Sovereign Patent Funds: Is there a Canadian Option?

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EXECUTIVE SUMMARY

Innovation and inventions are critical components of modern economies and in that spirit the Government of Canada has made it a priority to boost Canadian innovation in order to ensure economic growth and prosperity. In effort to boost innovation, some commentators and stakeholders have called for Canada to create a Sovereign Patent Fund (SPF); a state-led investment vehicle intended to strategically acquire important IP assets, thereby promoting national economic objectives. SPFs are a relatively new phenomenon, having only emerged in the past five years in countries such as South Korea, France, Taiwan, Japan and China.

Different stakeholders propose a broad range of disparate, and even contradictory purposes for a Canadian SPF: To protect Canadian SMEs from US patent trolls; to rescue national patent giants from foreign ownership; to nurture research patents through commercialization; to actively assist Canadian business by deploying patents in offensive litigation against foreign competitors; and to provide high-level IP expertise to Canadian SMEs otherwise unable to afford it.

A review of current SPFs shows that there is very limited data and scholarship available to determine just how successful existing SPFs have been in achieving their different mandates. The main commonality between each of the funds is that establishing and maintaining even a purely defensively oriented SPF requires a very significant monetary commitment in the realm of several hundred million dollars Canadian. Another commonality is to see SPFs with multiple or ambiguous mandates, and for those mandates to shift over time. Many SPFs are public-private partnerships, with industry owning an often-shifting percentage of the SPF. Finally, many of the current SPFs are
structured in a way that is defensively oriented, yet to ensure licensing revenue and
discourage free-riders requires at least a minimum amount of SPF-led litigation.

The legality of SPFs under international trade law remains uncertain, as there is
very limited scholarship on the subject, and no tribunal or judicial decisions on the
matter. Some non-legal commentators have suggested that SPF’s are likely in violation of
a number of different aspects of the WTO’s GATT agreement, but these suggestions do
not withstand analysis. One charge against SPFs, however, is that they may be in
violation of the WTO Agreement on Subsidies and Countervailing Measures (SCM
Agreement). The SCM Agreement regulates the provision of subsidies, and the use of
countervailing measures to offset injury caused by subsidized imports. It serves to ensure
that there is not an arms race of governments subsidizing domestic industries in order to
either protect their domestic market share, or increase their foreign market share. Under
the SCM Agreement, a number of different factors must be found to be present in order
for a subsidy to be determined actionable, and for an opposing state to be able to then
implement either countervailing duties, or countermeasures.

Review of the SCM Agreement and relevant case law indicates that while the
legal status of any given SPF would have to be determined on an individual basis, there is
likely a strong legal challenge to an SPF on the grounds that it is an actionable subsidy
under the SCM. The clearest way for an SPF to avoid breaching the SCM would be to try
to minimize the degree of “meaningful control” the state had over the fund in order to
reduce the likelihood the SPF itself would be found to be a “public body”, and thus found
to be within the scope of the SCM Agreement. Alternatively, if an SPF were completely
ineffective in assisting domestic industry, opposing parties would be unable to prove injury stemming from the subsidy, and thus would not be able to take action.

Regardless of the legal implications of SPFs are, it is also necessary to consider the effects they may have on international trade, and thus on the Canadian economy. It is possible, if not likely, that as more and more states create SPFs, those states without such a tool will feel increased pressure to engage in the same behavior, leading to even more SPFs being created. Depending on the purpose and conduct of these SPFs, a proliferation of state-owned patent chests could have a similar effect to an explosion of patent trolls domestically, namely, a stifling of innovation as a result of costly and time consuming litigation. In this sense, SPFs could potentially be seen as a collective action problem: Every state might be best off if they were the only country with an SPF, but they would be better off in a system of no SPFs then they would be in a system filled with SPFs. Given Canada’s export-led medium-sized economy, it is unlikely that Canada would be better off in a world where there is a proliferation of state-owned SPFs.

Moving forward, the best-case scenario for Canada would be a significant reduction in the negative impact of US patent trolls on Canadian SMEs as a result of domestic US legislative reform, or alternatively (and less likely), as a result of a new international agreement on patent litigation. The worst-case scenarios would be either: 1) The Canadian Government creates a costly and litigious SPF that it uses as an offensive tool, which serves to strain relationships with the US and other trading partners, expose Canada to costly legal challenges under international trade law, all while failing to achieve its mandated purposes, or alternatively; 2) Canada chooses to forego the creation of any type of SPF, but peer countries around the world begin to launch SPFs that prove
to be effective in aiding domestic innovation and economic growth, and Canada is greatly
disadvantaged as a late mover in the world of SPFs.

Given this analysis, this policy paper recommends that after a 12-month period of
consultation (and assuming no major shifts in any relevant factors), that Canada launch
an SPF mandated to accrue a defensive shield of patents in key sectors that could be
licensed out to Canadian SMEs at a discounted price, similar to the Korean SPF model.
Like Korea, Canada should also be willing to help subsidize litigation costs. The
Canadian SPF should be focused on acquiring Canadian and American patents, but
should not necessarily be limited to these two jurisdictions. Canada should look for
private sector investors to partner with in the SPF in order to minimize required public
investment as much as possible, while also reducing risk of legal liability under the SCM
Agreement.

The model of the SPF should be to work with private sector partners to acquire
key patents, and then license them out at a discounted price to Canadian SMEs, and at
full price to any other interested party (including non-Canadian users). The rights
licensed would be non-exclusive.
INTRODUCTION

Canadians are not particularly well known for our innovations. Patriotic inventions such as the snowmobile and foghorns aside, we rank only 25th on a global scale of innovation and invention.¹ And yet, we are an innovation-driven economy.² Innovation and inventions are critical components of modern economies and in that spirit the Government of Canada has made it a priority to boost Canadian innovation in order to ensure economic growth and prosperity. This paper is based on the conventional wisdom that intellectual property, specifically patents, are designed to boost innovation.

The major value in technology and innovation-focused firms, especially at the beginning of their existence, is intellectual property (IP). Since the innovation and technology-driven corporations that make up a large portion of our economy are dependent on having differentiated products from the rest of the competition, they have a high incentive to patent their innovations in order to retain control. Their ideas have the most value because they generally have relatively few tangible assets. This puts Canadian SMEs at a large risk when expanding into foreign markets such as the United States (US), since they do not have the resources to adequately fight persistent patent litigation for several years. If they lose, they also lose their most valuable assets and their competitive differentiation.

One of the reasons we lag behind in innovation is not through a lack of inventions, but rather a lack of commercialization on a broader scale. The Canadian government along with a multitude of other actors funds a vast amount of primary research as well as

² Ibid at 11.
market-specific research for innovative and interesting products and services. One area where we still fall short is in protecting those innovations once they are released into the proverbial wild of the global market. Having funded research, development, and product tests, many Canadian small and medium-sized enterprises (SMEs) fall short on the last test – entry into the US.

For SMEs that are highly dependent on patented goods and technologies to differentiate themselves from the competition, patent litigation is a major threat and a large disincentive to entering into the US. We are not the only country that has had this issue when bordered by a stronger economic neighbor. Taiwan, South Korea and Japan have all faced problems entering into the American and the Chinese markets because of patent litigation. All of these countries, as well as a few others, have established Sovereign Patent Funds (SPFs) in order to help their companies grow internationally and not be afraid of patent litigation or patent infringement in the delicate first few years of foreign expansion.

SPFs can be defined as state-led investment vehicles intended to strategically acquire important IP assets, thereby promoting national economic objectives. While at the core of the notion of an SPF is a state strategically owning patents, there is huge variation, both in theory and practice, in what purpose an SPF serves, and how it is structured. The common thread, however, is that these countries believe that active involvement by the state in the acquisition of patents can have a positive impact on the national economy.
Given the recent emergence of SPFs, a number of Canadian commentators and stakeholders have made the case that Canada should either launch its own SPF, or at the very least begin to seriously consider taking such an act. An SPF, however, is ultimately a tool to achieve one or more purposes, and commentators have displayed remarkably disparate views on what exactly the purpose(s) of a Canadian SPF would be. Potential purposes range from defensive-only acquisition of Canadian patents in order to protect SMEs from US patent trolls, to rescuing national patent giants from foreign ownership, to actively suing foreign competitor industries as a leg-up to domestic industry.

This policy paper examines each of these proposed purposes, and analyzes a number of existing SPFs in order to assess what if any types of SPFs are able to successfully advance what purposes. It will also consider potential legal risks given Canada’s international trade obligations under the WTO.

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BACKGROUND INFORMATION

PATENTS: WHAT ARE THEY AND WHY DO WE HAVE THEM?

The essence of a patent is a property right. It is granted to inventors by the federal government and allows the holder the ability to exclude other persons from using, making, or selling the patented invention for a set period of time. In Canada, a patent can only be granted on an invention, which is defined as “any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter”. Patents must also pass the substantive tests of non-obviousness, utility, and novelty in order to be valid. Due to these requirements, patents are more likely to be used by companies who are in manufacturing, technology, and other fields where scientific and technical innovation is more important than copyright or branding.

The theory under which patents are granted is the bargain theory. In exchange for disclosing new information, an inventor is granted the right of exclusivity to her invention. There is significant debate in the academic and trade literature about whether this exclusivity is the best mechanism to “promote the Progress of Science and the Useful Arts”, but at the moment it is generally accepted as being the justification for the monopolies enforced by patents.

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5 Ibid at s 2.
6 Ibid at s 28.
7 The Constitution of the United States, Article I, Section 8, Clause 8.
The monopoly granted to an inventor lasts for 20 years after the patent application was filed, during which time the inventor can profit, and in exchange for that monopoly, the inventor has to disclose through the patent application their new technical information. This disclosure is publically available and allows other inventors and innovators to use the information to further their own knowledge and designs.

At its heart, the bargain theory of patents is an individualistic approach to increasing innovation and invention. SPFs change that balance to some degree by taking (usually by purchasing) the monopoly issued to the individual and keeping it. The state is both the giver and the recipient, with the individual patent holder briefly retaining rights and then giving them up in exchange for the protection offered by the state.

**HOW DO PATENTS WORK INTERNATIONALLY?**

Patents are one of several governmental tools that allow for states to try and incentivize innovation and economic success. As such, they are valid only within the borders of the state that issues them. For a Canadian patent to be valid in the US, that patent also needs to be registered in the US. This can be done in one of two ways. The first is simply through applying for a patent in whatever country the inventor needs a patent in. For example, the US and Canada belong to the *Paris Convention for the Protection of Industrial Property*, which allows for inventors to claim “convention priority”. Convention priority simply means that the inventor has one year after filing to file their patent in a different country and will be given the same rights as if they had filed in both at the same time.8 This is important, especially since delaying too long can cause

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an inventor to lose their invention in a different country since it will no longer be considered “novel”. The second way is through filing a standardized application for a foreign patent through the *Patent Cooperation Treaty*, which means a Canadian national or resident can file for a patent in all 142 member countries with only the one form. Although each member state retains the ability to examine patents and decide whether to grant the patent, it streamlines the process significantly.

**EMERGENCE OF SPFS INTERNATIONALLY**

Over the past five years a handful of SPFs have emerged, in countries such as South Korea, France, Taiwan, Japan and China. As will be elaborated upon in the considerations section below, different SPFs have very different goals and objectives, as well as very different structures and operation models. Some buy only national patents in order to protect domestic industry within State borders, while others also buy foreign patents.

**PROPOSED PURPOSES OF A CANADIAN SPF**

A number of domestic Canadian analysts and stakeholders have called for the Canadian government to create an SPF, or to at least launch an investigation into the merits and feasibility of creating a sovereign patent fund. Interestingly, the creation of an SPF is held up as having a broad range of purposes, some of which may be contradictory. In the section that follows, each of the proposed purposes is briefly canvassed. Clearly

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the organization and structure of an SPF would vary dramatically based on which purpose or purposes an SPF chose to pursue.

**Purpose 1: To Protect Canadian SMEs from US 'Patent Trolls'**

A ‘patent troll’ is, also known as a ‘non practicing entity’ (or NPE). Largely these are companies that act as patent aggregators, buying up patents but not actually producing any product. They make their profit by licensing out these patents, or more controversially, by threatening and pursuing litigation (oftentimes on questionable grounds) against others. Patent trolls are a particular problem in the US, where the civil litigation cost system is currently set up such that there is little disincentive for patent trolls to pursue litigation even when a claim is tenuous, while there is simultaneously large incentives for defendants to simply settle such claims rather than going through long and costly trials which will drain them of resources even if they win.\(^\text{11}\)

There is some evidence that Canadian SMEs are being particularly negatively effected by US patent trolls, particularly when trying to break into the US market. While U.S. companies also have to deal with patent trolls, foreign companies are particularly vulnerable for several reasons: First, they are not already set up for the invasive US discovery system (and thus are more inclined to settlement); and secondly, there is some evidence that US patent juries tend to be biased against foreigners.\(^\text{12}\)

It is also important to note that patent trolls are not just an issue for foreign business but also for the domestic US economy. US lawmakers, including President

\(^{11}\) Deep Centre Report, *supra*, note 3.

Obama have expressed serious concern about patent trolls, and their potential to hobble innovation, and the economic growth associated with it.\textsuperscript{13} There appears to be significant political will in the US to undertake legal reform to reduce the impact of patent trolls, yet there remain gaps between different versions of reform legislation that is currently being pursued in the House of Representatives and the Senate.\textsuperscript{14} Many analysts remain optimistic that a compromise reform can be achieved, but there is still significant uncertainty.

Given the proliferation of US patent trolls and the challenges they pose to Canadian SME’s, some commentators and stakeholders have suggested that a Canadian SPF could serve in some capacity to help shield Canadian businesses, particularly SMEs, from US patent trolls.

\textit{Purpose 2: Rescuing National Patent Giants from Foreign Ownership}

Other stakeholders have suggested that a Canadian SPF could serve to ensure that IP developed and/or acquired by Canadian IP giants (such as Nortel and Blackberry) is not ‘lost’ to foreign actors in the event the company goes bankrupt.\textsuperscript{15}

\textit{Purpose 3: To Nurture Patents Commercialization}

In Canada there are issues with large numbers of research-based patents going without commercialization. These are patents that are often associated with Universities, and yet despite having commercial potential, they remain on the shelf (often due to lack

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\textsuperscript{15} Deep Centre Report, \textit{supra}, note 3 at 8.
\end{flushleft}
of financing) and thus the potential commercial potential remains unlocked. Some stakeholders have suggested that a Canadian SPF could serve to purchase promising patents and then commercially develop them and deal with the sale and licencing to third parties.

**PURPOSE 4: TO ACTIVELY HELP CANADIAN BUSINESSES BY BUYING AND EXPLOITING PATENTS AS LIABILITY RIGHTS PRIMARILY FOR OFFENSIVE PURPOSES.**

Another possible purpose of a Canadian SPF would be to strategically acquire patents in areas where Canadian business are doing business, or want to do business, and litigate against foreign competitors in an effort to assist Canadian business. This type of effort to “dry out” a sector is a strategic move that companies often make in an effort to acquire IP dominance in the area.\(^{16}\) States could use IP in the same way, with a potentially larger impact given the significant funds accessible to a sovereign government.

**PURPOSE 5: TO PROVIDE HIGH-LEVEL PROFESSIONAL IP EXPERTISE TO SMES NOT OTHERWISE ABLE TO ACCESS SUCH RESOURCES.**

Finally, some commentators have emphasized that a valuable peripheral benefit of a Canadian SPF would be the provision of high-level IP expertise to SMEs who might not be able to afford to access such expertise currently.

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\(^{16}\) Deep Centre Report, *supra*, note 3 at 3.
CONSIDERATIONS

AN OVERVIEW AND ANALYSIS OF EXISTING SPF S

SPFs are a relatively recent phenomenon, only starting to appear in the past five years. The most active SPFs are those of France, Taiwan, South Korea and Japan. Each of these countries has different approaches to their SPFs, with different models, goals, techniques and financing. Since each has only been active for a short time, the results as to their efficacy are fairly ambiguous.

FRANCE: FRANCE BREVETS

In March 2011, €100 million from the French state and the Caisse des dépôts established the first sovereign patent fund in Europe: France Brevets. Its objective is to assist both private companies and publish research organizations to create value through their patents.\textsuperscript{17} The focus of France Brevets is on specific sectors, namely future technology (space, the Internet of Things, and TMT [Technology Media & Telecommunications]). France Brevet has also discussed buying patents as a preventative measure to protect French interests.\textsuperscript{18}

France Brevet has been more of a “sword” than a shield, acting aggressively and litigiously to monetize any patent infringement, even though their original platform was intended defensively. Their largest victory to date has been a lawsuit initiated against LG that resulted in a licensing agreement between France Brevets and LG. In this situation,
France Brevet had purchased patents from a French operating company and has asserted the attending rights of a patent-holder in Texas and in California.

The beginning of this lawsuit was 2011 and 2012, when the French company INSIDE Secure and France Brevet entered into an agreement where INSIDE Secure hired France Brevet to handle the licensing of its 70+ patents.¹⁹ In 2013, France Brevet approached the California offices of LG in order to claim patent infringement on two of those patents. Between then and late 2014, the preliminaries of a lawsuit were held in California and in Texas. Those were cancelled in September 2014 when LG and France Brevets came to a licensing agreement.

One of the goals of France Brevet is to partner with other corporations in order to monetize their patents through licensing agreements like the one they now have with LG. Splitting the resulting funds between the original patent holder and France Brevet is one way to create value for national firms that cannot afford this proactive litigation but feel that their patents might be infringed upon. France Brevets victory over LG might create more momentum in the SPF space.

**SOUTH KOREA: INTELLECTUAL DISCOVERY**

As of June 2014, South Korea’s main SPF Intellectual Discovery had spent US$100 million of its US$250 million funds to buy approximately 4,000 patents.²⁰ Its main goal is to protect Korean companies from patent trolls, and to find patents that will

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be key to industries in the future. It is best known for building public-private partnerships, including with Samsung and LG.

**Japan: IP Bridge**

Japan’s SPF “IP Bridge”’s focus is to buy up “dormant” Japanese patents and license them to other domestic companies. IP Bridge also attempts to buy patents that might fall into the hands of foreign companies. They focus on consumer electronics patents, and were established in July 2013. In June 2015, IP Bridge was assigned over 500 smartphone-related patents as part of two major private-public partnership deals with Panasonic and Fujitsu. In September 2015, IP Bridge filed their first major lawsuit, against the Chinese electronics company TCL in the US District Court of Delaware. IP Bridge is different than some of the other SPFs in that they have stated they are interested in litigating non-Japanese patents.

**China: IP Bank-China, Tianjin Binhai International IP Exchange, Zhi Gu**

China has several state-sponsored patent aggregators and patent funds that are trying to create platforms for companies to acquire innovations and patent effectively. Little is currently known about them and there are no known public deals. However, their creation in 2011 and 2012 seems to be in part a reaction to the other patent funds established in Asia in 2009 and 2010.

**Taiwan: IP Bank and the MedTech Fund**

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Taiwan has struggled to raise the profile of their SFPs as a credible option, and in turn have been unable to raise their licensing funding targets from private sector actors. Investing in patent funds is viewed as expensive, whereas patent litigation is only expensive if it actually happens. It is also very difficult to evaluate patents and ascertain the correct pricing when they do not have a long history or success rate yet. IP Bank has three specific sub-funds, which are: (1) counterclaim fund to help domestic companies dealing with patent litigation overseas; (2) deployment fund to acquire and manage patents for potentially strategic sectors; and (3) virtual fund used for research and development.

**Overall Assessment of International SFPs:**

This review of current SFPs shows that they serve a wide variety of purposes, and have very different structures. The review also reveals that there is very limited data and scholarship available to determine just how successful existing SFPs have been in achieving their individual mandates. The main commonality between all of these funds is that establishing and maintaining even a purely defensive SPF requires a very significant monetary commitment in the realm of several hundred million dollars Canadian. Many existing SPF’s are funded in partnership with the private sector in some capacity, and this would be one option for any potential Canadian SPF, in order to reduce costs to the taxpayer. Were Canada to establish any such public private partnership, it should keep in mind the best practices of other technological private partnerships such as the Internet Corporation of Assigned Names and Numbers (ICANN).

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Most of the current SPFs are structured in a way that combines defensive and offensive capabilities. It is likely that more of the mostly-defensive SPFs will have to engage in a minimum amount of patent litigation in order to show that they intend to be significant players on the world stage. After initial lawsuits, such as France Brevets LG suit, SPFs may be able to shift back towards more defensive mechanisms. Alternatively, a proliferation of SPFs with the deep pockets of government could ultimately result in more offensive action, and increased cost and complexity of patent litigation. For instance, LG is involved with South Korea's SPF; this could have led to a situation where South Korea was litigating against a French SPF in an American court over two private-sector cell phone patents. This scenario is unlikely given the likelihood for diminishing returns, but when nationalistic government funds move into commercial activities with ambiguous or flexible mandates, their actions are less predictable than simple profit maximizing businesses.
POTENTIAL LEGAL ISSUES WITH SPFS

One potential issue with the long term viability of SPFs is their status under existing international trade agreements, which some commentators have suggested they may be in violation of. This portion of the paper will provide a brief overview of the main international trade law issues concerning SPFs. Analysts have suggested a number of different ways in which existing SPFs may be in violation of WTO trade law, including violating provisions concerning national treatment or as technical barriers to trade. While these accusations remain untested by any judicial body, an examination of the relevant treaties and case law suggests that these avenues are unlikely to lead to successful legal claims against SPFs.

The most common charge against SPFs, however, is that they may be in violation of the WTO Agreement on Subsidies and Countervailing Measures. Examining the agreement and the case law leads to the conclusion that some, if not many SPFs may be vulnerable to claims that they violate the SCM agreement. This section will seek to provide an overview of the SCM agreements approach to subsidies, and what the agreement, along with relevant case law, is likely to mean for existing and future SPFs. It will also provide a brief overview of how the recently concluded Trans-Pacific Partnership trade agreement may also be a relevant legal instrument to consider.

SCM AGREEMENT

24 Deep Centre Report, supra, note 3 at 6.
The SCM agreement regulates the provision of subsidies, and the use of countervailing measures to offset injury caused by subsidized imports.\textsuperscript{26} It serves to ensure that there is not an arms race of governments subsidizing domestic injuries in order to either protect their domestic market share, or increase their foreign market share. A country that establishes that another country is engaging in subsidies that violate the SCM can apply countervailing duties (CVDs) targeted to neutralize the effect of the subsidy.

Under the SCM, there are a number of different elements that must be established before something will be deemed to be a subsidy. A subsidy is deemed to exist where there is: 1) A financial contribution; 2) by a “government or any public body”; and 3) a benefit is thereby conferred. In addition, in order to be actionable a subsidy must be specific to a sector or industry, and must cause injury to actors outside of that state.

\textit{“Financial Contribution”}

The SCM lists a wide variety of measures that will be considered a financial contribution, including the provision of loans, fiscal incentives, or the provision of goods or services. Under any SPF framework, it is likely that this threshold would be met.

\textit{“By a Government or Any Public Body”}

Obviously a financial contribution by a Government could be characterized as a subsidy, but the issue becomes more challenging in determining what types of entities are properly considered to be public bodies. For instance, are all State Owned Enterprises (SOEs) properly considered public bodies? In an Appellate Body Report of 2011\textsuperscript{27}, the WTO tribunal investigated how precisely to interpret the term “public body”. It

\textsuperscript{26} World Trade Organization. \textit{Subsidies and Countervailing Measures: Overview}. Online: <https://www.wto.org/english/tratop_e/scm_e/subs_e.htm> [WTO Overview].

\textsuperscript{27} \textit{US – Definitive Antidumping and Countervailing Duties (China), WT/DS379/AB/R} (25 March 2011).
determined that a public body “…must be an entity that possesses, exercises or is vested with governmental authority.” Yet it emphasized that no two cases are alike, and each investigation must be done separately in that particular context. It concluded that: “What matters is whether an entity is vested with authority to exercise governmental functions, rather than how that is achieved.” The tribunal went on to find that majority ownership by the government was not necessarily sufficient to show an entity was vested with government authority. Using this framework, the tribunal ultimately found that the Chinese rubber making SOEs in question were not “public bodies”, however Chinese state-owned commercial banks (SOCBs) were. This finding underscored the fact that whether or not something can be found to be a “public body” under the SCM is to be determined on an individual basis, and the true test is if an entity is “…meaningfully controlled by the government in the exercise of their functions.”

Given that many SPFs are in fact public-private partnerships, it is likely that the issue of if a given SPF could be considered a “public body” per the SCM would likely be a critical point of contention in any legal action against an SPF. Decisions would be made on an individual basis, looking at the entire context of the organization, and not simply if the government has majority ownership of the SPF. That said, majority ownership is likely to be at least an indicia of the government control required for an affirmative finding that an SPF is a “public body” under the SCM. Thus governments looking to establish SPFs while minimizing potential liability would have a vested interest in trying to minimize their ownership and direct control of the SPF.

28 Ibid at 429.
29 Ibid at 431.
30 Ibid at 432.
**Has a Benefit Been Conferred?**

It is necessary to establish that “a benefit is thereby conferred”\(^{31}\) for a subsidy to exist. The definition of a benefit was established by the WTO’s Appellate Body in *Canada – Aircraft*.\(^{32}\) The tribunal found that ‘benefit’ implied some type of comparison, and that the key question was if the recipient had received a financial contribution on terms “(…) more favourable than those available to the recipient in the market.”\(^{33}\)

It is likely that most SPF models would be deemed to confer a benefit. For instance a defensive patent pool that allowed SMEs to license a thickets of patents for a discounted price would likely be determined to be conferring a benefit, insofar as the alternative would be licensing each patent in the thicket individually. The government function will have lowered the price and created a benefit. Alternatively if there were a pre-existing market for similar patent thickets, and the SPF was not undercutting that market price, a case could be made that the SPF was conferring no benefit. Of course in such a situation (pre-existing patent thickets available for affordable licensing prices to SMEs) there would be no need for the government to launch the SPF to begin with.

**Specificity:**

Once it has been established that a subsidy’ is in place per the SCM, it is not in violation of the SCM unless it is a specific’ subsidy.\(^{34}\) This provision is in place in order to ensure that general government programs such as roads, education and police services are not able captured under the SCM agreement. Enterprise or industry specific subsidies, however, are considered just that – specific subsidies, and they are not permitted.

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\(^{31}\) SCM, Article 1.1(b).
\(^{32}\) WT/DS70/AB/R (20 August 1999).
\(^{33}\) *Ibid* at 212. .
\(^{34}\) WTO Overview, *supra* note 27.
It is very likely that any variety of SPF would be found to qualify as “specific”. The purchase and provision of patents is simply not analogous to general exempted goods and services such as ambulances or Internet accessibility. Even if a government were to purchase a thicket of very generic patents, say involving screens (which could have uses for hundreds of different industries), the purchase would likely be interpreted by a WTO tribunal as a specific subsidy. This is based on the decision in \textit{US – Lumber CVDs Final} in which the tribunal stated “…In the case of a good that is provided by the government – and not just money, which is fungible – and that has utility only for certain enterprises (because of its inherent characteristics), it is all the more likely that a subsidy conferred via the provision of that good is specifically provided to certain enterprises only.”\textsuperscript{35} Applying this logic to the provision of patents or patent licenses, it is clear that SPFs would fall within the specific’ category.

\textit{Prohibited/Actionable Subsidies}

A country still cannot take action against a subsidy unless it is found to be either a prohibited or an actionable subsidy under the terms of the SCM. Prohibited subsidies are those that are contingent on either export performance, or the use of domestic goods over imported goods. There are certain subsidies that are explicitly prohibited, such as those that are contingent on either export performance or the use of domestic goods over imported goods.

Actionable subsidies are defined not by the type of subsidy, but rather by their effect on other countries. A subsidy is actionable if it falls under any one of three conditions. The first condition is injury to domestic producers. This is understood as

\textsuperscript{35} WT/DS257/AB/RW (5 December 2005).
“…material injury, a threat of material injury, or material retardation of the establishment of a domestic industry.” Injury is to be established on the basis of positive evidence. Thus any subsidy that causes injury to the domestic industry of another member is actionable.

Alternatively, subsidies are also actionable if they cause serious prejudice to the interests of another Member through one of the following mechanisms: a) by displacing or impeding imports of a like product of another Member into the market of the subsidizing Member; b) displacing or impeding the exports of a like product of another Member from a third country market; or c) significant price undercutting by the subsidized product as compared with the price of a like product of another member in the same market or significant price suppression, price depression or lost sales in the same market; or increase in world market share of the subsidizing Member in a particular subsidized primary product or commodity as compared to the average share it had during the previous period of three years and this increase follows a consistent trend over a period when subsidies have been granted.

As always, much depends on the particular structure of the SPF in question. Most are unlikely to be so blatant as to explicitly tie their provision of support to either export performance or use of domestic goods, and thus would likely not be found to be prohibited subsidies. However most of the different iterations of SPFs, if they were reasonably successful at achieving their goals (which may be a significant caveat), would be vulnerable to being found to be a legally actionable subsidy on the grounds of either

37 WTO Overview, supra, note 27.
displacing or impeding imports or exports of like products. Thus if a Canadian SPF provided some form of patent assistance to Canadian smartphone manufacturers, and Canadian smartphone market share began to increase either within the Canadian market, the American market, or even the global market, the US government could pursue Canada.

**HOW ALLEGED SCM VIOLATIONS WORK IN PRACTICE:**

Once a state believes that there is an actionable subsidy, a WTO member can pursue two different options. The first is to challenge the subsidy through the dispute resolution process (DSU). The second option is to respond to a subsidy with a countervailing duty (CVD). Each state has their own laws concerning when and how to launch countervailing duties in response to foreign subsidies. In many jurisdictions, including the US, the CVD process is normally industry-driven, in that domestic industry will make regulators aware of allegedly illegal subsidies they are being forced to compete with, and request that the national government impose CVDs as a result. Any CVDs imposed must be targeted to offset the cost of the subsidy. Foreign governments targeted with CVDs can choose to appeal to domestic US courts, or seek to address the allegedly improper imposition of CVDs before the WTO’s DSU panel directly.

In practice, this means that if Canada were to implement an SPF, there would be several different legal options available to other sovereign states. First, an affected industry in the US could file a petition to the International Trade Administration (ITA) - a part of the US Department of Commerce – complaining of the foreign subsidy. The ITA, along with the International Trade Commission (ITC), would then conduct an

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38 *International Trade Law, supra* note 37 at 455.
investigation into the alleged subsidy. If it determines that a subsidy exists, and that injury can be proven, it could issue a CVD order. If Canada were subject to such an order, its options would be to appeal to domestic US courts to bring the issue to the DSU.\(^{39}\) Alternatively, a state reacting to foreign subsidies (the US in this example) could pursue the two tracks at once: implementing CVDs while also bringing a case before the DSU. It is only if the complainant state wins its case before the DSU, and the perpetrator state does not remedy its offending subsidy, that the complainant state must choose between maintaining its existing CVD, or replacing it with countermeasures which at that point are permitted under the WTO.

**Trans Pacific Partnership (TPP) Trade Agreement**

The trans pacific partnership trade agreement was concluded in late October 2015. Though not yet in force, it is important to consider how the TPP could affect the legality of a potential Canadian SPF. The portion of the TPP concerning patents does not address the issue of SPFs, and the relevant laws on subsidies remain the WTO’s SCM framework. Where the TPP may be relevant to the SPF topic, however, is TPP Chapter 17, concerning State Owned Enterprises. Whereas we have seen previously that the SCM’s definition of a “public body” is to be determined on a case to case basis, the TPP defines a State Owned Enterprise very specifically: as an enterprise that is principally engaged in commercial activities, and in which a State either owns more than 50 percent of the share capital; controls more than 50 percent of the voting rights, or holds power to appoint a

\(^{39}\) *Ibid* at 456.
majority of members on the board. Under the TPP, once an enterprise is considered a SOE, there are restrictions on what types of assistance a State is able to provide to an SOE, particularly when such assistance may have adverse trade effects on other TPP members. While it is uncertain precisely how these provisions would be applied to an SPF, it is clear that there would be more legal scrutiny of a potential Canadian SPF were it to be structured such that it met the TPP’s definition of an SOE.

**LEGAL ANALYSIS CONCLUSION**

The analysis here indicates that while the legal status of any given SPF would have to be determined on an individual basis, there is likely a strong legal challenge to an SPF on the grounds that it is an actionable subsidy under the SCM. The clearest way for an SPF to avoid breaching the SCM would be to try to minimize the degree of “meaningful control” the state had over the fund in order to reduce the likelihood the SPF itself would be found to be a “public body”. The other clear way to avoid opposing legal action would be to ensure the SPF was either not successful, or only marginally successful, in assisting domestic industries. This would ensure opposing states could not prove the injury required to bring an action, but would also defeat the purpose of launching an SPF.

It seems likely that existing SPFs such as French Brevets are violating the SCM Agreement. The fact that no state has directly challenged France on this point is interesting, but not necessarily indicative of future legal challenges to SPFs. SPFs such as French Brevets have only very recently been launched, and have only begun to take

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40 Trans Pacific Partnership Agreement, Chapter 17, Article 17.1: Definitions.
offensive actions even more recently, thus leaving little time to establish the necessary injury critical to successful claims.

**INTERNATIONAL TRADE CONTEXT:**

Finally, regardless of what the legal implications of SPFs are, it is worth considering what effects they may have on international trade. It is possible, if not likely, that as more and more states create SPFs, those states without such a tool will feel increased pressure to engage in the same behavior, leading to even more SPFs being created. In this sense, SPFs could potentially be seen as a collective action problem: Every state would be best off if they were the only country with an SPF, but they are better off in a system of no SPFs then they are in a system dominated by SPFs.

Canada is a country whose economic strength stems largely from international trade. Were the international trade system to be impeded by becoming thick with SPFs, this would likely have a negative impact on Canada as a relatively small and open market heavily dependent on trade. Export-led and smaller economies like Taiwan, France and Korea already face the criticism that they “cannot come out as winners from a proliferation of state-owned PAEs [aka SPFs].”

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OPTIONS ANALYSIS

Should Canada create an SPF? If so, what goals and purposes should it have?

How should it be structured in order to obtain its goals and minimize negative impacts?

OPTION 1: LAUNCH SPF

Advantages: Launching an SPF would mean Canada would be taking a bold action in an effort to kick-start domestic innovation. Furthermore, it would ensure that if other countries start to flood towards the SPF path, Canada would not be left behind, but rather would be leading the way. This would ensure Canada would not be stuck in a position of lagging behind others in terms of acquiring the required IP experts, or pursuing the patents and patent thickets with the most value to Canada.

Disadvantages: Overall, the general impression of US think-tanks and commentators seems to be that SPFs are essentially state-funded patent trolls, and that they are a means for foreign governments to “exploit gaps in the patent system in order to disadvantage companies from other countries.”\(^{42}\) Much of the concern from US commentators seems to be that governments using SPFs are essentially protectionism by foreign governments by those foreign governments acting as patent trolls.

Upsetting the US is one downside to launching a Canadian SPF. Of course the degree of opposition by the US would likely vary based on just what the purpose and structure of a Canadian SPF was, but it is fair to assume that no SPF is likely to be viewed favourably by the Americans, our largest trading partner. Depending on how strongly they oppose a Canadian SPF, US policy makers could take a number of different

actions, from challenging the legality of a Canadian SPF through domestic channels in the hope of implementing countervailing duties, to taking the issue directly to the WTO for legal authorization to implement countermeasures. Even if the US neglected to take either of these formal legal options, it is likely that a Canadian SPF would be an irritant in relations between the two countries, particularly trade relations, and that irritant could potentially manifest itself in unpredictable ways.

Were Canada to launch an SPF, as noted previously, a decision would have to be made as to what purposes to attempt to achieve with the tool that is an SPF, and relatedly, how to structure any future SPF.

**OPTION 1.1: LAUNCH AN SPF, BUT WITH WHAT PURPOSE / STRUCTURE?**

Canadian commentators and stakeholders who have advocated for the creation of a Canadian SPF have envisioned the SPF having a wide variety of disparate and sometimes contradictory purposes. This section will briefly return to each suggested purpose, examine what type of SPF mechanism might be able to achieve the desired results, and consider what alternative to an SPF might be able to achieve similar results.

**PURPOSE: PROTECT SMEs FROM PATENT TROLLS**

**Mechanism:** A Canadian SPF could purchase and bundle patents together, and then license them off to Canadian SMEs for a very low fee (similar to the Korean SPF ‘Intellectual Discovery’). Canada could also subsidize licensor SME litigation costs if and when they are sued, as Korea does. The SPF could either be entirely defensively oriented, or be set up to allow for launching litigation in limited situations in cases of non-licensors clearly violating patent protections.
**Challenges:** If the SPF were entirely owned and operated by the Canadian Government, it is likely that it would technically be in violation of the SCM Agreement, and thus could expose Canada to countervailing duties, and/or international trade litigation, possibly resulting in countermeasures. An additional challenge would be that in order to create an SPF with a real impact in the market, the cost would likely be tens if not hundreds of millions of dollars.

**Possible alternatives:** Effective US legal reform to reduce patent trolls.

**Purpose: Rescuing national patent giants from foreign ownership**

**Mechanism:** A Canadian SPF could step in and buy strategically important patents or groups of patents in the event that Canadian IP leaders (of the calibre of Blackberry or Nortel) go out of business.

**Challenges:** This would require significant sum of money to acquire such patent thickets (many billions of dollars), unless sale to foreign actors was also vetoed under the Investment Canada Act. Such a refusal to allow Canadian IP to be sold on the free market might in turn have negative implications for future IP creators who may understandably wish to launch their IP-centric business somewhere where they would be able to achieve full market value if and when they decided to sell.

**Possible alternatives:** Keeping the status quo by allowing markets to decide.

**Purpose: To nurture patents through idea to commercialization**

**Mechanism:** There are already Canadian government funding programmes in place to try to commercialize cutting-edge research in specific areas (i.e. SD Tech
A Canadian SPF could go one step further and itself purchase promising patents and commercially developing them via a Technology Development Patent Fund (the UK and Germany have such sector funds).

**Challenges:** A more direct involvement by Canadian government in developing and guiding industry, this puts tax dollars at risk on business decisions. It also potentially exposes Canada to international legal challenges, although this is less likely if the SPF is limited to commercially developing patents as opposed to defensively hoarding them to assist domestic industry.

**Possible Alternatives:** Ramp up the existing funding model for development without moving to an ownership model.

*Purpose: To actively help Canadian businesses by buying and exploiting patents as liability rights primarily for offensive purposes.*

*Mechanism:* A Canadian SPF could strategically acquire patents in areas where Canadian business are operating, or want to do business, and litigate against foreign competitors in an effort to assist Canadian business by suppressing foreign competition through costly litigation or settlements.

**Challenges:** This option is likely to upset major trading partners such as the US, is the most likely to expose Canada to legal challenges under existing international trade agreements, and is the option most likely to play a small but potentially meaningful role in pushing other states towards also creating offensively minded SPFs.

**PURPOSE: TO PROVIDE HIGH-LEVEL PROFESSIONAL IP EXPERTISE TO SMEs NOT OTHERWISE ABLE TO ACCESS SUCH RESOURCES.**

**Mechanism:** A peripheral but potentially significant benefit of the Government creating an SPF is that it would need to hire industry specific IP experts, and these experts would be able to provide expert and targeted advice to SMEs who would otherwise not be able to access such expertise.

**Challenges:** Potentially high costs to acquire high-calibre IP experts.

**Alternative:** Outside of the creation of an SPF, develop a system where SMEs would still have access to such high quality advice from IP experts. This could involve creating a branch of Industry Canada devoted to providing such advice or a Government fund that would cover a sliding scale of the IP legal consultation expenses that SMEs incur when meeting with experts.

**OPTION 2: DO NOT LAUNCH SPF, MAINTAIN STATUS QUO**

The alternative option would be maintaining the current situation without developing a Canadian SPF.

**Advantages:** The advantage of this approach is that there would be no concerns about Canada wasting taxpayer money pursuing goals through the relatively expensive and unproven vehicle of SPFs. A further advantage is that it would ensure that trade relations with key allies such as the US remain at the *status quo*, and would also ensure that Canada was not exposing itself to potentially costly trade litigation, along with the potential CVDs or countermeasures that could result from a legal loss.

**Disadvantages/Risk:** Canadian levels might remain low without protection. Additionally, if SPFs become more common internationally it might become necessary
for international innovation competition and Canadian SMEs would be at a severe
disadvantage. Any future SPF launch would be necessarily reactive, and Canada would
be racing to catch up to the pack, as opposed to leading it. Depending on the type of SPF
launched, there may also be significant first mover advantages to countries that act early
to strategically acquire patents for important economic sectors; countries which are late to
the race may find that relatively cheap or important patents have already been taken.
RECOMMENDATIONS

**CONTEXT**

The best-case scenario would be a significant reduction in the negative impact of US patent trolls on Canadian SMEs as a result of domestic US legislative reform, or alternatively (and less likely), as a result of a new international agreement on patent litigation. The reduction of the threat from US patent trolls could lead to a corresponding freeze and rollback of nascent SPFs. In this scenario, Canada could play a positive roll in shaping the global IP framework moving forward in an open and positive way.

There are two opposite worst-case scenarios for Canada. In the first, the Canadian Government creates a costly and litigious SPF that it uses as an offensive tool, which serves to anger the US and other trading partners, expose Canada to costly legal challenges under international trade law, all while failing to achieve its mandated purposes. In the alternative worst-case scenario, Canada chooses to forego the creation of any type of SPF, but peer countries around the world begin to launch SPFs that prove to be effective in aiding domestic innovation and economic growth. In this scenario, Canada is greatly disadvantaged as a late mover in the world of SPFs.

**TIMING**

Given this context, our first recommendation is to delay making a final decision by 12 months, during which time the Government of Canada should put in place a task force to solicit the opinion of stakeholders and experts on desirable objectives and structures of a possible Canadian SPF.
The purpose of waiting 12 months is threefold. Firstly, the time is critical to see if US lawmakers are able to act to reform US law in a way that meaningfully reduces the impact of patent trolls. If such action were taken, this would play a significant role in determining the shape and even the existence of a Canadian SPF. Canadian diplomats may wish to convey precisely this message to their American colleagues: that Canada is considering the creation of an SPF in large part because of the negative effect of US patent trolls on Canadian SMEs, and that were the US to meaningfully reform the system, this would effect Canada’s decision. Secondly, this period is necessary in order to fully engage the relevant domestic actors who are just now beginning to engage with the topic of SPFs. While some Canadian commentators and stakeholders have begun to discuss SPFs, the voices in the discussion are still very limited. Further consultations are needed to ensure all stakeholders are involved, ensuring that surprises are minimized. Finally, waiting for this period will allow more time for further data and scholarly analysis to emerge concerning the functioning of those few existing SPFs. As previously mentioned, the current information about the impact of existing SPFs is sparse, and before Canada sinks potentially hundreds of millions of dollars into a similar state vehicle, it would be advantageous to have more information on which to base any decision.

**CONTENT**

In 12 months, however, assuming that there are no major changes in the current contextual landscape, Canada should launch an SPF mandated to accrue a defensive shield of patents in key sectors that could be licensed out to Canadian SMEs at a discounted price, similar to the Korean SPF model. Like Korea, Canada should also be willing to help subsidize litigation costs. This approach could mirror some of the
defensive patent pools that have been created by American technology companies in order to increase innovation and fund defensive litigation on behalf of the group. The Canadian SPF should be focused on acquiring Canadian and American patents, but should not necessarily be limited to these two jurisdictions. It should also look into potential long-term expansion into other realms of intellectual property, notably copyright trolls in the software sector.

Canada should look for private sector investors to partner with in the SPF for two reasons: First, to offset the high cost of establishing and running an SPF; and secondly in an effort to increase the likelihood that if there were a legal challenge the fund under the SCM framework that the Canadian Government could make the case that while it is certainly involved in the SPF, that it should not legally be considered a “public body”.

The model of the SPF should be to work with private sector partners to acquire key patents, and then license them out at a discounted price to Canadian SMEs, and at full price to any other interested party (including non-Canadian users). The rights licensed would be non-exclusive, and thus recipients of such a license would not be able use it to sue others. The purpose of licensing out at full price to all interested parties would be to allow the Canadian Government to recuperate some of its SPF costs. In order to ensure that such an income stream remained possible, the Canadian SPF would likely need to be prepared to use its patents offensively. Such offensive maneuvers should be restricted, however, and limited to those cases where the Government determines that the un-licensed user is acting blatantly and in egregious violation of the patent. By restrictively litigating, this will help ensure the Canadian SPF receives minimal accusations of acting as a patent troll.
Note that this SPF would not have a mandate to salvage IP from Canadian technology giants, or to assist in the commercialization of nascent Canadian IP. It is recommended, however, that the SPF serve the purpose of providing Canadian SMEs with high-quality IP advice whenever possible.

**FURTHER CONSIDERATIONS**

*WILL PEOPLE SELL THEIR PATENTS TO AN SPF?*

Individuals and SMEs may choose to sell their patents, specifically to a national SPF if they are unable to compete internationally over fears of patent litigation. The government, just as any other patent aggregator, can also acquire patents in the regular course of business. Many operating companies are active sellers, since divesting unproductive or un(der)valued assets can offset the high costs of maintaining patent banks. Bankrupt companies as well as downsizing companies will regularly sell off assets, including patents. Technology-based businesses face high risks, therefore presumably there will be more sales of patents in this sector for unsuccessful businesses that may still have useful patents. Dormant patents in Canada may be a profitable source of low-cost patents to begin a patent fund.

**INTERMEDIARIES IN CANADA**

In the US and Europe, there is an active transactional market in the field of IP, through brokers, auction services, specialist lawyers and bankers, as well as restructuring firms. Perhaps bringing in some of the individuals involved in creating large corporate consortiums to acquire patents and create patent funds might be useful.

**INVESTMENT CANADA ACT MODIFICATION**
Finally, regardless of other states’ actions, Canada should modify the *Investment Canada Act* to create a low monetary threshold for Government review of Canadian assets if the buyer is an SPF (much like recent changes for SOEs). This would ensure that regardless of the existence or nature of a Canadian SPF, other countries’ SPFs would not be able to scoop up large portions of valuable Canadian-held IP without a thorough cost/benefits analysis being conducted concerning any effects on the Canadian economy.
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