GRUR International, 69(3), 2020, 260–263

doi: 10.1093/grurint/ikz023
Opinion

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Under the Radar: Reflections on 'Forced' Technology Transfer and the Erosion of Developmental Sovereignty

Ongoing trade tensions between China and the United States have focused on alleged Chinese misappropriation of US-owned intellectual property (IP) and 'forced technology transfer' from US direct investors in the Chinese market. US government rhetoric regarding technology transfer portrays alleged Chinese demands on prospective investors to provide technology to local Chinese enterprises as some form of 'wrongful act'.[1] Recognizing limitations of the international legal regime that might characterize China's rules and practices as 'unlawful', the United States labels China's regime as 'unreasonable'.[2]

This commentary is directed toward addressing concession by developing country foreign direct investment (FDI) hosts of a potentially important tool for accelerating technological development – a tool that may become more important as the prospects for developmental assistance are otherwise diminishing. Governments at all levels of development have a substantial interest in promoting inward technology transfer in a way that benefits locally-based enterprises. Governments, through legislation and/or regulatory measures, can improve the terms of trade for local businesses by setting ground rules that improve the capacity, i.e. bargaining power, of local enterprises in negotiating the terms of FDI.[3]

The question is not whether technology transfer requirements are the 'optimal' mechanism for encouraging inward transfer of technology. As a factual matter, China has used such requirements and made enormous technological advances during the period of such use. And recent economic research strongly supports the conclusion that China's joint venture requirements for foreign investors have resulted in more robust technology transfer to Chinese enterprises (including downstream enterprises) than wholly-owned foreign investments.[4] In the case of China the available evidence suggests that 'forced technology transfer' in the context of investment approvals has exerted a positive internal impact.

China has a number of unique characteristics and its approach to foreign direct investment and technology transfer may not be the optimal approach for other developing and/or emerging market countries.[5] But whether technology transfer requirements are 'optimal', or a second or third best, this does not argue for taking them out of the toolkit for developing countries. It is difficult to foresee the circumstances that will be relevant for each country and whether particular tools should be employed in particular situations.

To give just one illustration, addressing climate change is a matter of urgency for the international community and for many developing and emerging market countries. Much of the advanced technology for mitigating climate change has been developed in OECD (high-income) countries, and there are good reasons for developing countries to encourage direct investments in 'green industries'. But building out alternative energy infrastructure is a major long-term exercise and countries (such as India) that are contemplating major capital outlays have good reason for seeking to develop their own technological capacity and production platforms. Might it not be reasonable for India to require foreign direct investors seeking to take advantage of this large-scale market opportunity to partner with local enterprises and furnish necessary technologies?

Despite the advantages to national governments in preserving their authority to condition foreign direct investment, there is a trend of incorporation of provisions precluding technology transfer conditions in Preferential Trade and Investment Agreements (TIAs). This is not a new phenomenon. The United States secured commitments from developing countries at least as early as its bilateral FTA with Chile in 2004 that approval of investments would *not* be conditioned on a performance

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1 The US seeks to give technology transfer requirements a 'pejorative' connotation – to echo Bob Hudec and others regarding 'discrimination' in the WTO Canada-Generic Pharmaceuticals case. Per Report of the Panel, 'Canada – Patent Protection of Pharmaceutical Products' (WT/DS114/R, 17 March 2000): 'The ordinary meaning of the word "discriminate" is potentially broader than these more specific definitions. It certainly extends beyond the concept of differential treatment. It is a normative term, pejorative in connotation, referring to results of the unjustified imposition of differentially disadvantageous treatment.' Paragraph 7.94.

2 Office of the United States Trade Representative, '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, 22 March 2018' at, eg, 44 [hereinafter USTR – China Report].

3 The use by a developing country of the requirement that a foreign direct investor engage with a local partner in order for an investment to be approved may constitute a technology transfer requirement notwithstanding the absence of a specific reference in legislation or regulations to technology 'as such'. Virtually by definition, a foreign direct investor from a high-technology country engaging with a local partner will be bringing technology into the arrangement.

4 Kun Jiang and others, 'International Joint Ventures and Internal vs. External Technology Transfer: Evidence from China' (NBER Working Paper 24455, March 2018, Revised October 2019) <http://www.nber.org/papers/w24455>.

5 The author has identified these characteristics elsewhere, including in a forthcoming paper presented in Beijing in October 2019. A PowerPoint summarizing that paper can be found here: <http://frederickabbott.com/sites/default/files/Abbott%20-%20UIBE%20TRIPS%20PPT.pdf>.

requirement: 'to transfer a particular technology, a production process, or other proprietary knowledge to a person in its territory.' (Art. 10.5.1(f), Chile-US FTA)

This provision in a substantially similar format has become a 'staple' of US-negotiated TIAs, and is found in the text of the TPP,[6] preserved in the CPTPP.

The United States is not alone in demanding restrictions on technology transfer. The recently concluded Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union includes a restriction on technology transfer requirements in essentially identical terms.[7]

The 'final' text of the Regional Comprehensive Economic Partnership Agreement (RCEP) has not been made publicly available, though it has been previously reported that a performance requirement similar to that included in the TPP with respect to technology transfer was proposed.[8] India pushed back against including such a provision,[9] and it may be that India's decision not to join the RCEP in part is based on its unwillingness to accept a provision of that type.

Recognizing the risks inherent in accepting broad commitments to investor-state dispute settlement (ISDS), developed and developing countries have started to limit or eliminate ISDS commitments in TIAs.[10] This reflects in large measure a reaction to the pressure from private industry to expand the scope of ISDS subject matter to cover legislative and regulatory subject matter traditionally considered within the sovereign prerogative of governments.[11] What accounts, at the same time, for the seeming acquiescence to allowing third countries to control the terms of technology transfer? What is the rationale for committing to preclude requirements of technology transfer?

WTO law

The WTO Agreements address trade in goods and services and the protection of trade-related intellectual property. The WTO Agreements are not investment agreements, except insofar as investment measures may be trade-related. In addition to a basic rule of national treatment, WTO rules include the Agreement on Trade-Related Investment Measures or TRIMS Agreement. The TRIMS Agreement clarifies that the importation (or exportation) of goods may not be conditioned by importing countries on requirements such as quotas to include locally-made components in end products. There is nothing in the TRIMS Agreement expressly directed toward technology transfer requirements. However, it can be argued that requiring foreign companies to transfer technology to local companies as a condition of importing products is inconsistent with the TRIMS Agreement, particularly if such a requirement is not equally imposed on domestic/local producers. The key limitation of the TRIMS Agreement is that it applies only with respect to conditions imposed upon the importation or exportation of goods, not on conditions of foreign direct investment as such.

The TRIPS Agreement is sometimes referenced as relevant to technology transfer requirements.[12] The TRIPS Agreement requires that WTO Members allow patent holders to license their patented technologies, but it does not establish rules regarding the terms of such transfers[13] except in the context of reference to potentially anticompetitive licensing practices.[14] The TRIPS Agreement obligates WTO Members to grant patents and allow their 'enjoyment' without discrimination regarding place of invention, field of technology or whether goods are imported or locally produced.[15] Technology transfer obligations are not directly implicated by those obligations.[16]

Government requirements on foreign investors to partner with local enterprises as a condition of foreign direct investment has been a common feature of national laws throughout much of the developing and emerging market world both before and after entry into force of the WTO Agreement.[17] In that regard, it is difficult to envision a successful claim that joint venture requirements as such contravene the rules of the WTO. Licensing of technology to a joint venture is a natural feature of such an arrangement. If government rules regarding joint ventures apply in equal measure to local and foreign entities, there is not

6 Transpacific Partnership Agreement
Article 9.9: Performance Requirements
1. No Party shall, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement, or enforce any commitment or undertaking:
. . .
(f) to transfer a particular technology, a production process or other proprietary knowledge to a person in its territory; . . .

7 Article 8.5 of CETA provides:
1. A Party shall not impose, or enforce the following requirements, or enforce a commitment or undertaking, in connection with the establishment, acquisition, expansion, conduct, operation, and management of any investments in its territory to:
(f) transfer technology, a production process or other proprietary knowledge to a natural person or enterprise in its territory; . . .

8 See <https://rceplegal.files.wordpress.com/2016/08/03-rcep-wgi10-draftconsolidated-investmenttext.pdf> for consolidated negotiating text of 16 October 2015.

9 See, eg, VS Seshadri, 'Regional Comprehensive Economic Partnership Agreement: Need for a Strategy' (RIS-Discussion Paper # 209, March 2017) <http://www.ris.org.in/regional-comprehensive-economic-partnership-agreement-need-strategy-0>.

10 See, eg, 'NAFTA 2.0 finalized, announced as USMCA: Mexico, United States agree to limit ISDS clause; Canada to pull out of ISDS after a three-year window, Investment Treaty News' (*IISD*, 17 October 2018) <https://www.iisd.org/itn/2018/10/17/nafta-2-0-finalized-announced-as-usmca-mexico-united-states-agree-to-limit-isds-clause-canada-to-pull-out-of-isds-after-a-three-year-window/>. European Commission, 'Trade: European Court of Justice confirms compatibility of Investment Court System with EU Treaties' (*European Commission Press Release*, 30 April 2019) <https://ec.europa.eu/commission/presscorner/detail/en/IP_19_2334>.

11 See, eg, Frederick M Abbott, 'Legislative and Regulatory Takings of Intellectual Property: Early Stage Intervention Against a New Jurisprudential Virus' in Carlos Correa and Xavier Seuba (eds), *Intellectual Property and Development: Understanding the Interfaces* (Springer 2019) 21-35 (at 24-25) DOI: 10.1007/978-981-13-2856-5_2<https://ssrn.com/abstract=3346134>.

12 See, eg, 'China – Certain Measures on the Transfer of Technology, Request for Consultations by the European Union, Revision', 8 January 2019 (submitted 20 December 2018). The EU refers to several provisions of the TRIPS Agreement – arts 33, 28 and 39 – as to which it alleges WTO inconsistency, as well as China's Protocol of Accession, referred to below.

13 Article 28.2 TRIPS: 'Patent owners shall also have the right to assign, or transfer by succession, the patent and to conclude licensing contracts.'

14 Article 40.2 TRIPS.

15 Article 27.1 TRIPS.

16 However, an obligation on a foreign investor to license its patented technology for use by a local joint venture might be argued to restrict enjoyment of patent rights based on the place of invention. Yet the 'place of invention' language was included in art 27.1 to address a significantly different phenomenon: namely, US differential treatment of patent applications and prior art based on place of invention.

17 See n 4.

much space for arguing that such rules contravene the TRIPS Agreement or TRIMS Agreement. Even if such rules apply only to foreign investors seeking approval to enter the market, an argument for TRIPS inconsistency is attenuated.

It is worth recalling that OECD countries attempted to negotiate a self-standing Multilateral Agreement on Investment (MAI) in the latter part of the 1990s and the effort failed.[18] If the WTO Agreements already had covered investment subject matter, there would have been no apparent incentive for negotiating the MAI. At this present historical juncture, there is little chance of concluding a new agreement on investment at the WTO given that the institution has more fundamental concerns to address. This may account to a certain extent for efforts by the United States and EU to portray the WTO Agreements as investment agreements broader than their intended purpose.

Whether China has accepted obligations greater than those assumed by other WTO Members in its Protocol of Accession is debatable.[19] On one hand, the language in the Protocol of Accession can be construed as reinforcing the elements of compliance with the TRIMS and TRIPS Agreements. On the other hand, the language may be susceptible to interpretation as extending China's commitments to foreign direct investment 'as such', which would go beyond the generally applicable obligations of a WTO Member. This commentary does not opine on the appropriate interpretation of the subject language in the context of resolving the China-US trade dispute because China's Protocol of Accession is not 'generalizable' to the WTO membership at large. It is *sui generis* to China.

Customary international law

Customary international law was and is concerned with the legal treatment of aliens, including host country treatment of foreign direct investments. The investment chapter obligations in TIAs and related dispute settlement rules typically seek to encapsulate and/or incorporate the norms that have evolved as a matter of customary law.

Host government rules establishing joint venture requirements and/or technology transfer requirements in connection with investment approvals do not fall within the subject matter scope of 'takings' of the property of aliens, such as by way of expropriation. Principally this is a temporal matter. Conditions on the approval of investments, such as joint venture and technology transfer requirements, are regulatory conditions of entry or establishment. Joint venture property rights within the host country are not established at the time conditions of entry are imposed/negotiated.[20] Once a foreign investor has established its presence within a host country, a challenge might be made to an alleged 'regulatory taking' that takes place subsequently. For example, a number of TIAs include in their investment chapters an express reference to 'intellectual property' as a type of property subject to rules regarding expropriation. But a condition imposed *prior to establishment* cannot be a taking in the customary international law sense as the host country is not forcing the alien/foreign investor to undertake the investment.

Indeed, a number of TIAs now incorporate rules against performance requirements, which include technology transfer requirements, as a condition to establishment. But these are a relatively new development and not rules of customary international law.

The trend in TIAs

It is no doubt understandable that the United States, European Union, Japan and other OECD countries are interested in precluding host countries of foreign direct investment from demanding technology transfer as a condition of investment approval. They want to protect the investments in R&D that their companies have made and for which they are seeking a return on investment. This looks at the picture from only one angle.

Developing and emerging market host countries are offering something of potentially significant value; that

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18 See OECD, 'Multilateral Agreement on Investment' <https://www.oecd.org/investment/internationalinvestmentagre>.

19 Paragraph 7.3 of China's Accession Protocol references transfer of technology in the context of the TRIMS Agreement, providing as follows: 'China shall, upon accession, comply with the TRIMs Agreement, without recourse to the provisions of Article 5 of the TRIMs 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, 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.' Paragraphs 49 and 203 of the Working Party Report are incorporated through 342 of that Report and para 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.'

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.'

20 The author recognizes that a foreign enterprise may be doing business within a host country at the time it negotiates a new joint venture arrangement, and that some assets may be established in that sense. But the decision to create the joint venture must be taken by the enterprise, and if it is required to transfer technology 'in-country' at the time of creating the joint venture, it remains that establishing the joint venture is a decision by the asset owner. There might be situations in which national governments decide to demand that wholly-owned established companies partner with joint ventures and transfer their assets, and this might fit the mold of a traditional expropriation or nationalization. But, that is not the type of circumstance addressed here.

value is dependent on the characteristics of the local market. They are selling market access to foreign direct investors. The governments of these countries are sovereign, and they have the sovereign right to bar entry.

In seeking to impose restrictions on technology transfer and related joint venture requirements, the foreign investor home country (e.g., the United States) argues that foreign direct investment provides employment, boosts the local tax base and that there is naturally a spillover effect of technology into the local operating environment. Those things may be true, at least to a certain extent. Though, it is fair to expect that the earnings from the investment are likely to be repatriated abroad and perhaps shielded from taxation. But even if those things may to a certain extent be true, that does not imply that the foreign direct investment must necessarily be accepted on whatever conditions the foreign direct investor deems suitable.

We now have empirical evidence that joint venture requirements and effectively forced technology transfer have had a positive impact on the Chinese economy and technological development. But even without that evidence, there is little apparent reason for host countries to give up the right to regulate the terms of investment in the context of technology transfer.

Prospective host countries are engaged in a 'beauty contest' in which foreign direct investors may choose one over the other depending on the attractiveness of investment conditions. In this regard, each developing country that accepts a ban on technology transfer requirements and/or requirements of joint venture partnering makes it more difficult for another developing country to impose such conditions. The leverage of any individual developing country diminishes as the proportion covered by the prohibition increases.

It is not always easy to know whether particular analogies translate, but this comment may be proposing to close the barn door after the horse (or cow) has escaped. It may be that a sufficient critical mass of developing countries has accepted TIA commitments not to impose technology transfer requirements and that the others have no choice but to follow suit. But it remains worth making the point that there was and is no good reason for countries seeking to accelerate technological development to surrender their right to impose technology transfer conditions on foreign direct investors as a condition of entry. Only five years ago we might have assumed that the horse of ISDS had already left the barn, and that sovereign autonomy might not be clawed back. Now that ISDS is returning to the barn, perhaps technology transfer can similarly be brought back under sovereign control.