ISSUE FOCUS

The Coordinating Role of Public International Law: Observations in the Field of Intellectual Property

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The recent surge of multijurisdictional IP disputes and increase in non-binding soft laws have made scholars cast doubt on the sustainability of public international law and the validity of the current IP legal system. Private lawyers may now think that they do not have to pay keen attention to public international law any longer when providing legal advice to their clients, particularly MNCs. This study makes a concise description of today's legal environment in the field of IP, focusing on the emerging legal norms of transnational law, particularly in the context of its interplay with public international law. With respect to this, the ongoing and even heightened roles of public international law will be discussed. Finally, a typology is suggested using exponents to express intensity of State sovereignty to facilitate understanding on the relationship between public international law and other categories of law.

Keywords
Intellectual Property, Multijurisdictional IP Disputes, Public International Law, Private Lawyers, MNCs, Transnational Law

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I. Introduction

Globalization has brought about a new phenomenon. In particular, legal questions in such fields as human rights, the environment, and the finance, frequently transcend national boundaries.[1] Adequate laws addressing the issues in these fields will relieve the individuals or corporations that suffer from them.[2] However, what if there is no such law, whether international or domestic, to tackle these legal issues? Against this backdrop, the so-called 'transnational' law has emerged and evolved historically.[3] These new classes of law have become a point of contention among international law scholars, given that most legal norms in this category are regarded as non-binding 'soft law.'[4]

In the past decades, the most significant development in international legal practice has been the surge of multijurisdictional Intellectual Property ("IP") disputes.[5] The recent global IP war between Apple Inc. and Samsung Electronics Co. Ltd. is a typical example of this. However, there are repeated concerns and criticisms against multijurisdictional IP disputes in that they inhibit innovation of the Multinational Corporations ("MNCs") by draining out valuable corporate resources to redundant legal battles over the same legal issues around the globe.[6] Accordingly, a group of practitioners and scholars proposed some public international laws

1 L. Backer, The Emerging Normative Structures of Transnational Law: Non-State Enterprises in Polycentric Asymmetric Global Orders 12 (2016), *available at* http://papers.ssrn.com/abstract=2755324 (last visited on Oct 1, 2016).

2 *See infra.* Chapter III.C.6.

3 Key concepts that have been discussed along with transnational law include 'lex mecartoria,' 'international constitutionalism,' 'legal pluralism,' etc. For details, *see.* P. Zumbansen, *Defining the Space of Transnational Law: Legal Theory, Global Governance, and Legal Pluralism*, 21 Transnat'l L. & Contemp. Probs. 305 (2012), *available at* http://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1758&context=scholarly_works (last visited on Oct. 1, 2016).

4 The term 'soft law' refers to regulatory instruments influencing the behavior of individuals and corporations through informal mechanisms, such as reputational concerns, while 'hard law' denotes legally binding rules. *See.* M. Jr. Regan & K. Hall, *Lawyers in the Shadow of the Regulatory State: Transnational Governance on Business and Human Rights*, 84 Fordham L. Rev. 2002 (2016), *available at* http://fordhamlawreview.org/wp-content/uploads/2016/03/ReganHall_March.pdf; H. Kalimo & T. Staal, *Softness in International Instruments: The Case of Transnational Corporations*, 42 Syracuse J. Int'l L. & Com. 367 (2015), *available at* http://heinonline.org/HOL/LandingPage?handle=hein.journals/sjilc41&div=11&id=&page= (all last visited on Oct. 26, 2016).

5 For a factual background of this concept, *see.* Sung-Pil Park, *Harmonizing Public and Private International Law*, 7 J. East Asia & Int'l L. 351-78 (2014), *available at* http://journal.yiil.org/home/archives_v7n2_03 (last visited on Oct. 26, 2016).

6 D. Neal, *Apple v. Samsung patent result is a loss for innovation*, Inquirer, Aug. 28, 2012, *available at* http://www.theinquirer.net/inquirer/news/2201084/samsung-apple-patent-result-is-a-loss-for-innovation (last visited on Oct. 1, 2016).

whose primary function is to allocate domestic laws to resolve the multijurisdictional IP disputes.[7] However, there is a long way to go before such public international laws that can address private international law issues will be formed and begin to function properly.[8]

Some scholars interpret these phenomena as the dwindling influence on private legal practice from public international laws.[9] In addition, transnational law scholars even suggest the dismantling of traditional State-law nexus.[10] This new environment will thus possibly endanger the solidarity and sustainability of the public international law reign in terms of international relations. Of course, this unprecedented legal environment has been brought about by the emergence of the modern form of the corporation, and more importantly, its extreme evolution into MNCs.[11]

The primary purpose of this research is to show the growing importance of public international law for private lawyers, with special references to IP cases. This paper is composed of four parts, including Introduction and Conclusion. Part two will discuss several notable challenges of globalization to public international law, such as the emergence of transnational law, the surge of multijurisdictional IP disputes, and the theory that States' rule-making authority have exhausted. Part three will examine the roles of today's public international law by discussing examples in the field of IP. In Conclusion, the author will suggest that public international law is not actually losing its facilities, but has been more aggrandized by being ordained to coordinate or collaborate with transnational and domestic laws.

7 *See*, *e.g.,* ALI, Intellectual Property: Principles Governing Jurisdiction, Choice of Law, and Judgments in Transnational Disputes (2007), *available at* http://www.ali.org/doc/2007_intellectualproperty.pdf (last visited on Oct. 1, 2016).

8 *See supra* note 5.

9 H. Berman, *World Law*, 18 Fordham Int'l L. J. 1617-9 (1994), *available at* http://heinonline.org/HOL/LandingPage?handle=hein.journals/frdint18&div=67&id=&page=(last visited on Oct. 1, 2016) So, Berman suggests 'world law' as the alternative to international law. *See id.* at 1620.

10 *Supra* note 3 at 308-9.

11 D. Vagts, *The Multinational Enterprise: A New Challenge for Transnational Law*, 83 Harv. L. Rev. 739-92 (1970), *available at* http://www.jstor.org/stable/1339838 (last visited on Oct. 1, 2016).

II. Challenges of Globalization for Public International Law

A. Evolution of Transnational Law

Transnational law has emerged and developed following globalization.[12] Jessup introduced the term 'transnational law,' which soon became a buzzword among international law scholars.[13] He regarded it as an 'alternative' to both traditional 'private international law' and 'interlegal law' coined by Alf Ross "to include all law which regulates actions or events that transcend national frontiers."[14]

Since the introduction of the transnational law concept into the international law field, a group of scholars have developed theories to explain such a new phenomenon. These theories can be broken down into roughly three categories. Following the early day notion of transnational law, firstly, some scholars view that transnational law has been evolving in the void of legal institutions regarding human rights, environmental protection, labor rights, etc. In this transnational law school, there actually exist two subcategories. One group of scholars, including Jessup, describe transnational law as encompassing traditional public international law and private international law, as well as the newly emerging rules that have not been considered as either public or private international law.[15] The other group of scholars insist that transnational law refer only to the newly formed field of law that is mostly soft law.[16] Second, legal sociology scholars believe that Jessup's categorization does not exactly capture reality in the development of international law.[17] Rather, these scholars insist that transnational law, as public international law, be only one form of societal norm as a response to today's challenges.[18] Thirdly, economics and organization theorists assert that transnational law should

12 P. Berman, *From International Law to Law and Globalization*, 43 Colum. J. Transnat'l L. 487-92 (2005), *available at* http://lsr.nellco.org/cgi/viewcontent.cgi?article=1023&context=uconn_wps (last visited on Oct. 1, 2016).

13 P. Jessup, Transnational law (1956).

14 *Id.* at 2. Jessup's transnational law is quite a broad concept including public international law, private international law, and other rules that do not fall into those two categories. In this article, the author uses the term in rather a narrower sense to cover the last category, whose rules do not fit into either public international law or private international law.

15 *Id.* at 2.

16 *See*, *e.g.*, L. Friedman, *Borders: On the Emerging Sociology of Transnational Law*, 32 Stan. J. Int'l L. 66-70 (1996), *available at* http://heinonline.org/HOL/LandingPage?handle=hein.journals/stanit32&div=9&id=&page= (last visited on Oct. 1, 2016).

17 *Supra* note 3, at 306-10.

18 *Id.* at 308.

be understood as a form of global governance.[19] They put their theoretical basis on Oliver Williamson's 'contractual schema.'[20]

It is not difficult to find non-binding transnational laws that are actually respected and observed in practice by market players. A standardization mechanism in the field of IP is an example of such voluntary observance of transnational law. A standard setting organization ("SSO") examines certain candidate technologies.[21] Once they meet its criteria, they can become industrial standards. In general, such standard technologies protected by patents are called standard essential patents ("SEPs").[22] In return, the owners of SEPs should, in general, commit to the Fair, Reasonable, and Non-Discriminatory ("FRAND") terms.[23] National courts could reject a company's claim of an injunctive relief for infringement of its SEP if the FRAND commitment were to be breached.[24] Transnational law scholars may thus consider the standardization process in the field of IP as evidence of thriving transnational laws that are respected and observed by market players, even with their soft law status.

19 Some examples of the governance approach to transnational law are as follows: Regan and Hall, *supra* note 4; M. Donaldson & B. Kingsbury, *Ersatz Normativity or Public Law in Global Governance: The Hard Case of International Prescriptions for National Infrastructure Regulation*, 14 Chinese J. Int'l L. 1 (2013), *available at* http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1398&context=cjil; *Supra* note 3; L. Backer, *Private Actors and Public Governance beyond the State: The Multinational Corporation, the Financial Stability Board, and the Global Governance Order*, 18 Ind. J. Global Legal Stud. 751 (2011), *available at* http://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1461&context=ijgls; T. Bartley, *Transnational Governance as the Layering of Rules: Intersections of Public and Private Standards*, 12 Theoretical Inq. L. 517 (2011), *available at* http://eial.tau.ac.il/index.php/til/article/viewFile/784/742; A. Scherer, G. Palazzo & D. Baumann, *Global Rules and Private Actors–Towards a New Role of the Transnational Corporation in Global Governance*, 16 Bus. Ethics Q. 505-32 (2006), *available at* http://dx.doi.org/10.5840/beq200616446; D. Danielsen, *How Corporations Govern: Taking Corporate Power Seriously in Transnational Regulation and Governance*, 46 Harv. Int'l L. J. 411 (2005), *available at* http://www.harvardilj.org/wp-content/uploads/2011/03/HILJ_46-2_Danielsen.pdf; K. Nicolaidis & G. Shaffer, *Transnational Mutual Recognition Regimes: Governance without Global Government*, 68 L. & Contemp. Probs. 263 (2005), *available at* http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1368&context=lcp (all last visited on Oct. 1, 2016).

20 *See*, *e.g.*, G.-P. Calliess & M. Renner, *Transnationalizing Private Law - The Public and the Private Dimensions of Transnational Commercial Law*, 10 German L. J. 1341 (2009), *available at* http://heinonline.org/HOL/LandingPage?handle=hein.journals/germlajo2009&div=105&id=&page= (last visited on Oct. 1, 2016).

21 Examples of the most influential SSOs operating worldwide are as follows: International Telecommunication Union ("ITU"), International Organization for Standardization ("ISO"), International Electrotechnical Commission ("IEC"), Institute of Electrical and Electronics Engineers Standard Association ("IEEE-SA"), etc. In addition to the international SSOs, there exist numerous regional and national SSOs around the globe.

22 These patented technologies should be used by others in compliance with the established standards. Thus, the owners of SEPs may be placed in a more advantageous position by standardization.

23 The FRAND commitment suggests that the owner of a SEP would not discriminate other companies by imposing unfair or unreasonable licensing terms on them. Thus, the legal status of SEPs is achieved in return for the commitment to the FRAND terms.

24 National courts will find a plaintiff's breach of the FRAND commitment if, *e.g.*, the plaintiff asked for unreasonably high royalty rates to the defendant.

Even from such an example of 'standardization,' public international law seems to make a diminishing contribution to specific transnational issues of today. However, it is evident that the facilities of public international law have not declined. Rather its new roles in several directions regulating transnational legal phenomena are being fully observed in the field of IP.

B. Multijurisdictional IP Disputes

Although this article attempts to show that public international law is still important from the observation in the field of IP, the international community has recently acclaimed a need for introducing a new global legal system to overcome current inefficiencies and waste of corporate resources. The past decade has seen a lot more patent applications and litigations in the global IT industry. Since the territoriality principle of each IP law is based on the long lasting notion of State sovereignty, recent IP litigations conducted worldwide in many jurisdictions on similar or even the same legal issues have become a new challenge to both public and private international law.[25]

There are several challenges that multijurisdictional IP disputes have created. Firstly, multijurisdictional IP disputes are criticized as contra-innovation.[26] In other words, corporations tend to spend their valuable resources in defending or offending lawsuits with astronomical damages claimed, rather than in achieving a meaningful innovation whose benefit will mostly be conferred to the customers. Secondly, due to different results from the same or similar legal issues, MNCs will face more uncertainty in their global operation. On the same design patent issues, *e.g.*, the Seoul District Court held for Samsung Electronics Co. Ltd., while the US District Court of Northern California for Apple Inc. Different results from different jurisdictions could be caused by the following reasons: (1) Domestic laws, both substantive and procedural, on the specific IP issues differ from each other; (2) The courts of different jurisdictions may interpret law in a different manner. They may be affected by precedents, legal culture, and jurisprudence; and (3) The locus of specific legal issues, *e.g.*, patent infringement, could create different fact patterns affected by its unique market environment.

Many scholars assert that those challenges of multijurisdictional IP disputes should be addressed by new international legal norms.[27] However, such new legal

25 This group of IP litigations are referred to as the multijurisdictional IP disputes in this article.

26 *Supra* note 6.

27 For reviewing such scholarly attempts, *see* Jaemin Lee, *A Clash between IT giants and the Changing Face of*

norms may not be able to stand alone separately from other categories of law. As will be discussed in this article, they rather need to cooperate with other types of law to perform effectively.[28]

C. Exhaustion of States' Rule-making Authority?

Transnational lawyers would assert that States' rule-making authority has been exhausted, seeing that transnational laws have recently increased.[29] If extending this idea to the extreme, one may argue that public international law has passed and now it is the age of transnational law. Certainly, the ever increasing MNCs, whose activities are transcending national boundaries, cannot be addressed properly through conventional legal tools.

Nonetheless, public international law is still very useful. Take arbitration as an example. It is one of the most frequently used alternative dispute resolution ("ADR") methods by transnational lawyers, based on the "Convention on the Recognition and Enforcement of Foreign Arbitral Awards" (hereinafter New York Convention).[30] It shows that States' rule-making authority is essential. Without the New York Convention to recognize and enforce arbitral awards, arbitration would have been almost useless. This also implies that public international law, leveraged by States' rule-making authority, contributes to regulating the transnational legal phenomena.

III. New Roles of Public International Law in the Field of IP

A. The Public-Private Dichotomy of Law

In domestic law, the term 'private law' refers to "a branch of law concerned with private persons, property, and relationships."[31] Noticeable examples are contracts, commercial law, property law, family law, and torts. Meanwhile, 'public law' refers

International Law: The Samsung vs. Apple Litigation and its jurisdictional implications, 5 J. East Asia & Int'l L. 117-42 (2012), *available at* http://dx.doi.org/10.14330/jeail.2012.5.1.05 (last visited on Oct. 1, 2016); *supra* note 5.

28 *See infra* III.C.

29 *Supra* note 3, at 310.

30 Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958), *available at* http://www.newyorkconvention.org/english (last visited on Oct. 1, 2016). It has 156 States Parties.

31 *See* Merriam-Webster's Dictionary of Law (2016), *available at* http://www.merriam-webster.com (last visited on Oct. 1, 2016).

to "a branch of law concerned with regulating the relations of individuals with the government and the organization and conduct of the government itself."[32] It contains constitutional law, criminal law, civil and criminal procedures, and administrative law. Such a 'public - private dichotomy' has not created much confusion in any domestic legal system.[33]

In international law, however, this public–private distinction has been a source of confusion. Traditionally, public international law refers to "the law of nations which is concerned with the relationships among subjects of international law,"[34] while private international law refers to the rules dealing with "relations between individuals or legal persons in which the laws of more than one State may be applied."[35] Simply put, private international law is another name for the conflict of laws.[36] In fact, the term 'private international law' must be a misnomer, because the conflict of laws is a domestic law that exists in most respective jurisdiction.[37]

Meanwhile, the increasing roles of MNCs and non-governmental organizations ("NGOs") in today's economic environment have raised questions on how to treat these "non-State actors."[38] Due to the transnational presence and activities of these private entities, two opposite approaches are conceivable to deal with legal issues

32 *Id.*

33 This is because States do not have to be barred by such a divide in their legislation and enforcement of laws. Actually, a State can decide public or private nature of a law to regulate specific subject matters. Today, many laws are in fact in a hybrid form, i.e., a one that contains both a public and private nature. *E.g.*, a patent law in any jurisdiction may deal with individual applicants' relationship with the State (more precisely patent offices) and provide all procedural rules for patent prosecution. At the same time, a patent law defines the infringement of patent, which is a typical private law issue.

34 A. Abass, Complete International Law 7 (2012). States and international organizations are the subjects of public international law, and its subject matters are those legal issues stemming out of the relationship among these subjects. However, this public 'international' law differs from public 'domestic' law in two aspects. First, the former generally excludes individuals, either natural persons or corporations, while the latter includes legal issues where at least one party is the State. Second, the former has no centralized legislative authority, while the latter has the State.

35 *Id.* at 8.

36 *Id.* In the context of international transaction, this conflict of laws issue actually includes both "choice of law" issues and "choice of jurisdiction" or "choice of court" issues. Private lawyers should face in finalizing every international agreement.

37 This term 'private international law' is now understood by the international law community as 'conflict of laws.' Criticism on such an inappropriate nomenclature is found in the work of Alf Ross earlier in 1947. He commented on the term as: "Normally it is both hopeless and inadvisable to try to alter a generally accepted terminology, but in this case linguistic usage is so misleading that it seems to me right to make the attempt. For private international law is neither private nor international." *See* A. Ross, A Textbook of International Law: General Part 73 (1947). So, Ross used an alternative term 'interlegal law' rather than this misleading term "private international law."

38 A. Bieler, R. Higgott & G. Underhill, Non-State Actors and Authority in the Global System 1-6 (2004); C. Henderson, Understanding International Law 40 (2009). The corporate non-State actors whose businesses transcend national boundaries are referred to either as transnational corporations ("TNCs") or MNCs. However, these terms in many occasions are used interchangeably.

they may have to deal with. These two methods may be labelled as a "public-to-private" approach and a "private-to-public" approach.[39] The former is asking whether public international law can be extended to include MNCs and NGOs as international law subjects, while the latter, whether treaty based private international law can be developed.[40]

Table 1: The Public-Private Dichotomy of Law

Realm	Nature	Rule Maker	Subjects	Binding Effects	Dispute Resolution	Examples
International	Public	State-State; State-IO	State; IO	Hard	Usually not available; WTO DSM	TRIPs; PCT; EPC; Berne Convention
	Private	State	State; IO; Corp.; NGO	Hard	Domestic Courts	Conflict of Laws
Domestic	Public	State	State; IO; Corp.; NGO	Hard	Domestic Courts	Administrative Law; Civil & Criminal Procedure
	Private	State	IO; Corp.; NGO	Hard	Domestic Courts	Contracts; Torts; Property Law
	Hybrid	State	State; IO; Corp.; NGO	Hard	Domestic Courts	Patent Law; Copyright Law
Transnational	Private	State; IO; Corp.; NGO	State; IO; Corp.; NGO	Soft	ADR	Lex Mercartoria; UN Global Compact

Source: Compiled by the author.
[IO - International Organization; Corp. - Corporation; TRIPs - Trade Related Aspects of IP Rights; PCT - Patent Cooperation Treaty; EPC - European Patent Convention].

B. Sovereignty Focused Hierarchy of Law

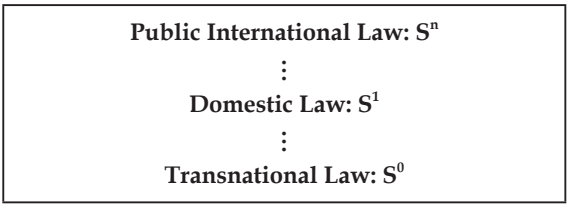
To explain the ongoing contribution of public international law in dealing with

[39] For details on these two approaches, *see supra* note 5.

[40] Robert Jennings and Arthur Watts actually envisioned integration of public and private international laws by embodying private international law rules in treaties. *See* Abass, *supra* note 34 at 8-9.

transnational legal issues in a simpler and more systematic way, it can be useful to symbolize public international law, domestic law, and transnational law. Considering State sovereignty in each category of law, a hierarchical structure can be designed as follows.

Figure 1: Sovereignty Focused Hierarchy of Law



In the figure above, the intensity of sovereignty is expressed as 'exponents.' Firstly, public international law, at the top of the hierarchy, is formed by States. Multilateral treaties, such as the WTO Agreements, plurilateral treaties, such as the Anti-Counterfeiting Trade Agreement, and bilateral treaties, including free trade agreements, require at least two States for their creation. This category of law requires multiple sovereignty for its creation, so it is expressed as 'S' to the 'n' power. Secondly, as domestic law is enacted by each State by its single sovereignty, it is expressed as 'S' to the first power. Lastly, transnational law involves no State sovereignty by definition, therefore it is expressed as 'S' to the zero power. It is thus located at the bottom of the hierarchy.

This hierarchy implies that sovereignty of the States runs from the higher category to lower category of law by coordinating or empowering. Based on this hierarchical representation of the categories of law, the author will explain why public international law remains significant, even in the era of transnational legal challenges. The next chapter describes such a dynamic interplays of law in today's international legal environment.[41]

41 However, this hierarchy does not mean that effect of domestic law, including constitution and statutes, is in general subject to that of public international law. The hierarchy is suggested in this article just in order to emphasize coordinating roles of public international law. The sovereignty of a State is sort of a *sui generis* and not originated from public international law. On the contrary, the sovereignty of each State form a basis of the legal effect of public international law. For details on the relationship between public international law and municipal law, *see* A. von Bogdandy, *Pluralism, Direct Effect, and the Ultimate Say: On the Relationship between International and Domestic Constitutional Law*, 6 Int. J. Const. L. 397 (2008), *available at* http://icon.oxfordjournals.org/content/6/3-4/397.full (last visited on Oct. 1, 2016).

C. Emerging Roles of Public International Law

1. Harmonization of Domestic Laws

A practical solution to the transnational legal problems is to coordinate domestic laws of different jurisdictions to resemble each other. Ideally, States may make their laws on specific subject matters, *e.g.*, patents, to be identical with the most advanced law of a jurisdiction.[42] However, explicit copying of the law of another State is not the case for most domestic laws of today. Rather, based on its own sovereignty, 'State A' can respect the laws of 'State B' and do its best tuning of its laws to those of 'State B.' This is the essence of the harmonization of laws.

The political and economic atmosphere, however, may become a stumbling-block before the harmonization efforts of States, as laws of an advanced State may become superior to all other counterparts. If less developed States do not fully trust the advanced State, it is hard to persuade those unsatisfied States to remain in a harmonious relationship.[43] However, the laws of advanced States could usually be favored due to their sophistication, if the need for harmonization is accepted by the States. Using the sovereignty exponents discussed in the previous subchapter, this role of public international law for harmonization can be expressed as "S^n is a proper subset of S^1 [$S^n \subset S^1$]," which implies that public international law (S^n) provides core elements that should be included in the domestic law (S^1) of any jurisdiction.[44]

In the field of IP, public international law has guided or facilitated such harmonization processes from several decades ago.[45] The Paris Convention declared harmonizing the substantive IP laws as one of the most important principles, and established a union to protect industrial property rights.[46] This treaty established several minimum standards that domestic IP laws of the union members should meet.[47] While the harmonization efforts of domestic laws today are usually made

42 This actually happens when a least developed country adopts laws by explicitly copying those of advanced countries.

43 One of the best known examples is the less developed countries' rejection of the WTO Agreement not to hand over their State authority to developed countries. For details, *see supra* note 5.

44 Of course, not all provisions of public international law proposed for harmonization have to be found in each domestic law. The results of such harmonization, i.e., harmonized domestic laws, may be expressed as "S^1 is approximately equal to S'^1 [$S^1 \fallingdotseq S'^1$]," considering that domestic laws, even after experiencing harmonization of core provisions, may have non-core provisions that are different from each other.

45 Harmonization can be achieved through each State's legislative efforts which can sometimes be pushed by public international law, such as TRIPs and Free Trade Agreements ("FTAs"). If a State resists harmonization, it is not easy to enforce such changes in the domestic law due to its sovereignty.

46 S. Scotchmer, *The Political Economy of Intellectual Property Treaties*, Berkeley Program in Law & Economics: Working Paper Series 1 (2003), *available at* http://escholarship.org/uc/item/9j50z2gz#page-2 (last visited on Oct. 1, 2016).

47 J. Cross, Amy Landers & Michael Mireles, Global Issues in Intellectual Property Law 20 (2010). However, this

by developed countries, in the 1880s, when the Paris Convention was adopted, developed countries were reluctant to change their IP laws.[48] In this regard, the enactment of the Leahy–Smith America Invents Act ("AIA"), the revised patent law of the US of 2011, implies that developed countries are now enthusiastic about harmonizing IP laws.[49]

The Patent Cooperation Treaty ("PCT") established an international patent prosecution platform through the World IP Organization ("WIPO") for the individuals and corporations of the union members.[50] The PCT system has been found to be successful, based on the harmonization requirements.[51] Although the PCT set up its unique international patent prosecution phase, known as the 'international phase,' harmonization of domestic patent laws of the member States enabled applicants to experience a more familiar procedural atmosphere by the harmonization of domestic laws. To facilitate harmonized patent prosecution using the PCT, 17 parallel agreements with the union members, including the IP5, were also enacted.[52]

In the meantime, the TRIPs Agreement tries to harmonize IP laws around the world.[53] It includes provisions to harmonize substantive IP laws of the member States by establishing minimum protection standards.[54] Although the TRIPs Agreement does not allow private actors, such as MNCs, to resolve disputes through its Dispute Settlement Mechanism ("DSM"), it offers the facilitation to resolve multijurisdictional IP disputes by heightening the IP law standard of its member States.

treaty is silent about harmonization of procedural rules, *e.g.*, those for patent prosecution process.

48 For details, *see* J. Richards, *United States: Patent Law Harmonization - A Historical Perspective*, Mondaq, June 22, 2009, *available at* http://www.mondaq.com/unitedStates/x/81474/Patent/Patent+Law+Harmonization+A+Historical+Perspective (last visited on Oct. 1, 2016).

49 D. Kappos, former director of the US Patent and Trademark Office once explained the background of this changed attitude of developed countries. *See* D. Kappos, *Patent Law Harmonization: The Time is Now*, 3 Landslide 16 (2010), *available at* https://www.uspto.gov/sites/default/files/ip/global/patents/DK_Patent_Law_Harmonization_Article.pdf (last visited on Oct. 1, 2016).

50 World Intellectual Property Organization, Patent Cooperation Treaty (1970), *available at* http://www.wipo.int/pct/en/texts/articles/atoc.htm (last visited on Oct. 1, 2016).

51 *Supra* note 47 at 22.

52 WIPO, ISA and IPEA Agreements, *available at* http://www.wipo.int/pct/en/access/isa_ipea_agreements.html (last visited on Oct. 1, 2016).

53 WTO, Intellectual property: protection and enforcement (2014), *available at* http://wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm (last visited on Oct. 1, 2016).

54 The WTO asserts in its website that IP protection will ultimately benefit society as a whole. *See id.* But most LDCs may consider IP protection as hindrance to the development of their economies.

2. Internationalization of Domestic Laws

Some transnational legal issues cannot be properly addressed, even if domestic laws of multiple States are fully harmonized. Even though the patent laws of all States are fully harmonized to be identical, applicants still have to file their patents in every jurisdiction they desire to get legal protection on their inventions. The best, and probably the only way, to avoid such redundant transaction costs is to form a public international law ordaining individuals and corporations of all member States as the subjects. In the field of IP, harmonization efforts based on treaties have successfully upgraded domestic IP laws to the level of public international laws. This relationship can be expressed by the sovereignty exponents as $[S^n \leftarrow S^1]$, which implies that domestic law is elevated to public international law status.

In the field of IP, particularly with regard to the patent prosecution system, public international law plays a significant role in meeting this truly transnational legal challenge.[55] In the 1880s, the Paris Convention, by granting priority periods for each industrial property right, established a unified priority system among its member States.[56] The internationalization of this treaty is, however, quite limited. Yet, it was able to introduce a more comprehensive international patent regime, known as the PCT. As a supplemental treaty to the Paris Convention, the PCT established a more advanced international patent prosecution system.[57] This treaty not only enables patent applicants to preserve priority date, but facilitates the examination of patents at each local patent office. The European Patent Convention ("EPC") is another example of the successful internationalization of the patent prosecution system.[58] The European Patent Office ("EPO") examines patent applications and grants European patents.[59] In fact, the EPC patent prosecution procedure resembles the PCT mechanism.[60] Furthermore, applicants can move on to

55 For MNCs and other private patent applicants, it is an expensive and time-consuming job to go through patent prosecution processes in local patent offices where their businesses reside.

56 WIPO, Paris Convention for the Protection of Industrial Property (1883), *available at* http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html#P19_138 (last visited on Oct. 1, 2016). Article 4 of the Convention grants 12 months for patents and utility models, and 6 months for industrial designs and trademarks as priority periods. The period starts from the filing date of the first application. The filing date, however, is not included in the priority period.

57 It is not about one unitary patent, or about a unified patent prosecution system for its member countries. The PCT process is in fact divided into the international and the national phase, but only the former is an 'international' process, while the latter is still 'domestic.'

58 European Patent Office, European Patent Organisation (2014), *available at* http://www.epo.org/about-us/organisation.html (last visited on Oct. 1, 2016).

59 European Patent Office, The Office, *available at* http://www.epo.org/about-us/office.html (last visited on Oct. 1, 2016).

60 European Patent Office, How to Apply for a European Patent (2014), *available at* http://www.epo.org/applying/basics.html (last visited on Oct. 1, 2016).

the EPC route after completing the PCT's international phase.[61]

Regarding copyrights and related rights, the Berne Convention for the Protection of Literary and Artistic Works (hereinafter Berne Convention) is an example of internationalizing domestic laws to some degree. This treaty allows an author to claim his/her copyright or related rights in the State, where they are infringed without registering such rights.[62] Although it does not reach the level of providing extraterritorial jurisdiction ("ETJ"), the Berne Convention at least facilitates copyright and related right holders to access any member State's court when the rights are infringed.[63]

3. Publicization of Private International Laws

As discussed above, private international law is not exactly 'international' law, but substantially domestic law. If an agreement provides a choice of laws and courts issues, parties involved in an IP dispute only have to depend on such provisions. However, today's transnational legal issues, such as multijurisdictional IP disputes, cannot in general be solved just by agreements.[64] Thus, practitioners and scholars have made attempts to promote private international law to public international law status. This relationship can be also expressed by the sovereignty exponents as $[S^n \leftarrow S^1]$, because private international law is in fact domestic law. 'Publicization' in this context means that it actually becomes public international law.

There are several well-known examples of attempts to publicize private international law. Firstly, although not exclusively applied to the IP issues, the Hague Conference/Conférence de La Haye ("HCCH"), or "The Hague Conference on Private International Law"[65] attempts to provide binding rules for choice of laws and courts.[66] Secondly, in the field of IP, there is a comprehensive proposal drafted by the American Law Institute ("ALI") to deal with conflict of laws issues in the age of

61 WIPO, PCT Applicant's Guide – National Phase – National Chapter – EP (2014), *available at* http://www.wipo.int/pct/guide/en/gdvol2/annexes/ep.pdf (last visited on Oct. 1, 2016).

62 For details on the Berne Convention, *see supra* note 5 at 360-1. *See also* Berne Convention for the Protection of Literary and Artistic Works (1886), *available at* http://www.wipo.int/treaties/en/text.jsp?file_id=283698 (last visited on Oct. 1, 2016).

63 Surge of multijurisdictional copyright disputes can also be conceivable due to the huge volume of digital contents and ever-advancing technologies for their creation and delivery.

64 To deal with an infringement of a patent, the patent holder may want to, and have to select the laws and courts of a State where the patent is registered.

65 HCCH, Statute of the Hague Conference on Private International Law (1955), *available at* http://www.hcch.net/upload/conventions/txt01en.pdf (last visited on Oct. 1, 2016).

66 HCCH, Convention on Choice of Court Agreements (2005), *available at* http://www.hcch.net/upload/conventions/txt37en.pdf (last visited on Oct. 1, 2016).

internet technology and its impact on IP.[67] This proposal provides sophisticated rules for the resolution of multijurisdictional IP disputes, regarding jurisdiction, choice of law, recognition and the enforcement of foreign judgments.[68]

In an ideal world where private actors conducting transnational businesses are fully supported by the international legal system, multijurisdictional IP disputes could be resolved in any competent local court with its decision enforced elsewhere.[69] In this case, the court handling such multijurisdictional IP disputes would have an ETJ.[70] This dramatic role of public international law that establishes an ETJ for individuals and corporations, can be expressed by the sovereignty exponents again as $[S^n \leftarrow S^1]$, as it leads private parties that were originally subject to domestic law and their State jurisdiction to resort to the ETJ conferred by public international law status.

4. International Jurisdiction for States

Some public international laws establish international tribunals.[71] In the field of IP, the Understanding on Dispute Settlement ("DSU") of the TRIPs Agreement provides an important Dispute Settlement Mechanism ("DSM") through its Dispute Settlement Body ("DSB").[72] It can be the forum for dispute settlement not only among the WTO member States, but also for private actors who are willing to address trade related issues indirectly.

The role of public international law in this case can be expressed by the sovereignty exponents as $[S^n \leftarrow S^1]$. Private actors are not allowed to personally file lawsuits in the DSB. This mechanism, however, is a result of the long term struggle among States who finally cooperated to agree on the DSU.

67 *Supra* note 7. Such a motivation Statement is found in the foreword and the reporters' memorandum sections of the proposal. For details on the ALI proposal, *see supra* note 5, at 366-70.

68 *Supra* note 7. However, the ALI proposal has not been promoted to the level of public international law.

69 It is the purpose of the ALI Proposal. *See supra* note 5.

70 For details on the ETJ, *see.* H. Maier, *Extraterritorial Jurisdiction at a Crossroads: An Intersection between Public and Private International Law*, 76 Am. J. Int'l L. 280 (1982), *available at* http://www.jstor.org/stable/2201454 (last visited on Oct. 1, 2016).

71 Currently four international tribunals remain active with global scope, i.e., the International Court of Justice, the International Criminal Court, the International Tribunal for the Law of the Sea, and the Appellate Body of the WTO, while there are many other international tribunals whose regional and substantive scopes are limited.

72 WTO, Understanding on Rules and Procedures Governing the Settlement of Disputes, *available at* http://www.wto.org/english/docs_e/legal_e/28-dsu_e.htm#4 (last visited on Oct. 1, 2016). Regarding the DSB, *see* WTO, A unique contribution (2014), *available at* http://wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm (last visited on Oct. 1, 2016).

5. International Jurisdiction for Private Actors

The ETJ mechanism discussed above may be useful for private actors conducing transnational businesses, yet there exists a more advanced and aggressive form of jurisdictional arrangement in real life. The European Union ("EU"), by introducing both the European patent with unitary effect (hereinafter unitary patent) and the Unified Patent Court ("UPC"), attempts to adopt a truly internationalized system for patent prosecution and enforcement.[73] The unitary patent and the UPC are coupled together regarding the point when they become effective.[74] The UPC will operate as part of the judicial system of the member States.[75] It will deal with the cases related to both European and unitary patents occurring in the territory of the member States.[76] The UPC will comprise a Court of First Instance, a Court of Appeal, and a Registry.[77]

Once this unprecedented attempt of the EU is attained, it could trigger discussions on the introduction of similar international legal mechanisms in other parts of the globe. It is an ultimate form of international jurisdiction that is equipped with complete legal authority to decide on multijurisdictional IP disputes and enforce decisions.[78] Hence, this system can be expressed by the sovereignty exponents as "S^n is equal to S^1 [$S^n = S^1$]." It implies that private actors are now the subjects of public international law, at least with regard to patent prosecution and enforcement.

6. Demarcation of Transnational Laws

Is public international law necessary in implementing international cooperation?

[73] For details on the unitary patent and the UPC, *see.* European Patent Office, Unitary patent & Unified Patent Court (2016), *available at* http://www.epo.org/law-practice/unitary.html. In this regard, the unitary patent and the UPC may potentially become more effective patent prosecution and enforcement mechanisms than those proposed by the ALI. However, more legislative efforts need to be made before this new European patent system could come into operation due to the UK's vote on June 23, 2016 to leave the EU (so-called the 'Brexit'). For details, *see* R. Gordon & T. Pascoe, *Re the Effect of "Brexit" on the Unitary Patent Regulation and the Unified Patent Court Agreement* (2016), *available at* http://www.cipa.org.uk/EasySiteWeb/GatewayLink.aspx?alId=10869 (all last visited on Oct. 1, 2016).

[74] European Patent Office, Unitary Patent (2016), *available at* http://www.epo.org/law-practice/unitary/unitary-patent.html (last visited on Oct. 1, 2016). The unitary patent granted by the EPO will have unitary effect in all member States. *See id.*

[75] Unified Patent Court, Questions and answers about the UPC (2016), *available at* http://www.unified-patent-court.org/about-the-upc (last visited on Oct. 1, 2016).

[76] *Id.*

[77] *Id.*

[78] It is different from the ETJ mechanism in that the jurisdictional power and enforcement authority are fully institutionalized by the establishment of the unified court system, while the ETJ needs to be maintained by the courts in different jurisdictions. Of course, one may label such a unified court system as an extreme case of the ETJ.

It is an issue among today's IP policy-makers.[79] Francis Gurry, Director General of the WIPO, recently asserted, "In the field of IP, multilateralism is especially important because of the mobility and global application of innovation, ideas and creative works," and also said, "not every form of international cooperation needs to be implemented through a treaty."[80] His idea seems to have its basis on the transnational law's legal pluralism.[81]

One may have to admit that, as Mr. Gurry quoted from Lord Arnold McNair in his interview, "a treaty has been described, with some degree of exaggeration, as the only and sadly overworked instrument with which international society is equipped for the purpose of carrying out its multifarious transactions."[82] However, the WIPO's Director General also confessed that "incoherent and inconsistent rule-making" can be a downside of the flourishing transnational laws, and that such a defect can be harmful to particularly small and medium-sized States.[83] Mr. Gurry's blessing on the transnational laws ironically highlights the significant role of public international law in hedging the risk associated with this new category of law.[84] This role of public international law can be labelled as 'demarcation' of transnational laws.[85] Eventually, public international law provides a guideline, so that the flexibility of transnational laws may not harm coherency and consistency of its mother law.[86]

The demarcation role of public international law can be also analyzed in the context of the standardization mentioned earlier.[87] For this discussion, it is worthwhile to consider an assertion that public international law can establish minimum procedural rules for setting the rules and standards.[88] It is also maintained

79 *See Francis Gurry on the challenges for multilateralism in the field of intellectual property*, WIPO Mag. (Oct. 2016), *available at* http://www.wipo.int/wipo_magazine/en/2016/05/article_0001.html (last visited on Oct. 1, 2016).

80 In an interview with the WIPO Magazine, the Director General mentioned: "The international community can decide to do something through a resolution or decision of one of WIPO's constituent bodies (e.g. the WIPO General Assembly). While such arrangements are generally not binding in the strict legal sense unless adopted in the form of a treaty to which a State accedes formally, they can advance internationally agreed goals." *See id.*

81 For the discussions on legal pluralism, *see supra* note 3.

82 *Supra* note 79.

83 *Id.*

84 *Id.* The Paris Convention and the Berne Convention in a sense predicted the emergence of transnational laws. But these foundational treaties of international IP system also stipulated that such transnational laws should be made compatible with each convention.

85 In other words, public international law decides on the metes and bounds of transnational laws whose boundary is inherently unclear.

86 One may label this role as the 'anchoring effect' of public international law considering that its rules hinder transnational laws not to deviate too much from their mother law.

87 *See supra* II.A.

88 H. Hofmann, *Dealing with Trans-Territorial Executive Rule-Making*, 78 Mo. L. Rev. 441 (2013), *available at* http://scholarship.law.missouri.edu/cgi/viewcontent.cgi?article=4035&context=mlr (last visited on Oct. 1, 2016).

that public international law is offering procedural guidelines to standard setters. The existence of public international law, *e.g.*, the WTO Agreement on Technical Barriers to Trade ("TBT") in the standardization context, provides a guideline for the SSOs. It enables diverse soft law instruments to be generated within the scope of such a procedural rule.[89] This emerging demarcation role again verifies the notion that public international law is not losing its importance. Here, it is actually collaborating with transnational laws. The demarcation can be expressed by the sovereignty exponents as "S^n is a proper superset of S^0 [$S^n \supset S^0$]." It implies that transnational laws need to be made within the scope of public international law.

IV. Conclusion: Growing Importance of Public International Law

So far, by looking into the IP filed, this research has shown that public international law is not losing its importance, even in the age of transnational law, at least in the field of IP. To the contrary, the study suggests that public international law can coordinate (1) harmonization of domestic laws, (2) internationalization of domestic conflict of law rules, (3) publicization of private international law, (4) provision of international jurisdiction both for States and private actors, and (5) demarcation of transnational laws. Table 2 shows the roles of public international law in coordinating its diverse collaboration works with the other categories of law.

Notwithstanding the ever increasing multijurisdictional IP disputes and soft laws to deal with transnational legal issues, public international law still plays an important role in the international community. In fact, the importance of its roles has been growing, at least from observations of diverse public international laws in the field of IP. Due to the proliferation of soft laws regarding transnational issues, private lawyers are now also expected to provide advice on such issues for their business clients.[90] Professional responsibilities of private lawyers should, of course, include such advice on non-binding rules, injury to reputation in the market, as well as many more. However, this new responsibility and changing role of private lawyers do not imply that they can now disregard the provision of advice on public international law issues. As transnational laws are flourishing today, public

89 *Id.*

90 For details, *see.* Regan & Hall, *supra* note 4.

international laws are also developing. A further critical finding in this article is that the former needs the latter to sustain.

Table 2: Typology of the Roles of Public International Law.

Type	Relationship	Examples
Harmonization [$S^n \subset S^1$]	Public international law provides core elements which should be included in domestic laws.	Harmonization of Domestic IP Laws according to TRIPs, Paris Convention, etc.
Internationalization; Publicization; [$S^1 \rightarrow S^n$]	Some domestic laws are upgraded to public international law.	HCCH; ALI Proposal
Jurisdiction for the States [$S^1 X S'^1 = S^n$]	Multiple State sovereignty forms public international law.	WTO TRIPs
Jurisdiction for Private Actors [$S^1 = S^n$]	Public international law forms unitary patent & unified court system.	Unitary Patent & UPC
Demarcation [$S^n \supset S^0$]	Transnational laws need to be made within the scope of public international law.	Agreements among small & medium WTO member States
Legalization [$S^0 \rightarrow S^n$]	Some transnational laws may be upgraded to public international law.	Not found yet

Source: Compiled by the author.