GAMES WITHOUT FRONTIERS: THE INCREASING IMPORTANCE OF INTELLECTUAL PROPERTY RIGHTS IN THE PEOPLE’S REPUBLIC OF CHINA

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I. INTRODUCTION

Intellectual property (“IP”) protection in China has been murky and amorphous. The country is currently enjoying a historic era with significant infrastructure and investment projects occurring as the Chinese consumer society substantially expands. These simultaneous trends require that China commit to the securitization and protection of IP rights to sustain its rapid economic growth. The country has delivered statements purporting commitment to do better and support IP rights, but the actions of the Chinese government around IP rights tell a different story. China’s ultimate decision in this area will determine the trajectory of the country’s future and position on the world stage regarding intellectual property rights (“IPR”).

While IP rights have existed for centuries,1 IP protection has increased in importance with post-industrialization: the societal transition from a manufacturing-based economy to a knowledge- and services-based economy.2 According to the International Chamber of Commerce,

[IPR]—the copyrights, patents, trademarks and similar rights upon which the lion’s share of creative and innovative products and services rely—have a vital role in growing the economies of developed and developing countries all over the world, in spurring innovation, in giving large and small firms a range of tools to help drive their success, and in benefitting consumers and society through a continuous stream of innovative, competitive products and services and an expansion of society’s overall state of knowledge.3

Similarly, the World Intellectual Property Organization (“WIPO”) also affirmed that “[i]ndustrial property has long been recognized and used by industrialized countries, and is being used by an ever increasing number of developing countries, as an important tool of technological and economic development.”4 And furthermore, a study commissioned

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by the United Nations Industrial Development Organization reported that:

[De]veloped countries, with many potential innovators, have tended to opt for relatively strong IPR systems, with the aim of encouraging inventive and creative activities that are seen as an important source of long-run economic growth. With [research and development ("R&D") spending concentrated in a handful of the world’s richest countries, genuinely innovative activities are limited in most developed and developing countries. The majority of countries in the world have taken a different approach, providing only weak IPR protection, if any, as a way of allowing the rapid diffusion of knowledge through imitation as a significant source of technological development.5

The People’s Republic of China (“China” or “PRC”) favored the latter approach until recently.6 For years, China was known as the “Pirate Nation.”7 Indeed, part of China’s strategy over the years has


6 The ubiquity of copycats (pirates, counterfeiters, etc.) has been viewed as a consequence of the preference of some Chinese for flexibility; in addition, it is attributed to a lack of innovation consciousness. And while few countries fight counterfeiting as vigorously as China, the effect of cracking down on counterfeiting year after year has not been significant. Wang Jun (王軍), Zhongguo Shanzhai Wenhua Wei He Shengxing? (中國山寨文化為何盛行?) [Why is China's Copycat Culture Rampant?], Jinrong Shibao (金融時報) [FIN. TIMES] (Aug. 27, 2012, 6:12 PM), http://www.ftchinese.com/story/001046229?full=y&archive; cf. Tania Branigan, Does China Deserve the Reputation as the Land of Copycats?, GUARDIAN (Oct. 15, 2016, 2:00 AM), https://www.theguardian.com/world/2016/oct/15/china-reputation-copycats-pelamis-intellectual-property. See generally Jack Carlson, China’s Copycat Cities, FOREIGN POL’Y (Nov. 29, 2012, 4:57 PM), https://foreignpolicy.com/2012/11/29/chinas-copycat-cities/.

7 In a chapter titled “Pirate Nation,” Fishman explains this nickname:

[T]he larger truth is that the Chinese economy has staked a great deal on its counterfeiters. They provide the people with affordable goods... The counterfeiters give China’s growing number of globally competitive companies the means to compete with powerful foreign rivals who are forced to pay full fare for proprietary technologies.
been the outright theft of Western innovation⁸ and China’s acquisition of innovation through mandatory technology transfer from Western companies to Chinese partners⁹ as part of the PRC’s Joint Venture Law.¹⁰ Developed countries have long cautioned government leaders


⁹ “China needs to refrain from forcing or pressuring technology transfer, make fundamental structural changes to strengthen [IP] protection and enforcement, implement recent revisions to its IP measures, open China’s market to foreign investment, and allow the market a decisive role in allocating resources.” U.S. TRADE REPRESENTATIVE, 2020 SPECIAL 301 REPORT 39 (2020), https://ustr.gov/sites/default/files/2020_Special_301_Report.pdf; cf. Dan Prud’homme, 3 Myths About China’s IP Regime, HARV. BUS. REV. (Oct. 24, 2019), https://hbsbp.harvard.edu/product/H058EW-PDF-ENG (“I have found that the most egregious Chinese policies coercing technology transfer do not appear to be commonly faced by foreign firms in recent years.”).


Article 25. Each participant to a joint venture may contribute cash or buildings, premises, equipment or other materials, industrial property, know-how, right to the use of a site as investment, the value of which shall be ascertained. If the investment is in the form of buildings, premises, equipment or other materials, industrial property or known-how, the prices shall be ascertained through consultation by the parties to the joint venture on the basis of fairness and reasonableness, or evaluated by the third party agreed upon by parties to the joint venture.

. . . .
about national security concerns over largescale Chinese IP theft, and Chinese companies have long reaped benefits from the lack of IP rights enforcement by Chinese authorities. As an example, the Center for Responsible Enterprise and Trade and PricewaterhouseCoopers have reported that trade secret theft is between one and three percent of GDP, meaning that the cost to an $18 trillion United States (“U.S.”) economy is between $180 billion and $540 billion.

For years, the U.S. government complained openly about Chinese efforts to steal U.S. IP—including patents, trade secrets, trademarks, and copyrights—by both state-sponsored and private actors. Such a strategy played a role in China’s rising economic and geopolitical importance since it opened its door to the world starting in 1979.

Article 28. The industrial property or know-how contributed by the foreign participant as investment shall meet one of the following conditions:

(1) Capable of manufacturing new products urgently needed in China or products suitable for export;
(2) Capable of improving markedly the performance quality of existing products and raising productivity;
(3) Capable of notable savings in raw materials, fuel or power.

Article 29. Foreign participants who contribute industrial property or know-how as investment shall present relevant documentation on the industrial property or know-how, including photocopies of the patent certificates or trademark registration certificates, statements of validity, their technical characteristics, practical value, the basis for calculating the price and the price agreement signed with the Chinese participants. All these shall serve as an annex to the contract.

Id. at 1037. But these regulations and the Joint Venture Law were both invalidated by the Foreign Investment Law of the People’s Republic of China (issued on Mar. 15, 2019, and effective on Jan. 1, 2020), and the accompanying regulations for that law (issued on Dec. 26, 2019, and effective on Jan. 1, 2020). Nanda Lau & Karen Ip, China Set to Implement the New Foreign Investment Law, LEXOLOGY (Jan. 10, 2020), https://www.lexology.com/library/detail.aspx?g=7965cc38-5837-47b9-9630-dfa9c1c1e7ec.


12 Id. at 3.


14 See Shang-Jin Wei, The Open Door Policy and China’s Rapid Growth: Evidence from City-Level Data, in 4 GROWTH THEORIES IN LIGHT OF THE EAST ASIAN
Cyber attacks, corporate espionage, and forced technology transfers have all been part of the Chinese playbook to steal U.S. trade secrets and other IP for the last several decades.\textsuperscript{15} Even though former U.S. President Barack Obama and Chinese President Xi Jinping reached a U.S.-China Cyber Agreement in 2015,\textsuperscript{16} Chinese cyber attacks and violations of U.S. companies’ IP rights continued after the agreement was reached.\textsuperscript{17} Consequently, the United States Trade Representative (“USTR”) continued to name and shame Chinese violators by routinely placing China on the Priority Watch List of countries that do not respect U.S. IP rights holders.\textsuperscript{18} In its 2018 report, looking back on 2017, the USTR concluded:

\begin{quote}
[T]he state of [IP] protection and enforcement in China, and market access for U.S. persons that rely on IP protection, reflect the country’s failure to implement promises to strengthen IP protection, open China’s market to foreign investment, allow the market a decisive role in allocating resources, and refrain from government interference in private sector technology transfer decisions.\textsuperscript{19}
\end{quote}

Other organs of the U.S. government concurred. For example, in 2020 the U.S. Department of Justice opined, “China is predominantly responsible for the theft of U.S. intellectual property.”\textsuperscript{20} In a major government report in 2020, former U.S. President Donald J. Trump concluded that “[a] more powerful and emboldened China is increasingly asserting itself by stealing our technology and intellectual property in an effort to erode United States economic and military

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\textsuperscript{17} Nicole Perlroth, How China Transformed into a Prime Cyber Threat to the U.S., N.Y. TIMES (July 20, 2021), https://www.nytimes.com/2021/07/19/technology/china-hacking-us.html.


\textsuperscript{19} Id.

superiority.” Such a statement came as no surprise given that President Trump claimed China was responsible for “the greatest theft in the history of the world” while a presidential candidate in 2016. However, this narrative has become more complex as China refocused from an importer of IP to an exporter of IP in the last decade, thereby shifting the international geopolitics of innovation. In 2018, China received more patent applications than the U.S., the European Union (“EU”), Japan, and South Korea combined. Nor has it taken China very long to significantly shift the international politics around innovation. In 2012, for the first time, China topped the ranking for both the source (filings by China) and the destination (filed in China). Out the top five national IP offices, the State Intellectual Property Office of the People’s Republic of China (“SIPO”) was alone in recording “double-digit growth for each of the three types of IP mentioned.” Continuous growth of registrations in China has been the main driver of global IP growth over the last several years:

[SIPO] received the most applications in 2015 and became the first office to receive more than a million applications in a single year...SIPO—with 1,101,864 filings—received almost as many applications as the combined total for the JPO (318,721), KIPO (213,694) and the USPTO (589,410). The EPO received 160,028 applications. Together, the top five offices accounted for 82.5% of the world total in 2015, which was considerably higher than their combined share in 2000 (70.4%). The four BRIC countries—Brazil, China, India and the Russian Federation—rank among the top 10 offices.

WIPO has also noted that “[d]ue to the high numbers of applications filed in China, the offices of upper middle-income countries have seen

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25 Id.

their combined share of the world total increase from 16.5% in 2005 to 43.5% in 2015. SIPO accounted for 87.7% of the upper middle-income group total.”

This trend has continued for the last half decade. For instance, according to the 2020 Global Innovation Index Report released by WIPO, “China ranked 14th, up 15 places from 2015.” China’s total “import and export of intellectual property royalties was US$46.31 billion, of which exports were US$8.68 billion, a year-on-year increase of 31.5%.”

This Article explores two factors driving the increased importance of IP rights protection for China in the last decade. The first factor is the geopolitical competition for dominance in strategic industries that is underway between the U.S. and China. The second is the exponential growth of China’s consumer society. Both of these are two major drivers of the growing importance of IP rights protections in China today, and this Article addresses the challenges they present to China’s international and domestic IP strategy.

The first factor, the geopolitical competition between the U.S. and China for dominance in strategic industries, has always existed in the countries’ relationship. However, in the last few years China has made substantial strides establishing itself as a key player in significant worldwide industries. On May 8, 2015, the State Council of the People’s Republic of China launched the “Made in China 2025” initiative, aiming to transform China from a world factory of quantity to one of quality. Chinese authorities have used state-owned

27 Id. at 22.
29 Id.
30 “President Biden and many members of Congress rightly view the United States and other democratic, market-based countries as being locked in competition with China and other authoritarian, state-led nations over whose values and norms will prevail in an increasingly diverse world.” Joanna Shelton, The CPTPP and Intellectual Property Rights Protection, CTR. FOR STRATEGIC & INT’L STUD. (June 28, 2021), https://www.csis.org/analysis/cptpp-and-intellectual-property-rights-protection.
31 “To achieve the strategic goal of a manufacturing power, we must adhere to problem-oriented, overall planning, and highlight the key points; we must build consensus from the whole society, accelerate the transformation and upgrading of manufacturing, and comprehensively improve the quality of development and core competitiveness.” Guowuyuan Guanyu Yinfa “Zhongguo Zhizao 2025” De Tongzhi (國務院關於印發《中國製造2025》的通知) [Notice of the State Council on Printing and Distributing "Made in China 2025"], Zhengfu Wangluo (王政富)
enterprises\textsuperscript{32} to place bets on national winners which can directly compete with big Western technology companies in many other future strategic industries like autonomous vehicles, blockchain, and robotics.\textsuperscript{33} At a State Council Executive Meeting in 2017, Premier Li Keqiang emphasized that “[the Chinese] must give full play to the role of innovation in spurring entrepreneurship and employment, and speed up the transformation of innovation into real productivity.”\textsuperscript{34} As part of the Made in China 2025 initiative, many Chinese companies expanded their R&D investments into advanced technology spaces.\textsuperscript{35} There is also a program to provide incentives to attract the best talent for employment with Chinese companies.\textsuperscript{36} Procurement and enforcement

\begin{footnotesize}
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\item \textsuperscript{33} Scott Kennedy, \textit{Made in China 2025}, CTR. FOR STRATEGIC & INT’L STUD. (June 1, 2015), https://www.csis.org/analysis/made-china-2025.
\item \textsuperscript{34} Xu Wei (徐偉), Zhongguo Jinyibu Gaige Yi Qudong Chuangxin (中國進一步改革以驅動創新) [China to Further Reform to Drive Innovation], Zhengfu Wangluo (王政富) [GOV.CN], (Aug. 30, 2017, 8:25 PM), http://english.www.gov.cn/premier/news/2017/08/30/content_281475826050062.htm.
\item \textsuperscript{35} Peter Frankopan, \textit{The New Silk Roads: The Present and Future of the World} 200 (2019) (stating that the Beijing government is “pouring money and resources into artificial intelligence,” and “building new technology parks across the country”). In addition:
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\end{footnotesize}

China’s alternative digital universe now creates and captures oceans of new data about the real world. That wealth of information on users—their location every second of the day, how they commute, what foods they like, when and where they buy groceries and beer—will prove invaluable in the era of AI implementation. It gives these companies a detailed treasure trove of these users’ daily habits, one that can be combined with deep-learning algorithms to offer tailor-made services ranging from financial auditing to city planning. It also vastly outstrips what Silicon Valley’s leading companies can decipher from your searches, “likes,” or occasional online purchases. This unparalleled trove of real-world data will give Chinese companies a major leg up in developing AI-driven services.


The Office of the Ministry of Education has stated that gathering talent with an international focus is important to China:

The flow of high-level talents in colleges and universities should obey and serve . . . the major national development strategies such as . . . the “Belt and Road” initiative. The competition for talents
of IP rights is paramount to protecting investments in talent and ensuring future domination of strategic industries.

The second factor for increased importance of IP rights protection is the growth of China’s consumer society, which relies on a growing middle class as well as a basic set of public goods provided by the government that allow the middle class to flourish. These public goods include the maintenance of public security, construction of safe roads, crime prevention, compliance with secure construction practices, and provision of other public services and infrastructure. Consumer protection is also required—meaning enhanced product safety legislation and enforcement action—including consistent regulation for the safety of food and beverages, medicine, appliances, and other devices. According to a study for the Brookings Institution, China is experiencing the fastest expansion of the middle class the world has ever seen, during a period when the global middle class is already expanding at a

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must have an international perspective . . . and pay attention to the introduction of high-level overseas talents. The “Changjiang Scholars Award Program” will continue to increase the focus on the introduction of high-level talents from overseas and the development of high-level talents from universities in the western and northeastern regions.

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37 See generally Jim Tankersley, The 100% Economy: Why the U.S. Needs a Strong Middle Class to Thrive, ATLANTIC (May 18, 2012), https://www.theatlantic.com/business/archive/2012/05/the-100-economy-why-the-us-needs-a-strong-middle-class-to-thrive/257385/.


historically unprecedented rate thanks in part to some of its neighbors like India. By 2027, we estimate that 1.2 billion Chinese will be in the middle class, making up one quarter of the world total.\textsuperscript{40}

Unsurprisingly, Goldman Sachs predicted that “[a]s more Chinese consumers gain purchasing power, their needs and preferences will have a powerful effect on the global economy.”\textsuperscript{41}

This proliferating consumer society coupled with China’s growing military power are the major challenges of our time.\textsuperscript{42} China fostered much of the globe’s economic growth in the post-2008 global recession.\textsuperscript{43} After the initial economic hurdles of COVID-19, China’s economy grew despite the initial economic slowdown earlier in 2020.\textsuperscript{44} By the end of 2020, China’s economy grew a reported 2.3% compared to the previous year.\textsuperscript{45} Rapid and effective pandemic prevention and

\textsuperscript{42} See generally Dir. of Nat’l Intel., Annual Threat Assessment of the U.S. Intelligence Community (2021). This report specifically notes that:

[T]he Chinese Communist Party (CCP) will continue its whole-of-government efforts to spread China’s influence, undercut that of the United States, drive wedges between Washington and its allies and partners, and foster new international norms that favor the authoritarian Chinese system. . . . China will maintain its major innovation and industrial policies because Chinese leaders see this strategy as necessary to reduce dependence on foreign technologies, enable military advances, and sustain economic growth and thus ensure the CCP’s survival.

Id. at 6.

\textsuperscript{45} Guojia Tongji Ju (國家統計局) [National Bureau of Statistics], 2020 Nian Wending Guomin Jingji Zhuyao Mubiao Hao Yu Yuqi (2020年穩定國民經濟主要目標好於預期) [The Main Goal of the Stabilization of the National Economy in 2020 has Been Achieved Better than Expected], Zhengfu Wangluo (政府網) [Gov.cn] (Jan. 18, 2021), http://www.stats.gov.cn/english/PressRelease/202101/t20210118_1812432.html. But, the International Monetary Fund had predicted an annual growth rate of only 1.9% in 2020 and 7.9% in 2021 for
control measures helped China contain the epidemic, making the country the only major economy that achieved positive growth in 2020. And while the almost two year trade war between China and the U.S. slowed the rapid pace of growth that China experienced for three decades, the Belt and Road initiative, detailed more in Part II, is designed to ensure long-term economic growth.

This Article focuses on the role of IP rights in China today. It does so by highlighting the transition China has made from “Pirate Nation” to global innovator in a mere few decades. Part II surveys the geopolitical policies—namely the Made in China 2025 and the Belt and Road initiative—that Beijing is pursuing for China’s future development and influence. IP is a major underpinning for these policies. Part III of this Article explores China’s shift from a manufacturing-driven economic growth strategy to a post-industrial (also known as knowledge-based) economic growth strategy and the key role that IP plays in this transition towards a consumption-based economy. Part IV examines the trends in IP rights filings in China and outside countries that are to the benefit of Chinese innovators. Part V of the Article concludes with a summary of the challenges facing China as it moves from a country of copycats to a leading global innovator. Much of that transition has been due to enhanced Chinese IP rights.


protection, which has long been an important factor in promotion of economic growth.51

II. THE BELT AND ROAD INITIATIVE AND THE IMPORTANCE OF INTELLECTUAL PROPERTY FOR CHINA

Chinese President Xi Jinping introduced China’s “Silk Road Economic Belt” concept for the first time in September of 2013 during his visit to Kazakhstan.52 At the urging of President Xi, the National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce all jointly released a concrete action plan on the Belt and Road Initiative (“BRI”), also known as “One Belt One Road,” 53 on March 28, 2015. 54 According to various legal and economic scholars, the BRI “is a developmental strategy promoted by the [PRC] to foster mercantile connectivity and cooperation among countries.”55 The BRI “aims to promote the connectivity of Asian, European and African continents and their adjacent seas” by comprising land-based and maritime-based trade connections.56

Although the initiative is predominately perceived as President Xi’s ambitious goal to build infrastructure connecting China’s less-developed border regions with neighboring countries, it also “significantly influenced China’s national [IP] strategy[.]” 57 For

51 See Falvey & Foster, supra note 5, at iii (stating that new evidence links “protection of IPRs to economic growth, innovation and technology diffusion”).
53 “The very name, especially in its English translation, has caused confusion, evolving as it has from the New Silk Road to the BRI.” Duncan Freeman, The Belt and Road Initiative and the Overcapacity Connection, in THE BELT AND ROAD INITIATIVE AND GLOBAL GOVERNANCE 120, 120 (Maria Adele Carrai et al. eds., 2020).
55 Maria Adele Carrai et al., The Belt and Road Initiative and Global Governance: By Way of Introduction, in THE BELT AND ROAD INITIATIVE AND GLOBAL GOVERNANCE 1, 2 (Maria Adele Carrai et al. eds., 2020).
instance, Xinhua News Agency and China International Intellectual Corporation established “a database that documents seven indices of IP risks” in BRI jurisdictions. The database serves to alert Chinese enterprises of IP risks when they consider investing in BRI projects.

Furthermore, at the 19th National Congress in October 2017, President Xi doubled-down on the BRI by including it in the Communist Party’s Constitution. The BRI project reflects the Chinese President’s plan to secure his legacy in leading China to a global leadership role. With 138 countries across Asia, Africa, and Europe having joined the BRI, the initiative has driven trade and capital flows between the East and the West by improving ancient infrastructure and maritime routes. These routes will make high-growth developing countries more accessible over the next few decades, and the routes will include access to two-thirds of the world’s population.

The BRI is designed to increase international production capacity, cooperation, and infrastructure connectivity. From 2013 to 2018, direct investment by Chinese companies in countries along the route exceeded US $90 billion, averaging an annual growth rate of 5.2%. The value of newly-signed contracts in countries along the route exceeded US $600 billion, providing an average annual growth rate of 11.9%. By the end of April 2019, many Chinese companies and foreign countries jointly established several trade cooperation zones, with a cumulative investment of nearly US $40 billion.

It is anticipated the BRI will consume most of China’s outbound investment in the decades to come and cost over $1.7 trillion per year through 2030. Based on this infrastructure investment, the annual trade volume between China and countries along the BRI routes is

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58 Id. at 420.
59 Id. at 420–21.
60 Brenda Goh & John Ruwitch, supra note 52.
61 Id.
63 Chatzky & McBride, supra note 49.
65 Id.
66 Id.
67 Id. at 44–45.
expected to exceed US $2.5 trillion in the next ten years. The BRI is estimated to increase global income by 0.7% by 2030.

Investment in infrastructure is paramount indeed. Innovation, too, is critical to future growth for China and its companies. Consequently, the securitization of IP rights will be of utmost importance as these massive investments are rolled out.

The BRI, ‘One Belt, One Road’ Initiative Will Define China’s Role as a World Leader, S. CHINA MORNING POST (Apr. 2, 2015, 12:45 AM), https://www.scmp.com/comment/insight-opinion/article/1753773/one-belt-one-road-initiative-will-define-chinas-role-world. A wary U.S. Secretary of Defense James N. Mattis was critical of the One Belt One Road initiative, reminding us that China has a historical antecedent to follow:

[T]he Ming Dynasty appears to be their model, albeit in a more muscular manner, demanding other nations become tribute states, kowtowing to Beijing; espousing One Belt, One Road, when this diverse world has many belts and many roads; and attempting to replicate on the international stage their authoritarian domestic model, militarizing South China Sea features while using predatory economics of piling massive debt on others.


China’s investment in infrastructure will remain key in its growth and competitiveness with the U.S.:

China will remain the top threat to US technological competitiveness as the CCP targets key technology sectors and proprietary commercial and military technology from US and allied companies and research institutions associated with defense, energy, finance, and other sectors. Beijing uses a variety of tools, from public investment to espionage and theft, to advance its technological capabilities.


China is aware that securitization of IP rights is important:

In the past two years, governments around China have promoted intellectual property securitization projects and issued supporting documents to provide policy support. . . . Since 2018, China has approved and issued more than 20 intellectual property securitization products, achieving financing of more than 200 billion yuan. . . . At this stage, all localities are actively exploring a more market-oriented, standardized, replicable and efficient
through a myriad of bilateral and regional trade and investment agreements, should fortify IP rights to protect Chinese innovations. For Peter K. Yu, however, “it remains unclear how the initiative will affect the country and the world at large in the intellectual property area. To be sure, there has not been much discussion in academic or governmental spheres of the BRI in this area.”

Certainly, consideration of IP issues via the BRI has fallen on the backburner as the main focus of this Chinese-led project has been on the development of infrastructure.

This is no surprise. China gained entry to the World Trade Organization (“WTO”) as a Member in late 2001. It was only in 2007 that the PRC joined the amended Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPs”), which is part of the WTO plurilateral agreements. When working to update and harmonize its IP laws, China had a relatively short period of time to achieve compliance with WTO standards.


A brief timeline of Chinese revisions:

[1] In 2000 and 2008, China amended its patent law twice, of which nearly one-third of the content was related to the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement); in 2001 and 2013, China amended its trademark law twice, adding more than 20 articles in response to the TRIPs agreement; in 2001 and 2010, China amended the copyright law twice, refining the specific content of copyright, and made relevant regulations compatible with WTO regulations.

country only came into force in 1985. Even with these recent origins of Chinese trademark law, China has taken historic steps towards the protection of trademark rights: China entered into the Madrid Agreement in 1989, and the Madrid Protocol in 1995. China has utilized the TRIPs just in time to secure the IP rights that are the backbone of the innovations in which it is investing. In 2017, China remained the main driver of global growth in IP filings. From already high levels, patent filings in China grew by 14.2% and trademark filing activity in China by 55.2%. These high growth rates propelled China’s shares of global patent filings and trademarks filing activity to reach 43.6% and 46.3%, respectively.

The Trademark Law Implementing Regulations and the Supreme People’s Court Interpretation of Trademark Disputes, in 2014 and 2016 respectively, provided guidance to trademark practice in China.


article that reported on an interview with Gu Qingyang, Associate Professor of the Lee Kuan Yew School of Public Policy at the National University of Singapore, stated:

[G]u Qingyang said that strengthening intellectual property cooperation with partners along the “Belt and Road” will help improve the international intellectual property governance system and comprehensively improve the overall protection level of intellectual property in relevant countries. [Gu Qingyang explained] “[t]his is useful for promoting technology and knowledge sharing between partners. It is of great significance to promote the construction of a community with a shared future for mankind.”

Currently, more than forty countries along the Belt and Road and SIPO have established formal relations, which has involved “in-depth cooperation with regional organizations such as the Patent Office of the Gulf Cooperation Council, [the Association of Southeast Asian Nations], and the Eurasian Patent Office.” Chinese patents have been upheld in more countries because “WIPO signed an intergovernmental agreement to strengthen the ‘Belt and Road’ [IP] cooperation[.]” In 2020, the Regional Comprehensive Economic Partnership Agreement was formed to encourage “cooperation between China and countries and regions along the ‘Belt and Road’ in [IP] rights.” Gu Qingyang further explained:

[C]hina’s international trade cooperation with countries and regions along the [BRI] is becoming closer and closer. The service industry is an important field for the joint construction of the [BRI]. The [data referenced in the article] partly reflects that China promotes the deep integration of advanced manufacturing and modern


82 Id.

83 Id.

84 Id.
service industries, accelerates the development of productive services, and promotes the adjustment and upgrading of industrial structure.\textsuperscript{85}

But the details of the deals that comprise the BRI are still elusive: “[A] vast literature produced by official media, academics and think tanks in China provides explanations of the BRI. This domestic literature of explanation and interpretation has addressed multiple aspects of the BRI, yet does not necessarily increase clarity concerning its nature.”\textsuperscript{86}

PRC President Xi Jinping, also the General Secretary of the Communist Party of China Central Committee, has been a zealous advocate of IP rights to be registered.\textsuperscript{87} President Xi has stressed the importance of strengthening IP protection to stimulate “the vitality of innovation and foster a new development paradigm.”\textsuperscript{88} During a discussion of IP protection in 2020, President Xi stated:

[I]t is necessary to deepen cooperation with countries and regions along the “Belt and Road” in the joint construction of intellectual property rights, and promote knowledge sharing. . . . As I said, external transfer of intellectual property rights must adhere to the overall national security concept. It is necessary to strengthen independent research and development and protection of key core technologies related to national security, and to manage the transfer of intellectual property rights related to national security in accordance with the law. It is necessary to improve laws, regulations, and policy

\textsuperscript{85} \textit{Id.}
\textsuperscript{86} Freeman, \textit{supra} note 53, at 121.
measures related to intellectual property anti-monopoly and fair competition, and form legitimate and powerful restraints. It is necessary to promote the extraterritorial application of China's intellectual property laws and regulations, and improve cross-border judicial coordination arrangements. It is necessary to form an efficient early warning and emergency response mechanism for international intellectual property risks, build a system for preventing and controlling intellectual property foreign-related risks, and increase assistance for overseas intellectual property rights protection of Chinese enterprises.89

III. MOVING FROM A PRODUCER SOCIETY TOWARD A CONSUMER SOCIETY: THE CHANGING DEMANDS OF THE CHINESE DOMESTIC MARKET

If China is to reap the benefits from its burgeoning global trade network, the country must continue to grow as an innovation exporter. However, the Chinese will also have to be consumers of these innovations. In an effort to boost domestic consumption, the State Council approved a new guideline on improving consumer goods standards and quality on August 24, 2016, which was initiated by the General Administration of Quality Supervision, Inspection and Quarantine.90 Premier Li Keqiang said, “[g]overnment departments should enhance coordination, while enterprises need to have stronger emphasis on quality, branding, R&D and marketing. They also need to create mass awareness on branding.”91

While realizing the weakness of domestic production, Premier Li also stressed that “[i]t is important that the quality of consumer goods made in China can withstand the test of the market.”92 There is risk of the “boomerang effect” in China, like in India, wherein “[t]he impact of more than two billion consumers wanting more—more foodstuffs, water, housing, transport, luxury goods, education, and healthcare—

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91 Id.
92 Id.
will be inflation in supply-constrained commodities, price volatility, scarcity of some resources, and hypercompetition to meet consumers’ needs.”

Increasingly, the Chinese want the real thing, not knock offs, counterfeits, or fake products. “China’s share of the global luxury goods market was about 32 percent in 2020.” An estimated one-third of global spending on high-end goods will occur in China. Moving forward, IP rights will surely grow in importance, and not just for the consumption of luxury brands. The ascending middle class also requires products that deliver technical, functional, and emotional benefits, along with aspirational products that seemed—just a few years ago—out of reach. In addition,

[T]hree great forces are ushering in this transformation [of the Chinese consumer market]: the rise of the upper-middle-class and affluent households as the drivers of consumption growth; a new generation of freer-spending, sophisticated consumers; and the increasingly powerful role of e-commerce. Research by The Boston Consulting Group and AliResearch, the research arm of Alibaba, China’s largest e-commerce company, found that these three forces of change will profoundly reshape China’s economy and consumer market over the next five years. Through 2020, 81% of consumption growth will come from households whose annual income is more than $24,000. Furthermore, consumers 35 or younger will account for 65% of growth. E-commerce will become a far more important retail channel, driving 42% of total consumption growth, 90% of that growth coming from mobile e-commerce.

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93 Michael J. Silverstein et al., The $10 Trillion Prize: Captivating the Newly Affluent in China and India at xv (2012).
As China moves from producer to consumer in its economic growth, brand awareness and brand protection will take on even greater importance. When products have a patent or trademark or an indication of a patent pending, they are likely of higher quality. This is a signal of an emerging consumer society. According to McKinsey & Company, Chinese consumers “continue to increase their spending by a considerable margin and are eager to pay for items with a strong value proposition.”

China’s strengthening consumer marketplace was facilitated by a proliferating online economy. In 2018, it was estimated that over 800 million people in the country took part in electronic commerce. As China moves from producer to consumer in its economic growth, the scale of China’s e-commerce transaction volume has increased from 21.8 trillion yuan in 2015 to 37.2 trillion yuan in 2020. Information consumption is booming. From 2015 to 2020, the scale of China’s information consumption increased from 3.4 trillion yuan to 5.8 trillion yuan. In 2020, China’s national online retail sales reached 11.76 trillion yuan, ranking first in the world for eight consecutive years. Among them, the online retail sales of physical goods was 9.76 trillion yuan, accounting for nearly a quarter of the total retail sales of consumer goods.


99 See Andrew Sheng (安德魯·盛) & Xiao Geng (小庚), Zhongguo Xiaofei Zhe Shehui De Xingcheng (中國消費者社會的形成) [The Making of China’s Consumer Society], Zhongguo Ribao (中國日報) [CHINA DAILY] (Sept. 5, 2016, 7:27 AM), http://www.chinadaily.com.cn/opinion/2016-09/05/content_26697254.htm.
101 Regarding China’s online economy:

[C]hina’s total digital economy ranks second in the world and has become an important source of leading global digital economy innovation. In 2020, the added value of China's digital economy core industries accounted for 7.8% of GDP. The scale of digital industrialization continues to grow. Software business revenue has increased from 4.9 trillion yuan in 2016 to 8.16 trillion yuan in 2020. . . . China’s e-commerce transaction volume has increased from 21.8 trillion yuan in 2015 to 37.2 trillion yuan in 2020. Information consumption is booming. From 2015 to 2020, the scale of China’s information consumption increased from 3.4 trillion yuan to 5.8 trillion yuan. . . . In 2020, China’s national online retail sales reached 11.76 trillion yuan, ranking first in the world for eight consecutive years. Among them, the online retail sales of physical goods was 9.76 trillion yuan, accounting for nearly a quarter of the total retail sales of consumer goods.

102 Niall McCarthy, China Now Boasts More than 800 Million Internet Users and 98% of Them Are Mobile [Infographic], FORBES (Aug. 23, 2018, 7:30 AM),
an example of the oversized role that online commerce plays in China, consider the effects of its annual Singles’ Day, an event like Black Friday in the U.S., during which online retailers slash prices.\textsuperscript{103} This online extravaganza turns China’s bachelor crisis into an economic windfall.\textsuperscript{104} In 2021, consumers set a new record of US $139.1 billion.\textsuperscript{105} To demonstrate how impressive these Chinese results were, note that in the U.S., sales on Black Friday in 2021 totaled $8.9 billion.\textsuperscript{106} Cyber Monday in the U.S. on November 29, 2021, saw online transactions reach $10.7 billion.\textsuperscript{107}


[S]ince 2013, China has become the world's largest online retail market for eight consecutive years. In 2020, China’s online retail sales reached 11.76 trillion yuan, an increase of 10.9% over 2019. Among them, the online retail sales of physical goods was 9.76 trillion yuan, accounting for 24.9% of the total retail sales of consumer goods. As of December 2020, the number of online shopping users in China has reached 782 million, an increase of 72.15 million from March 2020, accounting for 79.1% of the total Internet users. . . . As of December 2020, the number of online payment users in China has reached 854 million, an increase of 86.36 million from March 2020, accounting for 86.4% of the total Internet users.


\textsuperscript{104} Id.


\textsuperscript{107} Lauren Thomas, \textit{Cyber Monday Sales Drop 1.4% From Last Year to $10.7 Billion}, \textit{Falling for the First Time Ever}, CNBC, https://www.cnbc.com/2021/11/30/cyber-monday-online-sales-drop-1point4percent-
Business consultants have predicted that “Chinese children born today will consume nearly thirty-eight times as much as their grandparents did[.]” Yet, in the 1970s and 1980s, the Chinese had to use ration tickets to buy almost all daily necessities from state-run stores. This was only a few decades after mass starvation gripped the country during its forced agricultural collectivisation policies. Shopping in those bygone eras was merely a means of survival. The Chinese are a far cry away from that now as shopping has become a form of entertainment.

A joint report from the World Economic Forum and Bain & Company estimated that $8.2 trillion of consumption will occur in China by 2027. According to McKinsey & Company, the overall pace at which Chinese consumption has grown is almost hard to imagine: Just a decade ago, most urban Chinese had enough money to cover basic needs like food, clothes, and housing (92 percent had annual household disposable incomes of 140,000 renminbi or less). Today, half are living in relatively well-to-do households (annual disposable incomes of 140,000–300,000 renminbi) where they have ample funds for perks like regular meals out, beauty products, flat screen TVs, and holiday travel.

A Chinese consumer society should indeed improve the lives of hundreds of millions of people, and spread benefits of the industrial boom that began in the 1980s beyond the country’s eastern coast.

108 SILVERSTEIN ET AL., supra note 93, at xiii.
111 See Sui, supra note 109.
112 See id.
114 Ho, supra note 100, at 4.
This expansion underscores why many countries in the G-20 have for years encouraged the Chinese to consume more.\textsuperscript{116} And with more focus on consumers and less on export-led growth, the service sector will naturally grow as well.\textsuperscript{117} Factories that offer employment but spew pollution are to be balanced by services like education, financial services, insurance, entertainment, and health and beauty, among others.\textsuperscript{118} Many of these industries require innovation and, thus, the development and protection of IP rights will be of utmost importance. When looking to the U.S. economy’s shift from manufacturing-based to services-based posture for guidance, the importance of IP rights becomes clear. In 1975, 80\% of the market value of the S&P 500 was comprised of physical assets (plant, property, and equipment).\textsuperscript{119} However, today “the majority of market value is made up of intangible assets (networks, platforms, intellectual property, customer relationships, big data) more than physical assets. In fact, it’s not even close: intangible assets make up over 80\% of the S&P 500’s market value—a complete reversal from 1975.”\textsuperscript{120}

This exponential market value increase occurred as the technology industry grew.\textsuperscript{121} It was likely garnered by licensing, royalties, and other rents that were drawn by corporations from their trading partners. According to the International Chamber of Commerce: “In many companies even now, 80\% or more of their market value is attributable to intangibles, including IP. In some small companies, the only value


\textsuperscript{117} See BAIN & COMPANY, supra note 113 (stating that one of the four major drivers shaping consumption in China over the next decade includes China’s economy migrating from an investment-driven model to a consumption- and services-driven model).

\textsuperscript{118} See Sheng, supra note 115 (noting that China’s transformation away from a manufacturing-driven and export-led economy to instead one that is underpinned by services and domestic consumption is already firmly underway).


\textsuperscript{120} Id.

\textsuperscript{121} See generally Jenna Ross, Intangible Assets: A Hidden but Crucial Driver of Company Value, VISUAL CAPITALIST (Feb. 11, 2020), https://www.visualcapitalist.com/intangible-assets-driver-company-value/ (showing the dramatic changes over many decades of intangible assets, their growth, and what that can be attributed to).
is the intellectual property they own in an exciting new innovation that they have developed.”  

IP rights—as intangible assets—are becoming increasingly tradable, and are used to secure capital and encourage investment in research and development. For instance, a small start-up may use its properly-secured IP rights to prevent competition and may also use its IP rights defensively when accused of IP infringement. In the U.S., Article 9 of the Uniform Commercial Code provides that a company may put up its IP rights as collateral to secure financing, which can then be sold upon default to cover the creditor’s losses. Nevertheless, IP rights do not always benefit a society still growing its businesses. Small businesses may be adversely impacted by international IP laws and agreements. To illustrate, the research and design costs associated with ensuring non-infringing use in business branding and product development, and the potential necessity of license fee payments to an IP owner, may create an insurmountable financial hurdle to the small business. This, in turn, may thwart some entrepreneurs from starting their business, “which [then] lowers the potential for job creation by small businesses.” As a former President of the U.S. Chamber of Commerce aptly remarked: “IP is critical to public safety and consumer confidence. In other words, strong IP protections and enforcement are important to preventing dangerous products—such as counterfeit pharmaceuticals or toys—from getting into consumers’ hands. Trademarks give customers confidence that they are buying genuine, high-quality products from brands they trust.”

Take medicine for example: “Across the globe, counterfeit medicines are a major threat to public health and safety.” Every region of the world is affected by counterfeit medical products, which

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127 Id. at 1500–01.
128 Id. at 1501.
are available in illegal street markets, on unregulated websites, and in pharmacies and medical facilities. Some “counterfeit medicines can, in theory, be of high-quality, perfectly safe, and efficacious.” However, generally, counterfeit medical products are especially dangerous to public health because they are ineffective to cure or combat the medical ailment for which the medicine is used, or worse, further harm the patient where the product contains contaminants or toxic components. Continued and widespread availability of counterfeit medical products leads to distrust in healthcare, including in medicines and medical providers.

Securitization of IP rights promotes product safety and public security. Counterfeit foods and other consumables cause a host of problems, including customer confusion as to the true good offered by the mark holder, damage to the mark holder’s reputation, physical harm to the consumer because of harmful agents or unregulated production, and lost profits from sales diversion.

IP is also an incentive for innovations that enhance and improve lives. When artists, inventors, or scientists have assurances that their works are protected and rewarded by IP rights, they are more inclined or able to produce. With strong copyright laws, musicians are more likely to record new albums. Likewise, “[p]atent protections enable pharmaceutical companies to take on the costs and challenges of putting lifesaving new drugs on the market. Without opportunities for ownership or profit, the incentive to innovate falls.” In short, IP rights protect innovation too. “[I]nadequate IPR protection and enforcement in foreign markets discourages entry into technology transfer arrangements and broader investment in those markets.”

China has realized the importance of innovation and IP rights. Indeed, “intellectual property protection is a significant determinant of economic growth.”

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133 Id.
134 Id.
136 DONOHUE, supra note 129.
IV. MOVING FROM THE SMOKESTACK ECONOMY TOWARD THE KNOWLEDGE-BASED ECONOMY: THE VALUE OF INTELLECTUAL PROPERTY AND CHINA’S RECORD

IP rights are based on knowledge.\(^\text{139}\) Inexpensive manual labor has fueled much of China’s growth over the last three decades.\(^\text{140}\) IP also derives from innovation,\(^\text{141}\) which in turn results from good educational systems and a focus on invention rather than manual labor.\(^\text{142}\) Investments in R&D have become increasingly important as part of the national strategy for economic development.\(^\text{143}\) As Premier Li Keqiang stressed in his annual speech to the National People’s Congress in 2017, “[w]e will accelerate [R&D] on and commercialization of new materials, artificial intelligence, integrated circuits, bio-pharmacy, 5G mobile communications and other technologies, and develop industrial clusters in these fields.”\(^\text{144}\)

IP protection is a fundamental part of economic reform for post-industrial and knowledge-based economies. It ensures a safe supply chain for pharmaceuticals, herbals, medical procedures, fully tested and approved medical devices, and other life-enhancing innovations. It also requires the provision of authentic products for the consumer society, which in turn garners tax dollars to the government’s revenue authorities, wages to workers, and profits to the owners of innovations.

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\(^{139}\) Cohen, supra note 2, at 698.

\(^{140}\) “Li Tie, an expert on China’s urbanization development issues, pointed out at the Tianjin Davos Forum that the biggest feature of China’s economic growth in the past 30 years is that it has become the world’s factory[,]” but since its development, this era of artificially cheap costs has passed. Chen Zhifen (陳志芬), Fagaiwei Zhanjia: Zhongguo Lianjia Laodongli Shidai Yijing Jieshu (發改委專家: 中國廉價勞動力時代已經結束) [National Development and Reform Commission Experts: The Era of Cheap Labor Costs in China is Over], Yingguó Guǎngbō Gōngsī De Xīnwén (英國廣播公司的新聞) [BBC NEWS] (Sept. 12, 2014), https://www.bbc.com/zhongwen/simp/china/2014/09/140912_china_cheap_labour_g one.


\(^{143}\) Smriti Mallapaty, China’s Five-Year Plan Focuses on Scientific Self-Reliance, NATURE (Mar. 11, 2021), https://www.nature.com/articles/d41586-021-00638-3.

There must be protection of IP rights to provide incentives to create further inventions and other advances that can create revenue streams.

China has a great deal to gain if it continues to increase its protection of IP rights. The revenues to be extracted from the rapid growth of the country’s knowledge-based economy is unlimited as it transitions away from an assembly line-based economy. Indeed, IP rights protection will matter more and more to China, given that the leading Chinese corporations are among the world’s largest filers of international applications for the protection of IP rights.

The post-industrial, knowledge-based global economy continues to grow in leaps and bounds. According to WIPO’s World Intellectual Property Indicators 2020 Report, China filed 1.4 million patents in 2019, which accounted for 43.4% of the world’s total patent applications that year.145 In context, Chinese filings accounted for more than twice the number of filings in the U.S. for the same year.146 China accounted for an even larger percentage of total filings in utility models (96.9%), trademarks (51.7%), and industrial designs (52.3%) in the world.147 As of 2019, China surpassed the U.S. as the leading country globally in filing international patent applications under the Patent Cooperation Treaty (“PCT”).148

In 2020, the number of applications filed by the two major users of the PCT system, China and the U.S., both achieved annual growth.149

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146 Id.
147 Id.
148 Id.

[In an interview, Gu Qingyang, Associate Professor of the Lee Kuan Yew School of Public Policy at the National University of Singapore, said that in recent years, China has made significant progress in the protection of intellectual property rights. The intellectual property legal system has been increasingly improving, and the number of patent applications has maintained a leading position. It has gradually become a global intellectual property power.

Among them, China continued to rank as the largest user of the PCT system with total applications of 68,720; followed by the U.S. with 59,230 applications; Japan’s applications amounted to 50,520; South Korea’s applications amounted to 20,060; and Germany’s applications amounted to 18,643.\textsuperscript{150} There were strong numbers of international patent applications in other countries as well, including Saudi Arabia (956 applications), Malaysia (255 applications), Chile (262 applications), Singapore (1,278 applications), and Brazil (697 applications).\textsuperscript{151} In the context of company-specific patent applications, in 2020 China’s “Huawei Technologies Co., Ltd. became the largest applicant in the PCT system with 5,464 applications for the fourth consecutive year.”\textsuperscript{152} Following Huawei are South Korea’s Samsung Electronics (3,093 applications), Japan’s Mitsubishi Electric Corporation (2,810 applications), South Korea’s LG Electronics (2,759 applications) and Qualcomm (2,173 applications).\textsuperscript{153}

However, the quality of China’s patents has been deemed low,\textsuperscript{154} or the “soft belly of the seeming patent giant of China.”\textsuperscript{155} In fact, some critics even claim these patents are worthless.\textsuperscript{156} A reported nine in ten patents lapse in the application stage.\textsuperscript{157} It is inaccurate to only use patent application numbers to measure the value of patents and the strength of innovation, because it is also closely related to patent types, patent licenses, and international patent applications. Generally, patents are divided into three categories: invention patents, design patents, and utility model patents.\textsuperscript{158} “Among them, the value of invention patents


\textsuperscript{151} See He, supra note 145.

\textsuperscript{152} Press Release, WIPO, supra note 149.

\textsuperscript{153} Id.


\textsuperscript{157} Id.

\textsuperscript{158} Id.
is much higher than the other two types of patents, and they are also more representative of innovation strength.\textsuperscript{159}

According to statistical analysis of patent applications in the U.S., the United Kingdom, Japan, France, and Germany from 1978 to 2017 by Chinese patent data, 90.43\% of the patent applications in the U.S. are invention patents, 72.27\% are invention patents in the United Kingdom, 82.92\% in Japan, 68.81\% in France, and 80.5\% in Germany.\textsuperscript{160} However, the invention patents in China only accounted for 35.53\%, and invalid patents accounted for 48.75\% of all patents.\textsuperscript{161}

Nevertheless, China still leads in absolute numbers of patent applications. WIPO’s 2020 World Intellectual Property Indicators Report covers more than 150 countries and regions around the world.\textsuperscript{162} According to this report, in 2019 SIPO received 1.4 million patent applications, a decrease of 9.2\% compared with 2018.\textsuperscript{163} This is the first decline in the past twenty-four years,\textsuperscript{164} mainly as a result of China’s regulatory transformation to optimize the application structure and improve the application quality.\textsuperscript{165} Although the worldwide actual number of patent applications has decreased, China received the highest number of applications in the world—more than twice the number of 621,453 applications received by the U.S., the country with the second highest number.\textsuperscript{166} Japan, South Korea, and Europe ranked third to fifth with 307,969, 218,975, and 181,479 applications, respectively.\textsuperscript{167} The applications received by China, U.S., Japan, South Korea, and Europe combined accounted for 84.7\% of the global total in 2019.\textsuperscript{168} The 2020 World Intellectual Property Indicators Report observed that:

[F]iling patent applications abroad is a major signal of intention to expand the market overseas. In 2019, U.S. residents filed a total of 236,032 equivalent patent applications overseas, and continued to maintain a world-leading position in this field, followed by Japan (206,758), Germany (104,736), China (84,279 cases)

\textsuperscript{159} Id.
\textsuperscript{160} Id.
\textsuperscript{161} Id.
\textsuperscript{163} Id. at 7.
\textsuperscript{164} Id. at 13.
\textsuperscript{165} Id. at 5.
\textsuperscript{166} Id. at 12.
\textsuperscript{167} Id.
\textsuperscript{168} Id.
and South Korea (76,824 cases). 169

Finally, regarding IP rights related to patents, “according to statistics from the Ministry of Commerce, the State Administration of Foreign Exchange and the International Monetary Fund, China’s international intellectual property revenue in 2015 was only $1.08 billion U.S. dollars, while the United States was as high as $124.67 billion U.S. dollars, 115 times that of China.”170

China has also proliferated its trademark registration activity: “[I]n 2019, the IP office of China accounted for 55.7% of the annual increase in global trademark filing activity using this measure, albeit down from the exceptionally high shares of between 73% and 84% it comprised each year from 2016 to 2018.”171 China also dominates in industrial designs: “The office of China accounted for 52.3% of designs in applications filed worldwide in 2019, representing 711,617 designs. [The Chinese office] was followed by the European Union Intellectual Property Office (EUIPO) (113,319), the Republic of Korea (69,360), the United States of America (U.S.) (49,848) and Turkey (46,202).”172

Notwithstanding these impressive numbers that demonstrate creative activity and a culture of filing applications to protect its IP, there are a number of challenges facing China’s attempts to prioritize such IP rights protection. First, the country has long enforced capital controls, which restricts the ability of businesses and individuals to transfer funds in and out of the country.173 While capital controls may help prevent huge economic swings as investment in China peaks and ebbs, it is not conducive for an environment oriented towards IP rights protections.174 China’s export policy has served as the country’s main economic development strategy as it uses market interventions and capital controls to keep its currency undervalued relative to


170 Yongjie, supra note 158.

171 WORLD INTELLECTUAL PROPERTY INDICATORS 2020, supra note 162, at 77.

172 Id. at 128.


174 See id.
fundamentals—at least until recent times.\textsuperscript{175}

Keeping a low value for the renminbi maintains a low price for Chinese-made goods in other countries.\textsuperscript{176} It also forces increased prices for foreign-made products in China—more than they would otherwise be with a free-floating currency.\textsuperscript{177} In effect, China’s government has deliberately reduced the purchasing power of its own consumers in order to subsidize the country’s exporters. This policy may not work in a knowledge-based economy that is dependent on extracting rents for innovations outside China, nor will it help the fight against counterfeit copies of foreign products as a low-cost Chinese currency makes foreign luxury goods very expensive and thus prey to piracy.\textsuperscript{178}

Second, China’s attempts to prioritize IP rights protection is simultaneously undermined by the country’s renewed efforts to steal industrial secrets from U.S. corporations.\textsuperscript{179} The Commission on the Theft of American Intellectual Property—an independent and bipartisan initiative of leading Americans from the private sector, public sector, national security and foreign affairs, academia, and politics—reported on the surge of research that demonstrates renewed efforts by Chinese authorities and its private sector to steal U.S. IP.\textsuperscript{180} The United States Trade Representatives’s 2021 Special 301 Report details China’s


\textsuperscript{177} Cong. Rsch. Serv., RL32165, supra note 176, at 23.

\textsuperscript{178} This began to change at the end of 2015 when the International Monetary Fund designated China’s currency a “global reserve currency” after a long-sought process. To get this designation, China had to give up some control over its currency, something that led to an abrupt devaluation of the renminbi over three days that shook global markets in August 2015. Neil Irwin, The Choice Facing China as Its Currency Becomes More Global, N.Y. Times (Nov. 30, 2015), https://www.nytimes.com/2015/12/01/upshot/the-choice-facing-china-as-its-currency-becomes-more-global.html.


continued practice of allowing its companies to steal U.S. IP rights.\textsuperscript{181} In July 2021, the White House, accompanied by allies in the European Union, Australia, Japan, New Zealand, and Canada condemned cyberattacks on Microsoft servers by hackers based in China.\textsuperscript{182}

These allegations continue notwithstanding the Chinese government’s commitment that protection of foreign IP rights is a priority.\textsuperscript{183} In a keynote speech at the opening of the Second Belt and Road Forum for International Cooperation in April 2019, President Xi promised that China would strengthen the protection of the legitimate rights and interests of foreign IP owners.\textsuperscript{184} This promise, along with encouraging foreign investment and purchasing more goods and services from abroad, were part of a new trade deal that negotiators from the U.S. and PRC almost agreed to sign in May of 2019.\textsuperscript{185} However, the deal dissolved when Chinese negotiators sent their U.S. counterparts a redrafted agreement, prompting former President Trump to accuse Beijing of reneging on terms that had been settled and ordering the imposition of new tariffs against Chinese goods.\textsuperscript{186} Again, President Trump blamed China for violating IP laws.\textsuperscript{187}


\textsuperscript{183} Mu Xuequan (穆雪泉), Zhongguo Qidong Baohu Waiguo Gongsi Zishi Chanquan De Yundong (中國啟動保護外國公司知識產權的運動) [China Launches Campaign to Protect IPRs of Foreign Companies], Xinhua Wang (新華網) [XINHUA.NET] (Sept. 19, 2017, 12:25 AM), http://www.xinhuanet.com/english/2017-09/19/c_129707091.htm.


\textsuperscript{186} Id.

\textsuperscript{187} Id.
The theft of U.S. IP became the justification for the tariff war in which the U.S. and China engaged in 2018 and 2019. These issues were not resolved by the January 2020 trade deal between the U.S. and China. Phase I of a January 2020 Trade Agreement only reversed some of the tariffs that each country imposed on the other since 2017. The tariffs on $120 billion of Chinese goods are to be halved to 7.5% and new tariffs will be suspended. But not all new tariffs will be deferred. In fact, U.S. tariffs on $370 billion worth of goods, three-quarters of the total amount of U.S. tariffs imposed, remain in place. The deal did commit China to purchasing many more U.S. agricultural goods going forward, a great benefit for America’s agricultural sector. While such purchase promises from China have been largely unfulfilled, the deal helped the trading partners move back towards pre-trade war economic relations to some extent.

Phase I of the January 2020 trade deal between the two countries

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193 Id. at 3.

194 See Brad W. Setser & Dylan Yalbir, Slouching Toward Phase One, COUNCIL ON FOREIGN RELS. (July 8, 2020, 12:24 AM), https://www.cfr.org/blog/slouching-toward-phase-one.

also did not address IP rights violations.\(^{196}\) Instead, it was left to a Phase II, a deal which never materialized during the Trump administration.\(^{197}\) Phase II was stillborn so the real structural and difficult issues\(^{198}\)—including IP protections—that have rankled the U.S. government and its corporations for years remain unresolved.\(^{199}\) China’s state subsidies for its massive technology companies, like Tencent, Huawei and Baidu\(^{200}\) have long been a bone in the throat of Washington, D.C., and U.S.-based Big Tech.\(^{201}\) With no Phase II, Beijing can continue its economic, military, and political support of its state-owned enterprises, ensuring its dominance over emerging technologies.\(^{202}\) Currently, the great decoupling of the two global superpowers is underway.\(^{203}\) The global supply chain—including the cheap Chinese parts on which U.S. technology manufacturing relies—is being disrupted and global trade


\(^{197}\) The USTR’s 2021 Special 301 Report states that “China has made enforceable commitments to address forced technology transfer in the Phase One Agreement[,]” but not to the actual substance. \textit{2021 SPECIAL 301 REPORT, supra} note 183, at 24.


braces for more shocks as relations between the two competitors strain.\textsuperscript{204}

At the week-long 19th National Congress of the Communist Party of China in 2017,\textsuperscript{205} President Xi Jinping declared a “new era” of Chinese socialism.\textsuperscript{206} In this “new era,” the principal contradiction facing China is “between unbalanced and inadequate development and the people’s ever-growing needs for a better life. That indicates the country will not only continue its economic development but also pay more attention to its social development.”\textsuperscript{207} As he hailed the “China Dream,” President Xi Jinping warned achieving it would be “no walk in the park.”\textsuperscript{208} He then outlined the Party’s priorities for the next five years.\textsuperscript{209} Among the various goals the country has to achieve within that timeframe, President Xi Jinping emphasized the urgency of establishing an innovative and creative country.\textsuperscript{210}

V. CONCLUSION

With China building its IP portfolio and infrastructure to protect it, it is important to remember that China first used marks to designate the origin of goods 3,000 years when marks were placed on pottery.\textsuperscript{211}

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{204} Id.
\item\textsuperscript{207} Id.
\item\textsuperscript{209} Id.
\item\textsuperscript{210} Xi Jinping: Juesheng Quanmian Jiancheng Xiaokang Shehui Zhengqu Xin Shidai Zhongguo Tese Shehui Zhuyi Weida Shengli (習近平：決勝全面建成小康社會 爭取新時代中國特色社會主義偉大勝利) [Xi Jinping: Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era], Xinhua Wang (新華網) [XINHUANET] (Oct. 27, 2017, 7:27 PM), http://news.xinhuanet.com/politics/19pcnc/2017-10/27/c_1121867529.htm.
\item\textsuperscript{211} In its advanced ancient civilization,

\textsuperscript{C}hina had seals and imprints on pottery as early as the Warring States Period. The embryonic form of this trademark was 800 years earlier than the earliest record in the West (1040). “Guo Yan” on Gongding (pottery) unearthed in the Southern and Northern
\end{enumerate}
\end{footnotesize}
Currently, due to several moving parts in China such as the BRI, the emerging consumer society, and the transition to a knowledge-based economy, protecting IP rights has become increasingly important.

By protecting IP rights, the Chinese government and its regulators will provide a steady stream of revenue for rightsholders, an attendant stream of tax revenue for the government itself, and continued incentives for further R&D that will contribute to the knowledge-economy comparative advantage that China is sure to gain in the future. According to Xinhua News Agency, China will improve IP protection for foreign companies by launching campaigns against violations and stepping up judicial and administrative protection. This in turn fuels a consumer society that benefits from innovation in two ways: (1) innovators profit from their labor and (2) consumers are able to use technologies derived from IP rights. Chinese society is further benefited through the enjoyment of legitimate—rather than pirated—products that are safe to use.

The BRI is poised to bring significant infrastructure growth to China and its trading and investment partners in the coming years. Because of this, it is imperative that IP rights that result from the BRI are strongly protected by China. IP rights will play an important role for China in the transition towards a post-industrial, knowledge-based economy to protect R&D and ensure a stable, steady stream of revenue. Furthermore, significant protection of IP rights will boost China’s emerging consumer society. The correlation between strong IP protection and strong developed economies adds to the importance that China act now rather than leaving IP protection on the backburner.

Dynasties is a more clear example of the use of trademarks. Of course, the most frequently cited is the “White Rabbit” trademark of Liujiashen Shop in Jinan, Shandong Province during the Northern Song Dynasty. It not only has the white rabbit pattern holding the medicine pestle, but also the words “Recognize the white rabbit in front of the door as a mark.”


212 Mu Xuequan (穆雪泉), Zhongguo Qidong Baohu Waiguo Gongsi Zishi Chanquan De Yundong (中國啟動保護外國公司知識產權的運動) [China Launches Campaign to Protect IPRs of Foreign Companies], Xinhua Wang (新華網) [XINHUA.NET] (Sept. 19, 2017, 12:25 AM), http://www.xinhuanet.com/english/2017-09/19/c_129707091.htm.