

Prepared Remarks for the June 15, 2010 Public Hearing Regarding U.S. ITC Investigation No. 332-519
“China: Effects of Intellectual Property Infringement and Indigenous Innovation Policies on the U.S. Economy”

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I would like to thank you for the opportunity to participate in this hearing.

Let me begin by stating that the People’s Republic of China has historically failed to adequately enforce its own laws protecting intellectual property. As a consequence, U.S. firms have suffered economic losses that may have run into billions of dollars on an annual basis. Because of China’s weak IPR environment, U.S. exports of IPR-sensitive products to China have been lower than they otherwise would have been. The profits of U.S. MNCs operating in China have been lower than they otherwise would have been. The profits earned through the licensing of intellectual property have been lower than they otherwise would have been. Together with Fritz Foley, Ray Fisman, and Kamal Saggi, I have undertaken research that provides empirical support for some of these statements.¹

This joint research also supports the proposition that industrial development in developing countries can actually benefit from a strengthening of intellectual property rights, at least under certain conditions.² These results are part of the basis for my own conviction that China’s own economic interests have been harmed by its historically weak IPR enforcement.

However, the first main point I would like to emphasize is that the IPR environment in China appears to be changing. The evidence for positive change varies, depending on the type of intellectual property we are talking about, and may be strongest for patents.

To put it simply, patent applications by domestic Chinese firms, and patent grants awarded to them, have been surging. Over the last few years, Chinese firms and institutions have been creating what Albert Hu and Gary Jefferson refer to as a great wall of patents in China.³ Total patent applications by domestic entities, including the more incremental design patents and utility models recognized under Chinese patent law, have expanded by a factor of 6 since 2000. Applications for more advanced invention patents have grown even faster. The increase in patenting by Chinese firms, both in China and

¹ See L. Branstetter, C. F. Foley, and R. Fisman (2006), “Do Stronger Intellectual Property Rights Increase International Technology Transfer? Empirical Evidence from U.S. Firm-Level Data,” *Quarterly Journal of Economics*, vol. 121, no. 1, pp. 321-349, and L. Branstetter, C. F. Foley, R. Fisman, and K. Saggi (2008), “Intellectual Property Rights, Imitation, and Foreign Direct Investment: Theory and Evidence,” NBER working paper no. 13033.

² These conclusions are supported by Branstetter, Foley, Fisman, and Saggi (2008).

³ See Hu and Jefferson (forthcoming), “A Great Wall of Patents: What is Behind China’s Recent Patent Explosion,” *Journal of Development Economics*.

internationally, over the last couple of years has been particularly impressive when set against the decline in patent applications coming from Europe and the U.S. that we observe in the wake of the global economic slowdown.

Domestic innovators are starting to emerge in China, and these innovators are a natural domestic constituency for stronger IPR in the domestic market

A development even more interesting than the patent explosion is the explosion of intellectual property litigation in China, and this is especially interesting given the historical antecedents we see in the histories of China's East Asian neighbors. In industrial East Asia, a telltale sign of real IP reform followed by effective enforcement has been significant increase in local firms suing each other over IP rights violations. We saw this in Japan, Taiwan, and South Korea in the late 1980s and early 1990s.⁴

In the context of that historical precedent, it is interesting to note that, according to the Supreme People's Court, there were 30,626 cases of IP litigation filed in 2009, an increase of 25% over the 2008 figure.⁵ The overwhelming majority of these cases involved Chinese enterprises suing other Chinese enterprises. Now, legal experts who look at these figures (correctly) point out that comparing this enormous number of lawsuits to the patent infringement cases filed in American courts is like "comparing apples and lychee fruit."⁶ Only about 4,400 of these lawsuits involved patents. Within this set of patent lawsuits, only a small subset involved determination of infringement of an invention patent, akin to what we typically see in the U.S. A detailed examination of some of these lawsuits provides ample evidence that the Chinese legal system continues to be beset with important weaknesses, and the history of institutional evolution elsewhere in Asia suggests that it could be a long time before we have consistently good patent enforcement in China.

Nevertheless, we see in China today evidence of a growing domestic constituency for enforceable intellectual property rights. Chinese entrepreneurs are increasingly seeking to differentiate their products through the building of brands and the introduction of new technology. They will increasingly push the government to protect these investments. It will be important for the U.S. government and for the various parties represented in this room who want to strengthen enforcement to recognize the existence of this growing domestic constituency and find ways to reinforce it.

⁴ For a study of Japanese patent reform in the late 1980s, see M. Sakakibara and L. Branstetter, (2001), Do Stronger Patents Induce More Innovation? Evidence from the 1988 Japanese Patent Law Reforms," *RAND Journal of Economics*, vol. 32, no. 1, Spring 2001, pp. 77-100. For a similar study of Taiwan's patent reform, see S.-T. Lo (2009), "Strengthening Intellectual Property Rights: Experience from the 1986 Taiwanese Patent Reforms," working paper.

⁵ These figures were reported on the website of China's patent office, the State Intellectual Property Office (SIPO), at http://www.sipo.gov.cn/sipo_English/news/iprspecial/201003/t20100308_503900.html.

⁶ A useful discussion of these statistics was summarized in the May/June 2010 edition of *Intellectual Asset Management Magazine*. The "apples and lychee fruit" analysis comes from a contributor to this discussion, Terry Ludlow of Chipworks. See <http://www.iam-magazine.com/issues/article.ashx?g=a3ea69ad-1600-47ef-9559-95f54caad79c>.

The next point we need to keep in mind is that the ability of the U.S. government to shape and direct this process of Chinese institutional change has important limits. There is now a history of bilateral dialog between the U.S. and China on intellectual property issues that stretches back more than 20 years. The very existence of this panel today attests to the limits of American diplomatic leverage. The ability of the U.S. to penalize China for inadequate enforcement of intellectual property rights by applying meaningful economic sanctions that are not authorized by the WTO is limited, given our current obligations under international law. America's past attempt to use the WTO dispute resolution mechanism to force real change in China's IPR environment have had, at best, limited success.

The most obvious and egregious violations of IPRs in China are those that infringe on the copyrights of digital media products and software. The U.S. government has alleged that the burden of proof for the triggering of criminal prosecution under China's copyright laws is too high for the laws to have much practical effect. The U.S. pursued this claim through the WTO dispute resolution mechanism – but the WTO panel that ruled on the U.S. complaint last year concluded that the U.S. had itself not produced sufficient evidence for there to be a ruling in its favor. The U.S. did prevail in some of its other complaints about Chinese copyright enforcement, but those technical victories are unlikely to have much practical effect on street-level piracy.⁷

However, the U.S. has been able to use the WTO successfully to end discriminatory policies that favored Chinese domestic semiconductor and auto parts manufacturers. I believe there are probably grounds for another WTO challenge of China's inadequate IPR enforcement. A successful challenge, though, will require patience, skill, realism, and a willingness to learn from the past.

My third main point relates to China's so-called indigenous innovation policies. This investigation has also been directed by Congress to look beyond IPR infringement to the impact of China's policies to promote "indigenous innovation" on U.S. firms.⁸ This is going to be very challenging, because China's policies in this domain are numerous and diverse, and their overall impact on U.S. interests is going to be difficult to measure. China's central government has made no secret of its long run goal: to make China the global technology leader. However, this will take decades, even according to the government's own plan. Many elements of the strategy the government has put forward to meet this goal, such as raising the quality of university research, supporting basic science in key fields, encouraging industry-university research cooperation, and encouraging the development of venture capital, do not violate WTO rules or international trade law.⁹ In fact, U.S. firms directly benefit from many of these policies, at least in the short run.

But that is not always true. Since at least 2006, the Chinese government has been openly announcing its intention to come up with a way of certifying certain products as being the fruit of "indigenous

⁷ This paragraph draws upon the legal analysis of the WTO panel ruling Peter Yu published in the October 2009 issue of *Managing Intellectual Property*, available on-line at http://www.peteryu.com/managingip_362.pdf.

⁸ The U.S. China Business Council has provided a useful summary of China's indigenous innovation policies, with a focus on recent procurement rules. See "Issue Brief: New Developments in China's Domestic Innovation and Procurement Policies," at http://www.uschina.org/public/documents/2010/domestic_innovation_policies.pdf.

⁹ A key document is the Medium- and Long-Term National Plan for Science and Technology Development, available on-line (in Chinese) at http://www.gov.cn/jrzq/2006-02/09/content_183787.htm.

innovation” and giving preferential treatment in the government procurement process to these indigenous products.¹⁰ In late 2009, official Chinese government documents provided further detail on the process of certification that seemed to indicate that products manufactured by the Chinese subsidiaries of foreign firms could never qualify, so long as at least some of the original IP was developed outside of China. The prospect of being closed out of the government procurement market was a very serious threat. In 2008, this market was valued at nearly U.S \$90 billion.¹¹

The MNC community in China mobilized quickly and strongly, high level government officials were brought in to the conversation, and the more recent pronouncements from the government suggest that MNCs will not be excluded from the Chinese government market simply on the basis of the nationality of the parent. Guidelines and practices are still evolving, and it is far too soon to declare a diplomatic success. However, my own contacts in China seem reassured that this policy may prove to be less discriminatory than once feared.

So, perhaps I can stop here, and reiterate three important points.

First, IPR enforcement remains problematic, but we see evidence – at least in the case of patents – that the situation is improving. China’s IP institutions are getting stronger. The future may be better than the past, and the growing enthusiasm U.S. multinationals show for conducting increasing amounts of R&D in China (something that has been the focus of my recent research) appears to validate this point of view. I am, alas, much less optimistic about media and software piracy, and I imagine this panel will hear some interesting testimony from the Business Software Alliance on that issue.

Second, the U.S. has some ability to influence the evolution of IP laws and institutions in China, but we need to recognize the limits of this influence and devise our strategy accordingly.

Third, it is going to be very difficult for the ITC to calculate the net impact of China’s indigenous innovation policies on U.S. interests, because these policies are so diverse. Some of these policies have clearly generated benefits for at least some Western firms. So long as China’s efforts to enhance its technological capabilities do not discriminate against or exclude foreign firms, there need be no significant direct conflict between a national strategy of moving up the technology ladder and U.S. economic interests. Unfortunately, the recent controversy over government procurement practices suggests the need to be vigilant and to respond aggressively when the Chinese start defining their policies in ways that discriminate and exclude foreign firms. Based on the evidence so far, I think it would be hard to argue that China’s indigenous innovation policies, broadly defined, have caused substantial harm to U.S. economic interests, broadly defined. However, the potential for harm is certainly there.

¹⁰ This is discussed at length in the U.S. China Business Council “Issues Brief” referenced earlier.

¹¹ See Michael Forsythe, (2010), “China Technology Rules Hurt U.S. Companies as Google Exit Looms,” *Bloomberg*, March 21, 2010.