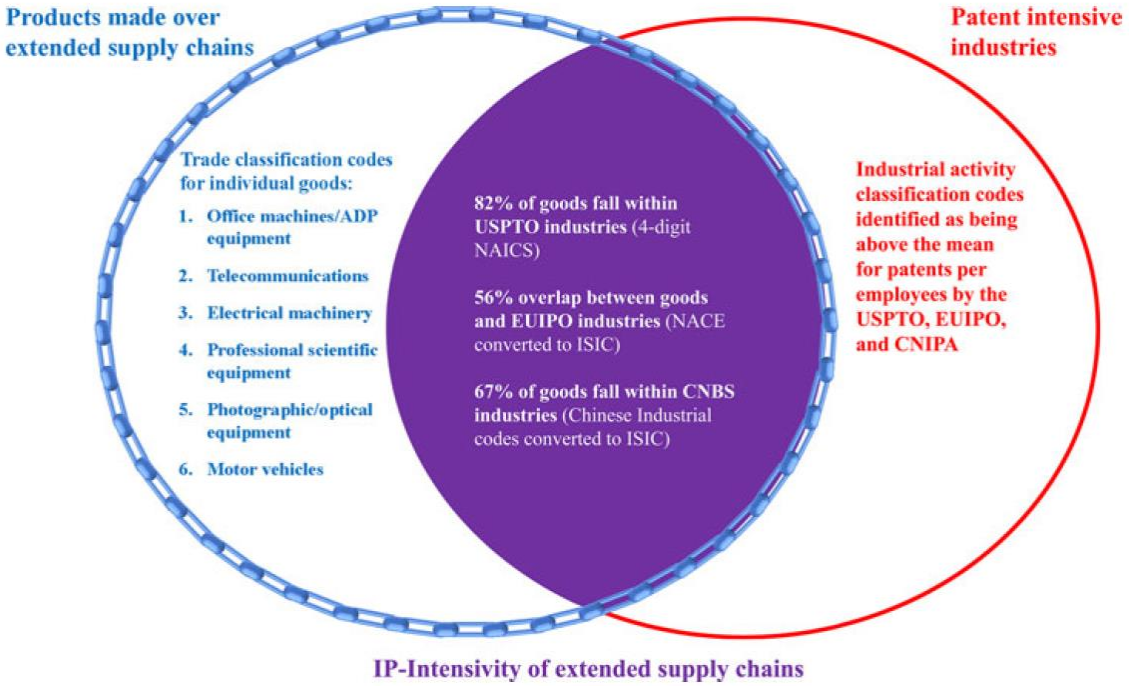
As part of its intellectual property development goals, China has also developed a leading-edge national system of IP tribunals and courts, with over 2,000 IP judges, many of them trained at specialized IP law faculties, and a nationwide annual court docket of about 600,000 civil cases last year. The Chinese patent and trademark office also receive applications that are several multiples of those received by USPTO. China has looked at the US IP judicial system, including the role of our Federal Circuit, and developed its own nationwide system of IP tribunals and courts. China has also recently elevated the role of its patent and trademark office, the China National IP Administration (CNIPA), to a State Council level agency. This is roughly equivalent to CNIPA becoming a cabinet-level agency. IP has also been incorporated into industrial planning, including a national IP strategy, but also in metrics and expectations for a wide range of national and local industrial policies. China has undertaken major revisions several times over the past 20 years to all its IP legislation, including to related laws such as the Civil Code, Criminal Code and Civil Procedure Law, to ensure that its laws respond to China's changing economy and changing technologies and to ensure that its laws implement national industrial policy goals.

Among other indications of the domestic importance of intellectual property, leading Chinese IP judges and officials have been elevated to the highest rank of Chinese political society, including serving as justices of China's Supreme People's Court. China's leadership routinely is briefed on and gives speeches on intellectual property in China. Unlike the United States, where the general direction has been to progressively restrict the granting and exercise of IP rights, China has also generally favored more liberal granting of rights and more deterrent remedies over the last several years.

The consequences of these changes in China's domestic system are observable in many aspects of China's society, including in the increasing sophistication of China's courts. In certain areas of the law, such as AI and copyrightability, molecular markers for plant variety protection, use of AI and other tools to detect online infringement, and the use of civil remedies to address bad faith trademark registrations, I believe that China has the *potential* to be the on leading edge of IP developments in the world. China's politicization of the judiciary and transparency concerns makes such a leading role much less likely in many areas.

China has also continued to use free trade agreements to advance IP protection in its own interests, including the Regional Comprehensive Economic Partnership Agreement (RCEP), as

well as by expressing a desire to join the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP), which had originally been launched by the United States. China has also expanded its IP system to provide for better protection across its supply chain. In addition to RCEP, China has launched a specialized IP court in Hainan intended to handle disputes arising from its trading partners, and has also shown an increasing interest in become a center for global intellectual property litigation. China's view that IP protection is critical to supporting stable extended supply chains is supported by research that we have undertaken at Berkeley, which shows a close correlation between the extended supply chain products and their IP-intensity. Although it may be politically unpopular to say this in Washington, DC, I believe that we should consider new forms of free trade agreements with our trading partners to ensure greater reliability of these supply chains, which would include support for their IP systems to mitigate risks of IP theft, and to encourage greater reliability in cross-border manufacturing of critical goods and materials.



(Source: Mark Cohen and Philip Rogers, "When Sino-American Struggle Disrupts the Supply Chain: Licensing Intellectual Property in a Changing Trade Environment" (World Trade Review, 2020))

B. Inclusiveness of the Chinese IP System

In terms of accessing the inclusiveness of the IP system, during my tenure at USPTO, former Director Michelle Lee and I had convened a program in Beijing on women and inventorship that was hosted by Columbia University. I believe the US attendees were all pleasantly surprised to learn of the active role enjoyed by Chinese female patent examiners, scientists, and patentees

in China's innovation system. In fact, China has long conducted extensive outreach on IP issues to a range of stakeholders, including individual inventors to supports its national goals of encouraging mass innovation and reduce barriers to access by less wealthy communities to the IP system. Generally, the small inventor cohort of China's IP system is significantly larger in absolute and percentage terms than that of the United States.

I also strongly support the IDEA Act as a positive step in making the IP system more accessible to minority communities and enhancing US innovative capacity. I am less sure that these disclosures by themselves are sufficient to both increase the inclusiveness of the US IP system and address the competitive challenges posed by China.

To address the challenges posed by non-market support of intellectual property filings and litigation, I also believe that Congress should consider mandating disclosure concerning foreign government funded or subsidized patents or trademarks, or subsidized IP litigation. [11]

We currently require such disclosure of recipients of US government grants under the Bayh-Dole Act. Additional disclosure requirements would be helpful to better address risks posed to our IP agencies and courts. We also need to require disclosures for trademark applications due to their demonstrated ability to disrupt US government operations through subsidized applications.[12] This information is essential to anticipating threats posed by subsidization and other distortionary programs of foreign governments, including China.

D. The Challenge of IP Theft

During the past several years, we have heard repeatedly that this "IP Theft" costs the United States 600 billion dollars per year. Stephen S. Roach, who was formerly Chief Economist at Morgan Stanley, criticized these loss figures as "rest[ing] on flimsy evidence derived from dubious 'proxy modeling' that attempts to value stolen trade secrets via nefarious activities such as narcotics trafficking, corruption, occupational fraud, and illicit financial flows. The Chinese piece of this alleged theft comes from US Customs and Border Patrol data, which reported $1.35 billion in seizures of total counterfeit and pirated goods back in 2015."[13] I have also criticized the sources of this data and how it has been manipulated over time.[14]

Part of the challenge of quantifying losses due to IP Theft is that "IP Theft" does not typically encompass only intellectual property, nor does it necessarily address thievery. According to the FBI, IP Theft "focuses on the theft of trade secrets and infringements on products that can impact consumers' health and safety, such as counterfeit aircraft, car, and electronic parts."

---

[11] Bob Goodlatte, *State Attorneys General Raise Concerns About Threats Raised by Litigation Funding,* Patent Progress (Jan. 18, 2023), https://www.patentprogress.org/2023/01/state-attorneys-general-raise-concerns-about-threats-posed-by-litigation-funding/.

[12] U.S.-China Econ. Sec. Rev. Comm'n, 2022 Report to Congress, at 177.

[13] Stephen Roach, America's False Narrative on China, *Project Syndicate* (April 26, 2019), https://www.project-syndicate.org/commentary/america-false-china-narrative-by-stephen-s-roach-2019-04 .

[14] https://chinaipr.com/2019/05/12/the-600-billion-dollar-china-ip-echo-chamber/.

This definition would exclude copyright and patent infringement, as well as other actions by the Chinese government that could force technology transfer.[15] In addition, the definition fails to take into account other mechanisms used by governments such as China to reduce the value of intellectual property, such as by restricting market access for copyrighted content, restricting insurance reimbursements for innovative medicines, aggressive use of antitrust, and licensing or regulatory barriers.

The U.S. International Trade Commission, in a well-researched report, China: Effects of Intellectual Property Infringement and Indigenous Innovation Policies on the U.S. Economy, (2011)[16] calculated these losses quite differently. It estimated that the theft of U.S. IP from China alone was equivalent in value to $48.2 billion in lost sales, royalties, and license fees for 2009. Of the $48.2 billion in total reported losses, approximately $36.6 billion (75.9%) was attributable to lost sales, while the remaining $11.6 billion was attributable to a combination of lost royalty and license payments as well as other unspecified losses. The number or reported losses is still significant but it is also much less than estimates of $600 billion dollars or more in annual losses.

In addition to methodological issues, the current focus on "theft" of IP also does not align well with how intellectual property is formally enforced in China, the United States and throughout the world. Intellectual property, as a private property right, primarily relies upon civil remedies.[17] The United States does not have a criminal patent remedy. The WTO does not require criminal trade secret remedies of its members. Civil or criminal prosecution of trade secret cases are difficult both in the United States and in China. Characterizing problems as "theft" also does not fully address forced technology transfer for foreign investors, restrictive market access requirements, and many forms of IP infringement.. In fact, a focus on public law remedies such as antitrust and criminal enforcement generally supports more state management of intellectual property, which is a strength of the Chinese system. We need to encourage China to protect IP as a private property right.

E. Self-Strengthening

As a first step to ensure our technological edge, we need to fill vacant positions, including an IP Enforcement coordinator in the White House. We also need a Deputy USTR for Innovation and Intellectual Property. I believe that we also need a Deputy Director for International Affairs to assist the Director of the USPTO and elevate the importance of the USPTO in international negotiations involving intellectual property. Currently the PTO Director is assisted by only one

[15] FBI, Intellectual Property Theft, https://www.fbi.gov/image-repository/ipr-500.jpg/view#:~:text=It%20specifically%20focuses%20on%20the,%2C%20car%2C%20and%20electronic%20parts.
[16] https://www.usitc.gov/publications/332/pub4226.pdf.
[17] *See* Mark A. Cohen, *The Criminal Bias in US Intellectual Property Diplomacy*, the National Bureau of Asian Research (July 22, 2021), https://www.nbr.org/publication/the-criminal-bias-in-u-s-intellectual-property-diplomacy/.

Deputy Director, which is not enough for the front office to focus on international concerns and to interact with the interagency at a sufficiently high political level.

Here are some additional steps that should be considered:

1) Permitting non-competes in an international context. The proposed FTC rule banning non-compete agreements, in my view, could have serious negative implications for protection of US trade secrets overseas, including in China. As I noted in my comments to the FTC on non-compete agreements (attached here), a party seeking relief from trade secret misappropriation in China is more than twice as likely to win if the employee has signed a non-compete agreement. Success rates for enforcing non-compete clauses are approximately 66%, while success rates were 32.4% for trade secret misappropriation cases in first instance cases.[18]

US employers should be able to craft non-compete agreements in compliance with foreign law without violating any final FTC rule.

2) Limiting 28 USC 1782 to minimize IP misappropriation by foreign countries

The Judiciary Committee should consider revising 28 USC Section 1782, which provides evidentiary assistance to foreign and international tribunals and to litigants before such tribunals by US courts. Congress should insist that foreign courts or litigants seeking access to US-produced evidence should prove that they are able to provide equivalent protections to confidential information as US courts. Currently, Section 1782 poses a risk of legalized trade secret misappropriation by foreign countries.

3) Revisiting Section 101 based on competitive impact

During the years when the United States sought to better "balance" our IP system through restricting patent-eligible subject matter in such areas as software enabled inventions, AI, fintech, biotechnology and medical diagnostics, China was taking contemporaneous steps to strengthen its system to expand eligibility through amendments to its examination guidelines. Patent applications have been refused by the USPTO as being ineligible under Section 101 but granted in China and/or Europe.[19] The declining scope of patent eligible subject matter has affected US competitiveness with other countries, created instability in our patent system, and potentially affected follow-on investment. As I discuss in my comments on the FTC non-

[18] *Compare* Hui Shangguan, A Comparative Study of Non-Compete Agreements for Trade Secret Protection in the United States and China, 11 WASH. J.L. TECH & ARTS 405 (2016) (looking at all final Chinese judgments on non-compete cases decided by intermediate or higher courts from March 2014 to February 2015 and finding "[t]hirty-six of these cases were related to the validity of the non-compete; twenty-four of which were regarded by courts as 'valid and enforceable.'" In other words, two out of three non-compete cases were held to be "valid and enforceable" by Chinese courts).

[19] Kevin Madigan and Adam Mossoff, *Turning Gold to Lead: How Patent Eligibility Doctrine Is Undermining U.S. Leadership in Innovation*, 24 GEO. MASON L. REV. 939 (2017).

compete rule, it also encourages innovators to rely on trade secrets in the United States which may thereafter be subject to trade secret misappropriation overseas.

I encourage this Subcommittee to investigate the impact of Section 101 jurisprudence on international competitiveness and to undertake appropriate reform efforts in the context of its consideration of the Patent Eligibility Restoration Act.

4) Reviewing eBay based on erosion of the United States as a destination for cross-border litigation.

The Supreme Court's decision in *eBay Inc. v. MercExchange* (2006)[20] limiting injunctive relief in US IP cases has made the United States a much less attractive destination for cross-border IP litigation involving China. Injunctive relief is available in nearly all cases to successful litigants in IP cases in China. Moreover, the recent deployment of China's social credit system has greatly increased compliance with Chinese judgments ordering injunctions. Greater availability of injunctive relief, such as is proposed in the Stronger Patents Act is an important step in the direction of providing meaningful protection for IP. In that context, I urge the Senate to consider the impact of eBay on litigation strategy for cross-border infringement, including the availability of injunctive relief against state-sponsored infringers.

5) Developing Better Data Tools.

As my colleague and friend Suzanne Harrison will shortly discuss in this hearing, the US government should develop and implement tools like those that our competitors are using to anticipate future technological developments.[21] The adoption of Future Oriented Technology Assessments and related tools as applied to civil technologies can be especially critical when possible security threats are posed to the United States by "civil-military fusion." These analytical tools can also assess competitive risks from China in emerging technologies that are of concern to US economic and national security. USPTO, with the most extensive resources on all varieties of civil technology, is well-positioned to make a significant contribution to such an effort.

With this data in hand, Congress should also actively encourage the USPTO, as an expert agency in civil technology, to become more involved in assisting on trade and economic sanction determinations.

III. Conclusion: We Need to Reimagine IP and Technology and How We Understand China

We need to reimagine technology and IP for a new technological era. We need to undertake a major strategic effort to sustain our technological and intellectual property advantages. We need to vastly improve our responses to the challenges of China's IP system.

---

[20] *eBay Inc. v. MercExchange, LLC,* 547 U.S. 388 (2006).

[21] Jeanne Suchodolski, Suzanne Harrison, and Bowman Heiden, *Innovation Warfare*, 22 N. C. J. L. & Tech. 175 (2020).

In this context, I regret to inform this subcommittee that my educational and research efforts on Chinese IP matters at Berkeley have been defunded effective September 30, 2023. After this semester, I do not know if another similar effort will be offered at a North American law school.

Thank you for your invitation to speak here today, and I look forward to your questions.

Sincerely,

Mark A. Cohen

APPENDIX

Comments of Mark A. Cohen

Director and Distinguished Senior Fellow

Berkeley Center for Law and Technology

University of California, Berkeley Law School

"The Federal Trade Commission's Notice of Proposed Rulemaking on

A Non-Compete Clause Rule and Its International Impact"

These comments are respectfully submitted by the undersigned in his personal capacity in response to the January 5, 2023, Federal Trade Commission (FTC) Notice of Proposed Rulemaking (NPRM) on a Non-Compete Clause Rule.[22]

I am a former career US government official who led the China intellectual property team at the US Patent and Trademark Office and served at the US Embassy in Beijing as its first IP Attaché. I currently teach Chinese intellectual property law at UC Berkeley, where I serve as Distinguished Senior Fellow at the Berkeley Center for Law and Technology, and I direct the law school's Asia Intellectual Property Law Project. I have no personal commercial interest in this rulemaking, nor am I currently subject to any form of non-compete agreement.

I take no position in these comments on the impact of the NPRM on domestic competition in labor markets in the United States. These comments are directed exclusively to the NPRM's failure to consider the international consequences of a nationwide ban on non-compete agreements.

In my view, the FTC should promptly consider issuance of another NPRM directed to the international consequences of its proposed rulemaking. The current proposed rule would seriously undermine US trade secrets protection and compromise economic security internationally in three related ways: (a) by facilitating large-scale misappropriation of trade secrets by China or other hostile economic competitors, (b) by impairing the global innovation position of the United States, and (c) by impairing the ability of the United States to achieve its goals in semiconductor self-sufficiency. These issues are discussed, in seriatim, below.

(A) Non-Compete Agreements and Trade Secret Protection in China

The FTC's focus on domestic competitive consequences in the NPRM has led it to conclude that it "is not aware of any evidence [that] non-compete clauses reduce trade secret

[22] Notice of Proposed Rulemaking, Non-Compete Clause Rule 88 Fed. Reg. 3482 (Jan. 19, 2023) (to be codified at 16 C.F.R. § 910 (2023) (hereinafter, NPRM).

misappropriation or the loss of other types of confidential information."[23] At least with respect to the protection of United States trade secrets in China, there is both qualitative and quantitative evidence to the contrary.

It is well-understood by Chinese judges, legal practitioners, and academics that a well-drafted non-compete agreement can be of critical importance to protecting trade secrets in China and many other regions of the world.[24] This assumption has been supported by the experience of numerous judges and attorneys in protecting trade secrets in China, by surveys among various jurisdictions in the world,[25] as well as by limited but important empirical data.

The use, in China, of non-compete agreements to protect trade secrets is well-acknowledged as a critical tool to protect technological trade secrets. Cao Jianming, a former Justice of China's Supreme People's Court who later became Supreme People's Procurator (Attorney General), stated in 2005 that trade secret enforcement was the area with the "greatest difficulties" for the courts. A major Chinese treatise on judicial protection of trade secrets written by several of China's most prominent intellectual property judges, including Kong Xiangjun (China's former Chief IP Judge), has noted that a non-compete agreement has a "utility when compared to other common measures of protecting trade secrets that is especially strong" and that it also "reduces the litigation burden" on the parties.[26] Benjamin Bai, a well-known China intellectual property lawyer, has similarly noted that "[e]nforcement of non-compete [agreements] is much

---

[23] NPRM, p. 92.

[24] *See* Catherine L. Fisk, *Working Knowledge: Trade Secrets, Restrictive Covenants in Employment, and the Rise of Corporate Intellectual Property,* 52 HASTINGS L J. 441 (2001); Jay D. Marinstein and Carl J. Rycheik, *Strengthening Your Clients' Non-Compete Agreements: Important Checkpoints*, Allegheny County Bar Association's Lawyers Journal, Oct. 12, 2007, at p. 7, available at https://www.foxrothschild.com/jay-d-marinstein/publications/strengthening-your-clients%E2%80%99-non-compete-agreements-important-checkpoints (regarding careful drafting of key provisions of agreements); Marisa Anne Pagnattaro, *The Google Challenge: Enforcement of Noncompete and Trade Secret Agreements for Employees Working in China*, 44 AM. BUS. L.J. 603 (2007) (hereafter "The Google Challenge"); Marisa Anne Pagnatarro, *Protecting Trade Secrets in China: Update on Employee Disclosures and the Limitations of the Law*, 45 AM. BUS. L.J. 399 (2008).

[25] Association of Corporate Counsel, Multi-Country Survey on Covenants not to Compete (2018), available at https://www.gtlaw.com/en/-/media/files/insights/alerts/2018/3/gtnoncompeteeuroinfopak.pdf; World Law Group, Global Guide to Non-Competition Agreements (Oct. 2018), available at https://www.theworldlawgroup.com/writable/documents/news/119001_118937_P1623-WLG-Non-Competition-Guide-2-TD-V3.pdf; DLA Piper, Post-Termination Restraints, available at: https://www.dlapiperintelligence.com/goingglobal/employment/index.html?t=15-post-termination-restraints; Meritas, Guide to Employee Non-Compete Agreements in Europe, Middle East and Africa (2017), available at: https://assets.website-files.com/5fed988aacad01db88e78ec3/600ed66aa9f70329ab00ffee_80-dpc-meritas-guide-to-employee-non-compete-agreements-in-emea-2017-773.pdf; White & Case, Non-competes and other restrictive covenants in a foreign jurisdiction (2012), available at: https://www.lexology.com/library/detail.aspx?g=1f5a21c4-88bd-4de8-b9fa-97ff12e04849; Schneider Attorneys, Non-competition clause (Art. 2089 and 2095 of the Civil Code of Québec), https://schneiderlegal.com/labour-law/non-competition-clause/.

[26] Jianjun Yao, Zhongguo Shangye Mimi Baohu Sifa Shiwu (商业秘密司法保护实务) [Judicial Practice of Trade Secret Protection in China] 28, 238 (2012) , see also Mark Cohen, China's Judiciary Publishes Its Views on Trade Secret Protection (July 5, 2013), available at https://chinaipr.com/2013/07/05/chinas-judiciary-publishes-its-views-on-trade-secret-protection/.

more straightforward than misappropriation of trade secrets," including providing for "injunctions and damages."[27] An intellectual property consulting firm, Rouse, has similarly noted that, in 89% of the trade secret cases where the plaintiff prevailed, "there [were] one or more protective agreements in place, such as NDA's and confidentiality clauses in employment contracts."[28] Mary Pagnattaro, a professor at the University of Georgia's business school, in reviewing Chinese cases on trade secrets and non-compete agreements, has observed that "[t]aken together, these cases create some sense that Chinese courts will uphold noncompete and secrecy agreements. The cases underscore the importance of documenting steps to keep proprietary information secret. At a minimum, all employees with access to trade secrets should be required to sign agreements."[29]

A recently published study of Chinese trade secret protection by the University of Hong Kong law faculty has also noted that "non-competition clauses are now widely adopted by employers in employment contracts with core technicians and senior management—all in a bid to protect valuable trade secrets."[30] Academics and observers have also observed that "former management-level employees with access to proprietary know-how and confidential information are often lured to work for competitors in China."[31] Two attorneys from Rouse have observed that Chinese trade secret law, unlike Chinese practice involving non-compete agreements, "is more suited to addressing compensation after infringement has occurred, when the damage may be irrevocable." The likelihood of irreversible damage in trade secret enforcement in China is especially likely "[g]iven the rarity of preliminary injunctions to prevent damage from trade secret leakage before it happens." These attorneys based their conclusions on a case involving "white hot" lithium battery technology misappropriation.[32]

High labor mobility, in addition to fair restrictions on competition, may be responsible for China's success as an innovator in lithium batteries and other fields. Dan Wang has recently written in *Foreign Affairs* that it is "process knowledge," namely, "skills that can only be learned by doing," that "are part of what has helped China become a major tech innovator." Furthermore, in Dan Wang's view, "the rise of Shenzhen as a global tech center is itself a validation of process knowledge."[33]

---

[27] Benjamin Bai, *Protecting Trade Secrets in China, Tips and Lessons Learned*, Allen & Overy (Apr. 2013), available at: https://www.uschina.org/sites/default/files/tradesecrets.pdf.

[28] CIELA, Trade Secret Litigation in China, Rouse, at p. 1, available at https://rouse.com/media/n5uadjtn/ciela-trade-secret-litigation-in-china.pdf (hereinafter "Trade Secret Litigation in China").

[29] The Google Challenge, *supra* n. 3, at p. 631.

[30] Jyh-An Lee, Jingwen Liu, and Haifeng Huang, *Uncovering Trade Secrets in China: An Empirical Study of Civil Litigation from 2010 to 2020*, 17 J. INTELLECTUAL PROP. L. & PRACTICE (2022), available at: https://dx.doi.org/10.2139/ssrn.4225187 (hereinafter Uncovering Trade Secrets).

[31] Daniel C.K. Chow, *Navigating the Minefield of Trade Secrets Protection in China*, 47 VANDERBILT L. REV. 1007, 1014 (2021).

[32] Sophia Hou and Chris Bailey, "Building a Trade Secret Barrier Through Non-Competition Agreements: A review of China's Leading Battery Maker's Suits Against Former Employees" (Dec. 20, 2022), available at https://rouse.com/insights/news/2023/building-a-trade-secret-barrier-through-a-non-competition-agreement.

[33] Dan Wang, *China's Hidden Tech Revolution*, 102 FOREIGN AFFAIRS 65, 71, 73 (2023).

Chinese data also demonstrates that a party seeking relief from trade secret misappropriation is more than twice as likely to win if the employee has signed a non-compete agreement. Success rates for enforcing non-compete clauses are approximately 66%, while success rates were 32.4% for trade secret misappropriation cases in first instance cases and 44.3% of the cases decided by appellate courts.[34] Success rates in trade secret cases litigated in Taiwan have historically been even lower. Before Taiwan amended its Trade Secrets Act in 2013, the plaintiffs' win rate at the trial courts was 24.8% in civil cases and 30.8% in criminal cases.[35]

As Benjamin Bai has noted, the "evidentiary burden for a plaintiff to bring a trade secret misappropriation case in Chinese courts is relatively high."[36] Generally speaking, China, like most civil law jurisdictions, does not utilize discovery procedures to compel production of evidence from an adversary. The lack of discovery makes it especially difficult to prove that an adversary has misappropriated a victim's trade secrets, and places additional burdens on plaintiffs unless the burdens of proof are reversed. Data that is easily and freely accessible from the popular Chinese IP litigation database www.ciela.cn shows that trade secret litigation in China has the lowest "win rate" of any IP right in civil litigation.[37] In China these historically low trade secret win rates may have been partially mitigated by recent amendments to China's Anti-Unfair Competition Law, which require that the plaintiff make a "reasonable showing that its trade secret has been infringed upon" and that the defendant thereafter prove that a trade secret does not subsist.[38] As these changes to China's law are recent and most trade secret cases are not published, it is difficult to determine at this time whether these changes in the law will improve plaintiff litigation outcomes. These difficulties in assessing the impact of recent legal changes are compounded by the low utilization by foreigners of China's civil trade secret litigation system. To date, only 5 civil cases of 621 published trade secret cases involved a foreigner as plaintiff.[39]

---

[34] *Compare* Hui Shangguan, A Comparative Study of Non-Compete Agreements for Trade Secret Protection in the United States and China, 11 WASH. J.L. TECH & ARTS 405 (2016) (looking at all final Chinese judgments on non-compete cases decided by intermediate or higher courts from March 2014 to February 2015 and finding "[t]hirty-six of these cases were related to the validity of the non-compete; twenty-four of which were regarded by courts as 'valid and enforceable.'" In other words, two out of three non-compete cases were held to be "valid and enforceable" by Chinese courts) and Uncovering Trade Secrets, supra n. 9.

[35] Jyh-An Lee and Jerry G. Fong (李治安&馮震宇), Taiwan Yingye Mimi Chinhai Susong Zhi Shizhong Yanjiu (臺灣營業秘密侵害訴訟之實證研究) [An Empirical Study of Trade Secret Litigation in Taiwan], 216 TAIWAN L. REV. 151, 154 (2013).

[36] J. Benjamin Bai and Guoping Da, Strategies for Trade Secrets Protection in China, 9 NW. J. TECH. & INTELL. PROP. 351 (2011), available at https://scholarlycommons.law.northwestern.edu/njtip/vol9/iss7/1.

[37] For example, CIELA data demonstrates that for the cases it collected, trade secret litigation in China is won at a 54% rate compared to 77% for patents of all types, and 85% for copyright cases, https://www.ciela.cn/en/analysis. (research completed on March 1, 2023).

[38] Anti-Unfair Competition Law of the People's Republic of China (promulgated by the Standing Comm. Nt'l People's Cong., Apr. 23, 2019, effective Apr. 23, 2019) Arts. 32. Such reversals of burdens of proof in trade secrets are a rarity in global trade secret litigation.

[39] Trade Secret Litigation, supra n. 9 at p. 1; Uncovering Trade Secrets, supra n. 9 at p. 21.

Violation of non-compete agreements are a valuable alternative cause of action to trade secret litigation to mitigate deficiencies in civil procedure rules for litigating trade secret misappropriation in China. Another important use of non-compete agreements and non-disclosure agreements in China is that the courts use them to satisfy requirements that a company has taken necessary steps to protect trade secrets.[40]

Plaintiffs also run increased risks of secondary disclosure in trade secret cases through the release of their confidential information to the alleged perpetrator's counsel, witnesses, and experts. Non-compete clauses may not demand a similar disclosure of confidential information. Chinese practices regarding protection against secondary disclosure are also still comparatively non-developed. Dr. Li Chong, a scholar in Chinese law and procedure, was unable to find a single case involving protective orders in his study of confidentiality measures in Chinese civil litigation. Dr. Li further noted that "the standards for issuing protective orders in practice are relatively vague, and a unified view has not yet been formed."[41]

As an example of this vague judicial practice regarding Chinese protective orders, the Jiangsu High Court in 2021 issued the revised "Guidelines for Trade Secret Infringement Case Adjudication" (侵犯商业机密案件审理指南). These guidelines devote one scant paragraph (Art. 8.1) to the issuance of protective orders and may not apply outside of trade secret misappropriation cases. Most courts do not even have this type of limited guidance in place, nor are copies of case decisions on protective orders available. In fact, the Chinese government has recently taken the position at the World Trade Organization that "there is no such obligation… for China to respond" to a European request to produce interim "behavior preservation orders," which are similar to protective orders.[42] The United States government has joined in this case along with 18 other countries, as part of a formal WTO dispute initiated this year.[43]

Chinese trade secret cases risk involuntary secondary disclosure to local competitors, the government, or the Communist Party. These risks increase in judicial proceedings due to the

---

[40] See, e.g., Guangzhou Tinci Materials Technology Co., Ltd et al. vs Anhui Newman et al, (2019) SPC Zhi Ming Zhong No.562 （广州天赐公司等与安徽纽曼公司等侵害技术秘密纠纷案[（2019）最高法知民终 562 号，最高人民法院）（listed as a typical case for punitive damages by the Supreme People's Court for 2021）; *Guilin Peizheng Culture and Languages Training School v. Li Lifei et al*., Guilin Intermediate People's Court, (2016) Gui 03 Min Zhong No. 109, (砼林市培正文化语言培训学校与桂林市斯坦教育咨询有限公司、李立飞侵害经营秘密纠纷二审民事判决书) （2016）(桂 03 民终 109 号).

[41] Li Chong, *Shangye Mimi Anjian zai Minshi Susong Jieduan de Baomiling Zhidu zhi Goujian – Yi Zhongmei Bijiaofa Yanjiu wei Shijiao* (**商业秘密案件在民事诉讼阶段的保密令制度之构建—以中美比较法研究为视角**) [The Construction of a Protective Order System in Commercial Secret Cases in Civil Litigation Stage– Based on the study of comparative law between China and the United States], Jingheng Research (2021) available at: https://mp.weixin.qq.com/s/AaZTtkwUEJzImzQnM3qDWw.

[42] Mark Cohen, China Responds to EU Article 63 Request (Sept. 8, 2021) available at: https://chinaipr.com/2021/09/08/china-responds-to-eu-article-63-request/.

[43] Dispute Settlement, China – Enforcement of intellectual Property Rights, WTO Doc. WT/DS611 (panel established on March 28, 2023). Information on this case is available from the WTO website at https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds611_e.htm.

presence of judicial governing entities, "Adjudication Committees," in each court. Adjudication Committees are typically composed of senior judges and party officials who are authorized to review the evidence and make final decisions on cases. According to Susan Finder, a well-known expert on the Chinese judicial process, Adjudication Committees are also more likely to play a role in cases that are "sensitive, major, and difficult," including high-profile foreign IP cases.[44] Due to China's great interest in acquiring US technology, it would not be surprising if members of an Adjudication Committee took considerable interest in a US trade secret case in a technology area of concern to the Chinese government, such as semiconductor technology.[45] The risks of having to identify confidential information are more circumscribed if a plaintiff is only claiming breach of a non-compete agreement.

Studies such as those cited by the NPRM, which have sought to analyze the impact of non-compete agreements on trade secret protection in the United States, are primarily relevant to the circumstances prevailing in the United States and may have little relevance to determining how foreign litigants in China could protect their trade secrets. The United States legal system provides robust protection to trade secrets on a nationwide basis. The United States system also afford due process to all litigants. Judgments from any state are entitled to full faith and credit in another state, ensuring greater finality and economy of judicial decisions. United States counsel can be admitted pro hac vice before other state or federal courts, ensuring that there is an efficiency of enforcement in handling an issue that crosses state borders. Extensive discovery is available. The federal judicial system often provides an alternative jurisdictional basis to state courts to minimize bias in favor of local plaintiffs when jurisdictional thresholds are satisfied. The use of protective orders is widely understood. United States courts will also decline to take jurisdiction over trade secret matters where there is a more appropriate venue for the proceeding. Preliminary injunctions are available and are published for the public to understand their impact. Substantive trade secret laws and procedures are well-harmonized between the states. Even in the absence of an effective non-compete agreement, US companies have fair, if expensive and time-consuming, measures available to protect trade secrets anywhere in the federal or state judicial systems. Whatever the challenges that might exist in California due to the absence of effective non-compete agreements, when a California employee has relocated to another state, the availability of judicial venues within the United States to fairly litigate trade secret matters means that the employer/trade secret holder is still likely to be fairly treated in that out-of-state court despite the invalidity of a non-compete agreement under applicable California law.

American companies seeking to protect their trade secrets in China encounter a wide range of challenges that are not present in inter-state litigation. For example, in contrast to the US civil

[44] Susan Finder, SPC Updates its Guidance on Judicial (Adjudication) Committees (Oct. 4, 2019) https://supremepeoplescourtmonitor.com/2019/10/04/spc-updates-its-guidance-on-judicial-adjudication-committees/.

[45] Christopher Wray, The Chinese Communist Party—believes it is in a generational fight to surpass our country in economic and technological leadership, FBI News (July 7, 2020) https://www.fbi.gov/news/speeches/the-threat-posed-by-the-chinese-government-and-the-chinese-communist-party-to-the-economic-and-national-security-of-the-united-states.

process, trade secret litigation in China is handled by a judiciary that is not politically independent from the Communist Party and that views itself as an instrumentality of the state and Party. Civil judgments are not easily enforced between the United States and China. Substantive law and civil process vary greatly from practice in the United States. Very few American lawyers read or speak Chinese and even fewer have a rudimentary understanding of the Chinese legal system. Lack of discovery in Chinese civil process requires that plaintiffs extensively prepare for proposed litigation in advance. If a plaintiff is foreign, documentation will need to conform to Chinese judicial formalities, including potentially time-consuming notarization and legalization requirements.[46] Chinese domestic evidence, when available, may also need to be prepared by a civil notary. Litigation involving foreigners can extend for much longer periods of time than domestic litigation. Court cases are not fully available to review in making strategic plans about enforcement. Interim decisions on protective orders are particularly opaque. Fraught geo-political relations and industrial policy goals are also more likely to influence judicial decision making. Despite recent improvements, China's trade secret regime is also relatively new, and judicial procedures are being developed. Certain aspects of China's trade secret regime also remain biased against foreigners as a matter of law. For example, China's extensive administrative system for trade secret protection does not afford protection to foreigners seeking protection from misappropriation of their trade secrets,[47] nor do changes appear likely based on proposed amendments to China's trade secret administrative enforcement regime.[48]

The NPRM identifies federal criminal prosecution of trade secrets as another important alternative for protection trade secrets in the United States, and states that "intellectual property law already provides significant legal protections for an employer's trade secrets".[49] However, there is no international obligation for WTO members to have an available criminal trade secret remedy. WTO members are only required to have criminal remedies to address "commercial scale" copyright counterfeiting and trademark counterfeiting.[50] The NPRM does not cite any relevant data to justify the wide-spread availability of federal or state criminal remedies for trade secret violations in the United States. According to China's own official adjudication statistics, criminal trade secret cases, in fact, are quite rare. Criminal trade secret cases constituted only 61 out of 6,046 criminal intellectual property cases concluded in 2021, or about 1% of the criminal IP docket, and about .01% of the civil intellectual property docket of 550,263 cases.[51]

---

[46] On March 8, 2022, China joined the "Convention Abolishing the Requirement of Legalisation for Foreign Public Documents." Accession may ultimately simplify some of these requirements. It will enter into force November 7, 2023.

[47] World Trade Organization, Review of Legislation, WTO Doc. IP/C/W/374 at p. 44 (2002) (question posed concerning why foreigners are denied national treatment in China's trade secret administrative enforcement regime).

[48] Mark Cohen, SAMR Releases Draft Trade Secret Rules for Public Comment, China IPR (Sept. 12, 2020) https://chinaipr.com/2020/09/12/samr-releases-draft-trade-secret-rules-for-public-comment/ .

[49] NPRM, at pp. 96, 98.

[50] World Trade Organization, TRIPS Agreement, Art. 61.

[51] China National IP Administration, Er Yilingyinian Zhongguo Zhishi Chanquan Baohu Zhuangkuang (二〇二一年中国知识产权保护状况) [The State of Intellectual Property Protection in China in 2021] (2022), at p. 4.

The NPRM notes that "trade secret law may serve as an alternative to the patent system."[52] International differences in the scope of patent protection may force companies to rely on different approaches to protecting their innovations in different countries. The uncertain scope of patent protection in some key technology areas in the United States, such as software patenting, fintech, and genomics, in the words of one former International Trade Commission official, may also "induce firms to rely more on trade secrets."[53] This may also increase reliance on trade secrets for leading technologies in both the United States and China, as the disclosure in China of a patent would invalidate the protection afforded by the trade secret in the United States.

Weak trade secret protection in China and Chinese government rewards for filing patents may incentivize individuals conducting research in the United States to disclose trade secrets in China, thereby jeopardizing the confidentiality of the trade secret infromation and causing significant financial harm to the innovator company in the United States. In one of several well-known cases[54] in the United States involving the filing of a patent in China on confidential United States technology, a scientist working at Virginia Tech was alleged to have violated the terms of his "non-disclosure clause, non-communication clause, and covenant not to compete" by anonymously filing a patent application in China that was "nearly identical" to the trade secrets of the United States innovator. Chinese law permits anonymous patent filing, which in this case was used to minimize detection by the plaintiff.[55]

Internationally, patents are often a poor substitute for trade secret protection, as patent applications require disclosure of the underlying technology to the public. In addition, China may decline to grant patents due to political pressure in accordance with Chinese industrial policies. If patents are not available, and trade secret success rates are low, non-compete agreements may be the default and only effective avenue for enforcement.

---

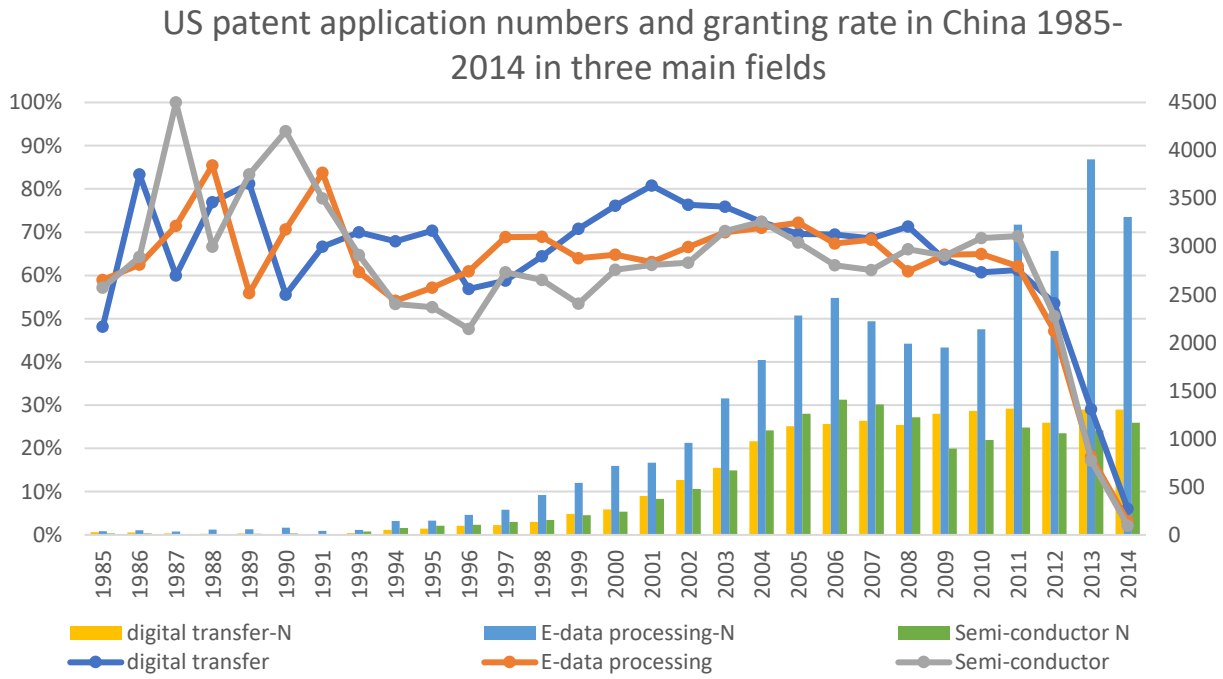
[52] NPRM at p. 94.

[53] Katherine Linton, *The Importance of Trade Secrets: New Directions in International Trade Policy Making and Empirical Research* , J. INTL COMM. & ECON., at p. 4 (2016).

[54] See, e.g., USDOJ, Chinese Citizen Convicted of Economic Espionage, Theft of Trade Secrets, and Conspiracy (June 26, 2020) (semiconductor technology), available at https://www.justice.gov/opa/pr/chinese-citizen-convicted-economic-espionage-theft-trade-secrets-and-conspiracy; see also speech by Christopher Wray at the Hudson Institute, *The Threat Posed by the Chinese Government and the Chinese Communist Party to the Economic and National Security of the United States* (July 7, 2020), available at https://www.fbi.gov/news/speeches/the-threat-posed-by-the-chinese-government-and-the-chinese-communist-party-to-the-economic-and-national-security-of-the-united-states; see also statement of Rep. Darrell Issa, "There are countless examples of that including Qualcomm, Intel, and Google, and Apple who have been the victims of technology developed, trade secrets developed, simply going to another country. And again, if they go to China, they often end up in patents that are the fruit of that -- that otherwise unknown or developing technology." House Judiciary Committee, Courts, Intellectual Property, and the internet Subcommittee Hearing: "Intellectual Property and Strategic Competition with China: Part I" (March 8, 2023), available at https://youtu.be/4RcagM1DtQA.

[55] *Bonomous Biochem, LLC. v. Yiheng Percival Zhang et al*, Civil Action No. 3:17-cv-00033 (W.D. Va. 2018) (May 21, 2018), available at http://www.vawd.uscourts.gov/OPINIONS/HOPPE/bonumose%20biochem%20llc%20v%20zhang%20et%20al.pdf.

The case for patents as an alternative to trade secret protection in China is also weakened by the politicization of China's patent system.[56] Research done by Dr. Su Li at the University of California at Berkeley[57] demonstrated a marked decline in the availability of patent protection for foreign applications in three key patent classifications of semiconductor-related technology from 1985-2014 to less than a 10% grant rate:



Dr. Li's study demonstrates that it can be more difficult to obtain a semiconductor patent, with a low 10% or less grant rate, than it is to protect trade secrets, where there was an already low 32.4% chance of success in first instance trade secret litigation in China.[58] Of course, even if the semiconductor patent were granted, the patentee might still encounter difficulties in enforcing the patent against a Chinese infringer, as has been the experience of US companies in other semiconductor-related patent cases. Data on these cases could be incomplete because of China's reluctance to publish cases that may have been decided for political reasons.[59] Nonetheless, data that I had compiled in 2018 revealed a semiconductor patent litigation success rate of 38.34%, which is considerably lower than

[56] See Gaetan de Rassenfosse, and Emil Raiteri, *Technology Protectionism and the Patent System: Evidence from China*, J IND. ECON., 70: 1-43 (2022), available at: https://doi.org/10.1111/joie.12261.

[57] Dr. Su Li, "Does China's Industrial Policy Affect US Patents' Approval Rates in China?" 13 pp., figure 2 at p. 10 (2018) (unpublished paper on file with the author).

[58] See text at n. 13, supra.

[59] Mark Cohen, Semiconductor Patent Litigation Part 2: Nationalism, Transparency and Rule of Law, www.chinaipr.com (July 4, 2018), available at https://chinaipr.com/2018/07/04/semiconductor-patent-litigation-part-2-nationalism-transparency-and-rule-of-law/ (describing *Veeco v. AMEC*, a patent dispute involving the company founded by Gerald Yin [AMEC], a United States company [Veeco], the United States and Chinese courts, and Chinese customs, where many of the underlying decisions by the Chinese government were not disclosed to the public).

national averages for other patent technology areas of approximately 80%.[60] Owing to the increased political focus of China's leadership on semiconductors, it is not surprising that the case databases may not adequately reflect the full scope of semiconductor-related IP litigation.[61]

I encourage the FTC to draw on the full range of data on non-compete and non-disclosure agreements, trade secret protection, patent protection and patent enforcement, from the numerous countries that already enforce non-compete agreements to reach a more balanced conclusion on the international consequences of making non-competes illegal. As the above data indicates, there is no basis at this time to assume that the experience in the United States litigating trade secret matters, including alternative protection mechanisms such as criminal procedures or patent protection, will be matched in foreign jurisdictions to protect confidential technological information. In some cases, a non-compete agreement may be the only reasonable alternative for enforcement in the United States or overseas. The FTC needs to carefully consider the international implications of its rulemaking to protect US economic and national security vis a vis China and other countries.[62]

(B) The Role of Non-Compete Agreements in Facilitating Innovation in the United States

The NPRM singles out California as a jurisdiction that has declined to enforce non-competes since 1872 and that nonetheless is highly competitive in technology and labor markets. It has also relied extensively on a 2021 study by Prof. Zhaozhao He, which studied the impact on patenting activity in Michigan.[63] In the FTC's view, the study "suggests innovation is largely harmed by non-compete clause enforceability" and that "increased non-compete clause enforceability broadly diminishes the rate of innovation."

[60] Mark Cohen, A Data Download on Semiconductor Patent Litigation in China (June 25, 2018), available at https://chinaipr.com/2018/06/25/a-data-download-on-semiconductor-patent-litigation-in-china/.

[61] A search conducted by this author on March 19, 2023 on Iphouse.cn for semiconductor (半导体) and integrated circuit （集成电路）invention patent and utility model patent litigation on the Chinese IP litigation database did not reveal win rates for cases semiconductors, or integrated circuits. There were also no trade secret cases reported for semiconductors or integrated circuits involving Americans, which may suggest that such cases were never published or removed from official databases. There were no semiconductor patent cases of any kind reported after June 1, 2021. There have, however, been several high-profile cases involving Chinese companies such as Fujian Jinhua and Micron and AMEC and Veeco. As I noted in a 2018 blogpost, "[t]he AMEC case now joins a short list of not-so-distinguished cases involving foreigners, where the court has yet to publish or has significantly delayed publishing the final decision." Mark Cohen, Semiconductor Patent Litigation Part 2: Nationalism, Transparency and Rule of Law (2018), supra at n. 38.

[62] Mark Cohen, Are Chinese Courts Out to "Nab" Western Technology - An Inconclusive WSJ Article, China IPR (Feb. 24, 2023) https://chinaipr.com/2023/02/24/are-chinese-courts-out-to-nab-western-technology-an-inconclusive-wsj-article/.

[63] Zhaozhao He, Motivating Inventors: Non-Competes, Innovation Value and Efficiency, at 21 (May 15, 2021) https://ssrn.com/abstract=3846964.

The FTC's reliance on the study by Dr. He is surprising, as the NPRM also notes that patents "may or may not reflect the true level of innovation."[64] The FTC's description of the role of patenting and its critique of the various studies is both confusing and contradictory. It appears to support the indiscriminate use of patents as a measure of innovation without regard to field of use, while dismissing a more discriminate use of patents in the cited literature based on field of use or exploratory nature of the invention.[65] As further evidence of this inconsistent approach, the FTC seems to support Prof. Gilson's endorsement in his 1999 article of what he calls "knowledge spillovers" from labor mobility in technology clusters that are unimpeded by non-compete agreements.[66] However, Prof. Gilson was far more attentive to the selective need to protect intellectual property than is reflected in the NPRM. The conclusions reached in his study were that "policymakers in other states should consider the characteristics of local industries, weighing the advantages to those industries of knowledge spillovers against the reduced incentives for initial innovation." I agree with his assessment that invalidating non-compete agreements as a one-size-fits-all approach to addressing trade secret misappropriation is fraught with potential for harm. This approach has also been adopted by other researchers, who reject a one-size-fits-all approach of the type advocated by the FTC.[67]

Among its other deficiencies, the FTC does not: (a) use any qualitative data, (b) evaluate the impact on overseas labor mobility, (c) consider the legal challenges arising from cross-border misappropriation of trade secrets (the words "China," "CHIPS Act," "international" and "semiconductor" do not appear in the NPRM), (d) discuss the impact of non-compete agreements on a nation's ability to innovate, nor (e) consider how revisions to US practice by affording compensation to an employee for the duration of a non-compete might impact non-compete enforcement.

In order to judge the effect on innovation, the NPRM cites Gilson's study on California innovation clusters[68] to the effect that "researchers have posited that high-tech clusters in California may have been aided by increased labor mobility due to the unenforceability of non-

[64] NPRM, at p. 43.

[65] *See, e.g.,* Gerald A. Carlino, Do Non-Compete Covenants Influence State Startup Activity? Evidence from the Michigan Experiment, Fed. Reserve Bank of Phila., at 16 (2021) https://www.philadelphiafed.org/the-economy/regional-economics/do-non-compete-covenants-influence-state-startup-activity-evidence-from-michigan-experiment/.

[66] Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Non-Compete Clauses*, 74 N.Y.U. L. REV. 575 (1999).

[67] "Given the potential value of NCAs in some settings, the standard of evidence to support a broader ban, or occupational bans (other than those initiated by professional organizations), should be quite high. Policymakers should await clarity from research specific to occupations or industries in the absence of very compelling motivations that may not require evidence. Subsequent regulations may then consider the new empirical findings that become available as data on NCAs continues to expand." Kurt Lavetti, Non-Competes in Employment Contracts, IZA World of Labor (2012), available at: https://wol.iza.org/articles/noncompete-agreements-in-employment-contracts/long.

[68] Bruce Fallick, Charles A. Fleischman, and James B. Rebitzer, *Job-Hopping in Silicon Valley: Some Evidence Concerning the Microfoundations of a High-Technology Cluster*, 88 REV. ECON. & STATISTICS 472, 477 (2006); NPRM at fn. 89.

compete clauses."[69] The data sample used by Prof. Gilson extended from 1994-2001, and is approximately coterminous with China's accession to the WTO in late 2001 and its rapid development since as an economic and security competitor.[70] China's entry into the WTO was also the start of China's accelerated commitment to becoming a peer technology competitor with the United States, which China has since achieved by nearly every measure.[71] Due to its bias of exclusively focusing on US innovation clusters, it is my belief that this study has limited utility in addressing the role of non-competes in addressing the international technological competitiveness of the United States and the competitive threat posed by China's technological emergence.

One approach towards evaluating Gilson's theories on prospective global innovation would be to update his study on innovation clusters with more recent data on global innovation clusters. The World Intellectual Property Organization (WIPO) collects such data on a yearly basis in its Global Innovation Index (GII), where it also ranks innovation clusters.[72] The GII also has the advantage of following the methodology used by Prof. He of relying principally on overall patent data in weighting the innovation outputs of a cluster, without his overlay of his efforts to uniformly value patents based on stock fluctuations. The rankings have been made based on Patent Cooperation Treaty (PCT) filings, a widely accepted measure for judging patent quality. Using USPTO data would likely skew findings in favor of US innovation.[73] In addition, the GII includes a ranking on share of total scientific publications, which is another widely accepted measurement for scientific and innovative output.[74] Additional adjustments could be made to these calculations based on patent families, field of use of the patent, forward or backward citations, etc., but those would entail a far greater commitment of time and resources. Unlike Prof. He's study, the GII study also facilitates comparisons can be made across multiple economies and across time.

To analyze how technological clusters may have benefited from the absence of non-compete clauses, I used GII's listing of the 100 leading innovation clusters. I then consulted with

[69] NPRM at fn. 340.
[70] Id. at p. 476.
[71] *See* Ian Clay and Robert Atkinson, *Wake up, America: China is Overtaking the United States in Innovation Capacity*, Information Technology & Innovation Foundation (Jan. 23, 2023), https://itif.org/publications/2023/01/23/wake-up-america-china-is-overtaking-the-united-states-in-innovation-capacity/.
[72] WIPO, Global Innovation Index 2022, at pp. 57-62 and Appendix Table 3, https://www.wipo.int/global_innovation_index/en/2022/.
[73] Long Zhao, *On the grant rate of Patent Cooperation Treaty Applications: Theory and Evidence*, 117 ECONOMIC MODELLING (Dec. 2022), https://www.sciencedirect.com/science/article/abs/pii/S0264999322002887.
[74] *See e.g.*, European Commission, Directorate-General for Research and Innovation, Publications as a measure of innovation performance: selection and assessment of publication, Publications Office of the European Union (2021), https://data.europa.eu/doi/10.2777/43576.

numerous legal resources to determine which tech clusters were in economies that ban non-compete agreements.[75]

In its 2022 GII rankings, the top five science and technology clusters, in rank order, were (1) Tokyo/Yokohama, (2) Shenzhen-Hong Kong-Guangzhou, (3) Beijing, (4) Seoul, Korea and (5) San Jose/San Francisco. San Jose/San Francisco was the only one of the top five clusters located in a jurisdiction (California) that absolutely bans non-competes.[76] The other jurisdictions that are known to ban non-competes entirely and made the top 100 were in India, Russia, and Israel.[77] Both Beijing and Shenzhen-Hong Kong-Guangzhou permit non-compete agreements to be enforced. Moreover, as Dan Wang has observed, Shenzhen, is particularly well-known for its labor mobility and accumulated process technology, which benefits from robust labor mobility. The assumption made by Prof. Gilson that non-competes promote such process-oriented innovation are belied by the Chinese successes as ranked in the GII. Two Chinese jurisdictions that permit non-competes are now more innovative than any United States technology cluster.

Collectively, the jurisdictions in the GII rankings that ban non-compete agreements fell by 2 rankings between 2019 and 2022, which included a decline of Los Angeles, a jurisdiction that bans non-competes, by one ranking. Overall, United States tech clusters decreased by 34 rankings during this period. By contrast, China's tech clusters, which permit non-compete agreements, increased by 132 rankings over the same period. During the past year, the largest increases came from three Chinese clusters – Zhengzhou (+15), Qingdao (+12) and Xiamen (+12). Among jurisdictions that ban non-competes, only Mumbai advanced significantly (+3) year-on-year. The other two jurisdictions in the United States that decline to enforce non-compete agreements, Oklahoma, and North Dakota, were not ranked at all. In terms of raw numbers of technology clusters, China's 21 clusters emerged in 2022 as equivalent in number with the 21 clusters in the United States.

The data, at a minimum, demonstrates that technological competition is international and not solely domestic, as the NPRM would otherwise imply with its failure to consider international technological competition. In addition, the United States is not maintaining the lead of its technology clusters vis a vis China and many other countries in the world since the time that Dr. Gilson published his study.

Prof. He suggests that abolishing non-compete agreements is an important factor in stimulating patent output. To the contrary of that study, this simple analysis of the relative ranking of innovation hubs based on their prohibition of non-compete agreements suggests that over time permitting non-compete agreements to be enforced can stimulate certain types of innovation and that the absolute invalidity of non-compete agreements correlates with absolute and relative declines in the innovative capacity of countries that host global innovation clusters.

[75] *See* sources listed at n. 4.
[76] See n. 51.
[77] Tehran, Iran is also listed as a technology cluster. However, I have thus far been unable to determine Iranian law regarding non-compete agreements.

Whatever the causative factors or technologies involved, the data on innovation clusters confirms that countries that permit non-compete agreements of some kind are among the most innovative in the world, host the most rapidly rising innovation clusters, and may be highly dependent on process technology. This data is also consistent with Prof. Gilson's analysis that "legal infrastructure [involving intellectual property and employee mobility] prominently influences the dynamics of high technology industrial districts" and that this legal infrastructure should be tailored to the industries that are located there.

This analysis also supports my recommendations that non-compete clauses should continue to be available internationally to support protection of confidential information, considering the circumstances that exist in a range of foreign countries with differing legal systems and different competing technologies. The FTC should also consider the possibility that adverse changes in international non-compete enforceability may accelerate the declines in American innovative capacity relative to other countries, which are already happening over a short timeframe.

(C) Impact on CHIPS Act Implementation

Today the competitive threat posed by "technology spillover" from employees working overseas is considerably more severe than in 1957, when a group of eight employees left Shockley Semiconductor Laboratory to establish Fairchild Semiconductor. None of those so-called "Traitorous Eight" went to work in foreign countries that had emerged as peer competitors to core US technologies. Here again, an up-to-date and international comparative study may shed light on the impact on US international competitiveness of rules against enforceability of non-competes.

A counter example to the Traitorous Eight is the more recent story of Dr. Gerald Yin, the current CEO of AMEC, a Chinese semiconductor equipment manufacturer. Dr. Yin left Applied Materials reportedly with a team of over 30 engineers to establish a semiconductor equipment manufacturing company in Shanghai in 2007.[78] Applied Materials also subsequently was a party to a trade secret law suit involving Dr. Yin in 2009 in Shanghai, which was withdrawn in 2010.[79] According to the *Wall Street Journal* and other media, his company now risks being placed on the US Entity List by the Bureau of Industry and Security (BIS) by reason of its presenting a

[78] Andrew Leonard, Betrayal: A Silicon Valley Way of Life, Salon (Jan. 3, 2008) https://www.salon.com/2008/01/03/chips_and_treachery/.

[79] Mark Cohen, Semiconductor Patent Litigation Part 2 – Nationalism, Transparency and Rule of Law, China IPR (July 4, 2018) https://chinaipr.com/2018/07/04/semiconductor-patent-litigation-part-2-nationalism-transparency-and-rule-of-law/; *Applied Materials v. AMEC* 630 F. Supp.2d 1084 (N.D. Cal. 2009); AMEC Shanghai v. Applied Materials, Inc. (USA) *中微半导体设备(上海)有限公司 v. 美国应用材料有限公司* Lv Yizhong Minxu (Zhi) Chuzi No. 239. (2009) [沪一中民五(知)初字第 234 号].

threat to US competitiveness in semiconductor technology, under regulations promulgated by BIS in October 2022.[80]

The potential scope of this problem of high-tech employee migration to China has been identified by Georgetown University's Center for Security and Emerging Technology as potentially affecting as many as 1,100 Chinese engineers involved in semiconductor manufacturing equipment technology alone.[81] The FTC's proposed rule, as it applies to China's high-tech enterprises, is in direct conflict with BIS's October 2022 export control rulemaking, which limits employee mobility from the United States to China regarding technologies of concern to US national and economic security, including in the "development" and "production" of certain integrated circuits.[82]

Dr. Yin's story is one of several that document the close relationship among invalidity of non-competes, trade secret theft and threats to US national security due to employee migration to China. California's ban on non-competes did not create spillover opportunities in the United States for Gerald Yin's employees. It created more high-paying job opportunities for employees in China. A useful additional study that the FTC may wish to conduct might be on the effect of banning non-compete agreements on enhancing China's technological competitiveness in high-technology areas.

California law holds that when an employee moves to California, his non-compete agreement from another jurisdiction is deemed invalid because of the superior interest of California in not enforcing non-compete agreements. A well-known example of this judicial invalidation of non-compete obligations arose in the case Kaifu Lee when he departed Microsoft in Seattle in 2005 to work for Google in China. A California court ruled that California had a superior interest in invaliding the non-compete agreement with respect to Mr. Lee's employment in China by Google, a California company.[83] The court relied on a line of California cases which underscored that superior interest. For example, in Application Group, Inc. v. Hunter Group, Inc., 61 Cal. App.4th 881, 72 Cal.Rptr.2d 73 (1998), a California appellate court held that California law applied to an employment contract entered by Pike, a computer consultant. AGI, a California corporation, hired Pike away from Hunter. However, Pike remained in Maryland and telecommuted to her job. The California Court nonetheless ignored her contract's choice-of-law provision and invalidated the covenant not to compete. This same rule has been applied

[80] Peter Landers, Entrepreneur Caught in the Middle of U.S.-China Chip War, Wall St.J. (Nov. 9, 2022), https://www.wsj.com/articles/entrepreneur-caught-in-the-middle-of-u-s-china-chip-war-11667989801.
[81] Center for Security and Emerging Technology, China's Progress in Semiconductor Manufacturing Equipment, (March 2021), https://docplayer.net/205054920-China-s-progress-in-semiconductor-manufacturing-equipment.html.
[82] Interim Rule, Bureau of Industry and Security, Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification 87 Fed. Reg. 62186, 62193 (Oct 13, 2022) ("this rule revises § 744.6 … to inform "U.S. persons" that "support" for the "development" or "production," of integrated circuits that meet certain specified criteria in the PRC implicates the general prohibitions set forth in § 744.6(b) of the EAR and is therefore subject to a BIS license requirement").
[83] *Google, Inc. v. Microsoft Corp.*, 415 F. Supp. 2d 1018 (N.D. Cal. 2005).

internationally to employees of California companies that are principally located overseas. *Power Integrations, Inc. v. De Lara*, Case No. 20-cv-410-MMA (MSB) (S.D. Cal. Mar. 26, 2020).

These choice of law precedents are relevant to employees from overseas that work in CHIPS Act subsidized semiconductor manufacturing facilities or are employed by these companies while working overseas. If the California precedents were adopted by US courts implementing a non-compete ban proposed by the NPRM, any foreign investor in the United States risks invalidation of its non-compete agreement when its employee comes to work for a United States company. These precedents would turn the United States, with its large labor and technology markets, into the non-compete "divorce capital" of the world, where employees come to shed their non-compete obligations by working for US-based employers and thereafter take on other assignments that may pose risks to themselves, their former employers and the economic security of the United States. Reliance on post-facto export controls to provide an administrative "non-compete" approach to labor mobility in semiconductors and other sectors will not address the need to deter trade secret misappropriation before the leakage has occurred. Ex ante remedies, such as non-compete agreements and preliminary injunctions for their violation, are critical tools in preventing these losses from occurring in the first place.

One solution to the problems identified in these comments is for the FTC to clarify that the NPRM only applies within the United States. The FTC should also consider establishing different rules for international labor mobility to prevent application of California-style choice of law rules. However, the adoption of a rigid rule would risk an inconsistency between FTC rules and foreign law, leading to potential invalidity of FTC rules by foreign courts. If a rigid FTC rule were adopted, it would also deprive employers of the flexibility to adjust their non-compete agreements based on evolving legal, business, technology, and labor environments in jurisdictions where they compete or operate.

I believe the better approach for the FTC to a revised rule that acknowledges the importance of international competition in technology and labor markets, would be to refer (renvoi) issues involving application of foreign non-compete rules to the local law existing in a foreign country where a former employee of a US company seeks to be employed. If this situation were to apply, US employers would be free to insist that employees sign non-compete agreements that conform to other jurisdictions, such as Germany or China, where compensation may be required for the period when the non-compete is in effect. In my own experience, US multinationals are already quite familiar with foreign non-compete agreements for their technically skilled staff and have the know-how to draft agreements that generally comply with the multiple jurisdictions where they operate. If California companies had been able to draft non-compete clauses with similar provisions, they would likely have limited their exposure to overseas trade secret misappropriation during the past several years, which would have benefited the economic and national security interests of the whole country.

Differential treatment between foreign and domestic non-compete agreements as I propose for technically skilled employees is also supported by WTO agreements and jurisprudence. Many

foreign countries, including the United States,[84] China,[85] and Switzerland,[86] provide for more deterrent penalties when trade secret misappropriation is undertaken on behalf of a foreign actor. The TRIPS Agreement also provides for exemptions for its obligations to protect national security or in the event of an international emergency.[87] The WTO and its predecessor agreement, the GATT, also recognize that there may be instances where differential treatment between the application of domestic law and use of foreign law may be "necessary to secure compliance" with GATT/WTO requirements.[88] The use of foreign law in my proposed changes in the NPRM is necessary to ensure that United States trade secrets are adequately protected domestically and overseas, pursuant to TRIPS obligations that: "[m]embers shall protect undisclosed information [trade secrets]"; and they may adopt "criminal procedures and penalties to be applied in other cases of infringement of intellectual property rights [such as trade secrets]"; and that member economies shall "permit effective action against any act of infringement of intellectual property rights."[89] The WTO requirement that "members" shall protect undisclosed information also imposes an affirmative obligation to protect against trade secret misappropriation on WTO members, rather than principally relying on civil remedies that are required to protect all other IP rights.[90] My proposal implements this affirmative obligation. Finally, I know of no WTO case where the domestic application by a renvoi to a WTO member country's law, was itself a violation of TRIPS obligations. My proposal simply reflects that the United States does not have the same overriding interest in applying United States law to overseas employment contracts, as it does to domestic employment contracts. Such choice of law matters are usually committed to the discretion of courts according to conflicts of law principles.

Several jurisdictions in the United States are currently slated to build state-of-the-art semiconductor manufacturing facilities subsidies, including Arizona, Ohio, New York and Texas. All these states permit non-compete agreements for highly skilled technical employees. The TSMC fab in Arizona and the Samsung fab in Texas are also invested in by companies that honor non-competes in their home jurisdictions. Among the investing companies, TSMC,[91] Samsung[92] and Micron[93] have also already encountered significant losses due to trade secret

---

[84] Economic Espionage Act, 18 U.S. Code § 1831 et seq.
[85] Chinese Criminal Code, Art. 219.
[86] Swiss Penal Code, Art. 273.
[87] TRIPS Agreement, Art. 73.
[88] See General Agreement on Tariffs and Trade, United States – Section 337 Of the Tariff Act of 1930, *Report by the Panel adopted on 7 November 1989* (L/6439 - 36S/345).
[89] TRIPS Agreement, Arts. 40, 41, 61.
[90] TRIPS Agreement, Art. 42.
[91] Ramish Zafar, TSMC Wins Legal Battle Against Employee Who Violated Contract and Moved to China, WCCF Tech (July 8, 2022) https://wccftech.com/tsmc-wins-legal-battle-against-employee-who-violated-contract-moved-to-china/.
[92] Matthew Humphries, 7 Former Samsung Employees Jailed for Stealing Chips Secrets for China, PC Mag (Feb. 21, 2023), https://www.pcmag.com/news/7-former-samsung-employees-jailed-for-stealing-chip-secrets-for-china.
[93] South China Morning Post, Taiwan's UMC to aid US Pursuit of Chinese Chip Maker Fujian Jinhua over Alleged Theft of Micron Trade Secrets, https://www.scmp.com/tech/gear/article/3107531/taiwans-umc-aid-us-pursuit-chinese-chip-maker-fujian-jinhua-over-alleged.

misappropriation by their employees or partners on behalf of Chinese companies. Micron's proprietary technology has already been stolen by employees of a Taiwanese partner for Fujian Jinhua, a Chinese fab, which has since been determined by BIS to "pose a significant risk of becoming involved in activities contrary to the national security or foreign policy interests of the United States."[94] Along with Gerald Yin/AMEC, this is the second instance in recent years in which employee mobility to China in the semiconductor sector has been recognized by our export control agencies as a threat to US national economic security.

If the NPRM were enacted in its current form, it is likely that US and foreign employees of the new fabs would also no longer be bound by their pre-existing non-compete agreements, thereby leaving their employers with difficult-to-enforce trade secret cases in China, much as was faced by Applied Materials in its case against Dr. Yin. For foreign investors such as TSMC or Samsung, this weakening of IP protection may result in a need to restructure employment agreements and/or even more scrutiny of how proprietary technology is transferred, controlled or managed by their US affiliates. These changes may also limit the pool of employees that the employer deems suitable to travel to the United States based on risks of that employee working for a competitor in China.

The NPRM, by facilitating employee migration to China through invalidation of non-compete agreements, benefits China's economic and national security plans to develop a leading, internally competitive semiconductor industry. Litigation data in the United States already demonstrates that, among those countries where a defendant's nationality has been identified, China and Taiwan account for the majority of identified foreign defendants. According to Taiwanese Prof. Tzu-I Lee, from January 1, 2001, to December 31, 2021, 8.3% of all the defendants in United States semiconductor trade secret cases were identified as Chinese individuals/entities, 3.2% were identified as Taiwanese individuals/entities, and 2.9% were identified as Taiwanese defendants allegedly misappropriating trade secrets to China or for Chinese entities. An additional 5.3% involved defendants related to other main players in the industry, such as Japan, South Korea, India, and Israel. The balance of the defendants (80.2%) may have been from the United States or were simply not identified as being of any national origin.[95] Collectively, Chinese and Taiwanese defendants accounted for over 50% of the cases where the foreign nationality of a defendant had been identified.

The impact of these changes would extend beyond the CHIPS Act to other technology areas. Foreign companies have invested over $2.0 trillion in high tech, which is about 46% of their total FDI in the United States. These foreign-owned affiliates were responsible for over 2.1 million US jobs in 2017.[96] Most foreign countries honor non-compete agreements; many

[94] Bureau of Industry and Security, Final Rule, 83 Fed. Reg. 54519 (effective Oct. 30, 2018) https://www.federalregister.gov/documents/2018/10/30/2018-23693/addition-of-an-entity-to-the-entity-list.
[95] Tzu-I Lee, *Bordering Secrecy: An Empirical Study on Cross-Border Trade Secret Thefts in the Semiconductor Sector* (2022) (unpublished manuscript, available from the author).
[96] Kara Mazachek, FDI in High-Tech: Innovation and Growth in the United States (Feb. 5, 2020) https://blog.trade.gov/2020/02/05/fdi-in-high-tech-innovation-and-growth-in-the-united-states/.

foreign countries likely already have non-compete agreements in place for their skilled workers who have access to their key technical secrets. The foreign investors from jurisdictions which honor non-compete agreements would be placed at a high risk of trade secret loss to other countries by investing in high tech sectors in the United States. The invalidation of non-compete agreements would also affect ongoing employment and secondment agreements and may also send a negative signal to the employees' home countries to similarly weaken their non-competition obligations in advanced technologies. These steps could all serve to further enhance China's competitive role in semiconductors and other high-tech sectors.

(D) Conclusion

I do not believe that a one-size fits all approach of invalidating non-compete agreements for both unskilled low-wage workers and highly skilled high-tech executives in a range of critical and non-critical technologies is appropriate or in the national interest. The NPRM has set up a red herring issue by focusing on the millions of low-wage workers who should not be encumbered by non-compete agreements. I do not disagree with that proposition, although I believe that has little relevance to the issues discussed in these comments.

The international consequences of the proposed FTC rule should be the subject of an additional opportunity for public comment and additional study. At a minimum, the FTC, in consultation with other US government agencies concerned with technology and intellectual property (USPTO, NIST, OSTP, USTR, USDOL, USDOJ, etc.), as well as our science agencies with ownership and managements interests in technology development (NSF, DOE, NIH, NOAA, DoD, etc.) should exercise great caution in finalizing the NPRM.

If the FTC nonetheless seeks to publish a final rule limited to the United States domestic environment, I have proposed amendments that conform to my viewpoints as an appendix to these comments.

Thank you for the opportunity to comment on the NPRM.

Mark A. Cohen
April 2, 2023

The author gratefully acknowledges the research done by the students in his class on Chinese Intellectual Property Law at the University of California, Berkeley Law School since 2018, particularly Jacob Lahana, Dr. Tzu-I Lee and Dr. Su Li.

The opinions expressed here are my own.

APPENDIX

910.1.(b)1 Definitions

Non-compete clause means a contractual term between an employer and a worker that prevents the worker from seeking or accepting employment with a person, or operating a business, after the conclusion of the worker's employment with the employer in the United States. Application of United States law is not mandated by these rules to non-compete agreements involving overseas employers, including overseas subsidiaries of US companies.

§ 910.2 Unfair methods of competition.

(a) Unfair methods of competition. It is an unfair method of competition for an employer to enter into or attempt to enter into a non-compete clause with a worker; maintain with a worker a non-compete clause; or represent to a worker that the worker is subject to a non-compete clause where the employer has no good faith basis to believe that the worker is subject to an enforceable non-compete clause.

(b) It is not a per se unfair method of competition for an employer to enter or attempt to enter into a non-compete agreement with a worker or represent to a worker that the worker is subject to a non-compete clause restricting the worker's ability to work outside of the United States consistent with the rules. In general, international non-compete clauses should be evaluated according to the need of the United States to maintain its economic security in international labor markets and protect proprietary technologies of the United States from disclosure to foreign markets. Employers should consider the impact upon the worker and the needs of her employer, the degree of labor competition in the market and other factors in entering into an international non-compete agreement. Employees who are in senior management positions and have had access to confidential technical or business information may be subject to a non-compete agreement for a limited period of time and under reasonable conditions, including the availability of compensation such as providing a reasonable portion of the employee's salary for the duration of the non-compete.