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# Government-Sponsored Patent Pools

## Addressing “Innovation Mercantilism”

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On October 27, 2015, the Center for Strategic and International Studies hosted an event titled Government-Sponsored Patent Pools: Addressing “Innovation Mercantilism.” A panel of experts discussed the emergence of this new entity and its policy implications. The panelists were Marc Busch, professor of international business diplomacy at the Georgetown University School of Foreign Service; Tim Trainer, president, Global Intellectual Property Strategy Center; Sean Heather, vice president, U.S. Chamber of Commerce Center for Global Regulatory Cooperation; and Malcolm Lee, nonresident senior fellow at the Brookings Institution. The conversation was framed and moderated by Scott Miller, senior adviser and the William M. Scholl Chair in International Business at CSIS. This document summarizes key themes discussed in the conference, along with additional background research from CSIS scholars.

## What Are Government-Sponsored Patent Pools?

Government-sponsored patent pools (GSPPs) are patent pools owned, funded, or operated by governments, either wholly or in conjunction with that nation’s private sector.

### GSPPs as a Class of Patent Owner

To better understand how a GSPP functions, it is useful to compare them both with other patent-holding entities and with other commercial entities owned or controlled by governments.

There are four main classes of patent holders. First, operating companies are perhaps the most well-known patent holders; these are firms with R&D operations, which create and patent innovations to advance their business goals, frequently differentiating themselves from the other three classes because they manufacture goods leveraging their patent protections. Second, patents are often held by “non-practicing entities” (NPEs), which include universities and individuals who file for patents but do not manufacture, and instead license their patents to others. Third, patent pools are groups comprising inventors in the first two classes, and are commonly found in competitive industries with fast-moving technological frontiers. They may serve a variety of functions, such as facilitation of licensing between members, protection from outside litigation, and developing industry-wide standards. Fourth, patent assertion entities (PAEs) are a special class of non-practicing entities that buy and enforce patents as an asset.

Although some PAEs are labeled “patent trolls” (and a few of them may earn the title), the reality is that a secondary market exists for patents as a transferrable asset and many PAEs are no different from commercial actors that invest in other assets.

GSPPs are essentially a variation of standard patent pools, different in ownership, rationale, and intent. While some GSPPs seek to further domestic innovation in their host nations, they can operate and license on a commercially oriented and nondiscriminatory basis, or they can be a tool of industrial policy that seeks to confer advantages on domestic champions or block foreign competition. While the United States does not independently operate GSPPs (and indeed may be legally incapable of creating one), the U.S. government does engage in patent pools with the private sector including foreign companies. As Malcolm Lee noted, the National Institute of Standards and Technology (NIST) Center for Automotive Lightweighting counts German companies like Thyssen Krupp and BASF and South Korea’s elite Pohang University of Science and Technology as partners alongside Ford, GM, and Dow.<sup>1</sup>

The stated objectives of some GSPPs are to help publicly funded research institutions with patent monetization and to assist in the agglomeration and licensing of patents within various industries. The Innovation Network Corporation of Japan (INCJ), for example, cites as one of its *raison d’être* the fact that in 2012, Japanese universities received only a small fraction of patent royalties compared to their U.S. counterparts. The only GSPP to have an overtly nationalistic mission is France Brevets, which has stated goals of improving intellectual property utilization for French companies and thus helping them participate in French and European industrial and technical policy.

GSPPs share some characteristics with conventional state-owned commercial entities, which can operate with incentives other than commercial considerations. As the European Centre for International Political Economy’s (ECIPE) Hosuk Lee-Makiyama pointed out, traditional state-owned enterprises (SOEs) in non-market economies like Vietnam and China are mainly manufacturing firms.<sup>2</sup> In the era of global value chains, GSPPs may serve the same function for the innovation economy.

## The Consequences of GSPPs

GSPPs are a relatively new phenomenon, and there is limited evidence concerning their behavior. Moreover, the rationales, compositions, and conduct of GSPPs vary considerably across countries. GSPPs may turn out to be generally benign. Another possible future for GSPPs and their impact could be what Marc Busch called a “bad equilibrium for a bad world,” in which countries feel obligated to deploy them defensively against a backdrop of deepening trade protectionism and perceived unfairness in patent regimes. Finally, GSPPs may be a tool of

<sup>1</sup> National Institute of Standards and Technology, “Center for Automotive Lightweighting (NCAL)—Partners,” <http://www.nist.gov/lightweighting/partners.cfm>.

<sup>2</sup> Hosuk Lee-Makiyama, “Sovereign Patent Funds (SPFs): Next-generation trade defense?,” *ECIPE Policy Briefs* No. 6/2014, 6, <http://ecipe.org/app/uploads/2014/12/PB06.pdf>.

innovation mercantilism, joining other worrying developments like China's "indigenous innovation" policy as a new form of local content requirement.

## Potential for Harm, But Not Proven

There is the possibility that a GSPP could function as an incubator, not unlike U.S. universities and federally funded research centers, helping commercialize and transfer R&D outputs to the market. Japan's Intellectual Property Strategy Network Inc. (IPSN), South Korea's Intellectual Discovery, and Taiwan's IP Bank all have this as one of their stated functions. However, the question remains as to whether these entities will license patents on a nondiscriminatory basis. IPSN's mission statement includes networking with foreign partners, but in the context of "discovering intellectual property sources for cutting-edge technologies."<sup>3</sup> Moreover, Japan's *Intellectual Property Strategic Program 2012*, published by the government's Intellectual Property Strategy Headquarters, explicitly focuses on preventing a "drain of technology" while maximizing a "flow of intelligence" back into Japan.<sup>4</sup>

## GSPPs as a "Bad Equilibrium for a Bad World"

An axiom of trade policy is that bad practices are usually contagious. As such, the most likely bad effect of GSPP founding and operation, if they go unchecked, is a retaliatory chain-reaction in which a government's rationale for creating a GSPP will be defense against another government's GSPP. Given the historical reliance on patent litigation, this may well be where things are heading. France Brevets (France), Intellectual Discovery (Korea), IP Bank (Taiwan), and Ruichuan IPR Funds (China) all have defense against litigation as stated functions. Intellectual Discovery was actually created in 2010 to protect Korean firms from claims made by foreign NPEs.<sup>5</sup>

## GSPPs as "Innovation Mercantilism"

The most damaging consequence of the rise of GSPPs would arise if governments step beyond defensive patent aggregation and into the realm of "innovation mercantilism." Innovation mercantilism, as we define it, is government promotion of policies that discriminate against foreign ideas and intellectual property to the benefit of locals. This is a reflection of the fact that innovation has become the critical component of the twenty-first-century economy. An illustration of this phenomenon is China's ongoing "Indigenous Innovation" policy, unveiled by then-president Hu Jintao in 2006 and reaffirmed by Xi Jinping in 2014.<sup>6</sup> The policy aims to greatly reduce China's reliance on foreign technology by using a wide variety of industrial policy tools to create national champions in high-tech sectors. Some of these "industrial policy

<sup>3</sup> Intellectual Property Strategy Network Inc., "Mission & Business Objective," <http://www.ipsn.co.jp/e/mission.html>.

<sup>4</sup> Cabinet Secretariat of Japan—Intellectual Property Strategy Headquarters, "Intellectual Property Strategic Program 2012," May 29, 2012, 17, <https://www.kantei.go.jp/jp/singi/titeki2/ipsp2012.pdf>.

<sup>5</sup> Ghyo Sun Park and Seong Don Hwang, "The rise of the NPE," *Managing IP*, December 2010-January 2011, 2, [http://www.shinkim.com/upload\\_files/data/IPFocus2011-Korea5thEdition,TheRiseoftheNPE-MIP,Dec2010.pdf](http://www.shinkim.com/upload_files/data/IPFocus2011-Korea5thEdition,TheRiseoftheNPE-MIP,Dec2010.pdf).

<sup>6</sup> Chris Buckley, "Xi Urges Greater Innovation in 'Core Technologies,'" *New York Times*, June 10, 2014, <http://sinosphere.blogs.nytimes.com/2014/06/10/xi-urges-greater-innovation-in-core-technologies/>.

ecosystem” features include the use of low-quality patents in China to punish foreign companies that act to stop Chinese IP theft, forced technology transfers, cumbersome compulsory certification and standards requirements, and abuse of competition policy.<sup>7</sup>

There are a number of ways in which GSPPs may play into policies of innovation mercantilism. GSPPs may act as a subsidy for local companies by allowing them preferential access to patents and licenses. More worrying is the possibility that GSPPs will be used to enforce local content requirements through mandatory licensing regimes or partnership requirements in exchange for market access or significant competitive advantage through incentives through tax relief or tapered back regulatory oversight.

Finally, as Tim Trainer noted, under the World Trade Organization (WTO) Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement patents are not usually subject to border enforcement. However, with GSPPs, the state can step into the shoes of the patent owner at the same time that it is the patent regulator, which would give authorities the ability to stop the importation of products at the border. This happened in the case of France Brevets: in late 2015, smartphones made by Taiwanese company HTC were seized by German authorities on the floor of Europe’s largest trade show because of an April decision in German courts awarded to France Brevets, a ruling that has since been appealed.

## How Can Trade Rules Address GSPP Behavior?

At the conference, panelists outlined several ways in which GSPPs may, depending on their implementation, be inconsistent with existing multilateral trade rules. Sean Heather also outlined ways in which disciplines on SOEs in the Trans-Pacific Partnership (TPP) may also apply to GSPPs.

### Existing Measures and Their Limitations

There are a number of ways in which the behavior of GSPPs may be contrary to existing WTO obligations. First, in terms of local content, Article 3 of the Agreement on Subsidies and Countervailing Measures (SCM) prohibits subsidies contingent on export performance and on the use of domestic over imported goods. Further, SCM Article 5 prohibits subsidies to the extent they generate adverse effects for the domestic industry of another member. More generally, General Agreement on Tariffs and Trade (GATT) Article III Section 5 prohibits domestic content requirements, which would apply to intellectual property. Article III exempts government procurement from a member’s national treatment obligation, except for signatories to the Agreement on Government Procurement (GPA), which does not include China.

Malcolm Lee noted that, to the degree that GSPPs initiate litigation, they might also be constrained by reforms to patent laws in the United States and elsewhere. Moreover, when

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<sup>7</sup> James McGregor, “China’s Drive for ‘Indigenous Innovation’: A Web of Industrial Policies,” *U.S. Chamber of Commerce Global Intellectual Property Center*, July 2010, 22–24, [https://www.uschamber.com/sites/default/files/legacy/reports/100728chinareport\\_0.pdf](https://www.uschamber.com/sites/default/files/legacy/reports/100728chinareport_0.pdf).

GSPPs do assert patents, are they doing so as commercial actors or are their aims strategically tied to national economic interests? Future trade agreements might seek to remedy this through language including specific definitions and parameters for agreements with countries deemed at risk in their ability to deliver impartial judiciaries.

## Possible TPP SOE Disciplines and Their Impact on GSPPs

Sean Heather addressed some of the ways in which the obligations of TPP Chapter 17 and potentially TTIP's SOE disciplines might apply to GSPPs. To determine how effective these disciplines are, a few questions need to be considered. First, to the degree that GSPPs are SOEs operating on mercantilist motives rather than commercial principles, what new disciplines might constrain their behavior or limit their attractiveness? What does it mean for governments to "finance" SOEs? What is the definition of regulatory advantage? What does it mean for an SOE to make a decision in the marketplace? Finally, how much will the transparency provisions of TPP help deal with the question of intent?

What is the ownership structure of established GSPPs? Taiwan's IP bank is wholly government funded. China's Ruichuan IPR Fund was also created with government funding, but has additional funding from a consortium of companies that are state-owned and state-affiliated (with a few nominally private national champions like Xiaomi). France Brevets is owned half by the French government and half by a state-affiliated company that has its board appointed by the French government. Intellectual Discovery was founded by the Korean government, but has been successfully soliciting funding from the Korean private sector. Japan's INJC is government-sponsored, but its goal is to transition to a model that is partially or primarily private.

On subsidies, TPP does not contain a separate agreement on subsidies, meaning members will rely on the WTO rules. What is new is that TPP may differentiate between subsidies in a goods context versus those in a services context, where no provisions currently exist. This is relevant because some of the GSPPs offer legal services that could be used for licensing revenue maximization or patent assertion to benefit domestic economic interests.

Where TPP might be most helpful is in regulatory favoritism. Is the licensing behavior of a GSPP consistent with nondiscriminatory access to the same portfolio for non-domestic licensors? What is the recourse to appeal perceived licensing abuses beyond a claim filed with a regulatory body that is also the patent holder? Intellectual property can in theory grant an exclusionary right. If owned by a government, this confers the power to pick and choose.

## The Challenge of GSPPs

The principal challenge GSPPs pose to the trading system is quite simple: it is difficult to develop neutral rules that constrain intent. Soft protectionism and mercantilist behavior have been on the rise since the great recession of 2008–09, despite promises to the contrary. In truly global industries like information/communication technology, most home markets are too small to sustain the pace of independent innovation streams, making GSPPs a policy problem for even

the practitioners. Policymakers should endeavor to advance disciplines applicable to GSPPs before their adoption becomes further widespread.

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