CHAPTER 5

Technology Governance in a Devolved Global Legal Order

Lessons from the China-USA Strategic Conflict

*Frederick M. Abbott**

1 Introduction

The global trading system anchored in the WTO was the product of a vision that evolved at the end of the Second World War as a response to a dangerous system of competitive alliances. The creation of the WTO as a fully formed multilateral institution in 1995 may have been the apex of confidence in the virtues of multilateral economic cooperation. Liberalized trade associated with a set of rules regarding protection of intellectual property would create a tide lifting the economic boats of all WTO Members, even if the tide lifted unevenly.

In a sense, establishment of the WTO, including the TRIPS Agreement, was an alternative and reaction to the demands of developing countries from the late 1960s that the developed or industrialized countries assist them to create a New International Economic Order and to equalize wealth distribution.[1] A substantial part of the NIEO agenda involved creating a framework for the "transfer of technology" from the North to the South through loosening of intellectual property protection standards and affirmative acts of technology transfer.[2] The WTO TRIPS Agreement strengthened IP rules on a multilateral basis

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1 At the end of the Second World War the former colonial empires were gradually dismantled, and by the late 1960s rhetoric at the multilateral institutional level had shifted to promotion of transfer of technology to promote development. Throughout the 1970s and 1980s, developing countries through political coalitions such as the Group of 77 pressed for the NIEO in the United Nation's General Assembly, Foundational instruments included the UN Declaration on the Establishment of a New International Economic Order and its associated Programme of Action G.A. Res. 3201, (S-VI) U.N. GAOR, Supp. (No. 1) 3, U.N. Doc. A/9559 (1974); G.A. Res.3202, (S-VI) U.N. GAOR, Supp. (No. 1) 5 U.N. Doc. A/9559 (1974), followed by the Charter of Economic Rights and Duties of States, G.A. Res. 3281, 1 U.N. GAOR, Supp. (No. 31) 50, U.N. Doc. A/9631 (1974).

2 Pedro Roffe, *Reflections on Current Attempts to Revise International Legal Structures: The North-South Dialogue-Clash of Values and Concepts, Contradictions and Compromises*, 9

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and was in large measure a rejection of NIEO demands.[3] The TRIPS Agreement made only cursory reference to transfer of technology.[4]

The TRIPS Agreement was largely based on demands from the United States, Europe and Japan regarding strengthened IP protections in developing countries.[5] The US formulated or sponsored position papers arguing that those protections would work to the benefit of developing countries. But those development-related arguments were discountable. The US pharmaceutical, computer and entertainment industries were not demanding stronger IP protections in the interests of enhancing development; they were "protecting First World Assets". The fact that China, India and other emerging market countries did not pursue "strict compliance" with those rules should come as a surprise to no one.

In the meantime, the "facts on the ground" shifted dramatically from the late 1980s. The Soviet Union collapsed in 1989, and China joined the WTO in 2001. Since that time, China has "emerged" as a major economic power that today rivals the United States, Europe and Japan. Several other large developing countries, including India, challenge the dominance of the Western Post-War economic powers. There is no longer a neat division between developed/industrialized and developing countries. Moreover, the idea that the high-income countries (HICs) are under some legal or ethical obligation to transfer technology to low- and middle-income countries (LMICs) is not a significant part of the multilateral agenda or of inter-state relations more generally.[6]

GA. J. INT'L. & COMP. L. 559 (1979), and; Pedro Roffe and Gina Vea, *The WIPO Development Agenda in an Historical and Political Context*, in THE DEVELOPMENT AGENDA: GLOBAL INTELLECTUAL PROPERTY AND DEVELOPING COUNTRIES 79–109 (ed. N. Netanel), Oxford Univ. Press 2008); Padmashree Gehl Sampath and Pedro Roffe, *Unpacking the International Technology Transfer Debate: Fifty Years and Beyond*; ICTSD Programme on Innovation, Technology and Intellectual Property; Issue Paper No. 36, 2012; International Centre for Trade and Sustainable Development, Geneva, Switzerland, www.ictsd.org..

3 *See* ICTSD-UNCTAD, RESOURCE BOOK TRIPS AND DEVELOPMENT (Cambridge Univ. Press 2005), at 3–4.

4 The 1995 WTO TRIPS Agreement obliged industrialized country Members to provide incentives to promote transfer of technology to least developed country Members. Art. 66.2, WTO Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS Agreement"), available at https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm.

5 *See* Frederick M. Abbott, *Protecting First World Assets in the Third World: Intellectual Property Negotiations in the GATT Multilateral Framework*, 22 Vand. J. Transnat'l L. 689 (1989), available at SSRN: https://ssrn.com/abstract=1918346.

6 The "Development Round" at the WTO that began in 2001 is effectively dead though so far without an apparent consensus on pronouncing it dead. As late as 2007 the Development Agenda was established at WIPO and included among its recommendations a cluster addressing technology transfer. *See* The 45 Adopted Recommendations under the WIPO Development Agenda, Cluster C: Technology Transfer, Information and Communication

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As of early-2021 the world economic system has been devolving toward nationalism. Although one can debate the causes of this devolution and whether it is of a long-lasting or transitory character, for present purposes it is a fact.[7] The COVID-19 pandemic of 2020/21 has exacerbated the trend toward economic nationalism as governments have stressed the importance of self-sufficiency and the risks of relying on extended international supply chains.[8] Countries seeking to develop their economies cannot rely on some benign external force to assist them.

This paper suggests that China's successful economic and technological transformation did not depend on "following the rules" of the WTO system, nor did it depend on flouting those rules. China succeeded because of its characteristics as a country and an economy. China developed a sophisticated technological development plan to take advantage of those characteristics. A number of the advantages enjoyed by China cannot be replicated by other LMICs. Still there may be some important lessons that can be derived from the Chinese experience.[9]

Technologies (ICT) and Access to Knowledge, https://www.wipo.int/ip-development/en/agenda/recommendations.html#c. Peter K. Yu, *A Tale of Two Development Agendas*, 35 OHIO N.U.L. REV. 465 (2009). Available at: https://scholarship.law.tamu.edu/facscholar/488, and; Roffe and Vea, *supra* note The WIPO Development Agenda continues to be pursued, but largely as a matter of reviewing technical legal issues, and realistically it is not an agenda for rebalancing the global technological environment. UNCTAD continues to pursue useful research regarding preferred legal approaches for developing countries, and to provide technical assistance, but as in previous times UNCTAD does not have the financial resources to undertake technology transfer programs.

7 Without doubt, a substantial reason for the shift in both rhetoric and action is that a few developing countries have "emerged" as substantial global economic powers and are now in competition with the HICs for global resources. But other factors are important, including a political trend toward "nationalism" and away from "multilateralism". The shift toward inward-looking politics is no doubt the result of a variety of factors only some of which are economic. The consequence, though, is that the idea that somehow the HICs are obligated (legally or ethically) to promote the interests of lower-income countries is not on the multilateral (or national) "front-burner".

8 See, e.g., Ana Swanson, *Coronavirus Spurs U.S. Efforts to End China's Chokehold on Drugs*, NY Times, Mar. 11, 2020; Emma Newburger, *Cuomo calls PPE shortages a national security issue: 'You can't be dependent on China'*, CNBC.com, May 3, 2020, https://www.cnbc.com/2020/05/03/coronavirus-cuomo-warns-against-dependence-on-china-for-ppe.html.

9 The global technology environment has changed dramatically since the 1970s when the Group of 77 and others were demanding positive efforts toward technology transfer. The digitization of information, and its availability on the Internet, have opened-up possibilities for leapfrogging previous stages in technical development. And, at least for the time being the global economy is awash in private capital seeking "better than government bond" returns. LMIC's may be able to tap into this capital in the interests of progress. As

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China's success has provoked a reaction from the traditional economic and technology powers seeking to slow its march to technological parity, and perhaps even superiority. Some of the challenges to China's allegedly WTO-inconsistent inconsistent measures or practices are debatable from the standpoint of the WTO rules negotiated in the Uruguay Round, as supplemented by China's Protocol of Accession. Trade sanctions imposed on China by the United States are inconsistent with WTO rules. Without doubt the United States was aware of this when it chose to adopt them. US policymakers appear to have concluded that problems with China's rule system and enforcement mechanisms could not be adequately addressed within the existing WTO framework.

In the January 15, 2020 Phase 1 Economic and Trade Agreement between the Government of the United States of America and the Government of the Peoples Republic of China, China agreed to the principal demands of the United States with respect to transfer of technology, and also agreed to new rules governing electronic intrusion (i.e. cyberpiracy). The United States success in achieving its objectives on the technology transfer front appears to justify from a "results-oriented" standpoint its decision to bypass the WTO. While China emphasizes the importance of maintaining the WTO and its legal order, it has accepted that results might better be achieved outside it.

The United States may be following the philosophical approach that Prof. Robert Hudec elaborated in the late 1980s and early 1990s. "Extra-legal" trade actions may be justified when there is an evident need to reform the multilateral system, and when recourse to existing rules and dispute settlement procedures are unavailing.[10] If this was a deliberate tactic the United States was following with China to achieve the strategic objective of reforming the WTO, this might yet produce a satisfactory resolution from the perspective of multilateral governance.[11]

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multinational business interests seek to diversify their sources of supply, this represents opportunity for a range of LMIC's.

India likewise did not make its important economic advances because it followed the rules of the WTO. India has succeeded because it charted its own path, and it continues to do that in a number of important areas. As a counterpoint, we may refer to the Andean Pact experiment regarding transfer of technology and suggest that the absence of some of the characteristics enjoyed by China and India may cause other LMIC's to consider alternative paths toward developmental progress.

10 Robert Hudec, Thinking about the New Section 301: Beyond Good and Evil, in AGGRESSIVE UNILATERALISM;

AMERICA'S 301 POLICY AND THE WORLD TRADING SYSTEM 111–162 (eds. Jagdish Bhagwati & Hugh Patrick (University of Michigan Press, 1990).

11 The path that China has followed may be different than the one that the United States and Europe had in mind for it when it joined the WTO in 2001. It was likewise foreseeable that

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As of early-2021 it is not clear that the United States was or is pursuing the strategic objective of reforming the WTO and strengthening multilateralism. Political relations between China and the United States have deteriorated, and from an internal political standpoint in the United States there is a theme shared by the major political parties of suspicion regarding Chinese economic and political intentions. While this could be a transitory phenomenon, and the situation might be different under the new presidential administration in Washington, it does not seem likely that matters on this front will change in the near term.

The United States may decide that its use of bilateral economic power yielded a good result, and it may elect continue on its bilateral power-based path.

Reinvigorating the WTO – scenario one – is a laudable objective. The WTO can serve the important diplomatic function of providing a neutral space for economic dialogue. Fragmentation of the global economy is not a good thing – not simply because there will be less specialization and a related move away from the global production possibility frontier. The risk on the downside is toward the breakdown of political accommodation, and intensification of competition for resources that may lead to violence, i.e., the risks preceding the Second World War.

As of early-2021, the international political situation is tense, and one must naturally be cautious about predicting an outcome that favors multilateral

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a point would come when these countries would demand to rebalance economic rules and policies to accommodate new developments. There is nothing unusual about that. The Uruguay Round was itself a recognition that "things had changed", and that adjustments in the international economic framework (then the GATT 1947) were needed.

This author suggested that negotiation of the trips Agreement reflected renegotiation of the long-term contract represented by the GATT 1947, and which needed to take into account events unforeseen at the time of negotiation. This supported providing some forms of compensation to the parties that would be adversely affected by the adjustment, i.e. developing countries, including trade concessions in other areas and transition provisions. Abbott, *Protecting First World Assets*, *supra* note 5, at pgs. 737–42.

The GATT 1947 served the interests of the Western economic powers, and it was foreseeable that China's entry in 2001 would make the WTO a less comfortable place. Quoting from my own 1998 book on the subject:

"China's prospective membership in the World Trade Organization is one of the most significant developments relating to international institutions to take place in the past several decades.… It will transform the WTO into an inclusive organization, and the WTO may become a less comfortable place from an OECD country standpoint than it has been for the past 50 years." Frederick M. Abbott, Reflection Paper on China in the World Trading System: Defining the Principles of Engagement, in CHINA IN THE WORLD TRADING SYSTEM: DEFINING THE PRINCIPLES OF ENGAGEMENT (F.M. Abbott, ed., Kluwer L. Int'l 1998), pp. 1–43, at pg. 1, available at SSRN: https://ssrn.com/abstract=1919486.

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cooperation. The multilateral system is at risk, and there is also a need to keep an eye on history. The risks are not peculiar or specific to intellectual property or technology, but conflicts regarding IP and technology have played a meaningful role in the devolutionary trend.

II Technology and Development

A *China*

i Historical Factors

China is the most noteworthy story of developing country economic progress from the early 1990s until today. As suggested earlier, there are characteristics of China and its historical context that cannot be neatly transposed to other LMIC's as model for transfer of technology and development.[12] Nonetheless, there are elements that may be of interest elsewhere. Perhaps most important for present purposes, China was not successful in the technology space because it complied with TRIPS Agreement. Nor did it succeed because it ignored those rules. We address the legal issues later in this paper. China, as most other countries, may have acted inconsistently with some TRIPS Agreement rules, but this is one factor among many.[13]

- China has a very large population, offering a substantial labor pool that in its earlier developmental phase was available at relatively low wages in controlled workplace environments;[14]

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12 This section draws from research conducted by the author on behalf of the World Health Organization in the context of analyzing China's policies and practice with respect to promotion of local production of pharmaceutical products, including discussion with a range of Chinese government officials, private industry representatives and health professionals. *See* WHO, China Policies to Promote Local Production of Pharmaceutical Products and Protect Public Health, Geneva: World Health Organization, 2017 (prepared by Frederick Abbott in a consulting capacity).

13 The annual Special 301 (IP) Reports of the US Trade Representative identify myriad alleged TRIPS-inconsistencies engaged in by a wide range of countries/regions, including the EU.

14 *See, e.g.*, Feng Wang, *China's Population Destiny: The Looming Crisis*, BROOKINGS, Sept. 3, 2010: "The country's economic boom relied on another crucial factor: a young and productive labor force.

Such a labor force, a non-repeatable historical phenomenon resulting from a rapid demographic transition, was fortuitously present as the Chinese economy was about to take off." Stanley Lubman, *Working Conditions: The Persistence of Problems in China's Factories*, WALL ST. J., Sept. 25, 2012.

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- There is a strong central government that exercises substantial control in terms of adopting and implementing legislation and regulations,[15] and control over the banking and financial system;[16]
- China started its development path with a weak IP system that did not actively discourage local companies from appropriating foreign technologies and using them for their own benefit,[17] allowing significant leapfrogging of the technology curve at relatively low cost;[18]
- Chinese culture highly values education and science;[19]
- China negotiated entry into the WTO on terms which facilitated access to foreign markets, while allowing it to protect its domestic market during its transition;[20]
- In its rapid push for economic development China's central government (and provincial governments) tolerated environmental degradation in the interests of economic progress.[21]

ii Later Day China

China's story in 2021 is a different one as it seeks to assume a leadership role in technology and economic power.

15 *See, e.g.,* Yongnian Zheng, *Power to Dominate, Not to Change: How China's Central-Local Relations Constrain Its Reform*, EAI Working Paper No. 153, July 9, 2009, at 11. The author does not discount the important role that the provincial governments play in China's economic and social governance.

16 China's Economic Rise: History, Trends, Challenges, and Implications for the United States, at 26–29, Updated June 25, 2019, Congressional Research Service https://crsreports.congress.gov RL33534.

17 *See, e.g.*, China-US bilateral agreements of 1992 and 1995 requiring modifications of Chinese IP laws and enforcement procedures, reprinted in FREDERICK ABBOTT, THOMAS COTTIER AND FRANCIS GURRY, THE INTERNATIONAL INTELLECTUAL PROPERTY SYSTEM: COMMENTARY AND MATERIALS, Part Two, pgs. 1592–1608, Kluwer L. Int'l, 1999.

18 *See, e.g.,* Yanfei Li, *Understanding China's Technological Rise*, THE DIPLOMAT, Aug. 3, 2018.

19 *See* EDUCATION IN CHINA: A SNAPSHOT, OECD 2016; Eva Huang, John Benson & Ying Zhu, *Education – China's most important economic weapon*, EASTASIA FORUM, March 15, 2014, https://www.eastasiaforum.org/2014/03/15/education-chinas-most-important-economic-weapon/.

20 CHINA IN THE WORLD TRADING SYSTEM: DEFINING THE PRINCIPLES OF ENGAGEMENT, F.M. Abbott, ed., Kluwer L. Int'l 1998.

21 Mark Hertsgaard, *Our Real China Problem*, THE ATLANTIC, Nov. 1997, https://www.theatlantic.com/magazine/archive/1997/11/our-real-china-problem/376989/. Pharmaceutical manufacturing, including API manufacturing, was undertaken with limited regard for potential downstream effects as China's industry developed. This is in the active process of being remedied. *See* Abbott, China Policies, *supra* note 11.

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- China's large population has transitioned from being an exceptional source of low-cost[22] labor to an attractive consumer market;[23]
- Chinese firms have become tightly integrated in global supply chains;
- Private enterprise is encouraged to a certain degree, thus loosening direct government control;[24]
- IP protection has been significantly strengthened and enforcement is likewise improved;[25]
- Foreign direct investment, particularly involving technology transfer, has been encouraged;[26]
- The government has engaged in detailed planning for achieving leadership in key technology areas, such as aerospace, telecommunications, electric vehicles and biotechnology, and it supports R&D and investment in those areas;[27]
- China's economic and military power is adequate to resist pressures from third country governments.[28]
- Environmental issues are being addressed.

iii China and the Limits of Technology Transfer

China appears to have reached the point where local R & D is taking priority over importation of technology, which represents a major step in the process of development. It is "graduating" from a technology importing to a "technology neutral" country, on the path to becoming a technology exporting country.

22 *See China's Economic Rise*, *supra* note 14, at 13, regarding rising labor costs.

23 Nikki Sun, China to surpass US as world's biggest consumer market this year, Nikkei Asian Rev., Jan. 24, 2019, th ed. 2017.

24 *See, e.g.*, *Is the shadow of the state sector growing over China's private business*?, CHINA ECON. REV., Nov. 12, 2018, https://chinaeconomicreview.com/is-the-shadow-of-the-state-sector-growing-over-chinas-private-business/.

25 *See, e.g.,* Wei Zhang, Evolution of the Patent System in China, in EMERGING MARKETS AND THE WORLD PATENT ORDER, eds. Frederick M. Abbott, Carlos M. Correa and Peter Drahos, Edward Elgar Pub., 2013, at 155.

26 *See China's Economic Rise*, *supra* note 15, at 16–17.

27 State Council, People's Republic of China, Made in Chana 2025 (website home),Jost Wübbeke, Mirjam Meissner Max J. Zenglein, Jaqueline Ives, Björn Conrad, MADE IN CHINA 2025 The making of a high-tech superpower and consequences for industrial countries, merics, No.2, Dec. 2016, https://www.merics.org/sites/default/files/2018-07/MPOC_No.2_MadeinChina2025_web.pdf.

28 US Dept. of Defense, Military and Security Developments Involving the People's Republic of China 2019, https://media.defense.gov/2019/May/02/2002127082/-1/-1/1/2019%20CHINA%20MILITARY%20POWER%20REPORT%20(1).PDF.

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China is today facing a concerted push back by the United States and several other HICs based on its industrial policy (including technology transfer) practices. This is a reaction to a significant extent to China's success.[29] The details of the pushback against China's transfer of technology practices are significant from the standpoint of defining the future of China's economic relationship with the rest of the world, although they night may not be specifically instructive for most LMIC's. Various elements include:

– A military-strategic overlay[30]
– A history of foreign industry enablement[31]
– "Non-traditional" IP licensing conditions[32]
– Enforcement against anticompetitive practices[33]

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29 While some might argue that the employment of tools such as cyber intrusion is morally unacceptable, human history is replete with examples of aggressive development policies (e.g. colonialism).

30 The defense apparatus in the United States has become increasingly concerned about China's efforts to achieve parity in the development and deployment of weapons and has identified Chinese cyber penetration of US defense firms as a priority concern. See US Dept. of Defense, Military and Security Developments Involving the People's Republic of China 2019, Annual Report to Congress, May 2, 2019, RefID: E-1F4B924.

31 Multinational corporations from the United States have been willing partners with Chinese industry, certainly recognizing that they were subject to appropriation of technologies given China's traditionally weak protection of IP and the need to engage joint venture partners to accomplish penetration of the Chinese market, and to build China-export capacity. Even today, US and European-based firms are reluctant to publicly criticize Chinese practices because of concerns regarding loss of privilege within the market. However, as is well-known, the Trump Administration has shown willingness to confront the Chinese government, including by taking extra-legal measures from a WTO standpoint, such as increasing tariffs in a non-MFN manner, and going above bound tariff rates. See, e.g., Frederick M. Abbott, *US Section 301, China, and Technology Transfer: Law and Its Limitations Revisited* (*Again*), International Center for Trade and Sustainable Development (ICTSD), Opinion, May 23, 2018. Available at SSRN: https://ssrn.com/abstract=3185439.

32 *See* discussion *infra*, text at note [].

33 It is also instructive to consider the activities of China's competition authorities, for example in taking action against Qualcomm's patent licensing conditions for essential standards patents. In the United States, Judge Lucy Koh in the Northern District of California recently issued a forceful opinion finding Qualcomm in violation of the Sherman Act (*FTC v. Qualcomm* (ND Cal. 2019), 2019 WL 2206013, Case No. 17-CV-00220-LHK, signed 05/21/2019), and requiring it to dramatically modify its FRAND licensing terms. Chinese smart phone makers were among the major "victims" of Qualcomm's aggressive licensing practices that required payment of patent licensing fees based on the total sales value of each smart phone, rather than on the contribution that Qualcomm's modem chips made to the value of the smart phone. Qualcomm was able to extract excessive royalty fees because it held a dominant position in the market for modem chips, and it threatened to (and did) cut off supplies to smart phone manufacturers to force them to agree

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– Alleged forced technology transfer[34]
– Alleged cyber-intrusion[35]

In terms of realignment, China may not yet be a major technology exporter, but it appears to be approaching that point. It was recently reported that the Chinese telecommunications company Huawei has demanded that certain telecommunications companies in the United States license Huawei's patent portfolio or risk infringement litigation.[36] This is a new chapter, and one which this author has been predicting for a number of years; that is, the day that the United States wakes up to the fact that its strong patent enforcement policies may be taken advantage of by increasingly innovative Chinese companies within the United States.[37] Chinese companies are building massive patent portfolios in the United States, and we are now seeing the first signs that they will seek to take economic advantage of these patents through litigation.

The decision by the Trump Administration to unilaterally impose trade sanctions on China may be positive from the standpoint of China's technological ascendance as it forces a decoupling from US sources of technology and encourages focus on domestic R&D and investment in production and export of high-technology products. There are signs that shifts are already taking place within China to address the US sanctions from a technology "localization" standpoint. While certainly not beyond debate, in this author's view the idea that appeared to motivate the Trump Administration – that imposing trade sanctions on China will derail its drive towards technological parity with

to its licensing terms. Qualcomm has appealed the decision and though it seems to be entirely reasonable from a competition law standpoint, it is difficult to predict the ultimate result. It should, however, have some positive effect on limiting the royalties charged on standard essential patents in the future. The point of this is to illustrate that, despite criticism from the American Chamber of Commerce in China with respect to the decisions and practices of its competition authorities, it may be that the business practices under investigation in China are genuinely anticompetitive and problematic, regardless of the national identity of the competition authority.

34 *See* discussion of legal aspects, *infra*.

35 The United States criticizes Chinese practices insofar as use of cyber-intrusion and hacking of US businesses and government institutions are concerned, though certainly the Chinese are not alone in these undertakings. And, though it is well reported that the US National Security Agency keeps close watch on foreign governments, we do not have much public information regarding the extent to which the NSA may be monitoring foreign commercial activity, or foreign technological development.

36 Sarah Krouse, *Huawei Presses Verizon to Pay for Patents*, WALL ST. J., June 12, 2019, https://www.wsj.com/articles/huawei-presses-verizon-to-pay-for-patents-11560354414.

37 Frederick M Abbott, *The United States response to emerging technological powers*, in EMERGING MARKETS AND THE WORLD PATENT ORDER, pg. 391, at 406 (2013).

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the US and Europe – is "far-fetched" – even if there is a short-term slowdown in its progress.

The Trump Administration trade policy of pushing back against China's strategic targeting is unlikely to result in substantial "on-shoring" or "re-shoring" of manufacturing jobs to the United States, in part because the labor force in the United States has transitioned towards services jobs and may not be so interested in resuming physical labor. As long as third countries offer more attractive wage rates, the draw of the US for manufacturing may not be so great.[38] With that said, the COVID-19 pandemic may have altered the political calculus in the United States regarding potential supply chain vulnerabilities, and this change may extend beyond the health sector (where some level of re-shoring of vaccine, treatment and medical equipment production appears to be a policy priority). With the US economy suffering significant economic damage that is affecting low-wage service labor (e.g., restaurant and hotel employees) particularly hard, it may be that lower technology manufacturing jobs become a more attractive option for workers.

Whether US and European pushback will influence Chinese policy with respect to the identification and promotion of particular sectors for development is an open question, though restriction of that practice does not seem the likely outcome. More likely, the net result is a gradual shift in China's principal export markets, which itself is dependent on the willingness of other countries to absorb China's surplus production.[39] Such a shift may also be affected by the COVID-19 pandemic as potential new markets for Chinese exports are constrained from a demand standpoint.

38 Some economic analysis suggests that China's policies of strategic targeting of industry sectors has led to increasing returns to scale and effective market dominance on a global level in certain sectors. It is suggested to be a form of government-supported and/or effectuated "first mover advantage". The type of first-mover advantage secured by China may be persistent, i.e. difficult to dislodge. Thomas Palley, *Rethinking Trade and Trade Policy: Gomory, Baumol, and Samuelson on Comparative Advantage,* Paper presented at a forum on "Global Competition and Comparative Advantage: New Thinking in International Trade" sponsored by the Woodrow Wilson Center's Program on Science, Technology, America, and the Global Economy, Washington, DC, June 13, 2006.

39 For many LMIC's that will be attractive, at least in the short run, as scarce resources can be used to purchase less costly Chinese goods. There may, however, be a longer-run cost for LMIC's that are unable to compete with Chinese manufacturers.

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IV Legal Aspects[40]

A *History*

Virtually since the opening-up of China's economy in the late 1980s, the United States (and to a somewhat lesser extent the European Union) have expressed concern about China's substantive IP laws and the enforcement of those laws. These concerns were addressed in bilateral agreements between the United States and China in the early 1990s,[41] and they were addressed in some detail in China's Accession Protocol to the WTO in 2001.[42] China's IP practices have been the subject of a dispute settlement proceeding initiated by the United States.[43] China has been the subject of continuing complaints in USTR's annual Special 301 Reports, and its IP practices have been addressed by various Commissions and more informal groups involving US and Chinese participants over the years. President Trump frequently proclaimed that he was the first US President willing to confront the Chinese. If by that he means that he is the first President to ignore multilateral rules in his pursuit of what he perceived to be US interests, even that may not be entirely correct,[44] though he has taken the practice to an exceptional level. The historical record would hardly suggest that the United States and its business community have not challenged China's IP and technology-related practices virtually continually since the late 1980s.

USTR's 2018 Section 301 Findings regarding China's IP and technology transfer practices specifically relies on those parts of US Section 301 that do not

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40 Portions of this section are adapted and updated from Frederick M. Abbott, *US Section 301, China, and Technology Transfer: Law and Its Limitations Revisited (Again),* International Center for Trade and Sustainable Development (ICTSD), Opinion, May 23, 2018. Available at SSRN: https://ssrn.com/abstract=3185439.

41 *See, e.g.*, China-US bilateral agreements of 1992 and 1995 requiring modifications of Chinese IP laws and enforcement procedures, reprinted in FREDERICK ABBOTT, THOMAS COTTIER AND FRANCIS GURRY, THE INTERNATIONAL INTELLECTUAL PROPERTY SYSTEM: COMMENTARY AND MATERIALS, Part Two, pgs. 1592–1608, Kluwer L. Int'l, 1999.

42 WTO, Protocol on the Accession of the People's Republic of China, WT/L/432, 23 Nov. 2001; WTO, Report of the Working Party on the Accession of China, WT/ACC/CHN/49, 1 Oct. 2001. See also Frederick M. Abbott and Carlos M. Correa, World Trade Organization Accession Agreements: Intellectual Property Issues, Quaker United Nations Office Global Economic Issues Publication, May 2007, available at SSRN: https://ssrn.com/abstract=1915338.

43 China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights, WT/DS362/R, 26 Jan. 2009.

44 US trade sanctions against Brazil based on its alleged failure to protect US patents in the [late 1980s] contravened GATT rules because the GATT did not at the time encompass substantive patent norms. There are other examples. See Abbott, Protecting First World Assets, at 693–94.

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require a finding of WTO-inconsistent measures or practices in order to justify remedial action by the United States.[45] This appears to implicitly accept that at least some of the practices USTR addresses in the Report are not inconsistent with China's TRIPS Agreement or Protocol of Accession obligations, but rather are unilaterally considered unreasonable or discriminatory.[46]

B Licensing

In March 2018, the US issued a Request for Consultations (RFC) with China as a prelude to formally requesting the establishment of a dispute settlement panel at the WTO,[47] and a panel was subsequently established. The parties later suspended the proceedings by mutual agreement[48] implying that China may have taken adequate steps to remedy the issues identified by the United States. However, while the US had identified several intellectual property (IP)-related practices that may have affected investments in China, these were minor matters from an economic standpoint, and not matters that go to the principal economic issues that the US is attempting to address through its actual and threatened trade sanctions.[49] Put another way, there was a limited correlation between this dispute and the principal allegations laid out in USTR's Section

45 Office of USTR, Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974 (March 22, 2018).

46 *Compare* 19 USC §2411 (a) (1) (Mandatory action) and §2411 (b) (1) (Discretionary action). Discretionary action by USTR may be taken if "an act, policy, or practice of a foreign country is unreasonable or discriminatory and burdens or restricts United States commerce". With respect to actionable unreasonable practices, these include practice that "denies fair and equitable" … provision of adequate and effective protection of intellectual property rights notwithstanding the fact that the foreign country may be in compliance with the specific obligations of the Agreement on Trade-Related Aspects of Intellectual Property Rights…" 19 USC §2411(d)(3)(B)(i)(II).

The Section 301 findings include a compilation by USTR of bilateral commitments said to have been made by China to the US within the framework of the US-China Joint Commission on Commerce and Trade (JCCT) and US-China Strategic & Economic Dialogue (S&ED). There is no suggestion made by USTR that these bilateral commitments – the legal status of which is not spelled out – are enforceable as a matter of WTO law or under some bilateral dispute settlement mechanism.

47 See status here: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds542_e.htm.

48 Communication from the Panel, China – Certain Measures Concerning the Protection of Intellectual Property Rights, WT/DS542/10, 14 June 2019.

49 The Chinese practices about which the US complained in the RFC concern mandatory indemnification by licensors for third-party patent infringement claims against licensees; prohibition against grant backs of technology improvements by licensees to licensors; and, mandating permission to licensees to continue using patented technologies after expiration of licenses. Each of these practices was alleged to apply to foreign licensors,

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301 Findings regarding China's technology transfer, IP, and innovation-related practices.

C *"Forced" Technology Transfer*

The main allegations in the 301 Findings are that the Chinese government, at the national and subnational levels, effectively compels foreign investors in China to transfer technology to domestic joint venture partners as a condition of approving inward investments, or in other contexts such as conditioning regulatory approvals. The Office of the USTR argues that to avoid complaints from foreign governments, the Chinese government pursues these practices largely in ways that do not leave a "paper trail," much in the nature of colluding co-conspirators in antitrust cases. Identifiable US corporate victims of the Chinese practices are unwilling to go on record with specific instances in which they have been affected by these practices, leaving it to industry group representatives to make the case without company-specific details, or perhaps providing company-specific details that USTR maintains in confidence.[50]

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but not to local Chinese companies. As noted above, on the scale of economic impact, these WTO inconsistencies were of limited significance.

Although some have argued otherwise, it is doubtful that China's patent licensing conditions in the absence of national treatment violation are inconsistent with the TRIPS Agreement or other trade rules. China's licensing rules are intended to promote transfer of technology and, as China has argued, it is a matter for the prospective licensor to decide whether it wishes to engage in a licensing transaction. The TRIPS Agreement does not guarantee that a patentee have freedom to determine the conditions under which it chooses to license, only that it be able to conclude licensing contracts. It is difficult to characterize the conditions imposed by China as "anticompetitive" since they are designed to promote competition rather than inhibit it. To be clear, it is probably not WTO-consistent to impose one set of conditions on foreign patentees and another on locally-based patentees.

50 The USTR Section 301 Findings that identifies these practices indicates that these are not legally codified conditions (although the EU in its amended RFC, *see infra,* has provided a significant list of allegedly problematic laws and regulations). The US starting position made it difficult for persons without specific knowledge of cases to evaluate whether and to what extent these practices are implemented. And, USTR did not suggest that it would pursue this avenue of complaint at the WTO, but rather under provisions of Section 301 that allow the government to take action with respect to unreasonable and discriminatory practices by foreign governments that may not be technically a violation of international legal rules. See USTR. Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act Of 1974, Mar. 22, 2018.

China responded in the alternative. First, it is not engaging in the practices alleged by USTR, and second, if it is engaging in those practices is a matter of choice for US-based companies to decide whether they want to invest directly in China are free to forgo such investment if they do not like the conditions. USTR has addressed the type of practice it

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As noted, USTR did not argue in the 2018 Section 301 Findings that China's alleged "forced technology transfer" practices are inconsistent with WTO norms. The WTO Agreements, including the TRIPS Agreement, are not "investment agreements", and USTR's allegations are addressed to conditions imposed on "direct investors", including as joint venture partners. Indeed, there is a WTO Agreement on Trade-Related Investment Measures (TRIMS) but, as its name implies, the TRIMS Agreement addresses requirements that may be imposed on exporters of products to WTO Members (e.g., US companies), that include practices such as requiring use of locally-produced goods in the importing Member (e.g., China).[51] TRIMS addresses trade in goods, not direct investment as such.

In the case of China, its WTO commitments are extended to those made in its Protocol of Accession, and provisions of the annexed Working Party Report incorporated by reference. Paragraph 7.3 of China's Accession Protocol references transfer of technology, but also in the context of the TRIMS Agreement, providing as follows:

> China shall, upon accession, comply with the TRIM s Agreement, without recourse to the provisions of Article 5 of the TRIM s Agreement. China shall eliminate and cease to enforce trade and foreign exchange balancing requirements, local content and export or performance requirements made effective through laws, regulations or other measures. Moreover, China will not enforce provisions of contracts imposing such requirements. Without prejudice to the relevant provisions of this Protocol, China shall ensure that the distribution of import licences, quotas, tariff-rate quotas, or any other means of approval for importation, the right of importation or investment by national and sub-national authorities,

identifies in China in agreements such as the TPP (from which it withdrew its signature) and USMCA, by explicitly incorporating in the investment chapters rules that preclude conditioning acceptance of foreign investment on transfer of technology.

51 See, e.g., TRIMS Agreement Annex, Illustrative List, para 1:

1. TRIMS that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require:
   (a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production; or
   (b) that an enterprise's purchases or use of imported products be limited to an amount related to the volume or value of local products that it exports.

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> is not conditioned on: whether competing domestic suppliers of such products exist; or performance requirements of any kind, such as local content, offsets, the transfer of technology, export performance or the conduct of research and development in China.

There may be some ambiguity in the dialogue reflected in the Working Party Report with respect to China's Accession, and to the extent either the US or the European Union (*see infra*) has an arguable claim against China with respect to the latter's alleged conditioning of government approval of investments on transfer of technology, it is primarily based on paragraphs 49 and 203 of the Working Party Report, that is incorporated through 342 of that Report and paragraph 1.2 of the Protocol of Accession into China's accession commitments. Paragraph 49 provides:

> The representative of China confirmed that China would only impose, apply or enforce laws, regulations or measures relating to the transfer of technology, production processes, or other proprietary knowledge to an individual or enterprise in its territory that were not inconsistent with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS Agreement") and the Agreement on Trade-Related Investment Measures ("TRIMS Agreement"). He confirmed that the terms and conditions of technology transfer, production processes or other proprietary knowledge, particularly in the context of an investment, would only require agreement between the parties to the investment. The Working Party took note of these commitments.[52]

52 Paragraph 203(1) of the Working Party Report provides:

> The representative of China confirmed that upon accession, as set forth in the Draft Protocol, China would comply fully with the TRIMS Agreement, without recourse to Article 5 thereof, and would eliminate foreign-exchange balancing and trade balancing requirements, local content requirements and export performance requirements. Chinese authorities would not enforce the terms of contracts containing such requirements. *The allocation, permission or rights for importation and investment would not be conditional upon performance requirements set by national or sub-national authorities, or subject to secondary conditions covering, for example, the conduct of research, the provision of offsets or other forms of industrial compensation including specified types or volumes of business opportunities, the use of local inputs or the transfer of technology. Permission to invest, import licences, quotas and tariff rate quotas would be granted without regard to the existence of competing Chinese domestic suppliers. Consistent with its obligations under the WTO Agreement and the Draft Protocol, the freedom of contract of enterprises would be respected by China. The Working Party took note of this commitment.* [Italics added]

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The first sentence of paragraph 49 essentially reiterates paragraph 7.3 of the Protocol, adding reference to the TRIPS Agreement, and does not appear to extend China's commitments beyond those texts. The second sentence does not state or imply that technology transfer agreements between foreign investors and Chinese enterprises (including state enterprises) are WTO inconsistent, but states that such agreements "particularly in the context of an investment, would only require agreement between the parties to the investment". Taken in the context of the full paragraph, the second sentence may be somewhat ambiguous. On one hand, it may be read as relating back to the first sentence, which expressly refers to the same three subject matters (i.e., "technology transfer, production processes or other proprietary knowledge") and to constitute a reaffirmation that technology transfer agreements that are consistent with the first sentence will not be subject to government control or regulation, but rather as agreed by private parties. On the other hand, it could be read to extend the commitment beyond TRIMS and TRIPS to foreign direct investment "as such" – separate and apart from conditions affecting approval for imports – and to constitute an extension of WTO rules into the direct investment arena – and beyond China's commitment directly incorporated in the Protocol itself. To the extent that either the US or EU could make out a claim that China's alleged direct investment conditioning practices are inconsistent with its WTO commitments, presumably they would rely on paragraph 49, second sentence, and paragraph 203, third and fourth sentences, of the Working Party Report.

The United States did not invoke the Working Party Report when it initiated its RFC with respect to licensing conditions. In its initial June 2018 RFC with China, broader than the US complaint, the EU similarly did not invoke the Working Party Report.[53] Why? Perhaps out of concern that an ambiguous provision that would substantially extend the scope of WTO subject matter would be interpreted not to do that. Perhaps the US was simply playing a strategic legal game that would concede that forced technology transfer in the context of investment was outside the scope of WTO rules, allowing it to apply remedial measures without going to WTO dispute settlement. Among other reasons, the US may have been concerned – based its experience in the *China-Enforcement* case[54] – that its private sector companies would be unwilling to

53 The United States shortly thereafter transmitted a request to join the consultations as a third-party. WT/DS549/3, 15 June 2018.

54 See audio file, Frederick M Abbott, The China Enforcement Case and Trends in International IP Protection, Presentation at Ninth Annual WTO Conference – May 20, 2009, BIICL, in cooperation with Institute of International Economic Law, Journal of International Economic Law and Society of International Economic Law, May 20, 2009,

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provide the type of evidence that would be needed to prove that China was in fact informally conditioning foreign direct investment approvals on specific terms in technology transfer agreements.

When the EU initiated a Request for Consultations with China in June 2018 regarding technology transfer practices that are alleged to discriminate against foreign intellectual property rights owners and to restrict the ability of those foreign right owners to protect their IP in China, it limited discussion to TRIPS Agreement and transparency rules.[55]

In December 2018 it amended the RFC. The EU refers to mandatory licensing terms similar to those referenced by the US in its RFC, adding that in joint ventures established with Chinese parties China imposes mandatory contract terms that discriminate and are less favorable for foreign IPRs owners. In its amended RFC (but not its initial RFC), the EU extends the legal basis of its complaint to China's Accession Protocol and Working Party Report (paragraphs 49 and 203).

China may have amended its national legislation and/or regulations to address concerns raised by the United States in its RFC (see discussion of patent licensing conditions, *supra*), and it is not clear yet the extent to which those amendments also may address the issues raised by the EU. Presumably not all of them, since the amended EU RFC is broader than the US RFC. The EU refers to a long list of Chinese laws and regulations which it alleges discriminate against foreign IP right owners, referring to inconsistency with Article 3 (National Treatment) of the TRIPS agreement, solely or in conjunction with Articles 28.1 (a) and (b), and Article 39.1 and 39.2 of the TRIPS Agreement (regarding trade secrets). In addition, the EU alleges that China's measures are inconsistent with various transparency rules.[56]

The key matter from a WTO legal standpoint is that the EU's interpretation of China's Accession Protocol and the Working Party Report would extend the scope of WTO rules beyond the TRIPS and TRIMS Agreements. The Appellate Body/DSB might approach the EU's position with caution, suggesting that the matter would be better addressed by political negotiation among the Members.

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available at http://frederickabbott.com/content/china-enforcement-case-and-trends-international-ip-protection, and Frederick M. Abbott, *China in the WTO 2006: 'Law and its Limitations' in the Context of TRIPS,* in WTO LAW AND DEVELOPING COUNTRIES, pp. 59–81, G. Bermann, P. Mavroidis, eds., Cambridge Univ. Press, 2007, available at SSRN: https://ssrn.com/abstract=1919488.

55 *China – Certain Measures on the Transfer of Technology*, WT/DS549/1, G/L/1244, IP/D/39, 6 June 2018 (subsequently amended, *see infra*).

56 Given the extensive list of Chinese measures referred to by the EU, it is beyond the scope of this paper to analyze the potential validity of all the EU's claims.

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With that said, there is no limit set out in the WTO Agreement regarding the subject matter scope of the rules that might be subject to accession commitment,[57] and the DSB could decide that China intentionally accepted to expand the subject matter scope of obligations in 2001 to foreign direct investment, as such.

v Transfer of Technology Policy

This author may be somewhat out of step with conventional Western economic thinking regarding so-called forced technology transfer. A country such as China (or any country for that matter) is offering foreign direct investors access to its market on some set of terms and conditions. China has presented a particularly attractive environment, explaining why over the past decade it has received more FDI than any other developing/emerging market country.[58] China has needed inward technology transfer to promote its economic development. When China is approached by multinational company wishing to invest (for example, with the private joint venture partner), is it unreasonable for China to bargain for inward technology transfer as a condition of approving the investment? A multinational company has the option of deciding against investment if the terms are deemed too onerous. It will be foregoing access to China's market from which it would otherwise presumably be extracting profits.

The US and EU governments understandably want to protect the technological assets of their home-based companies, but multinational companies are quite used to trading something-for-something.

This line of reasoning is important for any country seeking to enhance its technological capacity, and perhaps particularly developing countries. These countries are trading what may be valuable assets, that is, access to their labor and consumer markets. Certainly, some have more attractive markets than others and are in a better position to bargain. But what is the rationale for depriving developing countries of these bargaining assets?

The answer from the EU and US side may be that surrendering those assets is a condition to reciprocal access to the EU and US markets, and that may explain why developing countries are willing to make this concession in many cases. But that does not necessarily equate to good public policy, it is merely an illustration of the effects of power.[59]

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57 Article XII, WTO Agreement. See Abbott, *Reflection Paper*, *supra* note 9, at 5–6.

58 See, e.g., UNCTAD, World Investment Report 2018, at, e.g., 3 and Developing Asia, Figure A.

59 The author has expanded on the idea that it may not be in the interests of developing countries to forgo the right to formally condition investment approval on agreement to transfer of technology in Frederick M. Abbott, *Under the Radar: Reflections on 'Forced' Technology*

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D Cyber-piracy

The Section 301 Findings identify Chinese cyber piracy practices against US industry as unreasonable or discriminatory practices. The Office of the USTR says that these practices, though perhaps scaled back, continue notwithstanding Chinese government assurances they would cease. Such practices, at least in part, are undertaken through Chinese government agencies, which presumably make the pirated technology available to local Chinese companies.[60]

Cyber-intrusion represents a type of bad faith or inequitable conduct, not commercial bargaining. The TRIPS Agreement notably incorporates flexibilities that allowed WTO Members to make use of privately held IPR's in various circumstances. Those flexibilities do not include deliberate misappropriation of IP obtained by "theft". And, China has never conceded that its companies and/or military engages in commercial cyberpiracy, nor has it suggested that the practice is condoned under international law.

Does the TRIPS Agreement address cyberpiracy? Article 39.1-2 requires Members to maintain laws providing for protection of trade secrets (i.e., undisclosed information), and if cyberpiracy is detected within a Member where a foreign enterprise holds trade secrets, that enterprise should be able to bring an action for misappropriation. Naturally this may be somewhat problematic for a private entity to enforce in a foreign country if the activity is undertaken by government agencies, and difficult to detect. But there are some rules, including rules directed to criminal penalties more generally under TRIPS Agreement Article 61.

But this is not the principal concern of the US and EU in respect to China. They are instead concerned with cyberpiracy that is directed toward US or EU territory. Here again, one can argue that the US and EU maintain trade secret laws that prohibit misappropriation through cyberpiracy within their territories, including criminal provisions. The problem is enforcement. Detecting a cyber intrusion after the fact and initiating a legal action does not return the

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Transfer and the Erosion of Developmental Sovereignty, GRUR INTERNATIONAL, 69(3), 2020, 260–263 (Oxford), doi: 10.1093/grurint/ikz023.

60 A recent report prepared for the US-China Economic and Security Review Commission, established pursuant to US statute, suggests increasing concern with US federal procurement of Chinese-origin computer equipment, telecommunications equipment, and software which are said to lead to vulnerabilities in US security. An interesting aspect of the problem is that many of the exporters from China to the US are subsidiaries of US-based multinationals that have established production facilities in China. The report indicates that it is unrealistic to expect US-based enterprises to move manufacturing out of China to allay security concerns (because of the profitability of the Chinese market).

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misappropriated data to its original holder. Once the genie is out of the bottle, it is very difficult to put back.

Moreover, when the perpetrators are overseas and possibly part of the government, it might be possible to prosecute those perpetrators "in absentia", but it is unlikely that they can effectively be penalized through legal proceeding.

This leaves the adversely affected WTO Members with limited options beyond diplomatic/economic retaliation largely outside the court system. And, witness, we are engaged in a trade war at least in a material part based on allegations of cyberpiracy.

The logical solution would appear to be an inter-governmental agreement banning commercial cyber intrusion (i.e. directed toward commercial enterprises) and providing some type of mechanism for enforcing the ban. Getting countries to earnestly bargain an agreement that can be enforced might require resort to demonstration of reciprocal capacity for cyber theft.

E *Industrial Policy*

A major target of USTR's Section 301 Findings was China's Made in China 2025 program, including its identification of various technologically advanced subject matter for which the government proposed to become a global leader, including through domestic innovation and production.

It is ironic that a Presidential administration in the United States that declared its intention to bring manufacturing back to US territory and to remain the world leader in cutting-edge technology at the same time criticized China for pursuing comparable objectives. Irony aside, as a matter of principle suggesting that governments should not plan for domestic education, training and investment in R&D, presumes that the converse (i.e. a lack of planning) is preferable from a public policy standpoint.

Tackling technological development requires major financial and infrastructure initiative. There are routinely cases where this cannot simply be left to "market forces" e.g., because of the costs and risks involved. So, for example, when the EU wanted to tackle large civil aircraft it subsidized Airbus Industries. And, the list of technologies developed by or with the financing of the US government hardly bears repeating. To make a longer story shorter, when governments plan and decide that a particular outcome is necessary and/or desirable, they move the market in one way or another (e.g., tax incentives) to improve the chances that it will.

This is a matter of degree. Some governments are more interventionist and/or controlling than others. Some express greater faith in the wisdom of the market. Nonetheless, as a matter of overarching principle, the argument that governments should not develop preferred outcomes is certainly contestable.

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Assuming that governments intervene in the market to encourage preferred outcomes, including through state enterprises, the question then becomes why that might be a problematic choice. The basic answer is straightforward: because government intervention may make it difficult for private sector enterprises within and/or outside the sponsoring country to compete with the "favored" industry. And, it is this "market displacement" that the GATT and WTO have addressed through the Agreements on Subsidies and Dumping. Those Agreements authorize affected Members to address so-called "unfair trading practices" by imposing countervailing duties and/or antidumping duties. In principle, the level of support and market distortion from the sponsoring country can be offset by tariffs. And, while offending WTO Members may be directed to remedy WTO-inconsistent measures, the possibility to suffer tariff-based consequences is available.

We have a conundrum of sorts. We need governments to plan and to develop preferred outcomes. Otherwise, we get massive carbon emissions, global warming, inadequate healthcare, and other social harms. If China through government planning develops a more efficient electric automobile, we are all better off. That is, perhaps, with the exception of automobile manufacturers in Europe.

There was an idea introduced in the Subsidies Agreement of an exception for R&D measures relating to protection of the environment but this "green exception" expired. So, at least at some point the need to balance a negative view of subsidization with good environmental policy was recognized.

It would be preferable for the United States and EU to move away from criticism of Chinese (and other government) industrial policy on grounds that the latter is exercising an excess of government control. Government industrial policy control moves across a spectrum. The focus might instead be directed toward addressing the effects of those measures on third countries and their enterprises, and whether there is an element of market displacement brought about by subsidized competitors. That can then be redressed through rebalancing measures, including if need be even through measures such as quotas (which we know introduce their own distortions). But the answer should not be "don't engage in government planning".

Ideally, multilateral negotiations could address the extent to which there is permissible scope for government intervention in a range of subject matter and attempt to prescribe offsetting compensatory measures in advance. For example, there might be agreement that new technologies developed through substantial government support would be made available to third countries based on a reasonable royalty. One of the consequences of the COVID-19 pandemic has been to substantially heighten the interests of governments in pursuing

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solutions to problems of innovation and access through mechanisms for technology sharing, including options such as voluntary patent pools[61] and compulsory licensing.[62] Otherwise the near to medium term does not show much promise for more comprehensive reform of the international economic system which would provide more flexibility for "intelligent government planning".[63]

III The US-China Economic and Trade Agreement

A *China's Substantive Obligations*

As alluded to earlier, China agreed to address US allegations of forced technology transfer and cyber-piracy in a so-called Phase 1 agreement, the "Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China", dated January 15, 2020.

The terms accepted by China with respect to technology transfer, while similar to those incorporated in bilateral and regional trade and investment agreements previously negotiated with other countries by the United States,[64] go beyond those agreements in expressly addressing the informal conditioning of investment approvals. The relevant provisions state:

> Article 2.1: General Obligations
>
> 1. Natural or legal persons ('persons') of a Party shall have effective access to and be able to operate openly and freely in the jurisdiction of the other Party without any force or pressure from the other Party to transfer their technology to persons of the other Party.

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61 See Frederick M. Abbott and Jerome H. Reichman, *Facilitating Access to Cross-Border Supplies of Patented Pharmaceuticals: The Case of the COVID-19 Pandemic*, JOURNAL OF INTERNATIONAL ECONOMIC LAW (Oxford), Volume 23, Issue 3, pp. 535–561, Sept. 2020, available at SSRN: htt.ps://ssrn.com/abstract=3656725 or http://dx.doi.org/10.2139/ssrn.3656725, and Ed Silverman, WHO director-general endorses a voluntary intellectual property pool to develop Covid-19 products, STAT Pharmalot, April 6, 2020, https://www.statnews.com/pharmalot/2020/04/06/covid19-coronavirus-patents-voluntary-pool-world-health/.

62 See, e.g., *The key covid-19 compulsory licensing developments so far*, iam, April 7, 2020, https://www.iam-media.com/coronavirus/the-key-covid-19-compulsory-licensing-developments-so-far; Valerie Bauman & Susan Decker, Covid Seen as Tipping Point to Lower Drug Prices, Patent Sharing, Bloomberg Health Law & Business News April 22, 2020.

63 The United States backed out of the United Nation's Framework Convention on Climate Change and has generally been pushing away from multilateral solutions.

64 See Abbott, *Under the Radar, supra* note 59.

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2. Any transfer or licensing of technology between persons of a Party and those of the other Party must be based on market terms that are voluntary and reflect mutual agreement.
3. A Party shall not support or direct the outbound foreign direct investment activities of its persons aimed at acquiring foreign technology with respect to sectors and industries targeted by its industrial plans that create distortion.

Article 2.2: Market Access

Neither Party shall require or pressure persons of the other Party to transfer technology to its persons in relation to acquisitions, joint ventures, or other investment transactions.

Article 2.3: Administrative and Licensing Requirements and Processes

1. Neither Party shall adopt or maintain administrative and licensing requirements and processes that require or pressure technology transfer from persons of the other Party to its persons.
2. Neither Party shall require or pressure, formally or informally, persons of the other Party to transfer technology to its persons as a condition for, *inter alia*:
   (a) approving any administrative or licensing requirements;
   (b) operating in the jurisdiction of the Party or otherwise having access to the Party's market; or
   (c) receiving or continuing to receive any advantages conferred by the Party.
3. Neither Party shall require or pressure, formally or informally, persons of the other Party to use or favor technology that is owned by or licensed to its persons as a condition for, *inter alia*:
   (a) approving any administrative or licensing requirements;
   (b) operating in the jurisdiction of the Party, or otherwise having access to the Party's market; or
   (c) receiving or continuing to receive any advantages conferred by the Party.
4. The Parties shall make their administrative and licensing requirements and processes transparent.
5. The Parties shall not require or pressure foreign persons to disclose sensitive technical information not necessary to show conformity with the relevant administrative or regulatory requirements.
6. The Parties shall protect the confidentiality of any sensitive technical information disclosed by foreign persons during any administrative, regulatory, or other review processes.

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Article 2.4: Due Process and Transparency

1. The Parties shall ensure that any enforcement of laws and regulations with respect to persons of the other Party is impartial, fair, transparent, and non-discriminatory. …

China might suggest that these technology transfer related commitments only represent a matter of compliance with obligations it assumed in its 2001 Protocol of Accession to the WTO; nothing more than compliance with paragraphs 49 and 203 of its Accession Protocol. China has now conceded that it accepted to bring foreign direct investment "as such" within the scope of its WTO commitments – going beyond the commitments of other Members. It has not made any new commitment to the United States. If that is China's legal perspective, it nonetheless conceded the point under the cloud of substantial trade sanctions imposed by the United States outside compliance with WTO rules, and China validated the bilateral US approach.

China made significant commitments to the United States as well in respect to addressing cyber-piracy, including with respect to thresholds for initiating criminal enforcement, and placing substantial limits on requests for information from government authorities.[65]

Because the WTO TRIPS Agreement requires that concessions granted with respect to higher levels of protection of IP be extended to all WTO Members on an MFN basis,[66] the commitments China has made to the United States pursuant to the Phase 1 Agreement will be extended to the EU and other WTO Members.

B *Non-Judicial Dispute Settlement*

The Phase 1 Economic and Trade Agreement between the US and China bypassed WTO dispute settlement and illustrated from the US perspective the value of power-infused bilateral bargaining. As if to drive this point home, there is no "legalized" dispute settlement mechanism in the Phase 1 Agreement. Instead, the parties have agreed to establish a Bilateral Evaluation and Dispute Resolution Office[67] composed of trade bureaucrats designated by each party. If a party has a complaint, it sends it to the trade bureaucrats of the other party for evaluation, following which there will be consultations. If those consultations do not yield a satisfactory result, the ultimate step of dispute settlement

65 See Section B: Trade Secrets and Confidential Business Information of Chapter 1 of the Phase 1 Agreement.

66 TRIPS Agreement, Art. 4.

67 Chapter 7, Art. 7.2(2)(a).

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is an urgent meeting between the USTR and the designated Vice Premier of the PRC. The "final step" of resolution merits quoting:

> "If the Parties do not reach consensus on a response, the Complaining Party may resort to taking action based on facts provided during the consultations, including by suspending an obligation under this Agreement or by adopting a remedial measure in a proportionate way that it considers appropriate with the purpose of preventing the escalation of the situation and maintaining the normal bilateral trade relationship. The Party Complained Against can initiate an urgent meeting between the United States Trade Representative and the designated Vice Premier of the People's Republic of China before the effective date of the action to be taken by the Complaining Party. If the Party Complained Against considers that the action by the Complaining Party pursuant to this subparagraph was taken in good faith, the Party Complained Against may not adopt a counter-response, or otherwise challenge such action. If the Party Complained Against considers that the action of the Complaining Party was taken in bad faith, the remedy is to withdraw from this Agreement by providing written notice of withdrawal to the Complaining Party." Art. 7.4.4(b)

China and the United States have thus agreed to turn the clock of dispute settlement back to the early days of GATT 1947 when trade disputes were resolved by diplomats meeting behind closed doors.

If the thinking on either side is that this will encourage reinvigoration of the WTO, it is certainly a peculiar way to point in that direction. In other words, we will "encourage a return to multilateralism and legalization by embracing bilateralism, power politics and diplomacy".

IV Some Conclusions

A *Legal Rules and Diplomacy*

This author frequently refers to a classic work on the GATT system by Olivier Long, a former Director General, entitled "Law and its Limitations in the GATT Multilateral Trading System". Long's basic thesis was that it is a mistake to overemphasize the capacity for legal rules to discipline the international trading system because those rules are not so broad as to encompass all of the elements that affect the international trading/economic system, and because circumstances are always changing and developments cannot necessarily be

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foreseen. He emphasized the important residual role of the diplomats, and that there will be situations that are either not accounted for by GATT (now WTO) legal rules, or where the rules may not up to the task of controlling the governments involved.

Perhaps China and the United States are merely exemplifying the residual role of the diplomat to which Olivier Long referred. I find it doubtful that Long had in mind a trade war and eschewing of legal rules as far-reaching as that in which China and the United States are engaged; one which appears to threaten the very existence of the WTO. But it could be that an intense trade battle was needed to "clear the air" and jump-start a new multilateral agenda.

B *Enter the Biden Administration*

As of January 20, 2021, President Joseph Biden, Jr., replaced Donald Trump as the chief executive of the United States. As such, Pres. Biden is responsible for implementing trade policy within the framework mandated by the U.S. Congress.[68]

Donald Trump was elected in part on the basis of his promise of an aggressive "America First" trade policy, with China standing as a principal target.[69] This was, however part of a larger Trump-perspective on international relations that disdained cooperation and multilateralism in favor of zero-sum game pursuit of American self-interest. That inward-looking perspective was reflected in various *fora*, including the United Nations Framework Convention on Climate Change (UNFCCC), the World Health Organization, NATO and others. In his election campaign, then-candidate Biden made clear that he rejected Trump's worldview and would reengage the United States with other countries and multilateral institutions.[70]

It is not surprising, therefore, that in the first few weeks of the Biden presidency the new Administration has rejoined the Paris Agreement negotiated

68 Pursuant to the United States Constitution, it is the Congress that has authority to regulate foreign trade, and the President generally acts pursuant to Congressional legislative direction, though with some residual inherent powers. U.S. Constitution, Article I, Section 8, Clause 3: [The Congress shall have Power ...] To regulate Commerce with foreign Nations..." See *Consumers Union v. Kissinger*, 506 F.2d 136 (D.C. Cir. 1974), and *Amer. Instit. for Int'l Steel v. United States*, 806 Fed.Appx. 982 (Fed. Cir. 2020).

69 Jacob M. Schlesinger, *Trump's 'America First' Trade Vision Comes Into Focus on Three Fronts*, WALL ST. J., updated Dec. 15, 2019, https://www.wsj.com/articles/trumps-america-first-trade-vision-comes-into-focus-on-three-fronts-11576436055.

70 See, e.g., The Power of America's Example: The Biden Plan for Leading the Democratic World to Meet the Challenges of the 21st Century, https://joebiden.com/americanleadership/ [various position statements in late 2019].

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under the UNFCCC,[71] has notified the WHO that it intends to remain a member,[72] and has withdrawn its opposition to the appointment of Ngozi Okonjo-Iweala as Director-General of the WTO.[73] The action vis-à-vis the WTO signals that the United States intends to reengage with trade-related multilateralism at some – as yet to be determined – level.

Yet these early signals of an overall change in external policy direction that were widely anticipated leave open many "details" regarding more specific issues. For example, whether and when the United States will allow the WTO Appellate Body to resume its role pursuant to the WTO Agreements. This has relevance to US-China trade relations in the sense that the Dispute Settlement Body at the WTO may resume its role as an operational forum for resolving disputes. While the Biden Administration may allow the Appellate Body to again render decisions, that will not significantly resolve tensions between the United States and China. Recall that the Phase 1 Agreement discussed earlier is not subject to WTO dispute settlement.

More important, "early signals" from the Biden Administration – bearing in mind that it is not yet clear which of the presidential appointees will speak most authoritatively for the Administration on China – are that the United States will continue to pursue a forceful bilateral trade policy toward China and its perceived unfair trading practices,[74] including notably with respect to IP and transfer of technology.[75] So far a principal topic of discussion inside

71 See White House Press Statement of January 20, 2021, Pres. Biden accepting Paris Agreement, https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/.

72 See White House press statement of January 20, 2021, Pres. Biden Letter to His Excellency António Guterres, UN Sec. Gen., notifying that the United States intends to remain a member of the WHO, https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/letter-his-excellency-antonio-guterres/.

73 Edward White,Song Jung-a, Aime Williams & Alan Beattie, US backing paves way for Nigeria's Okonjo-Iweala to lead WTO, Financial Times, Feb. 5, 2021, https://www.ft.com/content/5c50d594-0df3-4204-8325-0882303631bc.

74 See, e.g., White House 'reviewing' phase-one deal; China's ambassador blasts U.S. approach, InsideTrade.com, January 29, 2021.

75 See, e.g., IAM, *Biden administration promises hard stance against Chinese IP abuses*, Jan. 27 2021, https://www.lexology.com/library/detail.aspx?g=0a1a8bf3-47b5-4d17-984e-c3e1976b3bbe, reporting.

Initially, at least, it appears that Biden will continue to take a hard line toward Chinese IP abuses. During her confirmation hearing last week, Janet Yellen, US secretary of treasury, described China as the country's "most important, strategic competitor" and stated that the United States "need[s] to take on China's abusive, unfair, and illegal practices"… Yellen also accused China of "stealing intellectual property and engaging in practices that give it an unfair technological advantage, including forced technology transfers", and promised that the Biden Administration was "prepared to use the full array of tools",

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Washington is whether China has lived up to its commitments under the Phase 1 Agreement,[76] not whether and when the United States will begin to ratchet back its tariff sanctions and restrictions on doing business with designated Chinese entities.

Although some US multinational business enterprises might prefer to see a softening of the US position vis-à-vis China in terms of tariffs and other punitive measures, the idea that China is taking unfair advantage of the United States through unfair trading practices has become embedded in the US political realm.[77] The US public accepts this, as do members of Congress. Given this political reality, it seems doubtful that the Biden Administration will reverse course. Recall that the Democratic Party is the party of labor, and workers in the United States and their unions are not sympathetic to China's trade and economic policies.

US technology industries have taken on board the potential advantages of localization of the supply chain and of avoiding reliance on foreign producers. The major semi-conductor producers have begun to stress the importance of maintaining and building up manufacturing facilities within the United States.[78] There are various reasons for this. But reliance on outsourced production has begun to adversely impact the ability of the US semiconductor producers to meet demand, has created risks of falling behind the production technology curve, and is increasingly cast as a national security issue.[79]

There appears to have been over the course of the past several years something of a "tectonic shift" in the United States in regard to US-China relations. A deep skepticism toward China has arisen. The situation seems similar with

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including by "devi[sing] an administration-wide and multifaceted approach", to address concerns about "illicit activities, theft of intellectual property and trade secrets, [and] illegal efforts to acquire critical technologies and sensitive U.S. data, among other things".

76 See note 7, *supra*.

77 See, e.g., William Mauldin and Michael R. Gordon, *Blinken Backs Tough Approach to China, Says Will Work With GOP*, WALL ST. J., updated Jan. 19, 2021, https://www.wsj.com/articles/blinken-to-address-u-s-rivalry-with-china-russia-in-senate-hearing-11611069439.

78 Letter of February 11, 2021 from Semiconductor Industry Association to Pres. Biden, https://www.semiconductors.org/wp-content/uploads/2021/02/SIA-Letter-to-Pres-Biden-re-CHIPS-Act-Funding.pdf.

79 Principal reliance is on manufacturing in Taiwan, largely through Taiwan Semiconductor Manufacturing (TSMC). From the US standpoint that reliance raises national security issues given China's political position regarding the status of Taiwan. See Congressional Research Service, Semiconductors: U.S. Industry, Global Competition, and Federal Policy, R46581, Oct. 26, 2020, https://crsreports.congress.gov/product/pdf/R/R46581.

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respect to the European Union, and for EU-China relations.[80] That said, the EU is more economically dependent on China as an export market, so it probably will not take on a posture equivalent to that of the United States.

In light of this, there is not a present basis for suggesting that trade and economic relations between the United States and China are about to undergo a significant realignment toward the pre-2016 situation. The future is famously difficult to predict, and things might well move in a different direction. But, for now, the New Global Economic Order seems likely to be one in which bilateral negotiations and outcomes – as reflected in the Phase 1 US – China Economic and Trade Agreement – are more the rule than the exception. President Biden manifests a less confrontational personality than Donald Trump and may well convey a diplomatic tone that appears more conciliatory than that of his predecessor. Conversely, President Biden has longer experience and a deeper understanding of what is at stake in the US-China relationship, so a change in tone should not be confused with a softer approach on key policy issues.

The COVID-19 pandemic added a whole new set of "stressors" on China-US relations. The World Health Organization was embroiled (and threatened) in the deteriorated bilateral relationship.[81] In this environment, it is premature to speculate about post-COVID-19 institutional mechanisms for addressing trade and intellectual property questions.

For the foreseeable future it is a matter of managing bilateral relations and avoiding further ratcheting up of tensions. The existing multilateral institutions that regulate IP – primarily WIPO and WTO – will have to "muddle through".

It is possible that the global perspective on IP and innovation will change in consequence of COVID-19 and that more focus will be placed on treating technology and innovation as global public goods. Such a change in perspective might cause us to rethink the type of multilateral institutional structures we require. This author does not regard such a transformation as the most likely outcome, but mentioning it allows us to conclude this chapter on a tentative optimistic note.

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80 See, e.g., Steven Lee Myers, *China, Seeking a Friend in Europe, Finds Rising Anger and Frustration*, NY TIMES, Updated Jan. 6, 2021, https://www.nytimes.com/2020/09/17/world/asia/china-europe-xi-jinping.html.

81 See, e.g., Frederick M. Abbott, *Confronting COVID-19 In A World Without WHO – Seriously?*, HEALTH POLICY WATCH, April 14, 2020, https://healthpolicy-watch.org/confronting-covid-19-in-a-world-without-who-seriously/.

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