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Inequality and Intellectual Property

Equity, Innovation, and Creative Imitation

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INTRODUCTION

Justice in the distribution of income and wealth among nations has been at the heart of the development debate since decolonization began after World War II. The right to development and recourse to global equity has been informed by massive gaps in the distribution of wealth and income. International economic law and the World Trade Organization (WTO) have been strongly criticized for producing adverse effects.[1] In contrast, supporters of the system have drawn attention to the fact that the WTO has contributed to reducing such gaps.[2] Statistically, much of it is owed to the impressive growth of China due to global value chains. But all emerging economies and developing countries benefited from the multilateral system, except for the numerous least-developed countries. They amount to 2 percent of the world economy, and their share in world trade has not exceeded 1 percent since 2008.[3] Overall, however, it is recognized that the multilateral trading system, due to its principles of

[*] The author is indebted to the anonymous reviewer for valuable comments and suggestions.

[1] See, for example, Thomas Pogge, *The Role of International Law in Reproducing Massive Poverty*, *in* The Philosophy of International Law 417 (Samantha Besson & John Tasioulias eds., 2010), and the nuanced reply by Robert Howse & Ruth Teitel, *Global Justice, Poverty, and the International Economic Order*, *in* The Philosophy of International Law, *supra*, at 437. For a recent history and account of developing countries in the multilateral trading system, see Amrita Narlikar, Power Paradoxes in International Trade Negotiations (2020).

[2] Thomas Cottier, *The Legitimacy of WTO Law*, *in* The Law and Economics of Globalisation: New Challenges for a World in Flux 11 (Linda Yueh ed., 2009). Oisin Suttle develops why we need a theory of distributive justice in international economic law, yet without addressing intellectual property. Oisin Suttle, Distributive Justice and World Trade Law: A Political Theory of International Trade Regulation (2018).

[3] UNCTAD, The Least Developed Countries Report 2018, at 59 (2018).

nondiscrimination and market access, contributes significantly to more equal conditions of competition in the world economy.[4] Trade shares of developing countries in world trade in goods and services in 2018 amounted to 44 and 34 percent, respectively.[5]

Today, the debate has shifted to the problem of intergenerational equity, given environmental challenges of climate change and exhaustion of natural resources – in particular, the loss of biodiversity caused by unprecedented growth and agricultural soil exploitation.[6] While still shaped in terms of North–South relations, these issues amount to common concerns of humankind.[7] They affect all countries but expose poorer and more vulnerable ones, further increasing inequalities. The COVID-19 pandemic is likely to improve them further. These issues call for enhanced international cooperation beyond existing levels.

After the financial crisis and the Great Recession of 2007–2012, preoccupation and focus shifted to inequality within states, impairing much-needed international cooperation. The process of globalization, the increase of global value chains, and the relocation of industries away from industrialized countries fueled populist political movements. They resulted in an isolationist U.S. government in 2018 and the United Kingdom leaving the European Union in 2020. In both cases, the onslaught on multilateral institutions was caused by increasing domestic inequality and dissatisfaction with national government policies. The European Union (in the case of Britain) and the WTO (in the case of the United States) were blamed for inherently domestic failures to secure social coherence and distributive justice. Previous governments largely ignored that free markets require adequate safety nets in social policy. For too long and tragically, free traders have often combated social policy, and adherents to the welfare state tended to support protectionism and mercantilism for ideological reasons.[8] Countries adequately combining the two areas were able to avoid populists taking power. As an overall result, international cooperation within multilateral organizations has suffered. The setback today delays effective cooperation in addressing common concerns of humankind, including inequality among nations.

[4] World Bank, World Development Report 2020: Trading for Development in the Age of Global Value Chains 2020 (2020); Richard Baldwin, The Great Convergence: Information Technology and the New Globalization (2016).

[5] World Trade Org., World Trade Statistical Review 2019, at 15 (2019).

[6] Edith Brown Weiss, In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity (1989); Intergenerational Equity: Environmental and Cultural Concerns (Thomas Cottier, Shaheeza Lalani & Clarence Siziba eds., 2019) [hereinafter Intergenerational Equity].

[7] The Prospects of Common Concern of Humankind in International Law (Thomas Cottier & Zaker Ahmad eds., 2021) [hereinafter Common Concern].

[8] *See* Thomas Cottier, *Poverty, Redistribution, and International Trade Regulation*, *in* Poverty and the International Economic Legal System: Duties to the World's Poor 48 (Krista Nadakavukaren Schefer ed., 2013).

Increasing income and wealth distribution gaps set in with neoliberal policies in the 1980s.[9] Income from capital increasingly exceeded income from labor. Property today again plays a significant role in increasing gaps and inequality of wealth in income.[10] The 2018 *World Inequality Report* documents that income inequality has increased globally since 1980 – rapidly in North America, China, and Russia, but only moderately in Europe, ending postwar egalitarian regimes.[11] Statistics consistently show that inequalities were much less prominent after World War II with the advent of the welfare state.[12] Historians show that mass mobilization warfare, transformative revolution, state collapse, and plague – the four horsemen – have been the great levelers of income and wealth allocation. They tend to decline upon overcoming a major crisis.[13] Importantly, it was shown that massive income and wealth inequality throughout history triggered international conflict and civil strife. It may do so in the future. It is a threat to international peace and security, and it is argued elsewhere that gross domestic inequalities amount to a common concern of humankind.[14] Likewise, Goal 10 of the 2030 Sustainable Development Goals seeks to

[9] For a detailed analysis, see Alexander Beyleveld, Taking a Common Concern Approach to Economic Inequality: Implications for (Cooperative) Sovereignty over Corporate Taxation (2022); Alexander Beyleveld, *Exploring the Recognition of New Common Concerns of Humankind: The Example of the Distribution of Income and Wealth within States*, *in* Common Concern, *supra* note 7 [hereinafter Beyleveld, *Exploring Recognition*].

[10] Thomas Piketty, Capital in the Twenty-First Century (Arthur Goldhammer trans., 2014). This seminal study induced increased attention to history as a driving force, rather than sociology, in understanding inequalities. *See* Mike Savage, The Return of Inequality: Social Change and the Weight of the Past (2021).

[11] Facundo Alvaredo, Lucas Chancel, Thomas Piketty, Emmanuel Saez & Gabriel Zucman, World Inequality Report 2018, at 7 (2018) [hereinafter World Inequality Report]:

> The poorest half of the global population has seen its income grow significantly thanks to high growth in Asia (particularly in China and India). However, because of high and rising inequality within countries, the top 1% richest individuals in the world captured twice as much growth as the bottom 50% individuals since 1980. Income growth has been sluggish or even zero for individuals with incomes between the global bottom 50% and top 1% groups. This includes all North American and European lower- and middle-income groups.
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> The rise of global inequality has not been steady. While the global top 1% income share increased from 16% in 1980 to 22% in 2000, it declined slightly thereafter to 20%. The income share of the global bottom 50% has oscillated around 9% since 1980. The trend break after 2000 is due to a reduction in between-country average income inequality, as within-country inequality has continued to increase.

For a digest of figures, see Beyleveld, *Exploring Recognition*, *supra* note 9.

[12] Thomas Piketty, The Economics of Inequality (Arthur Goldhammer trans., 2015).

[13] Walter Scheidel, The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-First Century (2017).

[14] Beyleveld, *Exploring Recognition*, *supra* note 9.

reduce inequalities, addressing all policy and regulatory areas.[15] The matter, therefore, is also of importance for intellectual property. It forms part of capital and wealth and thus potentially contributes to inequality.[16]

The advent of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) in 1995 coincided with the heydays of trade liberalization in the wake of dominating neoliberal policies. While not an agenda of deregulation but rather a reinforcement of worldwide disciplines for the protection of intellectual property, we are confronted with the issue of to what extent higher standards of protection and commitments to enforcing such rights have contributed to wealth and income inequality. To what extent have monopoly rights contributed to or reduced equal conditions of competition and opportunities?

Property and property rights are major factors in income and wealth distribution. Most of it traditionally relates to movable capital (shares, assets, and savings) and real estate. Between 1970 and 2016, the share of private capital significantly increased in industrialized countries at the expense of publicly owned capital.[17] The role of intellectual property is more difficult to assess. In the same period, the value of intangible property surpassed that of tangible property and became essential for global value chains.[18] The number of registered titles constantly increased.[19] While numbers are not conclusive for the value of such titles and thus wealth, the importance and impact of intellectual property increased in the process of globalization. In political and ideological debates, it is generally assumed that higher levels of protection increase income and wealth inequality. The view has fueled longstanding resistance to effective protection prior to the TRIPS Agreement. It informs much of the debate on TRIPS-plus standards in bilateral and plurilateral

[15] *Goal 10: Reduce Inequality within and among Countries*, United Nations, https://sustainabledevelopment.un.org/sdg10 (lasts visited Apr. 3, 2020).

[16] Piketty includes intellectual property but does not deal with it in *Capital*. Piketty, *supra* note 10, at 49.

[17] World Inequality Report, *supra* note 11, at 14 fig.E6.

[18] World Intell. Prop. Org., World Intellectual Property Report 2017, at 11 (2017).

[19] World Intell. Prop. Org., WIPO IP Facts and Figures 2019, at 7–9 (2019):

> Innovators around the world filed 3.3 million patent applications in 2018, up 5.2% for a ninth straight yearly increase. Trademark filing activity amounted to 14.3 million, up 15.5% and representing a fourth consecutive year of double-digit growth. Worldwide industrial design filing activity reached 1.3 million, while applications for utility models exceeded 2 million for the first time. . . .
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> There were around 14 million patents in force worldwide in 2018. The largest numbers in force were recorded in the United States of America (U.S.) (3.1 million), China (2.4 million) and Japan (2.1 million). Of the 49.3 million trademark registrations active worldwide, the greatest number in force were in China (19.6 million), followed by the U.S. (2.4 million), India (1.9 million) and Japan (1.9 million). Likewise, the greatest numbers of industrial design registrations in force were in China, which accounted for 40.4% of the world total. In addition, China accounted for 93% of the total utility models in force.

cooperation agreements.[20] Upon expounding in detail recent developments in international intellectual property treaty-making, Carlos Correa assumes that they contribute to inequality: "[intellectual property] provisions contained in [free trade agreements] are likely to aggravate current inequalities among and within countries, particularly low- and middle-income countries."[21] This argument is supported by the general importance of property for income and wealth allocation. The more it is concentrated, the greater is the inequality between different percentiles of society. Yet no econometric studies or models are available showing conclusively that intellectual property protection causes or contributes to international and domestic income and wealth inequality.[22] Capital shares increased due to increased investment in intangible assets in corporate expenditure.[23] According to Carsten Fink, one possible explanation is the effect of reduced competition due to concentration, which may be caused, among other things, by intellectual property rights generating economic rents.[24] Causality is difficult to demonstrate, and a counterfactual under nonexistent intellectual property protection does not exist. Even the impact of increased levels of protection is difficult to assess. Conclusions may be drawn from findings of increased concentration in intellectual property–related industries and their push for high levels of protection, but there are many factors contributing to this effect. It is difficult to isolate the impact of intellectual property rights.

Given the empirical uncertainty of the impact of intellectual property on increasing income and wealth inequality internationally and domestically, this chapter addresses the issue from the angle of law and legal methodology. Thomas Piketty, while an economist, stresses in his recent work the important impact of

[20] *Cf.* Thomas Cottier, *Intellectual Property and Mega-Regionals Trade Agreements: Progress and Opportunities Missed*, *in* Mega-Regional Trade Agreements: CETA, TTIP and TiSA 151 (Stefan Griller, Walter Obwexer & Erich Vranes eds., 2017).

[21] Carlos M. Correa, *Intellectual Property: A Regulatory Constraint to Redress Inequalities*, *in* International Policy Rules and Inequality: Implications for Global Economic Governance 179, 202 (José Antonio Acampo ed., 2019).

[22] Correspondence of the author with Keith Maskus and Carsten Fink (Mar. 25–26, 2020) (on file with author).

[23] World Intell. Prop. Org., *supra* note 18, at 11.

[24] Carsten Fink writes:

> One possibly IP [intellectual property]-related explanation is weakening competition, which leads successful companies to generate higher profits (which empirically shows up as returns to intangible asset investments). There are numerous economists who have made this argument for the US economy (most prominently, see Thomas Philippon, The Great Reversal: How America gave up on Free Markets (The Belknap Press of Harvard University 2019)). Even then, most advocates of this hypothesis probably would not focus on IP policy as the explanation for reduced competition, but look at other factors (superstar effects, natural monopolies/network effects, captured regulators). That said, within that space, I think there is scope to think through the role of IP ownership and IP policy, as IP exclusivity ultimately is a way of generating rents.

Correspondence of the author with Keith Maskus and Carsten Fink, *supra* note 22 (quoted with permission).

constitutionalism and the importance of property notions and of law for the allocation of income and wealth. Much depends upon the shape of the legal order and its directions.[25] The scope of intellectual property rights is critical, so is the importance of competition and the avoidance of undeserved economic rents. Government policy and thus the law cannot possibly support such rents, as they are not in the public interest and do not foster general welfare. This chapter examines the potential of taking into account considerations of income and wealth distribution in the process of interpreting existing rules (see Section 11.2). It turns to the overall balance of rights and obligations from an angle of fostering investment in innovation and creative imitation. It also suggests recalibrating rules on the duration of patents, copyright, trademarks, and trade secret protection. The latter is not subject to limitation and time and may thus contribute to unjustified economic rents detrimental to human investment (see Section 11.3). The following section first turns to setting the scene and background of international intellectual property protection.

11.1 THE IMPACT OF INTELLECTUAL PROPERTY PROTECTION

At the outset of the TRIPS negotiations, developing countries believed that enhanced levels of intellectual property protection undermine import substitution policies and should therefore be avoided. Efforts at reinforcing the Paris Convention for the Protection of Industrial Property (Paris Convention) and the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention) had failed for such reasons, and industrialized countries tabled the matter at the General Agreement on Tariffs and Trade (GATT) during the Uruguay Round.[26] These countries were increasingly dependent upon high levels of protection due to the increasing division of labor and global value chains in globalization. Attitudes of developing countries altered after the fall of the Soviet Union and the shift to market economies and dependence upon foreign direct investment. China joined the WTO in 2001 and was committed to the TRIPS standards and their implementation. Upon completion of the Uruguay Round, negotiation fora shifted to bilateral and regional free trade agreements on comprehensive economic cooperation, adding TRIPS-plus protection subject to most-favored-nation (MFN) obligations under the TRIPS Agreement and increasingly lifting international minimum standards of protection across the board.[27] Developing countries were willing to accept such

[25] Thomas Piketty, Capitalism and Ideology (Arthur Goldhammer trans., 2020).

[26] *Cf.* The Making of the TRIPS Agreement: Personal Insights from the Uruguay Round Negotiations (Anthony Taubman & Jayashree Watal eds., 2015). For an account of motives driving higher levels of protection and enforcement of intellectual property rights in the 1980s, informing the TRIPS negotiating process, see Kenneth W. Dam, *The Growing Importance of International Intellectual Property Protection*, 21 Int'l Law. 627 (1987).

[27] *Cf.* Susan K. Sell, *Cat and Mouse: Industries', States' and NGOs' Forum-Shifting in the Battle over Intellectual Property Enforcement* (Sept. 2009), https://ssrn.com/abstract=1466156; Correa, *supra* note 21; Cottier, *supra* note 20.

obligations in return for enhanced market access rights, particularly on the part of the United States and the European Union. In the long run, such concessions will inform the reform of the TRIPS Agreement and other multilateral treaties.[28] The main focus of reform under the TRIPS Agreement was the effort to improve access to essential drugs under the Doha Declaration on TRIPS and Public Health. It eventually led to the only revision of the TRIPS Agreement so far.[29]

There is no need to discuss the strategic value of enhanced levels of protection for industrialized countries. Substantial differences showed in detail, and most disputes in the WTO concerned relations among industrialized countries with high trading volumes and strong interests.[30] Except for Brazil, India, and China, developing countries were spared and benefited from what can be called a philosophy of benign neglect because insufficient levels of protection and enforcement did not substantially harm international trade flows and foreign direct investment. It is interesting to observe that recent WTO TRIPS-related disputes also brought challenges to developing countries, albeit driven by the interests of multinational corporations.[31]

For developing countries, the TRIPS Agreement brought about short-term costs but long-term advantages and investment in the rule of law. The transition to higher standards has been costly – and mainly benefited foreign companies at first. The obligation to protect property rights, however, substantially reinforces the rule of law and prospects of domestic and foreign direct investment, with collateral benefits to other regulatory sectors. Property protection was found to be one of the pillars of successful development, and intellectual property protection is part of it.[32] Recent

[28] Thomas Cottier, Charlotte Sieber-Gasser & Gabriela Wermelinger, *The Dialectical Relationship of Preferential and Multilateral Trade Agreements*, *in* Trade Cooperation: The Purpose, Design and Effects of Preferential Trade Agreements 465 (Andreas Dür & Manfred Elsig eds., 2015).

[29] Protocol Amending the TRIPS Agreement, WTO Doc. WT/L/641 (Dec. 8, 2005); Agreement on Trade-Related Aspects of Intellectual Property Rights art. 31*bis*, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS Agreement] (entered into force Jan. 23, 2017).

[30] *Cf.* Matthew Kennedy, WTO Dispute Settlement and the TRIPS Agreement: Applying Intellectual Property Standards in a Trade Law Framework 226 (2016). Strong interests are involved in these disputes. Compliance failed in the United States. Panel Report, *United States – Section 110(5) of the US Copyright Act*, WTO Doc. WT/DS160/R (adopted June 15, 2000). Instead of amending its laws, the United States, exceptionally, offered one-time financial compensation to Irish collecting societies.

[31] In particular, Panel Report, *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*, WTO Docs. WT/DS 435/R, WT/DS441/R, WT/DS458/R, WT/DS467/R (adopted June 28, 2018), with findings affirmed by Appellate Body Report, *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*, WTO Docs. WT/DS435/AB/R, WT/DS441/AB/R (adopted June 9, 2020).

[32] *See* Daron Acemoglu & James A. Robinson, The Origins of Power, Prosperity and Poverty 77 (2013) ("The process of innovation is made possible by economic institutions that encourage private property, uphold contracts, create a level playing field, and encourage and

studies indicate that higher levels of patent protection enhance exports of high-tech products and components to developing countries.[33] Keith Maskus and Lei Yang show that there is evidence, based on trade data, that higher levels of patent protection introduced by the TRIPS Agreement have stimulated the production and export of high-value products from developed countries and developing and emerging economies, albeit to a lesser extent for the latter group.[34] Enhanced levels of protection sought by industrialized countries thus are not merely benefiting the domestic industry. Still, they may contribute to dislocations of jobs abroad in the process of globalization to benefit emerging and developing economies.

The problem is no longer whether there should be protection or not, but how much and at what levels. The devil is in the details in defining appropriate levels of commitment in international law and appropriate space for policies that may be affected by intellectual property protection and enforcement, such as health, education, or culture. Articles 7 and 8 of the TRIPS Agreement are of basic importance in expressing an appropriate balance. The commitment to transfer of technology and benefits to rights holders and users and the reservation of essential policy interests, including competition policy, informs the interpretation of intellectual property

allow the entry of new business that can bring new technologies to life."); David Landes, The Wealth and Poverty of Nations (1998) (stressing the importance of the rule of law and ownership of property for democracy and prosperity throughout the comprehensive comparative and historical study); Theo S. Eicher & Monique Newiak, *Intellectual Property Rights as Development Determinants*, 46 Can. J. Econ. 4 (2013).

[33] Jenny X. Lin & William Lincoln, *Pirate's Treasure*, 109 J. Int'l Econ. 235 (2017):

> [The study] suggests that intellectual property rights protections affect the distribution of goods available to both consumers and producers in foreign countries. This is likely to have impacts on both groups due to love of variety effects and access to a wider range of intermediate inputs. It is particularly important in the developing country context, where firms are often reliant on imports of intermediate capital goods that embody the latest technologies.

I am grateful to Keith Maskus for drawing attention to this and his paper in the following note.

[34] Keith E. Maskus & Lei Yang, *Domestic Patent Rights, Access to Technologies and the Structure of Exports*, 51 Can. J. Econ. 483, 509 (2018):

> The empirical results conform broadly with the underlying hypothesis that stronger [patent rights] can boost export performance in sectors that are relatively more R&D [research and development] intensive. Moreover, we find that the effects of stronger [patent rights] on exports are strongest in countries with high R&D shares and developed countries. However, the positive effects persist, albeit at lower levels of sensitivity, for countries with lower R&D investment ratios and developing and emerging economies. In addition, there is some evidence that the relationship grew stronger between 2000 and 2005, a period in which many emerging and developing economies implemented their TRIPS obligations. Finally, we find that countries with relatively more inward sectoral patent applications and industry-level intra-firm imports from U.S. multinational enterprises have a higher sensitivity of R&D-intensive exports to changes in patent protection. This is a novel result that should invite more analysis going forward.

rights and their scope, albeit these commitments are subject to the detailed provisions of the agreement and thus of limited practical effect.

Since the TRIPS Agreement was adopted, there has been a basic consensus that intellectual property is a necessary component of domestic and international trade. All countries are interested in protecting trademarks and related forms of protection. All countries share an interest in protecting copyright and patents but vary on the proper scope of protection. Voices arguing that the TRIPS Agreement does not belong to the WTO since the Agreement juxtaposes free trade by creating monopoly rights are largely a matter of the past.[35] Both the absence of protection and the excessive protection of intellectual property rights cause restrictions and distortions to trade. Today's debate is much more about the adequacy of TRIPS-plus standards in bilateral and plurilateral agreements. While some of these provisions necessarily fill lacunae of the TRIPS Agreement (such as test data), others reflect predominant economic interests undermining the overall balance and putting the authority of intellectual property protection and enforcement of standards at risk. Foremost, these additional standards mainly reflect the interests of industrialized countries and fail to consider the interest of developing countries with much larger rural areas and thus an interest in protecting traditional knowledge, grassroots innovation, and geographical indications (GIs). Overall, we assume the following effects.

An enhanced level of intellectual property protection certainly secures income in operating global value chains. Such chains, and decentralized production, have benefited millions of workers, albeit often under dire conditions. These developments, in return, triggered efforts to improve corporate social responsibility and transparency while increasing liability of multinational corporations. Trade volume increased, and income inequality on national levels reduced in the process of globalization between nations. Much of these effects are due to the rise of China, while other countries benefited much less or even lost trading shares and income. Moreover, these results do not discuss domestic distributive effects, which strongly depend upon constitutional and political arrangements and power relations.

In a domestic context, property protection raises fundamental income and wealth distribution questions. Private property rights were the main target of communism,

[35] In particular, Jagdish Bhagwati, an astute free trade economist, wrote in a 2001 letter to the *Financial Times*:

> As early as 1990, in my Harry Johnson Lecture at London, I argued – and now world-class economists such as Professors Srinivasan and Panagariya have also written in this vein – that such protection does not belong in the WTO. That institution must be about mutually gainful trade. Intellectual property protection, on the other hand, is for most poor countries a simple tax on their use of such knowledge, constituting therefore an unrequited transfer to the rich, producing countries. We were turning the WTO, thanks to powerful lobbies, into a royalty-collection agency, by pretending through continuous propaganda, that our media bought into, that somehow the question was "trade-related."

Letter from Professor Jagdish Bhagwati to Editor, Financial Times (Feb. 14, 2001), www.columbia.edu/~jb38/papers/pdf/FT_Letter_on_IPP.pdf.

which led to expropriation, state capitalism, and power concentration, which is predominant today in China. Intellectual property was a nonissue in these systems and only became relevant with the turn to allowing and developing product markets under state capitalism. In the West and market economies, it would seem that intellectual property offers an important foundation for competing industries, many of which are comprised of small- and medium-sized companies. The same holds for the cultural and communications sectors. They depend upon the patent, copyright, and trademark protection under price competition. Intellectual property thus is an instrument of horizontal balancing and power-sharing. This does not exclude strong differences among sectors and depends upon the size of the corporations. Many of the richest companies in the world depend upon intellectual property protection.

While intellectual property partly provides the foundation of the legal protection of such wealth, income distribution would seem to be equally, if not predominantly, determined by competition, fiscal, and monetary policies. Taxation of intellectual property rights and licenses forms an important part of corporate tax, and the recent introduction of patent boxes significantly reduces tax burdens in a competitive environment. Exchange rates deploy an important effect on trade flows of intellectual property–protected goods and services. Much, therefore, depends upon the interaction with other policy areas and the ability to harness excessive accumulation of wealth due to intellectual property protection. It is a matter of achieving an overall fair balance between property rights and the interests of information users. In doing so, it is important to consider intellectual property not in isolation but in combination with other parts of international law – in particular, trade rules, human rights, and competition policy.[36] If properly embedded in international and domestic law, excessive imbalances in wealth and income distribution can be avoided and properly harnessed by recourse to such policies and related rules. But this does not exempt us from revisiting existing intellectual property protection. The question is to what extent potential effects of unequal distribution can be potentially mitigated within the intellectual property system itself. We see an enhanced role for equity here.

11.2 THE POTENTIAL ROLE OF EQUITY IN CASE LAW

Equity in international law emerged as a topical methodology that requires taking all facts, considerations, and interests into account in a balancing process.[37] This could

[36] Thomas Cottier, *Embedding Intellectual Property in International Law*, *in* Current Alliances in International Intellectual Property Law-Making 15 (Pedro Roffe & Xavier Seuba eds., 2017).

[37] Thomas Cottier, Equitable Principles of Maritime Boundary Delimitation: The Quest for Distributive Justice in International Law (2015) [hereinafter Cottier, Equitable Principles] (setting out the fact-intensive methodology of equity in international law); Thomas Cottier, *Equity in International Law*, *in* Intergenerational Equity, *supra* note

also entail considerations of wealth and income distribution under the specific facts of a particular problem and case.

By its classical functions, equity in international law always addresses particular cases and configurations; it does not amount to abstract rules that may, in reality, need adjustment to serve justice and fairness. Equity may influence the interpretation, complete the law, or even rule against existing norms – particularly in the case of an abuse of rights or unjust enrichment, as discussed later. Apart from specific rules developed in English law,[38] equity allows taking the particular facts of a case into account, avoiding rigid applications of the law that produce *summa jus summa injuria*.[39] Equity entails a balancing process and dialogue with existing rules, employing judicial discretion while respecting, at the same time, the need for legal security.

In intellectual property, equity has not played much of an explicit role. This is certainly true for international law. Implicitly, it informs the scope of rights and exceptions such as fair use. Yet, in international law, the pursuit of legitimate public policies remains subject to specific rules of the TRIPS Agreement.[40] The field is largely dominated by positive technical rules, leaving ample room to maneuver in their application. Human rights partly assumed the role of equity, such as the rights to health and life, in shaping the rules on access to essential drugs. It will likely play an important role in the equitable distribution of vaccines against COVID-19, but fairness and equitable principles can only be explicitly found in general rules relating to enforcement in the TRIPS Agreement.[41]

Potential doors of entry for equitable considerations in TRIPS interpretation were elaborated elsewhere, so they are not repeated here in detail.[42] The point is that equity can also be invoked in the interpretation and application of rules when equality or inequality is at stake in reading a particular provision. For example, provisions relating to patenting pharmaceuticals may be assessed in light of potential effects on distributive justice and income inequality and wealth. Considerations of

6, at 11; Thomas Cottier, *The Prospects of Equity in International Economic Law*, *in* Restoring Trust in Trade: Liber Amicorum in Honour of Peter van den Bossche 119 (Denise Prévost, Iveta Alexovicova & Jens Hillebrand Pohl eds., 2019); Catharine Titi, The Function of Equity in International Law (2021), Christopher R. Rossi, Equity and International Law: A Legal Realist Approach to International Decision-Making (1993), Wilfred C. Jenks, The Prospects of International Adjudication 316–427 (1966).

[38] *See* Jill E. Martin, Hanbury & Martin: Modern Equity (15th ed. 1997).

[39] *See generally* Equity in the World's Legal Systems: A Comparative Study (Ralph A. Newman ed., 1972).

[40] TRIPS Agreement, *supra* note 29, art. 8(1) (including the language "provided that such measures are consistent with the provisions of this Agreement").

[41] Article 42 of the TRIPS Agreement is entitled "Fair and Equitable Procedures."

[42] Thomas Cottier, *The Protection of Intellectual Property and Foreign Direct Investment: The Impact of Equity*, in Handbook on Investment and Intellectual Property 433, 445–49 (Christophe Geiger ed., 2020).

income and wealth distribution can thus be considered under equity when assessing fair use exemptions. It may, for instance, lead to a new assessment of stockpiling in assessing the point when generic products can be produced, taking into account a cost–benefit analysis for the health system, patients, and health insurance.[43] The advantage of recourse to equity is that under the facts of particular configurations, all pertinent interests are taken into account beyond the wording of a specific provision. The same holds in defining the scope of rights, fair use exemptions, and compulsory licensing. Last, explicit reference to equity even mandates taking these interests into account when enforcing intellectual property rights.

A related issue here is the problem of parallel importations. Article 6 of the TRIPS Agreement is an agreement to disagree, and it leaves the matter to WTO member states. Conventional wisdom allows countries to apply the principle of national exhaustion, resulting in market segmentation, price differentiation, and potentially rent-seeking. This is particularly widespread in pharmaceuticals and, therefore, directly relevant to the issue of inequality, particularly in countries not operating price controls. A detailed examination of the WTO questions such findings. The ban on parallel importation of original products marketed abroad is contrary to Articles III(4) and XI of GATT.[44] It cannot be generally justified under Article XX, which requires meeting a necessity test. This test balances the different interests at stake and calls for well-calibrated solutions. Again, considerations of income inequality and wealth distribution in healthcare may be entertained here, implicitly engaging the topical methodology of WTO law. In this respect, this is very similar to the functions of equity in domestic and international law.[45] Equity supports the view that parallel importation is primarily dealt with by GATT rules and trumps the policy space under Article 6 of the TRIPS Agreement, where national exhaustion contributes to income inequality due to market segmentation and price differentiation, to the detriment of consumer welfare.

Equity is confined here to the existing regulatory system and a particular case. Global equity has been elusive and without much impact in reshaping the rules in the first place.[46] To assess from the point of view of inequality, we need to reconsider basic components of the overall intellectual property system.

[43] *Cf.* Panel Report, *Canada – Patent Protection of Pharmaceutical Products*, WTO Doc. WT/DS114/R ¶¶ 7.17–7.38 (adopted Mar. 17, 2000). While the panel considered Articles 7 and 8 of the TRIPS Agreement, it did not take into account the balance of all economic interests at stake in interpreting the notion of "making" in Article 28 of the TRIPS Agreement.

[44] General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194.

[45] Thomas Cottier, *Parallel Trade and Exhaustion of Intellectual Property in WTO Law Revisited*, *in* Intellectual Property Ordering beyond Borders 198–235 (Henning Grosse Ruse-Khan & Axel Metzger eds., 2022).

[46] The invocation of equity for global justice is discussed in Cottier, Equitable Principles, *supra* note 37, at 21.

11.3 INNOVATION AND CREATIVE IMITATION

Perhaps the most important issue in the present context is a discussion of innovation and imitation in shaping intellectual property law. It is key to achieving an overall fair balance within the legal system and thus potentially contributes to lessening income and wealth inequality.

11.3.1 *The Conceptual Neglect of Creative Imitation*

The focus and *raison d'être* of intellectual property has been innovation and its promotion and protection. In conventional thought, innovation is at the heart and center of the field, particularly in patent and copyright. Although other functions are served – particularly product identification, consumer protection in trademarks and GIs, or the protection of existing information in trade secrets or data collection protection – innovation amounts to the main motivation and justification for granting exclusive monopoly rights.[47]

On the other hand, imitation is not equally recognized as a part of the equation. It is prohibited as counterfeiting and piracy and may amount to unfair competition. The scope of creative and lawful imitation indirectly enters through the door of the scope and duration of rights to define exceptions and finds expression in the goal of disseminating technology to the benefit of rights holders and users, as expressed in Article 7 of the TRIPS Agreement. However, there is no formal place in the legal system for imitation driving economic evolution. Creative imitation is tolerated because legal provisions allow freedom to reproduce and imitate. The scope of creative imitation is defined by what is left to the information market, by what government intervention to correct market failures does not assign to exclusivity or no longer does so. Imitation lawfully takes place to the extent that information is in the public domain and has become a public good. Imitation, in other words, takes place by default to the extent that information is not protected by private intellectual property rights. Creative imitation is not a recognized goal or feature of the intellectual property system itself. It does not have a place of its own in the canon of values but is a gray area looked upon with suspicion. We do not know a natural right to creative imitation. Developing countries have taken the matter up indirectly, first by refusing to renegotiate the Paris and Berne Conventions and, after the TRIPS Agreement, by stressing the need for domestic policy space. TRIPS-plus developments discussed earlier further reduce such policy space and, thus, the potential for creative imitation.[48] This may contribute to income inequality and wealth

[47] Innovation is also the starting point of a critical theory. *See* Joseph H. Stiglitz & Bruce E. Greenwald, Creating a Learning Society: A New Approach to Growth, Development and Social Progress 254 (2015).

[48] Correa, *supra* note 21; Sell, *supra* note 27; Cottier, *supra* note 20. *But see also infra* text accompanying note 58.

distribution by further reinforcing private property rights and concentration of economic power.

Upon reflection, the conceptual lack of recognition of creative imitation and the reduction of tolerance within the overall system is somewhat astonishing. Much of our life is based upon imitation, from which new ideas, features, and things evolve. Education and schooling of children and students are built upon it. We mainly learn by imitating. The acquisition of social skills and interaction is learned from looking at the behavior and conduct of others. Societies require a large amount of imitation, repetition, and reproduction in daily life to work and function properly. It is, in many respects, a prerequisite of innovation. Without imitation, innovation cannot occur.

These facts are also indirectly reflected in the evolution of nations in terms of social and economic development. The Netherlands and Switzerland, today's champions of strong intellectual property protection, heavily depended upon imitation in the nineteenth century and were reluctant to adopt protection of mainly imported products.[49] The evolution of the Paris Convention of 1883 and the Berne Convention of 1886 was based upon national legislation and a set of bilateral agreements imposed by then-dominant economies, France and Germany in particular, with a view to include neighboring jurisdictions on equal terms of protection and conditions of competition.[50] Japan strongly depended upon imitation after World War II and increased its higher-quality reproductions of Western inventions such as cameras, TV sets, and recording equipment.[51] China followed suit, and much of the present trade war with the United States is rooted in this social and economic development stage. The claim of insufficient enforcement and even of "theft" of intellectual property within and by companies controlled by the state is mainly related to the phasing of economic and social development at a juncture where Chinese technology competes with Western technology. Much of this "theft" is based upon agreed contractual arrangements of value chains and is lawful, while

[49] Eric Schiff, Industrialization without National Patents: The Netherlands 1869–1912, Switzerland 1850–1907 (1971). The hostility to patents in Europe and the battle for patent protection is famously recalled by Fritz Machlup & Edith T. Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. Econ. Hist. 1 (1950); *see also* Christopher May & Susan K. Sell, Intellectual Property Rights: A Critical History (2006). We note that much of the evolution of intellectual property protection occurred by means of domestic case law and enforcement, also in the twentieth century. *See* Beatrice Nybert, The Evolution of Patent Protection: A Comparative and Historical Analysis of Patent Litigation and Enforcement in Germany, Sweden, Switzerland, the United Kingdom and the United States in the Twentieth Century (2020) (Ph.D. dissertation, University of Bern).

[50] Edith T. Penrose, The Economics of the International Patent System (1951).

[51] Landes, *supra* note 32, at 471–72 ("Some know-how came to them because producers in other countries hired Japanese firms to make objects (watches, auto parts) that the more advanced countries could label and sell as their own. Much they copied by reverse engineering, taking Western models apart and learning to make them better.").

only espionage of trade secrets held by unrelated companies is illegal. The same holds for developing countries in general, albeit the impact of imitation has been felt less in international markets and thus allows for benign neglect, as discussed earlier.

The same holds domestically. Start-ups and new ventures depend upon ample space for creative imitation, which existing monopoly rights may curb. Many tensions arise because the relationship between creative innovation and creative imitation has not been properly addressed in intellectual property law and the legal order at large. It is submitted that both innovation and creative imitation should be recognized, and the case for exclusive rights fostering innovation needs particular attention and justification. It is submitted that focusing on incentives for investment plays a crucial role in balancing the two.

11.3.2 *Focusing on Investment*

One way to approach and reconsider the equation is to put less emphasis on innovation and focus on stimulating and rewarding investment. The very reason to grant monopolies on and exclusive rights to information is to foster and honor investment in creating such information, even though it may not always be original and new. The latter holds true for the fields of intellectual property, which rely on product distinction (trademarks and GIs), the protection of existing information (undisclosed information and data collections, big data in particular), and the protection of traditional knowledge. From an economic point of view, the protection of trademarks and GIs does not focus only on product distinction. It also entails protection of massive investment, advertisement, and the promotion of such products. Protection of data collections, particularly big data and traditional knowledge, primarily protects the investment made in collecting, cultivating, arranging, and using preexisting information. So far, investment and investment protection have provided the foundation of *sui generis* data protection beyond copyright in EU law.[52] It has not yet been recognized in law as a general underpinning and justification for traditional intellectual property rights.

If we look at investment and what is needed to stimulate new information, creative imitation can be recognized next to innovation on equal footing. We recognize a right to creative imitation and leave a concept behind that treats creative imitation merely as an exception to innovation, balancing the two in regard to the scope of protection, legal and compulsory licensing, and duration of rights. It remains necessary to draw a line between lawful and unlawful imitation for reasons of legal and business security. However, the overall equation may change upon recognizing creative imitation as a proper goal of the overall system of fostering investment in creating new information and applications. It offers a check on monopoly rights. Conceptually, it will put an end to pressing for ever-increasing

[52] Directive 96/9, art. 7, *amended by* 2019 O.J. (L 130) 92.

levels of protection of innovation without due regard to the implications for creative imitation in the process of social and economic development, both domestically and internationally. We argue later that creating exclusive rights warrants special justification and reasoning that market conditions and government funding supporting innovation are insufficient and intellectual property rights are necessary.

11.3.2.1 Investment in Information as a Public Good

Human investment in capital, natural resources, time, and human resources serves the production of goods and services. It also serves the needs of society at large by shaping general framework conditions, including statehood and the legal order, the economy, culture, and other fields of human life. The investment is based upon existing information and knowledge. We reiterate that people build upon experience. Much of it is dedicated to reproducing existing goods and services essential in daily life. Out of this, incremental innovation and change result in new ideas and information contributing to evolution. New information falls into the public domain and is treated as a public good. Everybody can use it, and such use does not diminish the information.[53] It is submitted that reproduction and incremental creation of information is the normal state of play in human investment. It takes place under the umbrella of the general legal order and policies of open-source access. In market economies, the framework is defined by the laws of contracts, torts, and unfair competition and is bounded by penal law prohibitions. It is supported by government policies, education, and research funding. The risks involved in such investments are reasonable, as they deal with known information and experience. They take place in corresponding information markets.

11.3.2.2 Investment in Information as a Private Good and Property

Beyond the normal acts of reproduction, imitation, and incremental innovation in society, deliberate efforts at innovation are made in the process of human investment. They venture into new territory based on existing information. These efforts are financially risky as they cannot rely upon existing patterns and needs. Research and development beyond incremental change thus call for a particular legal framework. For the private sector, this is where intellectual property protection enters the stage. Exclusive rights are necessary to incentivize the production of products and ideas and to secure a fair return on the investment, without which private operators would not make an effort in the first place. In the public sector, basic research funded by taxpayers or charities, and by applied research and development, parallels

[53] Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 Rev. Econ. & Stat. 387, 387–89 (1954).

the intellectual property system. Sometimes the two are combined by means of private–public partnerships.

Intellectual property protection thus amounts to a *lex specialis* for promoting and protecting financially risky investments in innovation. Exclusive rights, deviating from open access and use of information otherwise in the public domain, call for a particular justification in terms of state intervention and restrictions of freedom of commerce, whatever the form of law is. It is not a given, and rules should respect the principle of proportionality. Generally speaking, measures need to be suitable, necessary (not in excess of what is necessary to achieve a policy goal), and appropriate, taking into account all the interests at stake.[54] That also informs the shaping of intellectual property law. Throughout history, there has been a debate on using intellectual property as an expression of utilitarian philosophy. Some elevated it to the status of human rights. The European Convention on Human Rights includes intellectual property as a right to property in Protocol I.[55] There is no need to question the fundamentals here. The principles of intellectual property are deeply enshrined in legal orders and the world economy. However, attention is drawn to the scope of protection of rights, and the relationship to public information requires particular and constant attention. The equation changes with changing technologies. Yet, additional standards, pressed for by vested interests, are not necessarily in the public interest. Ceilings on standards need to be considered in domestic and international law to establish a proper balance between investment in public goods and investment in private goods to foster general welfare and the reduction of overall inequality in income and wealth, both influenced by property rights.[56] The conventional approach of setting minimum standards in international law and the federalist approach focusing on national policy space do not sufficiently reflect the need to harness domestic law.[57] It is not simply a matter of granting policy space to domestic legislation but equally containing it on the international level, commensurate with the doctrine of multilevel governance and vertical checks and balances.[58]

[54] Thomas Cottier, Roberto Echandi, Rachel Liechti-McKee, Tetyana Payosova & Charlotte Sieber, *The Principle of Proportionality in International Law: Foundations and Variations*, 18 J. World Inv. & Trade 628 (2017).

[55] For a detailed account, see Thomas Cottier, *Copyright and the Human Right to Property: A European and International Law Approach*, *in* Intellectual Property and the Judiciary 116 (Christophe Geiger, Craig Allan Nord & Xavier Seuba eds., 2018); Research Handbook on Human Rights and Intellectual Property (Christophe Geiger ed., 2015).

[56] Annette Kur & Henning Grosse Ruse-Khan, *Enough Is Enough: The Notion of Binding Ceilings in International Intellectual Property Protection*, *in* Intellectual Property Rights in a Fair World Trade System: Proposals for Reform of TRIPS 359 (Anne Kur with Marianne Levin ed., 2011).

[57] *Cf.* Graeme B. Dinwoodie & Rochelle C. Dreyfuss, A Neofederalist Vision of TRIPS: The Resilience of the International Intellectual Property Regime 138 (2012).

[58] *See* Thomas Cottier, *Towards a Five Storey House*, *in* Constitutionalism, Multilevel Trade Governance and International Economic Law 495 (Christian Joerges & Ernst-Ulrich Petersmann eds., 2011).

Intellectual property as a matter of nontariff barriers is not different from other policy fields, such as the promotion and facilitation of renewable energy or effective human rights protection.[59]

It would be wrong to assume that human investment in imitation, reproduction, and innovation can be neatly separated. Problems delineating protection and public domain exist through all forms of existing intellectual property protections. Disputes on the patentability of inventions make the point. One may flow out of the other, as penicillin was discovered from a reproduction process. It was not designed and intended as such in the first place. Yet, as investment turns to new territory and thus risks, the net of intellectual property rights offers adequate prospects of return if and only if the effort is successful. A substantial risk remains uncovered in case of failure and leaves little else than costs. It entails the option of bankruptcy under both public and private information models.

11.3.3 *Appropriate Return of Capital and Reasonable Profits*

The fundamental question is how far society, government, and the law should enable return on capital in intellectual property protection beyond market rules and freedom of commerce – and to what extent and for how long this includes profits. In the present context of increasing inequality of wealth and income, this is a crucial issue. From the point of view of the public interest and thus intellectual property policy, it follows from the purpose of having exclusive rights in the first place that the investment made should be recovered with a fair share of profits to shareholders and stakeholders alike. It also follows that the privilege of exclusivity should not include excessive profits to the detriment of ordinary investment in reproduction and incremental innovation. Of course, defining reasonable, nonexcessive profits remain a matter of debate and uncertainty. But in principle, there is no justification for granting exclusive rights to information beyond this point from the point of view of the public interest. The scope of rights and the duration of exclusive rights are crucial.

11.3.3.1 The Scope of Rights

In defining the scope of intellectual property rights, the importance of creative imitation in and through the public domain must be considered. History shows a long record of gradually building levels of protection and exemptions thereof. These levels are outcomes of fierce political battles of different vested interests, prospects of

[59] Thomas Cottier, *Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines?*, 5 Renewable Energy L. & Pol'y Rev. 40 (2014); Thomas Cottier, *International Trade, Human Rights and Policy Space*, *in* Local Engagement with International Economic Law 3 (Lilyana Biukovic & Pittman B. Potter eds., 2017).

private profits often prevailing over public welfare concerns. The international intellectual property law protection today does not offer an effective balance. As indicated, it is essentially limited to minimal standards that countries can exceed, either unilaterally or using international agreements. Due to MFN obligations, higher standards are applied across the board and not limited to the parties of a preferential agreement. They lift all yachts with the tide. This open-ended approach raises problems of flexibility, and limitations, on the scope of protection.

The proper balance of creative imitation and innovation, however, depends much upon the state and process of social and economic development of a particular country. The need for intellectual property protection varies, and uniform minimum standards are not always suitable. While the TRIPS Agreement allows for flexibilities and is far from harmonized, there is a need for more variable geometry on essential regulations. It could be realized by the graduation approach as it can be found more recently in the WTO Agreement on Trade Facilitation.[60] While international law defines standards of protection, the phasing-in of such standards over time is made dependent upon the attainment of economic factors and indicators to be negotiated in advance. The approach, replacing traditional and rigid special and differential treatment, offers predictability as to when a country, due to its share in world trade in a particular sector, will be obliged to assume specific additional obligations of intellectual property protection.[61]

Except for rules on enforcement and a few areas, the TRIPS Agreement and TRIPS-plus obligations in preferential trade agreements do not know ceilings of protection. Such ceilings are essentially left to domestic law, including competition law, which is absent in international law.

The focus on promotion and protection of investment asks to what extent ceilings on levels of protection are required to protect creative imitation and to what extent investment necessarily depends upon sui generis intellectual property protection. A case needs to be made that protection is required to recuperate investment and to make a reasonable profit. The burden of persuasion lies with those seeking intellectual property protection. Answers vary and depend upon technological advances. For example, the legal treatment of big data and artificial intelligence depends on

[60] Trade Facilitation Agreement, Feb. 22. 2017, www.wto.org/english/docs_e/legal_e/tfa-nov14_e.htm.

[61] Javier Lopez-Gonzalez, Maximilio Mendez Parra, Peter Holmes & Anirudh Shingal, *TRIPS and Special and Differential Treatment – Revisiting the Case for Derogations in Applying Patent Protection for Pharmaceuticals in Developing Countries* (Nat'l Ctr. of Competence in Rsch., Working Paper No. 2011/37, 2011); Monirul Azam, Intellectual Property and Public Health in the Developing World (2016); Thomas Cottier, *From Progressive Liberalization to Progressive Regulation in WTO Law*, 9 J. Int'l Econ. L. 779 (2006); Thomas Cottier, *Sovereign Equality and Graduation in International Economic Law*, *in* Reflections on the Constitutionalisation of International Economic Law: Liber Amicorum for Ernst-Ulrich Petersmann 215 (Marisa Cremona, Peter Hilpold, Nikos Lavranos, Stefan Schneider & Andreas Ziegler eds., 2014).

whether sufficient incentives exist to develop and collect data and write algorithms under market conditions and using open-source information. Appropriation of information should only be made if incentives for investment, adequate returns, and reasonable profits otherwise cannot sufficiently materialize. The same holds, for example, in assessing the exclusivity of test data for pharmaceutical products or qualification of essential interconnection standards.[62] The law should consider the investment made and define reasonable profits up to which protection exists and elapses after that. The topical method of equity described earlier can be put to use by taking into account all relevant economic and financial factors in assessing such prospects. It can build upon the general principle of unjust enrichment, which is based on equity and recognized in domestic and international law.[63] Ceilings in law should thus be formulated to the effect that the main purpose of protection is the promotion and recovery of investment, including the generation of a reasonable, nonexcessive profit. The law should not exceed such bounds in formulating and applying for intellectual property protection.

11.3.3.2 The Duration of Rights

An important and often neglected issue in the present context relates to the duration of rights, particularly rights unlimited in time and thus a foundation of long-term income and wealth allocation.

The current duration of patent protection of at least twenty years as of filing (set out in Article 31 of the TRIPS Agreement), plus supplementary protection for regulated sectors, and at least ten years for industrial designs (Article 26(3)), contrasts with a much longer period in copyright law of at least fifty years postmortem (Article 12). The latter period has been further extended to seventy years postmortem in domestic law – in particular, in the European Union and the United States.[64] While the law provides for minimal standards – which domestic law or other agreements can extend – there is an implied understanding that in domestic law, the duration of these rights is conceptually limited in time. Information should, at some point, fall into the public domain as a public good. In patent law, limitations in time were the

[62] *See* Simon Brinsmead, Access to Interoperability Standards and Standards-Essential Intellectual Property: International Approaches (2020).

[63] *See* Christina Binder & Christoph Scheuer, *Unjust Enrichment*, *in* 10 Max Planck Encyclopedia of Public International Law 588, 588 (Rüdiger Wolfram ed., 2012) ("The concept of unjust or unjustified enrichment has been defined as 'adjusting shifts of assets from one person to another which are at variance with the final allocation of assets envisaged by the law.'").

[64] The European Union extended copyright protection to seventy years postmortem in Council Directive 93/98/EEC in 1993, followed by the extension in the United States in 1998 through the Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998). This extension was challenged before the U.S. Supreme Court but affirmed. Eldred v. Ashcroft, 537 U.S. 186 (2003).

great bargain. Next to transparency, fair use, and compulsory licensing, a major compromise was reached between advocates and opponents of patent law in the nineteenth century.[65]

The proper duration of rights limited in time is controversial, and the determination thereof, to some extent, necessarily arbitrary. This is particularly apparent in the identical treatment of all inventions and fields of technology, irrespective of complexity and investment required.[66] Countries can unilaterally or by agreement further extend the duration of protection, fostering monopoly rights and curbing competition, or extend unending entitlement to royalty payments.[67] Theoretically, all rights could be extended without time limits under international law. Competing interests in competition law may counterbalance such efforts but not prevent them, depending upon the political clout of vested interests. Excessive periods bear the potential of economic rents and distortion of competition. They foster patent trolls and rents. They may unreasonably contribute to income inequality and wealth. The duration of rights, therefore, should be addressed by ceilings in international law. Domestic policy space should be limited by international economic law. From the point of view of investment, the multilateral agreements should limit the extension of such rights and define a range within which members may settle patent and copyright terms. These ranges should be informed by considerations of recovery of investment, balancing reasonable profits against the competition, and the public interest in fostering information as a public good.

The even more striking contrast is with trademarks (Article 18 of the TRIPS Agreement: renewable protection), GIs, and undisclosed information, which are not subject to the limitation in time. While criticism today mainly and perhaps unjustifiably focuses on patent law and research-based pharmaceutical companies, a major problem lies with the rights of unlimited duration as these rights bear the potential of substantial rents enhancing inequality without the support of the public interest. Insufficient attention has been paid to this angle. Conventional wisdom considers the absence of time limitation in trademarks and GIs to be logical due to

[65] *Cf.* Machlup & Penrose, *supra* note 49.

[66] The literature on duration of rights, apart from copyright extension, seems to be quite scarce. *Cf.* David S. Abrams, *Did TRIPS Spur Innovation? An Analysis of Patent Duration and Incentives to Innovate*, 157 U. Pa. L. Rev. 1616 (2009) (examining the implications of the patent term extension from seventeen to twenty years in the United States).

[67] Thus, the singular Peter Pan exception in UK law, extending unending royalties, is not inconsistent with the TRIPS Agreement. *See* Copyright, Designs and Patents Act 1988 c. 48, § 301:

> The provisions of Schedule 6 [CDPA 1988] have effect for conferring on GOSH Children's Charity for the benefit of Great Ormond Street Hospital for Children a right to a royalty in respect of the public performance, commercial publication or communication to the public of the play *Peter Pan* by Sir James Matthew Barry or of any adaption of that work, notwithstanding that copyright in the work expired on 31st December 1987.

the distinctions of products. And the protection of undisclosed information is timeless due to its very nature as a secret outside the public domain.

Again, from the perception of intellectual property as part of investment law, rights subject to unlimited time bore the potential of return on investment and continued profits turning into rents, which may contribute to income inequality and wealth in the long run. They exclude information from entering the public domain. Such rights, therefore, need a particular justification, which can be found as long as the product that they denominate exists on the market and needs to be distinguished from other products. However, trademarks are sold or licensed as a financial asset for good money and independently of a particular product. Independent and famous trademarks claim protection independently of a product to be distinguished. Internet domain names are registered and may be sold and traded for unwarranted windfall profits. None of this is limited in time. The requirement to use a trademark does not protect from such activities but instead supports them. The law treats trademarks as independent private assets, separate from the original function to promote and protect investment and distinguish products on the market for the benefit of consumers. Licensing or selling such trademarks amounts to a rent that cannot be justified by the investment made in the first place. A trademark no longer used in relation to a particular product (whether goods or services) should fall back into the public domain, open for creative imitation. The monopoly granted by the government should not lend itself to realizing unwarranted rents and thus increasing inequalities. Again, international law should set ceilings on trademark and GI protection based upon the principle of unjust enrichment, avoiding such effects that cannot be justified by the very function of these rights.

The same holds for protecting undisclosed information, which is unlimited in time. It is not a coincidence that trade secret protection is increasingly important under current rules, substituting for patent protection. This may also share the responsibility for increasing concentrations and inequality of income and wealth. Trade secrets should be protected in law only to the extent they relate to a particular product or process. At what point should they lapse and fall into the public domain from the point of view of the public interest in fostering reproduction and competition among products? It seems that trade secret protection can be justified only by an investment made. Once a reasonable profit has been generated, it should no longer be protected by law. Under this standard, for example, Coca-Cola's undisclosed information would no longer be protected. Of course, the company can make continued efforts to keep its trade secrets. Yet, if leaked to competitors at this stage, it would not give rise to tort or penal sanctions beyond employees' contractual obligations but would be considered a contribution to enhanced competition to the benefit of consumers. Otherwise, the restrictions in time imposed on patent law are being undermined. International economic law should set ceilings accordingly.

11.3.3.3 The Defense of Unjust Enrichment

Beyond temporal limitations, it is conceivable to contemplate a defense and objection to alleged violations of intellectual property rights and exclusivity on the ground of excessive profits due to the dominant position granted. We recall the principle that lawful recourse to existing information and reliance upon it in the process of creative imitation would depend upon whether or not the costs of investment incurred to produce the information in the first place have been appropriately recovered. This entails an appropriate and reasonable margin of profit on return, which would be limited. Intellectual property protection, however, should stop here and not give rise to economic rents for which a public interest does not exist. Foundations to this effect can be found in the principle of unjust enrichment.[68] The application of the principle is generally subject to positive law and thus of limited use unless negotiators and legislators take it into account in shaping the scope of intellectual property protection.

Based on equity and topical jurisprudence discussed earlier, the principle of unjust enrichment would grant objections and defenses to exclusivity, on a case-by-case basis, during the term of protection. The law would need to state the principle of preventing economic rents and the prohibitions of abuse of rights and unjust enrichment. Again, the burden of persuasion and proof lies with the rights holder claiming monopoly rights, demonstrating that investment has not yet been recovered and reasonable profits have not yet been made. Alternatively, those profits could be made subject to stringent discovery rules. Examples are the protection of a successful and highly profitable high-priced blockbuster patent – that of a famous trademark generating income and wealth independently of the products for which it is used, and the protection of a trade secret sold or licensed depending on the issue of whether the initial investment and effort made has been sufficiently recovered and thus no longer requires exclusive marketing rights. The intellectual asset, therefore, may subsequently be open to imitation and generic production in ordinary channels of the market economy even during the term of protection. Noneconomic aspects of intellectual property rights – in particular, moral rights or the protection of personality under human rights standards – would not be affected. Authors and successors in title would remain entitled to defend the integrity of a work.

11.3.4 *Fostering Competition*

This kind of thinking – based upon investment, appropriate return, and reasonable profit – entails a fundamental shift in conceptualizing patent and copyright law, particularly the unending extension of trademark and trade secret protection.

[68] Binder & Scheuer, *supra* note 63.

It would require rights holders to make new efforts at innovation as existing information falls into the public domain once the costs of creating the information and an appropriate profit (allowing the development of new information in research and development) are fully recuperated. Particular functions of intellectual property rights in product differentiation and securing safe products remain in place. As long as products are produced, trademarks must be attached, and consumers protected from false and dangerous imitations. The regime, however, may at some point limit the sale and exclusive licensing of independent rights used to make profits into the intellectual property portfolio. Information falls into the public domain and thus can be used for ordinary processes of creative imitation. International economic law should set appropriate parameters for this effect.

These effects foster competition, stimulate innovation, and reduce dominant positions and concentration. They likely could contribute to even more distributions of income and wealth. Defenses to intellectual property protection will mainly affect large corporations that are able to substantially profit from existing rights beyond an appropriate return on investment and profits. Problems caused by excessive power, wealth, and income based on intellectual property rights would no longer need to be remedied ex post by means of often ineffective competition policy, combating the abuse of dominant positions.[69] Intellectual property law would contribute to curbing such positions in the first place.

Many objections will be raised. The approach allegedly violates the minimum standards of the TRIPS Agreement and TRIPS-plus obligations. It lacks sufficient legal security and may entail excessive litigation in assessing the existence of exclusive rights. More importantly, rights holders can no longer make unlimited profits, and a fundamental principle of capitalism and entrepreneurship is thus at stake. Furthermore, the approach will require full financial transparency of companies beyond listed companies and impair the confidentiality of business relations. Finally, the approach entails strong state intervention in potentially curtailing existing rights.

In reply, it may be argued that the law would define the parameters of return on investment and appropriate profit, which would be served by granting a monopoly right. Ideally, these parameters are introduced when revising international agreements, as such revision offers new foundations. But the approach may also be adopted unilaterally, challenging international law in the process of claims and response. Whether the approach is compatible with the current TRIPS Agreement depends on the detailed drafting of instruments, considering the goals of Article 7 of

[69] Except for merger control, competition law does not deploy preventive effects and often remains ineffective to curb the abuse of intellectual property rights. *See* Eleanor M. Fox, *Can Anti-Trust Policy Protect the Global Commons from the Excesses of IPRs?*, *in* International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime 758 (Keith E. Maskus & Jerome H. Reichman eds., 2005).

the Agreement. If framed in terms of competition law, it falls under Article 40 of the TRIPS Agreement and currently cannot be challenged by recourse to nonviolation complaints.[70]

CONCLUSION

Squaring inequality and intellectual property rights is a difficult topic. There is a lack of empirical data demonstrating the relationship. It forms part of the larger debate on distributive justice among and within nations. It is at the heart of international economic law. This topic thus includes intellectual property protection, which has substantially increased contrary to the general trend of deregulation and trade liberalization under WTO rules.

We know that enhanced property rights support the concentration process, which favors economic rents at the expense of competition. In line with general property theory, it can be assumed that enhanced property rights contribute at least indirectly to increasing income inequality and wealth. Recourse to equity, as developed in international law as a topical methodology, allows taking into account wealth and income distribution aspects in applying and interpreting existing intellectual property rights. Equity informs the interpretation of existing rules and may even deny applications to do justice in a particular case. Moreover, it is important to apply intellectual property in the context of all international economic law, in particular GATT rules. This is particularly important in assessing bans on parallel importation and thus price discrimination.

The topic, however, encourages reconsidering the relationship between innovation and imitation. An attempt is made to approach the issue by conceptualizing human investment in capital, natural resources, time, and human resources in terms of imitation, reproduction, and innovation, all three based upon existing information. The legal order seeks to allow for appropriate returns on investment and fair profits for all activities. In areas of innovation, public funding or intellectual property rights absorb particular risks to create incentives to invest in human capital. Exclusive rights are justified only as long as, and to the extent that, they secure such returns and reasonable profits. International economic law should thus set ceilings

[70] Nonviolation complaints under GATT art. XXIII and Dispute Settlement Understanding art. 26 are currently under a moratorium and do not apply to the TRIPS Agreement. The moratorium was extended in June 2022. World Trade Organization, *TRIPS Non-Violation and Situation Complaints: Ministerial Decision*, WTO Doc. WT/MIN(22)/26 (June 22, 2022). Even if applied, it is unlikely that new legislation and measures could be challenged. This is because they must be nonforeseeable at the conclusion of the TRIPS Agreement, which is not the case for disciplines related to fostering competition or price controls supported by Articles 7 and 8 of the Agreement. *See generally* Thomas Cottier & Krista Nadavukaren Schefer, *Non-Violation Complaints in WTO/GATT Dispute Settlement: Past, Present and Future*, *in* International Trade Law and the GATT/WTO Dispute Settlement System 145 (Ernst-Ulrich Petersmann ed., 1997).

and adopt a timeframe, including maximum periods of duration of patents, industrial designs, and copyright. Rights unlimited in time, particularly trademarks and GIs, should only be protected as long as they serve the purpose of distinguishing products and until an investment is recuperated with a reasonable profit. The latter should also apply to trade secret protection. Recourse to unjust enrichment should be encouraged. The law must prevent exclusivity from being used for rent-seeking, which contributes to wealth and income inequality and does not respond to the public interest in fostering human investment in reproduction, creative imitation, and innovation.