Towards a Global Patent Arms Race

Thibault Schrepel

All views expressed in this paper are purely personal

Key Points

- Since 2010 Sovereign patent funds have created a new form of mercantilism with governments, supporting domestic companies, targeting foreign competition, and using litigation gains to subsidize domestic industries.

- Sovereign patent funds must be stopped for economic reasons since the market is the best driver of innovation. Governments are also tasked with regulating intellectual property rights creating a conflict of interest.

- Sovereign patent funds have been mainly developed in Europe and Asia with the French government particularly active at the national and European level.

- SPF's operate in a grey area and trade agreement negotiations should be used in order to address the problem, as well as WTO obligations and European rules relating to state aid.

Introduction

Patent trolls are companies that do not use patents and are principally in the business of collecting money from others that practice them.¹ In other words, patent trolls do not produce any good or services apart from transacting in the patent world. An even greater demon, which recreates the protectionist industrial policies of many 19th-century governments, is now growing: the sovereign patent funds, public patent trolls that can take many forms,

---

¹ Mark A. Lemley, A. Douglas Melamed, Missing the Forest for the Trolls, 113 Colum. L. Rev. 2117 (2013).

For instance, there are about 250,000 patents in a Smartphone. The holding of few of them could be used to prevent the commercialization of the product. This threat can take many forms, depending on how the public body is involved.

Patent trolls and sovereign patent funds (“SPFs”) are both in the business of intellectual property rights. These rights confer the power to exclude third parties. They create a rarity on a naturally unlimited resource because granting intellectual property rights limit every individual’s natural ability to exploit the fruits of thinking. Intellectual property rights should, therefore, be manipulated cautiously. And SPFs are everything but careful, yet they have boundless Government resources and funding to litigate and enforce IP without manufacturing or using it in products.

To understand all the legal and economic implications created by SPFs, it appears to be necessary to first approach the subject of private patent trolls. These companies generally buy hundreds of patents, if not thousands, in order to litigate them afterwards. They regularly implement many anti-competitive strategies. But even without creating such strategies, the acquisition of a large number of patents necessarily implies the acquisition of strategic patents. These patents are of several kinds. They may be “frivolous patents” that do not protect real innovations. It can also be a so-called “second generation patents”, which protect a small improvement. It can further be “submarine patents”, a patent whose issuance and publication are intentionally delayed by the applicant for a long time so the patent troll can reveal it later on and ask for royalties. Patent trolls hold a number of such patents, which greatly hinders the process of innovation. And public trolls create the same problem by essentially creating a tariff on innovation and stifling competition and consumer choice. This is the reason why, even if patent funds have long term strategies, which has been described by some

---


3 For instance, there are about 250,000 patents in a Smartphone. The holding of few of them could be used to prevent the commercialization of the product. This show how the strategy of accumulating patents in order to litigate them could be a great danger for innovation and consumers. For more information, see the Brief Amici Curiae of 27 Law Professors In Support Of Appellant Samsung, Docket Nos. 2014-1335, -1368 http://goo.gl/69dndf.

4 Catherine Tucker shows that patent trolls greatly hinder investment in innovation, see her paper *The Effect of Patent Litigation and Patent Assertion Entities on Entrepreneurial Activity*, MIT Sloan School Working Paper 5095-14, “We find evidence that both at the regional level and at the product sector level, high levels of patent litigation have a statistically negative relation with VC investment.”
commentators as being competitive, the outcome on competition will stay negative.

Sovereign patent funds also raise several problems that private trolls do not. These funds allow governments to be players in the market - where they purchase and litigate IP - while at the same time, regulators on it. SPF's recreate the old public intelligentsia on strategic sectors, such as energy or aerospace, but mostly the impact is on high-tech markets. In short, they recreate the protectionist industrial policies of many 19th-century governments and make it nearly impossible for other Governments and private patent holders to challenge their abusive practices.

The risk is that SPF's, first defensive, would then become very offensive. Some material indications tend to support this view. Plus, SPF's use pressure techniques to discriminate against foreign players, regardless of the legitimacy of complaints. If this trend is confirmed in the coming years, this could (and will) create a damaging “patent arms race” between governments.

Some in the IP space would consider SPF's as patent pools, rather than exclusively patent trolls. It is important to clarify that criticizing SPF's practices is not demeaning the important role the patent pooling process plays. It is, however, an issue when Governments become involved in the business of patents because it creates a number of problems, including subsidizing through litigation, having a Government act as a commercial entity, and creating an unfair environment for competition where the regulator is also the negotiator. These abuses fall in line with SPF's troll-like practices, and are reason for further action by regulators and decision-making bodies.

---

5 France Brevets, for instance, argues that its long-term strategies differentiate it from private trolls. Let’s note that some private trolls do have a long-term strategy as well, and, furthermore, that long term anti-competitive strategies are not preferable to short ones. Even if some SPF's long term strategies can provide few short term benefits, as providing licenses on key patents to SME, this study shows that overall SPF's harm economies more than they enhance them.


7 Expert Group on IPR valorisation, Options for an EU instrument for patent valorization, Page 46.
The stakes caused by sovereign patent funds

Sovereign patent funds are quickly expanding. Almost non-existent at the beginning of 2010, some countries have since then created their SPF(s). Asian countries, which are aggressively accelerating into global economic forces, are now coming into the game. As a new form of mercantilism, governments may be using their SPF(s) for industrial policy purposes, such as crowning domestic IP champions, targeting foreign competition, and using litigation gains to subsidize domestic industries through service provisions. And the SPF(s) battle could well become a resource driven competition among countries.

Yet, the development of SPF(s) should be stopped, for economic and legal reasons. First, there isn’t any better driver of innovation than the market. As Friedrich Hayek described, the free market is a discovery procedure, and only free competition can allow the most efficient companies to win the battle, for the benefit of the consumer. Until proven otherwise, no model and no policy have so far led to better results for innovation.

An additional concern is that governments are usually tasked with regulating intellectual property rights. A tremendous conflict of interest is raised when the regulators and lawmakers become players. This is an essential point of the SPF(s) global problem. Governments grant more and more patents each year. Second, they tend to deliver these patents to their national companies. The number of US companies in the American Top 50 is growing in the last few years. In Europe, statistics show that European companies make only 35% of all patent applications. Nevertheless, European companies get 50% of all delivered patents. In other words, governments control how many patents are delivered, and who gets them. Without questioning the good faith of governments when delivering patents, it

---

8 For more details about Friedrich Hayek’s thinking on this topic, please see Thibault Schrepel, F. Hayek’s Contribution to Antitrust Law and Modern Application, ICC Global Antitrust Review, pp. 199-216, 2014
9 In this study, the terms “national companies” are used to describe all companies registered in one particular State, and not only the public ones. We used, alternatively, the terms “domestic companies”.
10 For more details, see Thibault Schrepel, Les Brevets Comme Autre Variable des Relations Internationales, La Nouvelle Chronique, February 2015 (text in French)
becomes easy to understand how they can interfere with innovation through their SPFs. Having Governments directly involved in acquiring and enforcing IP also makes it cumbersome for patent holders and companies manufacturing IP to challenge the faults with SPFs. Patent holders are less likely to complain about the police car using their driveway than their neighbour.

The materialization of sovereign patent funds

So far, sovereign patent funds have been mainly developed in Europe and Asia. The French government is particularly active at the national and European level.

A. The French initiatives

The French government is arguably the most active one in the world. It already created two SPFs, France Brevets in 2010, and very recently FSPI. But the French Government also argues for the creation of a European SPF, an idea so far rejected by European leaders.

1. France Brevets

France Brevets was created with the main objective to favour French companies. Financed with €50 million from the French Government and €50 million by a large public bank (“Caisse des dépôts et consignations”), France Brevets was established to bolster France’s domestic high-tech industry by government fiat. In the 2010 public measure creating France Brevets, the French government made its objectives clear to support and protect domestic French industry through the acquisition and exploitation of IP. Indeed, the company has a clear goal to defend national companies, since “France Brevets intervenes in a selective way by taking into account the strategic patent interests and French companies wishes”.  

---

11 For a complete study of France Brevets’ negative contribution to innovation, read Thibault Schrepel, France Brevets: a state-owned patent troll, harmful... and illegal?, New Direction, January 2014.

12 Caisse des dépots, France Brevets (text in French).
Thibault Schrepel

France Brevets’ former website pointed out “*should a potential infringer unduly stall discussions, France Brevets is ready to defend the rights that we are taking care of and entry into a litigious route*”. It now indicates that France Brevets “can develop defensive strategies of patent acquisitions in order to build a portfolio and mitigate potential threats”. Vocabulary changes, but the reality remains the same. As a consequence, France Brevets has engaged legal actions against private foreign companies only.14

And anyway, France Brevets is the only master of its language and its objectives, as the company indicates, “*France Brevets will judge its own success*”. Yet, in its recent Research and Innovation Support Policies in France, the OECD noticed that, by focusing on “ex post licensing”, in many respects, is reminiscent of “trolling” practices inappropriate for a public organisation (“trolling is a tactic that consists in using generally non-robust patents to obtain royalties from licensees – often SMEs – that are in a legally vulnerable position”). The OECD added that “financial gain as an aim of commercialising patents, such as that pursued by private operators, does not appear to fall within the scope of public action – the risk being that France Brevets might engage in the “trolling” that pollutes the American patents system, whereby specialist bodies often take abusive legal action against productive companies in order to extort payments”.16

In a surprising move, in late December 2014, the French Government announced the creation of a second SPF, called “*Fonds souverain de la propriété intellectuelle*” (“FSPI”). As of today, FSPI’s goal remains quite unclear. The Convention signed by the French Government and the Caisse des dépôts et consignations states that “It was agreed that the Caisse des dépôts will realize this mission with a manager, which may be

---

13 IAM Magazine, Unique French patent fund begins operating its first licensing programme, 2012
14 In 2014, France Brevets signed a licence deal with LG Electronics, see Jack Ellis, France Brevets licence deal with LG Electronics a “milestone”, says senior fund executive, IAM, September 2014
15 France Brevets’ website, “Nos Valeurs” (text in French)
16 OECD, Research and Innovation Support Policies in France, 2014, page 212
17 Convention du 23 décembre 2014 entre l’Etat et la Caisse des dépôts et consignations (CDC) relative au programme d’investissements d’avenir (action : “Fonds souverain de la propriété intellectuelle ») (text in French)
SPFs often argue that they enhance innovation by providing licenses. A recent paper by two of the world's greatest economists shows that "very few patent licenses from assertion actually lead to new innovation; most are simply about

France Brevets". The confusion is even greater when we read "the critical skills required to achieve this new goal, however, are similar to those mobilized for France Brevets. It is therefore necessary to design this new tool in a way to work in synergy with France Brevets, with the dual aim (i) to lift the barriers to industrial property that may impede companies to access the French and European innovative market and (ii) to improve the diffusion of innovation through the enhancement of intellectual property that come from businesses and French and European public research". FSPI's functioning is unclear, but it is however quite certain the FSPI will not lift the barriers to access industrial property precisely because the strategic handling of intellectual property rights create more barriers. It can be argued that patents encourage innovation, but they do not necessarily lift barriers.

FSPI functioning is uncertain, and its goals are equally vague. As we can read, the main objectives of the SPF are -

- “One of the main actions is the acquisition of patents that may favour innovation and development, including for export, of French and European companies, and to transfer technology from public laboratories to those companies."(...)"

- “The inclusion of patents resulting from the French research into international standards. Once included in an international standard, the value and business prospects of a patent are significantly enhanced. FSPI’s action may consist in promotional activities aiming to include, for a fee, French or European patents in standards (...); in granting licenses (...)"

Some SPF's argue that they act for the sake of other companies other than only national ones. For instance, FSPI is intended to license its patents to domestic and European companies. In any case, this does not address the barrier-to-entry problem, but it moves it onto a larger scale.

---

18 SPFs often argue that they enhance innovation by providing licenses. A recent paper by two of the world's greatest specialists shows that "very few patent licenses from assertion actually lead to new innovation; most are simply about..."
Thibault Schrepel

A barrier to enter the European market will be created instead of a barrier to enter national ones. This could be particularly disastrous for large companies. To the best of our knowledge, none of these two French SPF s have granted license to foreign companies. And as patent trolls always do in a first stage, these funds are yet creating their patent portfolio with the €200 million the two of them are gathering. Empirical data on patent trolls shows that they engage in numerous legal actions later on.13

2. The French proposal at the European level
Following the 2010 European consultation on the Program for the Competitiveness and Innovation, the French authorities sent a “Proposal for the creation of a European patent fund”. 20 The idea was, with a budget of €1 billion, to acquire at least 10,000 patents in order to “deter” foreign funds, “whether they are public or private”. Deterring must be understood as to threaten and to introduce legal actions in an offensive fashion. Aware of anti-competitive risks, as well as those for innovation, the French Government stressed the need to create a “speculative market”, without addressing clear remedies for it.

The Expert Group on IPR valorisation, in 2012, answered that it could “end up with a large number of valueless patents aggregated at high cost”. Therefore, “the Expert Group considers that the European Commission should not support the creation of a European Licensing Fund based on the current proposal”. Yet, the answer of this group does not represent the European Commission opinion. Let us hope that European officials will not come forward with the idea of creating such a fund, because it would indeed necessarily create a patent arms race at the international level, a risk that should not be taken by European countries.

---

20 Proposal by the French government, “Proposition pour la mise en place d’un Fonds européen des brevets” (text in French).
21 Expert Group on IPR valorisation, Options for an EU instrument for patent valorization, Page 46.
22 Expert Group on IPR valorisation, Options for an EU instrument for patent valorization, Page 54.
Towards a Global Patent Arms Race

B. Developing Asian countries aggressive moves

As of today, Asia is the continent with the most SPF's. These SPF's are already much better funded than European ones. In addition, with their flourishing economies, it is a safe bet to say that Asian SPF's will soon be much larger and powerful than European ones. Whilst the creation of these SPF's is not justified by the pre-existence of European ones, how can one not see a cause-and-effect relationship? These SPF's all assessed national protection goals, a sign that foreign countries are playing the same game.

1. The Chinese SPF

Back in 2013, the Chinese Government created the China Development Bank, which acquired patents in the Israeli high-tech sector. The same year, the Bank already had a budget of more than US$700 million.

The Chinese government finally announced the launch of its patent operations fund at the 2014 Zhongguancun Science Park IP Forum on April 25, 2014. The SPF, Ruichuan IPR, was established to assist domestic companies in the development and acquisition of core patents in order to boost market power and profitability of these companies. The size of the fund was initially set at 300 million Yuan (approximately €44 million). The creation of this SPF could well constitute a very bad news for global innovation.

According to US officials, the Chinese Government has previously shown a desire to attack US companies. For instance, on September 10, 2014, the FTC commissioner Edith Ramirez expressed some concerns regarding the way Chinese authorities are applying their antitrust rules against foreign companies. Following the initiation of proceedings against Microsoft, Edith Ramirez noted that, contrary to what the FTC and the European Commission are doing, the Chinese

---

23 See: Inside Asia’s patent funds, August 2012, IAM Magazine.
25 ZGC Haidian park boosts IP protection, 2014

World Economics • Special Edition, Spring 2015
regulatory authorities seem inclined to retain the liability of a company on the sole basis of the terms specified in fair, reasonable, and non-discriminatory (“FRAND”) term agreements. She recalled that, if hold-up practices could be problematic in FRAND agreements, it does not go the same when all companies are willing to agree to those terms. In short, Edith Ramirez expressed some concerns that Chinese authorities aim at targeting US companies without any legal ground. If confirmed, this trend could lead to a bigger problem in the context of SPF.

At the same time, the Chinese patent office State Intellectual Property Office of the P.R.C. (“SIPO”) issued 571,000 utility model patents in 2012, including 217,000 invention patents. It represents three times the number of patents issued by the American patent office (the “USPTO”) the same year. Furthermore, SIPO issued 21 times the number of design patents issued by the USPTO during the same year. Furthermore, China has adopted a new strategy that aims to promote local innovation in its guidelines on national medium and long-term. This patent flooding is the clear first sign of a strategy against foreign governments, notably because the Chinese SPF will be able to hold a large number of patents, which allow many anti-competitive strategies.

Furthermore, China has adopted a new strategy that aims to promote local innovation in its guidelines on national medium and long-term program for science and technology development (2006-2020). Already, we have seen China create a well-funded SPF, and their strategies leave no reason to believe they may not establish more Government funded entities.

Those elements, taken all together, tend to show that Chinese authorities are willing to use IP law as a geopolitical strategy against other countries. United States seem to be Chinese officials’ main

---

27 FRAND agreements require that holders of essential patents do not discriminate nor restrict competition downstream. Such terms are imposed by standard setting organization. As the OECD recently noticed, the exact definition of what FRAND agreements should be remains quite unclear.


focus, but Europe will soon follow. The business of SPF’s could be the sword that Chinese authorities are looking for.

2. Other sovereign patent funds

**Industrial Technology Research Institute (ITRI) (Taiwan).** Back in 2011, in Taiwan, the Industrial Technology Research Institute announced the creation of a patent bank. Its affirmed goal is to defend local companies. To date, ITRI, which already engaged several complaints against major international players, holds approximately 20,000 patents and has assisted in the creation of more than 228 start-ups and spin-offs. Recognizing this principle, the Taiwan patent fund has chosen to invest in Chinese patents, especially dormant ones. ITRI filed a complaint against one major international brand name in the US District Court, Eastern District of Texas accusing infringement on 20 patents. The case settled in May 2010. The fund demonstrated this determination in guarding its IP rights; an act which boosting domestic businesses’ confidence in ITRI’s technological capabilities. It already engaged in a suit with the International Trade Commission.31

**Innovation Network of Japan (INCI):** In July 2013, the Innovation Network of Japan, along with Panasonic and Mitsui & Co., established the IP Bridge patent pool with the aim to effectively use Japan’s corporate patents. The fund admitted on its website that its creation was an answer to the new trend implemented by “business models and legal/negotiation strategies well established to monetize IP portfolios through licensing and assertion of rights”. This is another proof that a global patent arm race has been created with 90 million yen invested into the IP Bridge procuring 5,000 patents at the start. The long-term goal of the bridge is to acquire 30 billion yen in

---

29 Yu-Tzu Chiu, *Taiwanese to Form Patent Bank to Defend Local Companies*, IEEE.
investments.\textsuperscript{32} The OECD also points out the recent creation of another SPF called Life Sciences Platform.\textsuperscript{33}

The Korean Intellectual Discovery: As for Korea, the government published a policy document entitled “a Strategy for the realisation of a strong country in IP” back in 2009. Two invention SPF’s were created, Intellectual Discovery and IP Cube Partners. To this day, Intellectual Discovery acquired more than 3,800 domestic and foreign patents for a total of U$250 million.\textsuperscript{34} The fund is set to stand at a total of US$350 million in the coming year.\textsuperscript{35} Intellectual Discovery is said to “connect IP supply and demand, and plays a central role in creating IP business ecosystem in Korea”.\textsuperscript{36} It makes no doubt that the introduction of lawsuits will soon follow. The same will go for IP Cube Partners. The fund is yet constituting its portfolio, with the strong intention of “monetizing the company’s growing IP (intellectual property) portfolio”.\textsuperscript{37}

Sovereign patent funds have negative effects on competition and innovation

Sovereign patent funds generate three major risks: \textsuperscript{38}

(i) those related to their sole existence, because they create barriers to enter the market,

(ii) those related to the strategies they might implement once they hold a number of key patents,

(iii) and those related to the patent arms race that they are necessarily creating.

\textsuperscript{32} See: Americans for Job Security letter to the FTC, December 16, 2013
\textsuperscript{33} OECD, Research and Innovation Support Policies in France, 2014, page 212
\textsuperscript{34} Hosuk Lee-Makiyama, Patrick Messerli, Sovereign Patent Funds (SPFs): Next-generation trade defence?, ECIPE, n°7/2014
\textsuperscript{35} Korean patent fund aims for $350 million war chest with goal of becoming a global player.
\textsuperscript{36} See ‘Intellectual Discovery’ website
\textsuperscript{38} These three risks, taken together, show why even if some SPF’s argue that they intend to fight against private trolls only, overall, they still hinder innovation and harm consumers.
A. Sovereign patent funds create a barrier to enter markets
The sole creation of SPF’s creates barriers to enter markets. SPF’s goal is to protect a national eco-system, which necessarily hinder foreign actors to act in the protected markets. Consequently, SPF’s generate a disincentive for foreign companies. Indeed, by raising the legal uncertainty because patents become a strategic weapon, foreign companies can expect to be attacked any time.

Moreover, SPF’s provide material advantages to national companies. By pooling a high number of patents and by licensing them to national companies only, foreign ones will have troubles creating, producing and innovating. Patent pools intend to gather all necessary patent on a market in order to concede a global license to interested companies. SPF’s, depending on the patents they hold, are then in the situation of preventing foreign companies to ever come into the market. In doing so, SPF’s recreate the old economic strategy of governments choosing who was producing certain kinds of goods. Yet, until proven otherwise, letting the market choose the most efficient companies is the best way to ensure low prices and good quality. The sole creation of SPF’s seems to ignore this economic reality.

B. Sovereign patent funds temptation for anti-competitive strategies
In a staff working document, the European Commission acknowledged that “patent funds as non-entities might have an incentive to engage in questionable activities by purchasing patents only to assert them against existing, successful products instead of licensing the patents to companies to produce new products and innovations. This activity might operate as a tax on current production, burdening existing products and potentially reducing future innovation. Depending on the portfolio of such a patent fund, it also makes it more prone to other anticompetitive behaviour”, adding that “public support for patent aggregators could affect competition, even if patent aggregators are non-profit entities”. 30 In essence, patent trolls are a tax on innovation whereas SPF’s are a tariff.

The questionable activities assessed by the European Commission can be of many sorts including:

Thibault Schrepel

- **Hold-up / patent ambush:** the troll waits for its patents to be incorporated into a production “standard” before revealing it, which, henceforth, allow him to ask for royalties to all producers who are forced to meet the standard;
- **Evergreening:** the troll requests the extension of the protection period of its patent mainly by modifying it slightly;
- **Privateers:** Patent privateering is a strategy whereby a patent troll buys patents from their original holder and initiates a lawsuit against the rivals of the original holder for infringing on the patent. The troll and the original holder then share the money from the lawsuits, which might take the form of licensing royalties, litigation settlements, or damage awards. Patent privateering harms consumers by discouraging cross-licenses that allow products to become available at a lower cost on the market, and also, by allowing patent original holders to fool their FRAND commitments.

SPFs have the tools to implement all of these troll-like strategies. They represent, for that reason, a high-risk on innovation and economic recovery. Furthermore, SPFs, even more than private patent trolls, show us the risks created by the delivery of “low-quality patents”. A private patent troll can exploit them, and create strategies once it holds a certain number. An SPF may not only do the same, but also can control the number of patents delivered each year. In short, through SPF, Governments control the entire eco-system.

**C. Sovereign patent funds are creating a patent arm race**

The emergence of SPF will create a global Race to the Bottom of emerging “copycat” government-sponsored patent trolls – India, for example, has already expressed interest in creating its own. The advent of state-sponsored intellectual property dealers adds a deeply concerning geopolitical element

---

40 Contrary to what we read, “Patent privateer” is not a distinct concept from patent trolling, but a strategy conducted by patent trolls (here acting as a privateer).
to the debate about patent trolls and how to protect legitimate inventions without stifling innovation.

As we have shown, governments create SPF’s in order to protect national companies only. As long as they implement defence strategies against foreign companies, their actions remain relatively accepted by foreign governments. The reality is very different if SPF’s begin to act in an offensive fashion. How not to imagine that companies, attacked by SPF’s will not ask their government to protect them by creating a new SPF?

SPF’s raise legal uncertainty, since patents become a strategic arm in their hands. Foreign companies can expect to be attacked anytime. Favouritism doesn’t stop with only foreign competition. State-owned pools cultivate an environment for domestic abuse as well, in addition to concerns with global trade. SPF’s provide Government protection and resources to select entities, essentially allowing the Government to select winners and losers under the guise of an SPF.

The fast growth of the SPF trend confirms our view. If nothing is done, there is little doubt that SPF’s will soon be much more numerous that they are now. We can already assess all the risks created by such a situation. As for international private firms, which are spending billions of dollars each year on patent litigation and are suing each other constantly, SPF’s will soon recreate the same situation at a much bigger scale.

**How to fight against sovereign patent funds: The Solutions**

SPF’s are currently operating in a grey area within existing rules. Trade agreement negotiations should be used in order to address the problem. In addition, WTO related obligations are opposed to the SPF concept. Even more, the European rules relating to state aid could well forbid the existence of SPF’s. Lastly, SPF’s raise question about the way Patent Offices deliver patents.
A. Potential Solutions within trade agreement negotiations
Trade agreement negotiations provide useful guidelines on how governments should act and interact. As we have shown, sovereign patent funds create a great risk for global innovation. Some international agreements, yet to be concluded, could be the occasion to include some provisions against SPFs in order to prevent them, limit them or eradicate them, depending on which countries are part of the negotiations.

The Trans-Pacific Partnership Agreement appears to be the right place to include anti-SPF clauses. In October 2011, a proposal was tabled that created significant transparency requirements for State-owned enterprises. This proposal sought to create disciplines that previously did not exist in any trade agreement, to help ensure that State-owned enterprises do not receive advantages that distort the market. There remains room for these negotiations to incorporate new proposals on State-owned companies, including a focus on limiting SPFs. So far, to the best of our knowledge, only one of the countries that have participated in negotiations already created their own SPF (the aforementioned Innovation Network of Japan). The Trans-Pacific Partnership Agreement could be the opportunity to ratify the de facto situation.

The Transatlantic Trade and Investment Partnership Agreement (TTIP) is a proposed free trade agreement between the United States and the European Union. So far, as revealed in January 2015 by the European Commission, the text states that “Intellectual property rights (IPR) reward individuals and firms who innovate or put their creativity to work”, which seems to be a clear indication that US and EU leaders intend to fight trolls and SPFs. However, unlike for the Trans-Pacific Partnership Agreement negotiations, some European countries already have their own SPFs. TTIP negotiation should therefore, as a minimum, include a provision limiting these SPFs’ practices, as offensive ones.

---
42 As of 2014, Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam.
B. Potential solutions within WTO obligations

Governments purchasing and enforcing IP in industries they regulate has implications for international trade that will subject companies and patent holders to significant losses and to limited competition. By promoting international policy and the national treatment of domestic industries, SPFs have the potential to violate several existing trade agreements, including GATT, SCM, and TRIPs as mentioned previously. Long-term solutions to curb SPF behaviour exist within new trade agreement negotiations such as TTIP and the Trans-Pacific Partnership Agreement.

While new trade agreements present opportunities to specifically address SPFs, it is apparent in several WTO obligations that SPFs today are in violation of several international IP trade regulations that exist to foster beneficial and harmonious negotiations between Governments. SPFs constitute a violation of WTO obligations, at many levels. All violations of these obligations can lead to settlement disputes.

First, according to Article 7 of the Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”), “the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations”. Because they have no intention of commercializing the patents that they hold, but rather they intend to use them for purposes of litigation and licensing, offensively-oriented SPFs do not promote technological innovation or the transfer and dissemination of technology. Their main goal in gathering patents is to extract fees from companies and individuals that are devoting resources to developing new technology. It has an adverse impact on producers and users of technological knowledge, as it

43 France and the WTO.
44 The WTO websites clarifies what happened once a case on violation of WTO’s obligation has been decided: “Back to top Go directly to jail. Do not pass Go, do not collect. Well, not exactly. But the sentiments apply. If a country has done something wrong, it should swiftly correct its fault. And if it continues to break an agreement, it should offer compensation or face a suitable response that has some bite — although this is not actually a punishment: it’s a “remedy”, the ultimate goal being for the country to comply with the ruling.” Citizen and companies can therefore obtain compensation for SPFs’ actions. For more information, please see the Dispute Settlement Body procedure.
Thibault Schrepel

raises the cost of innovation, nor is this conducive to social and economic welfare, as urged by Article 7.\(^4\)

Article III of the General Agreement on Tariffs and Trade ("GATT") states that "the products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product". To the extent that SPF's are taking offensive action exclusively against non-domestic companies and their products through frivolous lawsuits, SPF's are treating foreign products "less favourably" than domestic like products, which is inconsistent with this article.

Finally, because of disproportionate bargaining power, SPF's may additionally violate the Agreement on Subsidies and Countervailing Measures ("SCM Agreement"), because SPF's provide subsidies that may be actionable under the SCM Agreement. Indeed, Article 4 of the SCM Agreement provides that "whenever a Member has reason to believe that a prohibited subsidy is being granted or maintained by another Member, such Member may request consultations with such other Member". More, in Article 5, it states that "no Member should cause, through the use of any subsidy referred to in paragraphs 1 and 2 of Article 1, adverse effects to the interests of other Members, i.e.: injury to the domestic industry of another Member". As a consequence, Article 7 provides that "except as provided in Article 13 of the Agreement on Agriculture, whenever a Member has reason to believe that any subsidy referred to in Article 1, granted or maintained by another Member, results in injury to its domestic industry, nullification or impairment or serious prejudice, such Member may request consultations with such other Member". There is a risk that the "consultation" will be

\(^4\) Agreement on Trade-Related Aspects of Intellectual Property Rights
replaced by the creation of sovereign patent funds. Member states without SPF s should seek to obtain a strict application of these rules before the Dispute Settlement Body.

On a prospective point, it is important to stress that, with the imminent introduction of the European patent with unitary effect, it will become easier for patent trolls to hinder innovation on a much larger scale. Indeed, this European patent will be enforceable before the Unified Patent Court. A standardized procedure for patent infringements through Europe will therefore be set, which will encourage patent trolls and SPF s to introduce more lawsuits. It underlines the absolute necessity to be more vigilant when delivering patents, because private and public trolls will certainly take this opportunity to increase their revenues.

C. Potential solutions under European state aid rules

European SPF s raise another question respecting European law: are they even legal? European law prohibits State aid that is incompatible with the internal market. Article 107 of the TFEU provides that "save as otherwise provided in the Treaties, any aid granted by a Member State or through State sources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market".

Only companies are subject to the state aid regulation. The Court of Justice defines a "company" as any entity engaged in an ‘economic activity’, regardless of the legal status and the funding of the entity.46 As to the definition of an “economic activity", it appears to be any activity consisting in offering goods or services on a given market. SPF s fulfil all of these European legal criteria. Furthermore, because they introduce legal actions, SPF s are appreciably affecting trade between Member States. Indeed, the support they give to some companies may have a restrictive effect on companies outside the area and looking to establish themselves in the country.

---

46 CJCE 23 April 1991 aff 41/90, Höfner et Elser.
The criterion of an aid granted by the State or through State resources is also met. As for the one related to distortion of competition “by favouring certain undertakings or certain products”, it is also fulfilled because SPF’s tend to ensure the "development" of companies for which it takes advantage at the expense of others.

To assess whether SPF’s distort competition, we must further consider the economic benefits they provide to companies. “Public interventions in favour of companies can be considered free of state aid within the meaning of EU rules when they are made on terms that a private operator would have accepted under market conditions (the market economy investor principle – MEIP). If the MEIP is not respected, the public interventions constitute state aid within the meaning of the EU rules (Article 107 of the Treaty on the Functioning of the European Union – TFEU), because they confer an economic advantage on the beneficiary that its competitors do not have”. In this respect, please note that, for instance, France Brevets generated in 2012 a net profit of minus €4,589,700. 47

When a government helps its national companies to the detriment of European companies, an incompatible state aid with the common market is, therefore, potentially characterized.

France Brevets, for instance, is said to “preserve the intellectual heritage that could come under the control of foreign players”. In sum, the objective of France Brevets “is to offer French innovative actors a higher valued offer, based on a critical mass in an international dimension”. 48 The same goes for foreign SPF’s, as long as European law governs them. A prohibited State aid is potentially granted each time they help a national company. 49

47 Since then, France Brevets has not fulfilled its legal obligation of communicating information in its annual accounts (see https://www.infogreffe.fr/societes/entreprise-societe/531129195-france-brevets-7501118061610000.html), despite that the fact that non-publication of the annual accounts is punished under French law and may be penalized with a € 1,500 fine.


49 It should be noted that a legal action against prohibited state aid may be introduced by "any Member State and any person, undertaking or association of undertakings whose interests might be affected by the granting of aid, in particular the beneficiary of the aid, competing undertakings and trade associations". An online form is available on the website of the European Commission, see State Aid control Online complaint form http://ec.europa.eu/competition/forms/sa_complaint_en.html
D. Potential solutions within patent law reforms
The problem of SPFs shows that it is also necessary to implement new criteria before delivering patents. Indeed, the more a Government delivers patents, the more it will help SPF to constitute its funds. This must stop.

As strange as it may seem, the two current criteria that need to be generally met in order to get a patent – the invention must include a technical solution to a technical problem, and it must be new – contain no economic or antitrust related analyses. In short, patent holders sometimes use them as a strategic move while patent offices do not have any strategic view.

Therefore, it seems essential that the term of protection for patents should be fixed on a case-by-case basis. It is unthinkable that all patents, regardless of their kind and regardless of the market on which they are issued, enjoy the same length of protection.

Also, the protection for patent could be subordinated to the use of the patent’s technical characteristics. Indeed, it would ensure a better working system where companies would only be able of litigating patents that they use for other reasons than legal ones. Opponent to this proposition could argue that litigating patent favourite innovation. It is true to some extent. Indeed, without any possibility to litigate a patent, that the protection that they provide would be void. However, as many studies tend to show, companies that do not produce goods, and which therefore do not exploit the technical aspect of a patent, provide a negative contribution to the economy.

Therefore, if to allow companies of litigating patent could hinder innovation, a good way to fight the problem would be to subordinate the possibility of litigating patent with the actual use of their technical aspects. Finally, some Governments have already proposed to fight against patent trolls practices. This could be useful to fight SPFs as well. The United States, with the Innovation Act, proposed that the plaintiff in infringement

---

51 For more details on this proposal, see Thibault Schrepel, Patent troll through the US and EU antitrust law: When co-operation is no longer an option, ECLR Vol. 34, No. 6 (2013), p. 318-325
lawsuits must identify all asserted patents and very precisely describe the alleged infringements, which includes the name or model number of each accused product.

On a prospective point, it is important to stress that, with the imminent introduction\(^{54}\) of the European patent with unitary effect, it will become easier for patent trolls to hinder innovation on a much larger scale. Indeed, this European patent will be enforceable before the Unified Patent Court. A standardized procedure for patent infringements through Europe will therefore be set, which will encourage patent trolls and SPF\(s\) to introduce more lawsuits.\(^{55}\) This underlines the absolute necessity to be more vigilant when delivering patents, because private and public trolls will certainly take this opportunity to increase their revenues.

**Conclusion**

The fight against SPF\(s\) can be engaged on three different levels.

(i) diplomatic: the Trans-Pacific Partnership Agreement as well as the Transatlantic Trade and Investment Partnership Agreement, still to be negotiated, should include SPF\(s\) prohibition.

(ii) judicial: WTO obligations, which prohibit the sole existence of SPF\(s\), should be litigated before the Dispute Settlement Body.

(iii) political: SPF\(s\) show how to reform patent law.

Intellectual property policies need to be harmonized. SPF\(s\)’ litigation and threats of it raise the costs of production.\(^{56}\) Companies rationalize these costs and consumers are indirectly paying the price for it. In addition, SPF\(s\) slow investment and thus limit consumer choice with less innovation and less

\(^{54}\) On 11 December 2012, the European Parliament voted positively in a first reading on the EU Council’s compromise proposals for two draft EU regulations on a unitary patent for Europe. The regulations entered into force on 20 January 2013. However, they will only apply from the date of entry into force of the Agreement on a Unified Patent Court. For more information, [see http://www.epo.org/law-practice/unitary/unitary-patent.html](http://www.epo.org/law-practice/unitary/unitary-patent.html)

\(^{55}\) On this subject, see the great analysis made by the so-called Industry Coalition [http://www.industrycoalition.eu/](http://www.industrycoalition.eu/)

“Today patents must be maintained and enforced separately in each country in the EU. There is no such thing as a single patent that is enforceable throughout the EU. In the future, however, inventors will have the choice of protecting their invention in up to 25 EU countries with a single unitary patent. These unitary patents will be enforced exclusively in a new Unified Patent Court (UPC)\(^{\circ}\)."

\(^{56}\) James Bessen, Jennifer Ford, Michael J. Meurer, *The Private and Social Costs of Patent Trolls*, Boston Univ. School of Law, Law and Economics Research Paper No. 11-
introduction of new technologies. Indeed, by having to spend large sum of money on litigation, companies are investing less in R&D.

SPFs are already very harmful to global innovation, but most of the economic problems related to SPF will emerge gradually. This creates a difficulty in persuading authorities and institutions to start fighting against SPFs.

First, studying these SPFs necessarily questions the justifications of intellectual property. Indeed, SPFs reduce the maximizing of welfare that patents presumably create. This tends to refute the utilitarian justification of IP on its own ground. Also, by transcending property rights entrusted by the State when issuing a patent, SPFs undermine the proper functioning of the market. In other words, SPFs highlight the weaknesses of the protection curated by intellectual property, which is reinforced by the fact that governments are playing on both sides.

At a minimum, intellectual property rights should be granted more carefully, with the implementation of new criteria.

Second, because SPFs are public patent trolls, the necessary fight that has been properly waged by some governments against private patent trolls should encourage these states to fight against SPFs as well. In February 2013, President Obama clearly denounced their practices. The US House of Representatives has voted in the Innovation Act with a very large majority. A legal device aiming to eliminate patent trolls. Very recently, three US Senators wanted to introduce a new patent bill reform, called “STRONG Patents Act of 2015”, which aims at fighting these trolls. The Federal Trade Commission seems to be eager to push the matter further as many of its commissioners keep raising the issue. The FTC already took many actions against regular patent trolls, rising each time the danger that they represent for innovation. For instance, on November 7, 2014, the FTC has reached an agreement with MPHJ seeking to prevent the company from implementing

---

57 Thibault Schrepel, France Brevets: a state-owned patent troll, harmful... and illegal?, New Direction, January 2014
61 Julie Brill, Introductory Remarks of Commissioner, “Patent Litigation Reform: Who Are You Calling a Troll?”, 2014 International CES CEA Innovation Policy Summit, 8 January 2014: “Because PAEs do not manufacture products, they are not subject to countersuit, and have less incentive to cross-license patents”

World Economics • Special Edition, Spring 2015
Thibault Schrepel

devective practices. MPHJ had indeed sent more than 16,000 letters indicating a violation of its patents. 62

Currently, the situation is as follows: many governments and institutions are engaged in the fight against private trolls while some others are creating their own public ones. The fight against SPFs should be engaged in the short-term. One main problem is that the first governments to create their SPFs could, in their view, experience some initial success. However, in doing so, these countries will only give reasons for others to create their own SPFs. Obviously, midsize market economies such as France, Korea and Taiwan, will not be able to win such an “arms race” against countries like the US or China while creating unintended costs domestically by putting select competitors at an advantage. Furthermore, high-tech markets evolve too quickly for these midsize countries’ SPFs to take a lead position on holding key patents. New key patents come on the market every day and it therefore a fiction to think that it is in the interest of midsize countries to create their SPFs. They won’t be able to buy future key patents before larger and richer SPFs. On the contrary, midsize countries should be careful not to create their own SPFs in order not to encourage larger countries to do so.

Governments purchasing and enforcing IP in industries they regulate poses international trade implications that will subject companies and patent holders to significant losses and to limited competition.

By promoting the national treatment of domestic industries, SPFs have the potential to violate several existing trade agreements, including GATT, SCM, and TRIPs. Long-term solutions to curb SPF behaviours exist with new trade agreement negotiations such as TTIP and the Trans-Pacific Partnership Agreement.

The patent arm races will be a serious threat for global innovation if nothing is done.

---

62 For more details, see Thibault Schrepel, Antitrust Letter #18, Le Concurrentialiste, November 2014