

**RETHINKING COUNTERFEITING IN LIGHT OF THE
RELATIONSHIP BETWEEN INTELLECTUAL
PROPERTY AND DEVELOPMENT**

YAN LI

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Faculty of Law

University of Technology, Sydney

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

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LIST OF ABBREVIATIONS

A2K	Access to Knowledge
ACG	Anti-Counterfeiting Group
ACTA	Anti-Counterfeiting Trade Agreement
APEC	Asia-Pacific Economic Cooperation
AQSIQ	General Administration of Quality Supervision, Inspection and Quarantine
ART	Anti-Retroviral Therapy
BASCAP	Business Action to Stop Counterfeiting and Piracy
BIAC	Business and Industry Advisory Committee
CEBR	Centre for Economics and Business Research
CESCR	Committee of Economic, Social and Cultural Rights
CTEA	Sonny Bono Copyright Term Extension Act
DMCA	Digital Millennium Copyright Act
EPO	European Patent Office
EU	European Union
FDA	Food and Drug Administration
FDI	foreign direct investment
GAC	General Administration of Customs
GACG	Global Anti-Counterfeiting Network
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Production
GFD	Group of Friends of Development
GNI	Gross National Income
GNP	Gross National Production
HDI	Human Development Index
HDR	Human Development Report
IACC	International Anti-Counterfeiting Coalition
IBRD	International Bank of Reconstruction and Development
ICCPR	International Covenant on Civil and Political Rights
ICCPR	International Chamber of Commerce
ICESCR	International Covenants on Economic, Social and Cultural Rights
IDA	International Development Association
IDC	International Data Corporation
IFPMA	International Federation of Pharmaceutical Manufacturers Associations
IHDI	Inequality-adjusted Human Development Index
IIPi	International Intellectual Property Institute
IMF	International Monetary Fund
IMPACT	International Medical Products Anti-Counterfeiting Taskforce
IPR	Intellectual Property Right
MOU	Memorandum of Understanding

MPAA	Motion Picture Association of America
MSF	Médecins sans Frontières
NCA	National Copyright Administration
NGOs	Non-Government Organizations
NPC	National People's Congress
NPEs	Non-Practising Entities
OECD	Organization of Economic Co-operation and Development
PIPA	Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act
PRGF	Poverty Reduction and Growth Facility
RIAA	Recording Industry Association of America
SAIC	State Administration of Industry and Commerce
SCMGA	Stop Counterfeiting in Manufactured Goods Act
SFFC	spurious/falsey-labelled/ falsified/counterfeit
SIPO	State Intellectual Property Office of China
SOPA	Stop Online Piracy Act
SPLT	Substantive Patent Law Treaty
TPP	Trans-Pacific Partnership Agreement
TRIPs	Agreement on Trade Related Aspects of Intellectual Property Rights
UDHR	Universal Declaration of Human Rights
UNDP	The United Nations Development Program
UNDRD	Declaration on the Right to Development
UNIDO	United Nations Industrial Development Organization
USTR	United States Trade Representative
WESP	World Economic Situation and Prospects
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

ABSTRACT

The thesis takes a critical approach to examine the meaning, the impact and the cause of counterfeiting within the context of the ever-increasing standards of international intellectual property right (IPR) protection and anti-counterfeiting enforcement. It finds that, while the TRIPs agreement does not require imitation to constitute counterfeiting, in practice using an identical trademark on the same goods will almost always involve product imitation as well as trademark imitation.

Drawing on economic and historical studies that demonstrate the value of imitation to development, this thesis argues that counterfeiting involves product imitation that can benefit consumer welfare and the original brand owner, support the local economy in regions where counterfeiting takes place, and facilitate the development of innovative capacity in developing countries. This value of imitation is supported by the history of the early stages of development in developed countries, which adopted protectionist policies, including intellectual property policy, to encourage importation, imitation and improvement of foreign technologies and products, so as to advance their national interest in increased innovative capacity.

It has been commonly accepted that strong IPR protection does not always stimulate innovation and promote development. Rather, when inappropriately designed, stringent IPR protection is very likely to stifle innovation and hamper growth. One important measure of whether IPR protection is appropriately designed depends on the balancing of such protection against the demands of development. In developing economies, the lack of innovative capacity determines that these economies still rely substantially on imitation and assimilation of foreign advanced technology and other forms of knowledge. Within this conceptual framework, this thesis argues that the prohibition of counterfeiting as illegal imitation reflects the imbalance between high standards of IPR protection and low levels of development.

These arguments are further tested and confirmed in the case study of counterfeiting in China. This thesis compares several Chinese terms with similar meanings to the English word counterfeiting, and conducts a doctrinal analysis of the Chinese approach to defining and regulating counterfeiting. Based on empirical data on patent statistics and development, this thesis argues that China remains largely an imitative economy with limited innovative capacity and still relies on imitation of foreign technologies and other forms of knowledge. It is thus not surprising that China adopts a cautious attitude towards prohibiting counterfeiting, which in a sense enables the pervasiveness of imitation in its domestic society.

I INTRODUCTION

This thesis takes a critical approach to examining the issue of counterfeiting. It argues that counterfeiting in nature is a form of imitation, and in most cases including product imitation that could have positive effects on developing economies. This argument is based on the proposition that product imitation has been, and still is, an essential factor facilitating diffusion of knowledge and promoting technological and economic advancement in developing countries.

This thesis draws on scholarship examining the relationship between the protection of intellectual property rights (IPR) and development, which argues that development should take priority over IPR protection, and further contends that development should be the ultimate objective of granting and protecting IPRs. At the same time, many empirical studies suggest that IPR protection does not always promote development, and that strong protection even hinders development if a country has not reached a certain level of innovative capacity. Developing countries without sufficient innovative capacity still rely on imitation and copying to facilitate their development processes. For these countries, high standards of IPR protection render a large portion of such imitation illegal, falling within the category of counterfeiting. However, it is not inevitable that imitation of products should always be regarded as illegal and harmful. In this context, the thesis argues that counterfeiting reflects the imbalance between currently high standards of IPR protection and low levels of development in many developing countries.

Given the controversy over the definition and the impact of counterfeiting, this thesis contributes to the research in this area by providing a thorough analysis of the meaning, the impact and especially the positive effects of counterfeiting, as well as explaining the reasons for the occurrence of counterfeiting in light of the dynamic relationship between IPR protection, innovation, imitation and development. It finds that, while the TRIPs agreement does not require imitation to constitute counterfeiting, in practical terms using an identical trademark on the

same goods will almost always involve product imitation as well as trademark imitation. In addition, effective product imitation requires some uses of registered trademark, but too many acts of using such trademarks risk being treated as counterfeiting. Moreover, the thesis provides a case study of the meaning and the impact of counterfeiting in the Chinese context, as China is regarded as the single largest supplier of counterfeit products.

According to this analysis of counterfeiting, this thesis calls for the recognition of the positive effects of counterfeiting and for resetting the anti-counterfeiting agenda that currently is designed to eliminate counterfeiting in a way that would accommodate the developmental needs for imitation in developing countries. It is also important not to extend remedies that previously were available only in the case of counterfeiting to IP infringement more generally. The international IPR regime is thus expected to improve efficiency by standardizing some rules but at the same time be flexible enough so as to take into account the disparity of development among countries and the different interests between developed and developing countries in protecting innovation and allowing imitation.

A *Background*

It is perhaps the case that ever since people started producing objects of value there has been counterfeiting. Early incidences of counterfeiting applied to coins, pre-coin precious metals or shells used as money, and marks or symbols used on one's objects to distinguish from others.¹ Prior to the inception of the intellectual property system, counterfeiting was regulated under criminal laws. Counterfeiting of money, in particular, is criminalized in almost all jurisdictions and in some cases will be punished with capital penalties. Counterfeiters of trade marks with

¹ As early as in the Roman era, trade marks have been found on lead pipe, marble, bronze instruments, gold and silverware, knives and other iron articles, and gems. France and England even issued royal edicts to require bread bakers, cheese makers, or metal smiths to use a distinctive mark on their products. For details on the early history of trademarks, see, eg, Benjamin G. Paster, 'Trademarks - Their Early History: Part I' (1969) 59 *Trademark Reporter* 551; Edward S. Rogers, 'Some Historical Matter Concerning Trademarks' (1910) 9(1) *Michigan Law Review* 29.

commercial value could also be sentenced to death, according to some French royal edicts, as early as the 13th century.² Formal legislation punishing counterfeiting of trade marks can be traced back to the *Merchandise Marks Act* enacted in 1862 in England, which made it a criminal offence to forge, counterfeit or imitate another's trademark 'with intent to defraud or to enable another to defraud'.³

It has to be noted that for centuries before the system for international protection of intellectual property was formally established in the 1880s, countries including European countries and the US constantly engaged in imitation and copying of foreign intellectual property in order to advance their own interests in developing domestic innovative capacity. By the time the *Paris Convention on the Protection of Industrial Property* (Paris Convention) and the *Berne Convention for the Protection of Literary and Artistic Works* (Berne Convention) took effect, which afford international IPR protection, most of those countries had already developed into primary producers and exporters of intellectual property. The producer and exporter status means that allowing imitation at the international level is generally no longer in the interests of developed countries. On the contrary, their interests lie in the strong IPR protection in other countries to which their products will be exported.

² For example, a French royal edict of Charles IX in 1564 even placed imitators of marks in the same category as criminal counterfeiters who were punished capitally. See Edward S. Rogers, 'Some Historical Matter Concerning Trademarks' (1910) 9(1) *Michigan Law Review* 29, 33.

³ Article 2 provides that

Every person who, with intent to defraud, or to enable another to defraud any person, shall forge or counterfeit, or cause or procure to be forged or counterfeited, any trade mark, or shall apply, or cause or procure to be applied, any trade mark or any forged or counterfeited trade mark to any chattel or article not being the manufacture, workmanship, production, or merchandise of any person denoted or intended to be denoted by such trade mark, or denoted or intended to be denoted by such forged or counterfeited trade mark, ..., shall be guilty of a misdemeanour, and every person so committing a misdemeanour shall also forfeit to Her Majesty every chattel and article belonging to such person..., and every instrument in the possession or power of such person, ..., shall be forfeited to Her Majesty; and the court before which any such misdemeanour shall be tried may order such forfeited articles as aforesaid to be destroyed or otherwise disposed of as such court shall think fit.

See Harry Bodkin Poland, *Trade Marks: The Merchandise Marks Act, 1862*. 25 & 26 Vict. C. 88 (John Crockford, 1862), 22-23.

This thesis acknowledges that not all developed countries are IP exporters and many developing countries are home of IP producers as well. There is no assumption that the interests of all developed countries or all developing countries are identical. But it is true that multinational companies are mostly based in developed countries and these companies are producers of the most valuable IPRs, compared to individual copyright works or small designs that do exist in developing countries. This fact decides that these multinational companies will influence, and as will be discussed in Chapter III has actually already influenced, the course of international IP norm setting through lobbying their governments for stronger IPR protection.

Driven by self-interest and persuaded by domestic IP owners, some developed countries began seeking stronger IPR protection internationally. For this purpose, they focused on the issue of counterfeiting. While counterfeiting has been a concern to original producers well before the trademark system was established, it was such concerns that propelled the expansion of the international IPR protection in the last quarter of 20th century. The US, the most advanced country and the strongest in producing intellectual property in the world at the time, took the lead in putting forward complaints against commercial counterfeiting.

In particular, a US-based International Anti-Counterfeiting Coalition (IACC) was formed in 1979, with its attention focusing on taking actions internationally to address the problem of trade in counterfeit products. Taking the opportunity of the Tokyo Round of *General Agreement on Tariffs and Trade* (GATT) multilateral trade negotiations which were on the way at the time, the IACC successfully garnered the attention of the negotiators on creating an international anti-counterfeiting code, which dealt with only trademark counterfeiting at the time, but soon would expand in scope.⁴ This anti-counterfeiting code not only found its way into the US criminal

⁴ As the head of the US delegation to the Tokyo Round of GATT multilateral trade negotiations in 1978, William Walker directed a diplomatic effort to introduce the subject of counterfeiting into the negotiations. See William N. Walker, 'A Program to Combat International Commercial Counterfeiting' (1980) 70 *Trademark Reporter* 117, 122. With the anti-counterfeiting code introduced to the trade forum, one of the immediate projects of

law, in the form of the *Trademark Counterfeiting Act* in 1984,⁵ but also was to be escalated in the Uruguay Round of GATT trade negotiations in 1986 to an international agreement on trade-related aspects of intellectual property rights, including trade in counterfeit goods.

The multi-year efforts to link IPR protection with trade issues ended up with the conclusion of the *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPs agreement) in 1994. The TRIPs agreement has increased the standards for the protection and enforcement of IPRs of all kinds, although counterfeiting is defined only as trademark infringement. On the basis of the Paris and Berne Conventions, the TRIPs agreement significantly enlarges the scope of protection, including adding new subject matters (for example, computer programs, databases, pharmaceutical products, chemicals, and pesticides) and extending the duration of patent protection to 20 years.

Susan Sell argues that with the TRIPs agreement, what the private actors wanted from an intellectual property agreement was transformed into public international law.⁶ On a higher level, through this public international law and World Trade Organization (WTO) membership, the TRIPs agreement, which was designed to mostly benefit a few developed countries, has been imposed on a larger group of developing countries. Member countries are obliged to afford at least the minimum standards of IPR protection in their national laws, or otherwise face the possibility of retaliation by other members or withdrawal of other WTO concessions.

However, it is argued that even the minimum standards of protection under the TRIPs agreement are 'de facto high' in relation to the development levels of many

the Coalition is to consider expanding coverage of the international code to embrace other types of intellectual property. See *ibid* 130.

⁵ For the discussion on the Coalition's efforts to introduce the US *Trademark Anti-counterfeiting Act*, See Jed S. Rakoff and Ira B. Wolff, 'Commercial Counterfeiting: The Inadequacy of Existing Remedies' (1983) 73 *Trademark Reporter* 493, 495.

⁶ See generally Susan Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge University Press, 2003), 96-120 for a discussion on how private actors mobilized efforts to effectuate their interests in increasing IPR protection in the outcome of the TRIPs agreement).

developing countries.⁷ Since developing countries are importers and users, rather than producers and exporters of intellectual property, it is unlikely that they can benefit from high standards of IPR protection in the same way as developed countries do. To these countries, the TRIPs agreement 'sharply constricts the range of public policies that states can adopt to manage intellectual property in a manner tailored to their specific needs, and makes information and technology more costly and less accessible.'⁸ More importantly, as Susan Sell puts it, the TRIPs agreement prohibits industrial latecomers from adopting the very policies that proved to be so successful in industrialized countries that built much of their economic prowess by appropriating others' intellectual property.⁹

Over the years, developing countries have come to a better understanding of the implications of strong IPR protection. Worries have been raised concerning the restrictive impact of pharmaceutical patent protection on access to medicines in developing countries with insufficient manufacturing capacity. In addition, many developing countries are biodiversity-rich but bio-technology-poor countries, meaning that they do not have the sufficient technological capacity to explore the biological resources in their territories. Hence, they propose to create an obligation to disclose the source of origin of biological resource and traditional knowledge in patent applications.¹⁰

As a result of these efforts, developing countries successfully brought about the *Doha Declaration* on the TRIPs agreement and public health in 2001, which allowed developing countries to grant compulsory license in circumstances they see fit, and

⁷ Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Peterson Institute, 2000), 1.

⁸ Susan Sell, 'Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement' (2004) 38 *Loyola of Los Angeles Law Review* 267, 316.

⁹ Susan Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge University Press, 2003), 9.

¹⁰ See generally Peter K. Yu, 'Are Developing Countries Playing a Better TRIPs Game?' (2011) 16(2) *UCLA Journal of International Law and Foreign Affairs* 311 (discussing how developing countries played the game in the negotiation, implementation, enforcement, interpretation and compliance of the TRIPs agreement, with a few large developing countries such as India, Brazil and China having more influence on the shaping of future intellectual property policies).

the World Intellectual Property Organization (WIPO) Development Agenda in 2007 which provided recommendations to facilitate technical assistance, capacity building, and effective technology transfer to developing countries.

Nevertheless, following the TRIPs agreement, it seems that the standards of IPR protection continue to be enhanced and national IPR laws and policies continue to be standardized, despite the resistance from developing countries. This is exemplified by the so-called TRIPs-plus intellectual property provisions in a series of bilateral trade agreements between developed countries and individual developing countries.¹¹

In addition, plurilateral and regional trademark agreements also contribute to the increase of international IPR protection. The plurilateral agreement on curbing the trade of counterfeit products, the *Anti-Counterfeiting Trade Agreement* (ACTA), was negotiated among several like-minded countries with a view to setting a new high standard of IPR enforcement.¹² More recently, negotiations are ongoing to conclude a regional trade agreement, the *Trans-Pacific Partnership Agreement* (TPP), among countries in the Pacific area. An analysis of the leaked US proposals for the intellectual property chapter of TPP suggests that the US proposal, if adopted, would create the highest standards of IPR protection and enforcement in any free trade agreement to date.¹³

¹¹ For example, the US entered into Free Trade Agreements with many less developed countries, such as Jordan (2001), Australia (2004), Chile (2004), Morocco (2006), Peru (2007), and Panama (2011), among others. See generally Christopher Heath and Anselm Kamperman Sanders (eds), *Intellectual Property and Free Trade Agreements* (Hart, 2007) (providing a collection of articles discussing free trade agreements in relation to intellectual property).

¹² See generally Peter K. Yu, 'ACTA and Its Complex Politics' (2011) 3 *WIPO Journal* 1 (discussing the 'country club' approach to establishing the ACTA). Peter K. Yu, 'Six Secret (and Now Open) Fears of ACTA' (2011) 64 *SMU Law Review* 975 (critically commenting on the negotiating process of the ACTA).

¹³ Sean M. Flynn et al, 'Public Interest Analysis of the US TPP Proposal for an IP Chapter' (PIJIP Research Paper Series No 2012-07, American University Washington College of Law, 6 December 2011) <<http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1023&context=research>>.

B *Research Questions and Terminology*

Against the backdrop of strengthening IPR protection and enforcement and the constant confrontation between such strong protection and development needs, this thesis revisits the issue of counterfeiting that provides the justification in the first place for developed countries to ask for stronger and broader IPRs globally.

Instead of taking the anti-counterfeiting approach for granted, this thesis investigates the question of whether and how counterfeiting may have positive effects, and the implications for IPR laws and policies related to counterfeiting. This inquiry questions the argument that counterfeiting is a vicious crime that only has negative effects and brings net loss to a society and its economy. Meanwhile, to re-evaluate the impact of counterfeiting also requires the clarification of the meaning and definition of counterfeiting. By answering these questions, the thesis will highlight the importance of balancing a country's IPR policy, including the policy on the matter of counterfeiting, against its development level as measured by a range of indicators, one important indicator of which is innovative capacity.

For the purpose of the discussion, it is necessary to clarify some key terms used in this thesis.

Intellectual property

In this thesis, intellectual property is used as the general concept that includes patent, copyright, trademark and other types of IPRs. It is used interchangeably with intellectual property rights or IPR. It is true that not every type of IPR is associated with counterfeiting. As will be discussed in the chapters, while counterfeiting is defined in the TRIPs agreement as a trademark violation, the act of counterfeiting usually involves imitation of products that may be protected under other types of IPRs. Hence, the discussion of intellectual property as related to counterfeiting in this thesis is not limited to trademark, but can apply to any type of IPR.

Counterfeiting

The term counterfeiting is not only used in intellectual property law but also in criminal law. Counterfeiting of currency, financial instruments, signatures and so forth are known as criminal offences that are subject to criminal penalties. At the same time, counterfeiting is also known as an issue related to product imitation and trademark infringement. It is thus important to point out that, unless it is indicated otherwise, the term counterfeiting used in this thesis refers to an issue related to IPR protection, although there is controversy as to the definition of counterfeiting in intellectual property law. The meaning of counterfeiting is one of the subjects that will be discussed later in more detail.

Anti-counterfeiting group/activists

In recent times, a coalition has formed among anti-counterfeiting activists. This group is comprised of intellectual property owners that are individual multinational companies operating across many industries around the world, industry coalitions established to represent the interests of intellectual property owners, governmental and non-governmental organizations under constant lobbying and persuasion from intellectual property owners, law firms and intellectual property lawyers whose livelihood depends on intellectual property owners. Examples of such anti-counterfeiting groups include the Anti-Counterfeiting Group (ACG),¹⁴ the Business Action to Stop Counterfeiting and Piracy (BASCAP),¹⁵ the Global Anti-Counterfeiting Network (GACG),¹⁶ and the International Medical Products Anti-

¹⁴ ACG is a trade association founded in the UK in 1980 with just 18 brand owners and now represents the interests of UK and international companies, manufacturing practically everything you can think of, from toothpaste to mobile phones, chocolate to car parts. See *About ACG*, <<http://www.a-cg.org/guests/about-acg>>.

¹⁵ In 2004, the International Chamber of Commerce (ICC), a sincere representative of the interests of businesses, launched the Business Action to Stop Counterfeiting and Piracy (BASCAP) to combat product counterfeiting and copyright piracy worldwide. See *About BASCAP*, <<http://www.iccwbo.org/advocacy-codes-and-rules/bascap/about/>>.

¹⁶ The Network works as a common forum for various anti-counterfeiting organizations around the world to exchange and share information, to participate in appropriate joint activities and to co-operate in the resolution of specific IP problems and challenges in their respective national or regional areas. See GACG, *Global Anti-Counterfeiting Network*, <<http://www.gacg.org/>>.

Counterfeiting Taskforce (IMPACT),¹⁷ among others. These institutions are devoted to educating the public about the harms of counterfeiting and thereby raising support for anti-counterfeiting measures and initiatives.

Development

The meaning of development has experienced changes over time. It evolves from purely focusing on economic growth in the 1950s to comprising of a wide range of issues, including social welfare, environmental sustainability and human rights. This thesis uses the term development in the comprehensive sense, which is best articulated in the concept of sustainable human development. Human development is measured under the United Nations Development Program (UNDP) system by the inequality-adjusted human development index (IHDI), covering indicators of income, health and education. In addition, development related to the ability to produce intellectual property, including the technological capability, will refer to the concept of innovative capacity.

Innovative capacity

Innovative capacity is a critical concept which is important to understand the relationship between IPR protection and development. In this thesis, it refers to the capability and the necessary infrastructure required to produce innovations eligible for IPR protection in a country. It was originally introduced by Professor Luis Suarez-Villa in 1990. Although with a focus on the technological aspect, Suarez-Villa's idea of innovative capacity distinguishes invention from innovation. He notes that invention involves the discovery of new processes, ideas or tools, and other ideas that are patented, while innovations involve 'the applications of inventions in ways that increase the effectiveness of existing technologies, organizational forms, and

¹⁷ IMPACT was launched in February 2006 by the World Health Organization (WHO) in the response to the growing public health crisis of counterfeit drugs and particularly to the growing concern with counterfeiting by the stakeholders, primarily the pharmaceutical manufacturers. See IMPACT, *About Us*, < <http://www.who.int/impact/about/en/>>.

social structures, or that result in radically new applications in all of these areas.’¹⁸ Based on the distinction between invention and innovation, Suarez-Villa defines innovative capacity as the successful outcome of all corporate and individual inventions, which can be assumed to be the most important systemic effect of scientific search and discovery on socioeconomic progress.¹⁹ This thesis extends the concept of innovative capacity to include the productive capacity in other areas of intellectual property, such as literary and artistic works, industrial designs, software, new plant variety, and so forth, in addition to invention.

C *Literature Review*

This section reviews the literature on counterfeiting and anti-counterfeiting, outlining the results of existing studies on the scope and impact of counterfeiting, as well as the factors that affect the occurrence of counterfeiting. Since counterfeiting has long been identified as a problem by IPRs owners, most scholarship on this topic invariably focuses on the negative consequences of counterfeiting and the countermeasures designed to eliminate counterfeiting. These are called anti-counterfeiting studies, which only provide a partial picture of counterfeiting.

At the same time, there are a few critical studies suggesting that counterfeiting can have positive economic and social effects, and that counterfeiting is a problem that derives from a deficient IPR system. Both of the anti-counterfeiting studies and their criticisms will be examined in this section.

1 *Anti-Counterfeiting Studies*

Anti-counterfeiting studies are mostly publications of those anti-counterfeiting activists referred to above and works conducted by individual scholars who are proponents of strong IPR protection. These studies commonly provide information

¹⁸ Luis Suarez-Villa, 'Invention, Inventive Learning, and Innovative Capacity' (1990) 35(4) *Behavioral Science* 290, 295.

¹⁹ *Ibid.*

about the magnitude of counterfeiting, denounce the economic and social costs of counterfeiting, and recommend measures to combat counterfeiting nationally and globally.

There is a body of writing and numerous commissioned studies that quantify and qualify the negative aspects of counterfeiting. According to these studies, counterfeiting is a global business that represents billions of dollars of economic loss to IPR owners, with additional social costs impossible to calculate precisely. The Organization of Economic Cooperation and Development (OECD) report of 2007 indicated that the volume of tangible counterfeit and pirated products in international trade could be up to US\$200 billion,²⁰ a number they updated in 2009 to US\$250 billion.²¹ More recently, BASCP warned that if all categories of production and consumption of counterfeit products are included,²² 'the total global economic value of counterfeit and pirated products is as much as US\$650 billion every year.'²³ It is estimated that by the end of 2015 the global value of counterfeit and pirated products could be up to US\$1.77 trillion.²⁴

In particular, publications from OECD, IACC, and BASCP are examples of demonstrating the negative effects on the economy, rights holders, consumers and government. These effects include loss of sales volume and trade revenue, loss of royalties and brand reputation, losses of employment and tax revenue, deception

²⁰ OECD, 'The Economic Impact of Counterfeiting and Piracy' (Executive Summary, Organization of Economic Co-operation and Development, 2007) 15
<<http://www.oecd.org/dataoecd/13/12/38707619.pdf>>.

²¹ OECD, 'Magnitude of Counterfeiting and Piracy of Tangible Products: An Update' (November 2009) <<http://www.oecd.org/industry/ind/44088872.pdf>>.

²² The OECD 2008 report delineated four categories of impacts of counterfeiting, namely counterfeit and pirated goods moving through international trade, value of domestically produced and consumed counterfeit and pirated products, volume of pirated digital products being distributed via the Internet, and broader economy-wide effects. See OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008)
<<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

²³ Frontier Economics, 'Estimating the Global Economic and Social Impacts of Counterfeiting and Piracy' (Commission Report International Chamber of Commerce, Business Action to Stop Counterfeiting and Piracy (BASCAP), February 2011) 46
<<http://www.iccwbo.org/Advocacy-Codes-and-Rules/BASCAP/BASCAP-Research/Economic-impact/Global-Impacts-Study/>>.

²⁴ Ibid 9.

for consumers, threats to public health and safety, and links with organized crime and terrorism.²⁵ For example, BASCP estimated that, in 2009,

The G20 economies lose approximately €62 billion in tax revenues and higher welfare spending, €20 billion in increased costs of crime, €14.5 billion in the economic cost of deaths resulting from counterfeiting and another €100 million for the additional cost of health services to treat injuries caused by dangerous fake products.²⁶

Given the propaganda techniques and the strength of anti-counterfeiting industries, the 'counterfeiting kills' image has now been widely accepted by the general population.²⁷ Based on the estimate of the significant losses suffered from counterfeiting, anti-counterfeiting studies seem to suggest that counterfeiting is so harmful that it should be eliminated. This claim is then followed by proposals to

²⁵ See generally OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 133-154 <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>. International Anti-Counterfeiting Coalition, 'The Negative Consequences of International Intellectual Property Theft: Economic Harm, Threats to the Public Health and Safety, and Links to Organized Crime and Terrorist Organizations' (White Paper International Anti-Counterfeiting Coalition, January 2005) <<http://counterfeiting.unicri.it/docs/International%20AntiCounterfeiting%20Coalition.White%20Paper.pdf>>.

Frontier Economics, 'The Impact of Counterfeiting on Governments and Consumers' (Commissioned Report, Business Action to Stop Counterfeiting and Piracy, May 2009) <<http://www.icc.se/policy/statements/2009/BASCAP.pdf>>; Frontier Economics, 'Estimating the Global Economic and Social Impacts of Counterfeiting and Piracy' (Commission Report International Chamber of Commerce, Business Action to Stop Counterfeiting and Piracy (BASCAP), February 2011) <<http://www.iccwbo.org/Advocacy-Codes-and-Rules/BASCAP/BASCAP-Research/Economic-impact/Global-Impacts-Study/>>.

²⁶ Frontier Economics, 'The Impact of Counterfeiting on Governments and Consumers' (Commissioned Report, Business Action to Stop Counterfeiting and Piracy, May 2009) 3 <<http://www.icc.se/policy/statements/2009/BASCAP.pdf>>.

²⁷ For example, the International Medical Products Anti-Counterfeiting Taskforce at the World Health Organization uses the slogan "Counterfeit Drugs Kill" and a picture of a biting snake in a brochure to illustrate the consequences of counterfeit medicines. The brochure can be found at <<http://www.who.int/impact/resources/ImpactBrochure.pdf>>. Another example is that an industry-wide initiative is named 'Counterfeit Kills' which aims to raise awareness and fight the manufacture, distribution and use of counterfeit products in the UK. The detail of this initiative is available at <<http://www.counterfeit-kills.co.uk/uk/index.php>>.

counter counterfeiting, which normally requires intergovernmental co-operation and consolidated efforts to strengthen IPR enforcement globally.²⁸

However, there is doubt as to whether strengthened IPR enforcement can solve the problems that are identified above in relation to counterfeiting, such as harm to human health due to consumption of inferior products. This relates to another question of whether counterfeiting is merely a kind of IPR infringement, or whether it must inevitably be associated with inferior quality. Moreover, the argument that counterfeiting results only in negative effects on the economy and society seems to build on a partial and biased understanding of counterfeiting. These contentious questions need more scrutiny and research.

2 *Critical Approach to Counterfeiting*

The anti-counterfeiting claims concerning the magnitude and the impact of counterfeiting mentioned above has drawn criticism from scholars. The criticism revolves around the uncertainty of the definition of counterfeiting, and the methodology used to evaluate the scope and the effect of counterfeiting, as well as the biased view of negative consequence of counterfeiting.

The first concern is that some of the anti-counterfeiting institutions use the term counterfeiting in such a broad sense that it contradicts the provision in the TRIPs agreement. The most widely used definition of counterfeiting comes from the definition of 'counterfeited trademark goods' as provided in footnote 14 to Article 51 of the TRIPs agreement, which refers to unauthorized use of a mark which is identical with, or cannot be substantially distinguished from, a registered trademark on the same goods for which the trademark is registered. However, the OECD

²⁸ See generally Counterfeiting Intelligence Bureau, *Countering Counterfeiting: A Guide to Protecting and Enforcing Intellectual Property Rights* (ICC Publishing, 1997); WHO, 'Conclusions and Recommendations of the WHO International Conference on Combating Counterfeit Medicines: Declaration of Rome' 18 February 2006); Beverley Earle, Gerald Madek and Christina Madek, 'Combating the New Drug Trade of Counterfeit Goods: A Proposal for New Legal Remedies ' (2012) 20(3) *Transnational Law and Contemporary Problems* 677, 731 (providing suggestions from the US perspective to strengthen the anti-counterfeiting laws and establish international co-operation).

reports defines counterfeiting as 'a range of illicit activities linked to intellectual property rights infringement; it includes trademarks, copyrights, patents, design rights, as well as a number of related rights.'²⁹ It equates counterfeiting to IPR infringement, whether the goods in question bear a counterfeited trademark or not under the TRIPs agreement. Moreover, the definition of counterfeit medicines given by the World Health Organization (WHO) for the anti-counterfeiting initiative IMPACT refers to counterfeiting as not only medicines bearing a counterfeited trademark, but also medical products of compromised quality, safety and efficacy.³⁰

The use of the term counterfeiting in such a broad sense is criticised for its inconsistency with the TRIPs provision. The Third World Network, one of the few international organizations representing the interests of developing countries, is particularly critical of the WHO's definition of counterfeit medicine, arguing that the broad definition will in effect restrict the access to knowledge and essential medicines.³¹ Meanwhile, some scholars including Duncan Matthews and Carlos Correa insist that counterfeiting should be understood within the scope of the TRIPs definition of 'counterfeited trademark goods', that is, as trademark violation, while

²⁹ OECD, 'The Economic Impact of Counterfeiting and Piracy' (Executive Summary, Organization of Economic Co-operation and Development, 2007) 8 <<http://www.oecd.org/dataoecd/13/12/38707619.pdf>>.

³⁰ Counterfeit medicine means a medicine, which is deliberately and fraudulently mislabelled with respect to identity and/or source. Counterfeiting can apply to both branded and generic products and counterfeit products may include products with the correct ingredients or with the wrong ingredients, without active ingredients, with insufficient active ingredients or with fake packaging. See WHO, 'Counterfeit Drugs: Guidelines for The Development of Measures to Combat Counterfeit Medicines' (Document No WHO/EDM/QSM/99.1, Essential Drugs and Other Medicines Department, World Health Organization, 1999) 8 <http://whqlibdoc.who.int/hq/1999/WHO_EDM_QSM_99.1.pdf>. See also Sangeeta Shashikant, *Clash over WHO's Role in "Counterfeits"*, IMPACT (25 May 2010) Third World Network <<http://www.twinside.org.sg/title2/health.info/2010/health20100505.htm>>.

³¹ Third World Network, 'WHO's "Counterfeit" Programme: Legitimises IP Enforcement Agenda, Undermines Public Health' (Paper presented at the Sixty-Third World Health Assembly, Geneva, Switzerland, <http://www.twinside.org.sg/title2/briefing_papers/nontwn/Briefing.paper.on.WHO.Counterefts.pdf>.

patent infringement and substandard medicines should be distinguished as separate issues.³²

Another criticism is centred on the methodology used to calculate the value of counterfeiting and the losses suffered from counterfeiting. Notably, the value of counterfeiting is calculated by multiplying the lost sales volume by the retail price of the original products. Lost sales volume is sometimes calculated based on the assumption that 'every purchased counterfeit item represents a lost sale to the legitimate producer'.³³ However, not every consumer of counterfeit goods would have purchased an original if the counterfeit goods were not available. Meanwhile, it is also questionable to use the retail price of the original product to evaluate counterfeiting, given the fact that counterfeit products are very often priced significantly lower than original products.³⁴

Because of the serious shortcomings, both concerning the data employed and the adopted methodologies, Carsten Fink, Keith Maskus and Yi Qian conclude that aggregate estimates of the incidence of counterfeiting and piracy offer little guidance about IPR enforcement policies.³⁵ Without a commonly agreed definition, and without a reliable methodology to estimate the magnitude of counterfeiting, it is not surprising that the assessment of the impact of counterfeiting in the above anti-counterfeiting studies falls on a shaky ground.

³² Duncan Matthews, 'Counterfeiting and Public Health' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 42-58.

³³ OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 142 <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

³⁴ See Daniel C.K. Chow, 'Anti-Counterfeiting Strategies of Multi-National Companies in China: How a Flawed Approach is Making Counterfeiting Worse' (2010) 41 *Georgetown Journal of International Law* 749, 762. See also Michael Blakeney, *Intellectual Property Enforcement: A Commentary on the Anti-Counterfeiting Trade Agreement (ACTA)* (Edward Elgar, 2012), 4 (noting that counterfeit products are usually priced significantly lower than the original, and therefore it is questionable that the valuation of seized counterfeit products is calculated as if they are genuine and is treated as if they represent lost sales).

³⁵ Carsten Fink, Keith E. Maskus and Yi Qian, 'The Economic Effects of Counterfeiting and Piracy: A Literature Review' (Paper presented at the WIPO Advisory Committee on Enforcement Sixth Session, Geneva, 1-2 December 2010) para 108 <http://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_6/wipo_ace_6_7.pdf>.

In addition, some scholars go so far as to recognize the positive effects that counterfeiting may present for original producers and consumer welfare. Empirical studies by Yi Qian, Hui Xie, Kai-Lung Hui and Ivan Png explicitly demonstrate that counterfeiting can have positive effects on original producers.³⁶ They find that counterfeiting can raise consumer's valuation of the original products, stimulate demand for the original products especially when the economic situation of consumers of counterfeit products improves, and thus enable the original producer to charge a higher price in the long term. More recently, Kenneth Port reviews the revenue data of three luxury goods brands, Coach, RocheMont, and Louis Vuitton, and concludes that the existence of some 'imitative commodities' (the neutral term he used to include counterfeiting that may be infringing or not infringing) has a net positive effect on the manufacturers of these status goods.³⁷

For consumers, an early study by Steven Globerman points out that counterfeit products increase consumer welfare by providing lower-priced acceptable substitutes for the expensive original products.³⁸ In the same vein, Carsten Fink also notes that counterfeiting may bring more competition to the original producers, resulting in a fall in price and an increase in consumer surplus.³⁹

³⁶ See Yi Qian, 'Counterfeiters: Foes or Friends?' (Working Paper No 16785, National Bureau of Economic Research February 2011) (finding that counterfeiting poses positive advertising effects for high-end products and drives genuine industries to innovate and upgrade their products); Yi Qian and Hui Xie, 'Investigating the Dynamic Effects of Counterfeits with a Random Changepoint Simultaneous Equation Model' (Working Paper No 16692, National Bureau of Economic Research, January 2011) <http://www.nber.org/papers/w16692> (finding that the presence of counterfeiting can help the original brand to re-optimize and maintain a higher price in the long run); Lisa N. Takeyama, 'The Welfare Implications of Unauthorized Reproduction of Intellectual Property in the Presence of Demand Network Externalities' (1994) 42(2) *Journal of Industrial Economics* 155, 165; Kai-Lung Hui and Ivan Png, 'Piracy and the Legitimate Demand for Recorded Music' (2003) 2(1) *Contributions to Economic Analysis and Policy* Article 11 (finding that pirated recorded music raises consumer's valuation of the original, stimulates consumer's demand for the original and enables the original producer to charge a higher price).

³⁷ Kenneth L. Port, 'A Case Against the ACTA' (2012) 33(3) *Cardozo Law Review* 1131, 1146.

³⁸ Steven Globerman, 'Addressing International Product Piracy' (1988) 19(3) *Journal of International Business Studies* 497, 499.

³⁹ Carsten Fink, 'Enforcing Intellectual Property Rights: An Economic Perspective' (Commissioned Study, International Centre for Trade and Sustainable Development, July

At the general economic level, counterfeiting can support economic development of developing economies, at least in the short term. Dru Brenner-Beck points out that counterfeiting permits access to the technology needed for growth at low prices, develops critical skills in the workforce, and provides employment and cheaper products for the low-income population.⁴⁰ In some regions of China, for instance, counterfeiting business fuels the local economy by paying taxes, supporting entrepreneurial start-ups, providing employment for local residents and low skilled workers, and boosting the transactions in other sectors, such as leasing, delivery, and transportation.⁴¹

3 *Factors Driving Counterfeiting*

Both the anti-counterfeiting studies and critical scholarship provide insights into the causes of counterfeiting. It is commonly accepted that there are various factors that may account for the existence of counterfeiting, including economic incentives for the supply and demand of counterfeit products, and cultural as well as institutional factors.

Nevertheless, the perception of the impact of counterfeiting also affects the perspective through which the reason why counterfeiting exists is explained. Anti-counterfeiting studies that only see the negative effects usually associate counterfeiting with something that is definitely negative, for example, infringement of intellectual property rights or lack of respect for these rights. Economically, counterfeiting is regarded as an illegal act induced by the prospect of making profits by infringing on other's intellectual property rights. For example, the 2008 OECD report noted that high profit margins can provide a strong incentive for producing counterfeit products, and thus the decision to counterfeit may depend on economic

2008) 10-11 <<http://ictsd.org/downloads/2008/07/carsten-fink-enforcing-intellectual-property-rights.pdf>>.

⁴⁰ Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 102.

⁴¹ Kristi Heim, *Inside China's teeming world of fake goods* (13 February 2006) Seattle Times <http://seattletimes.com/html/businesstechnology/2002782434_chinapiracy12.html>. See also C. L. Hung, 'The Business of Product Counterfeiting in China and the Post-WTO Membership Environment' (2003) 10(1) *Asia Pacific Business Review* 58, 69.

factors such as unit profitability, the size of markets, and the power a brand has among consumers.⁴² In addition, counterfeiting is also arguably attributed to a lack of respect for intellectual property in some cultures other than the western culture. For example, to explain the lax enforcement of intellectual property in China, Glenn Butterson analyses Chinese Confucianism and Legalism and points out that China has a traditional culture based on personal relations instead of the rule of law, such that the Chinese are not used to following rules and regulations.⁴³

However, by removing the assumption that counterfeiting is illegal and bad, the explanation may be different. Some scholars see the positive effects of counterfeiting and explain counterfeiting as a side product of IPR protection and the rent-seeking activities of IPR owners. Intellectual property is intangible and non-rivalrous in use and can be reproduced at significantly low marginal costs, though there may be a fixed cost of production. Kevin Outterson and Ryan Smith argue that counterfeiting becomes attractive because IPR protection safeguards the ability of rights holders to charge a high price above the marginal costs, thus raising the price ratio of intellectual property products.⁴⁴ Moreover, it is argued that the branding and outsourcing activities of intellectual property owners are also accountable for the high profitability of engaging in intellectual property industries. Daniel Chow

⁴² OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 46
<<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

⁴³ Glenn R. Butterson, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1107. See also William P. Alford, 'Don't Stop Thinking About... Yesterday: Why There was No Indigenous Counterpart to Intellectual Property Law in Imperial China' (1993) 7 *Journal of Chinese Law* 3 (arguing that Chinese political culture accounts for the failure of the West to effectively transplant intellectual property systems into China).

⁴⁴ Kevin Outterson and Ryan Smith, 'Counterfeit Drugs: The Good, The Bad and The Ugly' (2006) 16 *Albany Law Journal of Science and Technology* 525, 537. citing Tomas J. Philipson and Anupam B. Jena, 'Dividing the Benefits from Medical Breakthroughs: The Case of HIV/AIDS Drugs' (2006) First Quarter 2006 *Milken Institute Review* 46, 51
<http://www.milkeninstitute.org/publications/review/2006_3/46_55mr29.pdf>; Ellen 't Hoen, 'Pills and Pocketbooks: Equity Pricing of Essential Medicines in Developing Countries' (Paper presented at the WHO/WTO Workshop on Differential Pricing and Financing of Essential Drugs, Høsbjør, Norway, April 2001)
<http://www.wto.org/english/tratop_e/trips_e/hosbjor_presentations_e/15thoen_e.pdf>.

contends that the premium created by trademark protection and branding of multinational companies generates financial incentives for counterfeiting.⁴⁵

Further, Andrea Wechsler explains counterfeiting with reference to the positive effects it has on diffusion of, and access to, knowledge. Since IPR protection locks on the knowledge protected under such rights, an imbalance between IPR holders and users will be present in countries that demand wider diffusion of such knowledge.⁴⁶ Hence, Andrea Wechsler argues that counterfeiting and piracy functions as alternative ways of allocating resources more effectively than intellectual property laws which fail to address the needs of knowledge dissemination.⁴⁷

D *Objective and Scope of this Research*

The research findings mentioned above provide valuable insights into understanding the widespread occurrence of counterfeiting. However, a few gaps remain. First, little has been done about the meaning of the term counterfeiting in a systematic manner. Perhaps that is why confusion persists as to the use of the term. Without a clear understanding of the meaning of counterfeiting, it will be difficult to evaluate the scope and the impact of counterfeiting. Nor is it possible to explain how it happens. Second, while both negative effects and positive effects of counterfeiting have been recognized in prior literature, how the two opposite effects coexist in real life scenarios needs further clarification. Third, there are few studies discussing the positive effects at a general and theoretical level. Most of previous research that demonstrates the positive effects of counterfeiting is based on empirical data limited to individual cases or particular product sectors.

⁴⁵ Daniel C.K. Chow, 'Counterfeiting as an Externality Imposed by Multinational Companies on Developing Countries' (2011) 51 *Virginia Journal of International Law* 785, 814.

⁴⁶ Andrea Wechsler, 'Spotlight on China: Piracy, Enforcement, and the Balance Dilemma in Intellectual Property Law' (Research Paper Series No 09-04, Max Planck Institute for Intellectual Property, Competition and Tax Law, 6 March 2009) 24 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354487>.

⁴⁷ Ibid.

The thesis aims to fill the gaps by exploring the meaning of counterfeiting, analysing the impact, in particular the positive effects of counterfeiting on developing economies, and linking those positive effects with the value of imitation to development. By referring to the relationship between IPR protection and development, the thesis will also construct a theoretical framework for a complete and unbiased evaluation of counterfeiting. In developing the argument, this thesis has three objectives.

First, this thesis aims to clarify the meaning of the term counterfeiting used in the field of intellectual property law. It innovatively proposes to understand counterfeiting as a form of imitation, rather than focusing on the determination of whether it infringes IPRs or which type of IPRs will be infringed. This analysis concludes that almost every use of the term counterfeiting invariably refers to imitation and copying of something else, while the difference lies in whether the intent or consequence of deception is defined as a necessary component to constitute counterfeiting by different definitions. As for counterfeiting related to intellectual property, the TRIPs agreement does not require the intent or consequence of deception to constitute counterfeiting.

The second objective of the thesis is to demonstrate the positive effects of counterfeiting on developing economies. Adding to prior research, this thesis draws on scholarship that shows the role of imitation in facilitating development processes. This elicits discussion of how imitation has historically benefited the now developed countries, such as Britain, the US, Japan and South Korea, when they were developing. While the value of this analysis is limited to the extent that the position of national IPR laws not affording protection to foreigners has now changed, however, the argument relating to the value of imitation to development still holds true.

The thesis will suggest that counterfeiting as a form of imitation can produce positive effects on developing economies. But it is important to note that the thesis is not arguing that counterfeiting in all cases is beneficial and should be legal and even encouraged. Quite the contrary, the thesis intends to convey the message that

counterfeiting should be regulated for the purpose of IPR protection, but it should be regulated in a way that recognizes the benefits it has on developing economies and allows a time frame for less developed countries to reach the position where they will be better off without counterfeiting than with counterfeiting.

Third, the thesis will also explain why counterfeiting exists. When seeing counterfeiting as imitation, it becomes easier to understand the reason for the omnipresence of counterfeit products in developing countries. The explanation of counterfeiting requires analysis of the concept of development. The idea of development dictates an ongoing process and a long-term objective for developing countries to catch up with their developed counterparts. Without sufficient economic and innovative capacities, however, developing countries have incentives to imitate and copy, while at the same time protecting IPRs to induce the inflow of foreign technologies and other knowledge products. The thesis also turns to the discourse on the relationship between development and IPR protection to illustrate the point that the current standards of IPR protection in many developing countries are relatively too high to accommodate the development needs in these countries. In this sense, counterfeiting represents the imbalance between the standards of IPR protection and development levels.

E Research Methodology

This thesis takes a new approach to understanding counterfeiting. It links the discussion of counterfeiting with the concept of development through the bridge of intellectual property. Generally speaking, the interaction between IPR protection and development can be explained in three aspects: first, development is the ultimate objective of IPR protection; second, IPR protection does not always promote development; and third, development level affects the impact of IPR protection. This section will elaborate on the three points and explain the theoretical framework of this thesis.

First of all, the thesis is based on the assumption that development is the objective of IPR protection. Article 7 of the TRIPs agreement clearly provides an objective of IPR protection and enforcement, as it states that

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.⁴⁸

The development objective is particularly evident in the utilitarian theory that dominates and supports modern intellectual property laws. The utilitarian theory sees the promotion of scientific progress and the overall welfare of the whole society as the ultimate objective of granting intellectual property rights.⁴⁹ It assumes that intellectual property rights can create incentives for innovation and thereby will eventually benefit the whole society, because of the value of innovation to economic, technological and cultural development.

In addition, the thesis draws on a body of scholarship on the impact of IPR protection on development. As mentioned above, a number of studies show that strong IPR protection does not always stimulate innovation. Some argue that IPR protection can encourage knowledge creation, stimulate business innovation and facilitate technology transfer;⁵⁰ while others vehemently argue the opposite, that

⁴⁸ *Agreement on Trade Related Aspects of Intellectual Property Rights*, signed 15 April 1994, art 7 ('TRIPs Agreement').

⁴⁹ The utilitarian approach is typically represented by Article 1, Section 8, Clause 8 of the US Constitution, which states that: 'The Congress shall have the power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.' For academic writings on utilitarian theory of intellectual property, see Edwin C. Hettinger, 'Justifying Intellectual Property' (1989) 18(1) *Philosophy and Public Affairs* 31, 47; William Fisher, 'Theories of Intellectual Property' in Stephen Munzer (ed), *New Essays in the Legal and Political Theory of Property* (Cambridge University Press, 2001) 168-200, 168 (noting that the utilitarian guideline for shaping intellectual property is the maximization of net social welfare).

⁵⁰ David M. Gould and William C. Gruben, 'The Role of Intellectual Property Rights in Economic Growth' (1996) 48(2) *Journal of Development Economics* 323 (suggesting that IPR protection is a significant determinant of economic growth). See also Sunil Kanwar and Robert Evenson, 'Does Intellectual Property Protection Spur Technological Change?' (Center

IPR protection restricts technical learning through imitation and raises the costs of accessing knowledge products.⁵¹ More commonly, both the benefits and costs of IPR protection are recognized, but the potential gains and losses vary across industries⁵² or depend on circumstances of individual countries, in terms of competitive structure of markets and the efficiency of related business regulation, including aspects of competition policy and technology development policy,⁵³ and the maturity of an economy.⁵⁴

Discussion Paper No 831, Yale University Economic Growth Center, June 2001)
http://www.econ.yale.edu/growth_pdf/cdp831.pdf (indicating the significance of intellectual property rights as incentives for spurring innovation).

⁵¹ Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008) (arguing that intellectual property is an evil monopoly as it restricts competition and stifles innovation). See also Ha-Joon Chang, 'Intellectual Property Rights and Economic Development: Historical Lessons and Emerging Issues' (Intellectual Property Rights Series No 3, Third World Network, 2001)
www.twinside.org.sg/title2/IPR/pdf/ipr03.pdf (reviewing the history of intellectual property in the now developed countries when they were industrializing and finding that strong protection of private intellectual property rights, was not an essential condition for their economic development; it also argues that benefits of IPR protection are likely to be very small for most developing countries, given that they do little R&D and a lot of the new knowledge that they generate is not patentable). Mark Lemley points out that intellectual property may impose costs in five aspects. First, intellectual property rights distort markets away from the competitive norm, and therefore create static inefficiencies in the form of deadweight losses. Second, intellectual property rights interfere with the ability of other creators to work and therefore create dynamic inefficiencies. Third, the prospect of intellectual property rights encourages rent-seeking behaviour that is socially wasteful. Fourth, enforcement of intellectual property rights imposes administrative costs. Finally, over-investment in research and development is itself distortionary. See Mark A. Lemley, 'Property, Intellectual Property, and Free Riding' (2005) 83 *Texas Law Review* 1031, 1058.

⁵² Edwin Mansfield, 'Patents and Innovation: An Empirical Study' (1986) 32(2) *Management Science* 173. (Based on a random sample of 100 firms from twelve industries in the US, results indicate that patent protection was judged to be essential for the development or introduction of 30 per cent or more of the inventions in only two industries- pharmaceuticals and chemicals. In another three industries (petroleum, machinery, and fabricated metal products), patent protection was estimated to be essential for the development and introduction of about 10-20 per cent of their inventions. In the remaining seven industries (electrical equipment, office equipment, motor vehicles, instruments, primary metals, rubber, and textiles), patent protection was estimated to be of much more limited importance in this regard. Indeed, in office equipment, motor vehicles, rubber and textiles, the firms were unanimous in reporting that patent protection was not essential for the development or introduction of any of their inventions during this period.)

⁵³ See Keith E. Maskus, 'Intellectual Property Rights and Economic Development' (2000) 32 *Case West Reserve Journal of International Law* 471. Maskus points out that intellectual property can play a positive role in encouraging new business development, rationalization of inefficient industry, and inducing acquisition and creation of technology; it may harm

It is commonly accepted that the development level in a country affects the economic and social effect of IPR protection. A recent study of the United Nations Industrial Development Organization (UNIDO) suggests that the innovative capacity of a country plays a decisive role in whether stronger IPR protection can ultimately reap rewards in terms of greater domestic innovation and increased technology diffusion.⁵⁵ Notably, innovative capacity is a measure of development level, in addition to human capital, openness to trade and FDI and market size. Only for countries with sufficient capacity to innovate would there be the growth-enhancing

development prospects by raising the costs of imitation and permitting monopolistic behaviour by owners of IPRS. See also John Barton et al, 'Integrating Intellectual Property Rights and Development Policy' (Report of Commission on Intellectual Property Rights, September 2002) <http://www.cipr.org.uk/papers/pdfs/final_report/CIPRfullfinal.pdf> (acknowledging the positive role of IPR protection in stimulating economic growth and reducing poverty, while at the same time recognising the possible costs of applying strong IPR protection to developing countries with diversified economic and cultural backgrounds and varying levels of development; it argues that developing countries should be allowed to have the flexibility of tailoring intellectual property policies to their respective development needs, if the benefits of IPR protection are to be captured by these countries).

⁵⁴ Mercedes Campi, 'Do Intellectual Property Rights Encourage Productivity Growth? Evidences from Agriculture' (Paper presented at the EMAEE 2013: 8th European Meeting on Applied Evolutionary Economics, France, 10-12 June 2013) <<http://ofce-skema.org/wp-content/uploads/2013/06/campi.pdf>> (finding that the impact is positive and statistically significant for high- and low-income countries, while a significant effect of intellectual property rights on yields was not found for middle-income countries). See also Abdul Sattar and Tahir Mahmood, 'Intellectual Property Rights and Economic Growth: Evidence from High, Middle and Low Income Countries' (2011) 49(2) *Pakistan Economic and Social Review* 163 (revealing that IPR protection contributes significantly to economic growth; but the impact is found to be more significant in high income countries as compared to middle and low income countries).

⁵⁵ Rod Falvey, Neil Foster and Olga Memedovic group countries into advanced countries with innovative capability, middle-income countries with imitative capability and innovative potential, and poor countries with neither. They find that strong IPR protection raises growth for advanced countries through increased innovation, whereas there is no overall effect on growth for middle-income countries where the benefits of domestic innovation and technological diffusion offset the growth-enhancing benefits gained from imitation precluded by stringent IPR protection. For countries without significant imitative or innovative capability now and perhaps in the near future, strengthening IPR protection has no effect on domestic innovation. See Rod Falvey, Neil Foster and Olga Memedovic, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (Working Paper United Nations Industrial Development Organization, 2006) <http://www.unido.org/fileadmin/import/60030_05_IPR_rights_in_technology_transfer.pdf>.

effect of IPR protection on innovation and diffusion, while in those developing countries without such capacity additional costs may occur.⁵⁶

While these studies on the relationship between IPR protection and development are mostly relating to patents and copyrights, the impact of strong protection is not limited to patent law and copyright law. As this thesis will demonstrate, trademark protection in the form of anti-counterfeiting law can also become restraint of free imitation and copying, because trademark counterfeiting in practical terms will almost always involve product imitation. The prohibition of counterfeiting actually means the prohibition of imitation, which represents another form of strong IPR protection. Hence, anti-counterfeiting measures in trademark law will produce almost the same effect with directly restricting imitation in patent law and copyright law.

Within this conceptual framework, the thesis proposes five inter-related hypotheses:

- Hypothesis 1: counterfeiting is a form of imitation, which not only involves trademark imitation but also refers to product imitation;
- Hypothesis 2: imitation, especially product imitation, is one necessary and crucial method to promote early stages of development;
- Hypothesis 3: counterfeiting can have positive effects on developing economies to the extent that it involves imitation of products, especially those products embedding new ideas and technologies;
- Hypothesis 4: IPR protection should facilitate development, but high standards of protection bring more costs than benefits for developing economies;
- Hypothesis 5: the product imitation that is needed in developing economies with low levels of development is prohibited as counterfeiting under unbalanced, high standards of IPR protection.

To test these hypotheses, the thesis will conduct a qualitative analysis of existing scholarship, including publications of national and international, governmental and

⁵⁶ Ibid 45-47.

non-governmental entities, and other textual materials such as statutes, cases, websites, blogs, factsheets, and dataset, related to the following subjects:

- the meaning, the impact, and the explanation of counterfeiting;
- the understanding of counterfeiting from other perspectives, for example, discussing counterfeiting in order to analyse a different topic;
- the impact of IPR protection, including patent, copyright, trademark, and other forms of IPRs, on development in general, or specifically on innovation, access to knowledge, human rights, economic growth, or other aspects of development;
- the costs and benefits of IPR protection in developing countries;
- the relationship between innovation, imitation and development.

Based on the analysis of this data, the thesis will examine the interaction among four actors: intellectual property, innovation, imitation and development. One of the alleged economic benefits of IPR protection is to stimulate follow-on innovation,⁵⁷ but under a high standard of protection this effect is only possible after a country has already established certain levels of innovative capacity and economic development.⁵⁸ While there is no doubt that innovation is a driving force of economic development, in early stages when there is no sufficient innovation, it is imitation that can promote development (Hypothesis 2). Studies show that imitation spurs competition, facilitates the dissemination and diffusion of knowledge, and builds up the capacity of innovation.⁵⁹ The history of some

⁵⁷ William M. Landes and Richard A. Posner, *The Economic Structure of Intellectual Property Law* (Harvard University Press, 2003), 13 (noting that the dynamic benefit of a property right is the incentive that possession of such a right imparts to invest in the creation or improvement of a resource, given that no one else can appropriate the resource).

⁵⁸ Dru Brenner-Beck also points out that 'increased IPR protection is beneficial only after a country has reached a threshold level of economic development.' He contends that 'this threshold level is marked by...per capita gross national product at a level significantly above the subsistence level, ...a sufficient degree of technical sophistication to profit from the incentives offered by a rigorous system of IPR protection, ...[and] sufficient investment capital to support sustained growth.' See Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 84.

⁵⁹ Imitation helps to reduce the costs of diffusion that have been raised by IPR protection, and transfers technical knowledge from the innovator to future innovators as well as those in need of the innovation. See Stuart Macdonald and Tim Turpin, 'Fair Copy? A Look at the

developed countries when they were developing also provides solid evidence that supports the value of imitation.⁶⁰

Meanwhile, the thesis puts forward the argument that counterfeiting not only means trademark imitation, but also in most cases involves product imitation (Hypothesis 1). As mentioned above, before the TRIPs agreement, counterfeiting was a criminal law term used to describe the act of forging currency, financial instruments, signatures or other meaningful marks, including trademarks. The TRIPs agreement provides a new definition of counterfeiting, which refers to unauthorized use of a trademark that is identical or indistinguishable from a registered trademark on the same goods. While the TRIPs definition does not explicitly require deception or imitation to constitute counterfeiting, the act of using identical trademarks on the same goods in practice almost always involves product imitation as well as trademark imitation. To demonstrate this point, this thesis will review historical incidences of what has been considered as counterfeiting both in criminal law and in early trademark legislations. It is also necessary to compare different uses of the term in various contexts related to intellectual property law, including the TRIPs agreement, anti-counterfeiting publications, and scholarly works as well as in dictionaries.

Then, the thesis turns to the evaluation of the impact of counterfeiting, and seeks to explain counterfeiting in light of the above analysis on the relationship between

Anti-Counterfeiting Lobby' (Paper presented at the Creative Industries and Intellectual Property Conference, London, 22-23 May 2008) 5 <<http://www.dime-eu.org/files/active/0/MacdonaldTurpinPAPER.pdf>>. In addition, an imitator may have valuable ideas not available to the original innovator, and thus imitation can enhance the overall pace of innovation by raising the possibility of follow-on inventions. See James Bessen and Eric Maskin, 'Sequential Innovation, Patents, and Imitation' (Working Paper No 00-01, Massachusetts Institute of Technology, January 2000) 612 <<http://dspace.mit.edu/handle/1721.1/64176>>.

⁶⁰ Maxine Berg has documented how 'imitative' inventions pervaded product development in the 18th century of Britain. For example, instead of a technique used on wood, furnishings, and coach panels, new forms of varnish were developed for use on papier mâché and tin-plated ware. In the process of imitating an imported luxury process, British producers invented a new process and distinctive japanned-ware products. Maxine Berg, 'From Imitation to Invention: Creating Commodities in Eighteenth-Century Britain' (2002) 55(1) *The Economic History Review* 1, 19.

intellectual property, imitation, and development. Based on Hypothesis 1 and 2, the thesis argues that counterfeiting as a form of imitation can produce benefits (Hypothesis 3). These benefits take the same forms as the positive effects that imitation has had on development.

The discussion on the relationship between IPR protection and development also suggests that for developing countries without sufficient innovative capacity, strong protection results in costs in the form of restricting access to knowledge, prohibiting imitation, and thus deterring follow-on innovation (Hypothesis 4). These outweigh the benefits of protecting current rights holders to recover their investment. However, access to knowledge and imitation is precisely what developing countries need in order to catch up with their developed counterparts. Hence, under excessively high standards of IPR protection, imitation that once benefited developed countries when they were developing is made illegal in the name of counterfeiting (Hypothesis 5).

To further test the hypotheses, a case study of counterfeiting in the Chinese context will be presented. For this purpose, a considerable amount of data comes from Chinese literature, including Chinese intellectual property legislations, reports and statistics issued by the Chinese government and IPR authorities, and scholarly publications such as books, chapters, journal articles, as well as news release or other materials in physical or electronic forms, in relation to the topics mentioned above. These data are analysed on a qualitative basis and roughly fit into four categories: the legislative background of Chinese intellectual property laws, the legal framework of the current IPR system in China, the definition of counterfeiting in Chinese intellectual property laws, and the situation of imitation and counterfeiting in practice. In so doing, this case study will provide an original work on the comparative analysis of counterfeiting in the Chinese context, in addition to supporting the five hypotheses of this thesis.

F *Outline of Chapters*

The thesis is divided into nine chapters. Chapter I is the introduction of the research project. It describes the background against which the research questions arise, provides the review of existing literature and informs the theoretical framework of the thesis.

Apart from Introduction and Conclusion, the thesis is organized into three parts. Part One comprises three chapters, discussing the conceptual framework within which the issue of counterfeiting will be analysed.

Chapter II discusses the development objective of developing countries and the implications for intellectual property. It examines the concept of development to clarify the meaning of development, and then analyses the measurement of development level in various international institutions. The development objective provides the grounds on which to introduce intellectual property policies, along with other trade and development policies into developing countries, which suggests the instrumental status of intellectual property. The instrumental status is reinforced in the comparison of the two ideas, development and intellectual property, as species of human rights.

Chapter III illustrates the process of international expansion of IPR protection and enforcement. It starts from an historical review of the weak intellectual property policies in several developed countries when they were developing, and then captures the shift of attitude in these countries to become advocates of strong intellectual property rights when they became producers of intellectual property. The Chapter then proceeds to discuss the responses of developing countries when they came to realize the impact of increased standards of IPR protection.

Chapter IV examines the dynamic relationship between IPR protection, innovation, imitation and development. In light of the utilitarian theory and practice of the incentive for innovation, and the balance between protection of intellectual property and dissemination of knowledge, it analyses the scholarship on the role of

IPR protection in stimulating innovation. This suggests that the relationship depends on the level of development in a particular country. If the value of innovation is restricted by the unbalanced over-strong IPR protection in developing countries, those countries have to instead rely on imitation to facilitate the development objective. The Chapter then shows that the value of imitation is both theoretically, empirically and historically justified.

Part Two includes Chapter V and VI, providing a detailed analysis of the meaning, the impact and the explanation of counterfeiting.

Chapter V analyses the meaning of counterfeiting. It first distinguishes between the meaning of counterfeiting and other relevant terms, such as fake, genuine, original, and forged. Then, the chapter reviews the incidences of counterfeiting in early days and the legal response before a modern intellectual property system was established. It compares the use of the term counterfeiting in criminal law with the definition provided by the TRIPs agreement, and examines the definitions proposed by the OECD and other anti-counterfeiting institutions. The analysis will demonstrate how the different use of the two elements, imitation and deception, shapes the understanding of counterfeiting at various institutions. It concludes that while the TRIPs definition overreaches to the extent that it excludes the concept of deception or fraud that lies at the heart of the general law understanding of counterfeiting, it determines the legal boundary of counterfeiting. Meanwhile, it points out that in practice counterfeiting often involves product imitation as well as trademark imitation.

Chapter VI rethinks the impact and the cause of counterfeiting, in light of the above analysis. In recognition that counterfeiting in many cases involves product imitation, the chapter argues that counterfeiting can benefit society because of the value of imitation. Empirical studies on counterfeiting in certain product sectors also offers strong support to the argument. More examples of counterfeiting benefiting local economies will also be provided.

Further, the chapter goes on to explain counterfeiting from the viewpoint that the standards of IPR protection in developing countries are too high relative to their development levels. Based on existing scholarship that attempts to explain the occurrence of counterfeiting from economic, cultural and institutional perspectives, this chapter points out that product imitation involved in counterfeiting is actually demanded by developing countries without sufficient economic and innovative capacity or with high levels of inequality. Hence, it explains how the imbalance between intellectual property and development leads to the omnipresence of counterfeiting in developing countries.

Part Three includes Chapter VII and VIII, which provide a case study of counterfeiting in the Chinese context.

Chapter VII introduces the background of intellectual property law making in China, and examines the complex role of foreign pressure and internal demand in shaping the Chinese intellectual property laws. Then an overview of the limited innovative capacity and development inequality in China is presented, but more attention is paid to the way Chinese intellectual property laws define 'counterfeiting' in the Chinese language.

Chapter VIII provides both linguistic and doctrinal analysis of the meaning of relevant Chinese terms. The comparison of the Chinese meaning with the English meaning of counterfeiting reveals the duality of the Chinese definition: conforming to the development objective and complying with the TRIPs agreement simultaneously. Under the Chinese approach to counterfeiting, there is a widespread phenomenon of imitation, known as Shan Zhai. The chapter then investigates the value of such imitation to the development of innovative capacity in China.

Chapter IX concludes the thesis with the implications of the analysis of counterfeiting for current intellectual property law and policy at national and international levels. In light of the previous analysis, this Chapter suggests that future policy change should take into account the positive effects of product

imitation involved in what is defined as counterfeiting in current intellectual property systems. Counterfeiting should be defined and regulated in a way that facilitates the realization of the development goals of a country. Developing countries may be better off if they take advantage of the flexibilities embedded in the TRIPs agreement, and formulate their national intellectual property policies in a development-oriented manner by re-addressing the balance between rights holders and users, and the balance between the protection of private interests and the need for imitation for the purpose of development.

PART ONE CONCEPTUAL FRAMEWORK OF DEVELOPMENT AND INTELLECTUAL PROPERTY

This part analyses the conceptual framework within which the issue of counterfeiting will be discussed. The relationship between IPR protection and development in developing countries can be summarized as bellows:

- The system of IPR protection is introduced to developing countries in the name of facilitating development, which is an objective of national policies including intellectual property policy in developing countries.
- IPR protection has increased dramatically in the last decades, especially since the conclusion of the TRIPs agreement; however, strong IPR protection does not always stimulate innovation or promote development, but results in substantial economic and social costs in developing countries without sufficient and necessary innovative capacity.
- Low levels of development, especially in terms of innovative capacity, restrict the benefits of IPR protection for innovation and development, and determine that developing countries still have to rely on imitation and copying to facilitate development.

This part consists of three chapters. Chapter I examines the concept of development, including economic, social, sustainable and human development, which appears to be the ultimate objective of national policies, including intellectual property policy. It also points out that IPR protection is an instrument by which to realize the development objective. Chapter III reviews the process whereby the standards of IPR protection have been increased internationally under the push of developed countries using multilateral, bilateral and plurilateral trade agreements, and the response of developing countries. Because of such expansion of international IPR protection, developing countries have to bear more costs than benefits. These costs will be discussed in Chapter IV. Based on some historical and empirical evidence, Chapter IV also highlights the benefits of imitation and copying for early stages of development.

II DEVELOPMENT OBJECTIVE AND THE INSTRUMENTAL STATUS OF INTELLECTUAL PROPERTY

A *Introduction*

On 20 January 1949, Harry Truman gave his inaugural presidential address, as the first American president after the close of World War Two. In this speech, President Truman announced his concept of development, which rested on the identification of 'underdeveloped areas' that were struck by poverty. He declared that

[W]e must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. More than half the people of the world are living in conditions approaching misery. Their food is inadequate, they are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas ... Our aim should be to help the free peoples of the world, through their own efforts, to produce more food, more clothing, more materials for housing, and more mechanical power to lighten their burdens... What we envisage is a program of development based on the concepts of democratic fair-dealing.⁶¹

In Truman's opinion, the development program was intended to pull underdeveloped countries out of poverty and improve their living standards through material prosperity, scientific advances and industrial progress. As poverty was defined a common problem of the majority of non-Western countries after World War Two, Truman's idea of development soon spread and escalated to be a universally discussed topic. Despite the different approaches to development,

⁶¹ Harry S. Truman, *Inaugural Address* (20 January 1949) The American Presidency Project <<http://www.presidency.ucsb.edu/ws/?pid=13282>>.

capitalist or socialist, economic or social, the fact of development itself and the need for it has achieved the status of certainty in the social imagination.⁶²

This chapter examines the development objective set out for developing countries since the inception of the idea of development, and the implications for the objectives of intellectual property law. Labelling certain countries as 'underdeveloped' implies that, despite the diversity of their backgrounds, these countries share the common imperative of development: to advance, to transform, and to catch up with developed countries, which is called the 'development objective' in this thesis. This chapter will show that the development objective is an overarching principle for not only economic activities such as construction of roads and schools, but also for social institutions and policies in developing countries, especially technology and innovation policies.

From time to time, developed countries provided financial aids and technical assistance in various forms to reduce poverty and improve the living standards of the population in developing countries. More recently, developed countries introduced the system of IPR protection, claiming that such protection would stimulate innovation and encourage foreign investment and technology transfer. Whether or not it is true that IPR protection can facilitate development, the concept of development functions as an objective that gives legitimacy to the introduction of the idea of protecting intellectual property. The system of IPR protection has been introduced and sometimes coercively imposed onto countries that are identified as 'underdeveloped' in the name of development.

The following section reviews the evolutionary course of development, and examines the meaning of development in order to clarify the content of the development objective in developing countries. It shows that while the meaning of development varies across times, development is commonly understood in a contemporary and general sense as concerning a range of issues from economic growth and social welfare to human rights realization and environmental

⁶² Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton University Press, 1995), 5.

sustainability, among others. This is accompanied by a discussion of the negative consequences of early development programs, including increased poverty for a period of time and distributional inequality, which becomes increasingly worrying.

Then the chapter underscores the division between developed countries and developing countries, in particular the disparity between countries in relation to their ability to produce intellectual property. It introduces the measurement of development levels under different international institutions and their respective merits and shortcomings, with a view to clarifying the use of the term ‘developing countries’ in this thesis. It points out that developing countries are those countries defined as developing under the UNDP’s criteria of Inequality-adjusted Human Development Index (IHDI) and at the same time, with insufficient innovative capacity.

The chapter proceeds to look at the conceptual link between development and intellectual property by detailing the process whereby IPR protection was introduced to developing countries in the name of facilitating development. This process also highlights the instrumental status of IPR protection, as a means to realize the development objective. It also compares the two ideas, development and intellectual property, from two perspectives – both as western-originated notions and as one species of human rights. It suggests that development is in principle a higher level of objective of intellectual property. Finally, a brief analysis of the development objective as set out in international intellectual property laws will be presented.

B The Concept of Development

The idea of development is a western notion proposed in the 1950s as a solution to the poverty problem in the post-World War Two era in many non-western countries that were identified as ‘underdeveloped’. By the 1950s, many western countries, especially the US and some European countries, had already developed in economic, social and technological aspects sufficiently to be called developed countries.

The world was thus divided into two groups: developed countries and underdeveloped countries. According to the World Bank in 1948, 'countries with an average per capita income of less than US\$100 were, by definition, poor and underdeveloped.'⁶³ By this standard, most Western European countries, Canada and the US were the wealthy and developed, whereas the underdeveloped group was composed of Latin America, Africa, and Asia, which nevertheless contained 75 per cent of the world's population.⁶⁴

Since the division of countries presumes the inferior state of underdeveloped countries, central to the concept of development is the idea that underdeveloped countries must develop. The development objective requires these countries to advance, to transform, and to develop into something superior. That something superior is in reference to the western developed countries of the time – with high levels of industrialization and urbanization, mechanization of agriculture, rapid growth of material production and living standards, and widespread adoption of modern education and cultural values.⁶⁵

This section will examine the meaning of the development objective. Development is an imperative for underdeveloped countries. Development is only meaningful to underdeveloped countries, given the presumption that developed countries are already sufficiently developed. When taking the western notion for granted, underdeveloped countries hold development as an objective, which includes but is not limited to poverty reduction.

Ray Kiely has acknowledged that 'The development discourse - its language, strategy and practice - has changed over time, in response to different development strategies and shifts in power relations in the world.'⁶⁶ In line with this assertion,

⁶³ Majid Rahnema, 'Poverty' in Wolfgang Sachs (ed), *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books, 2 ed, 2010) 174, 161.

⁶⁴ Ricardo Contreras, 'Competing Theories of Economic Development' (1999) 9 *Transnational Law and Contemporary Problems* 93, 93.

⁶⁵ Arturo Escobar, above n 62, 4.

⁶⁶ Ray Kiely, 'The Crisis of Global Development' in Ray Kiely and Phil Marfleet (eds), *Globalization and the Third World* (Routledge, 1998) 25, 36. Kiely contends that a satisfactory analysis of development would regard it not only as a European creation, but

this section will show that the development programs began with a pure economic focus in the 1950s, focused on alleviation of poverty in the 1960s, and integrated with concerns about social welfare and basic needs from the 1970s. Because of the structural failure in adjusting development programs in the 1970s, the 1980s saw a 'lost decade' during which the developing world suffered more than before the development programs started. This was followed by the rearrangement of development programs in the 1990s, with proposals of new approaches to development, such as sustainable development and human development. A human-rights-based approach to development also formed to express basic human needs in term of rights. By the 2000s, an encompassing concept of development with multi-dimensioned meanings had emerged.

It is worth noting that the West, or the developed countries, had played a role in the development process of developing countries. It is already clear that developed countries defined the problem of poverty and proposed the concept of development as a solution to that problem. They also undertook to design the poverty-alleviation programs and offer assistance and help, individually or co-operatively, with the restructuring and reform of underdeveloped countries. Such assistance usually took the form of financial grants, loans at favourable terms, and investment through the International Bank of Reconstruction and Development (IBRD), one institution of the World Bank, and the International Monetary Fund (IMF).⁶⁷ However, as will be discussed next, history suggests that such assistance and help have not always been helpful for the development objective.

also as a reflection of the responses, reactions and resistance of the people who are its objects.

⁶⁷ For the services provided by the World Bank and the IMF in the post-World War Two era, see generally Anthony Galano III, 'International Monetary Fund Response to the Brazilian Debt Crisis: Whether the Effects of Conditionality Have Undermined Brazil's National Sovereignty?' (1994) 6(2) *Pace International Law Review* 323; Sandra Blanco and Enrique Carrasco, 'The E-Book on International Finance and Development: Part One: Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the International Monetary Fund (IMF) II. Functions of the IMF and the World Bank,' (1999) 9 *Transnational Law and Contemporary Problems* 67. Sandra Blanco, 'The E-Book on International Finance and Development: Part One: Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the IMF: IV. The 1960s and 1970s: The

1 *Economic-Social Development*

Since the inception of the idea of development, economic growth has been the primary focus. In early days, economic development theorists agreed that, to help the underdeveloped world get out of poverty, the solution was economic growth and increasing income. They also assumed that the benefits of economic growth would trickle down to a broader population and the gap between the rich and the poor would shrink, which was a top-down approach known as the 'trickle down' theory of economic development.⁶⁸

The World Bank took the lead in advancing the agenda of industrialized countries to undertake development projects and engaged in project lending to developing countries for projects of infrastructure, industry and agriculture.⁶⁹ Since the goal of development at the time was simply economic growth in the income per person, the focus of these development projects was primarily placed on macroeconomic policies, capital investment, and technical assistance.⁷⁰

Despite the higher rates of growth, scholars observed that purely focusing on economic growth in earlier days led to uneven distribution of wealth and resulted in increased poverty for those already poor. As Sandra Blanco points out, most of the income increases at the time were concentrated in government sectors; those employed in industries and those who had other special ties to government as well as foreign investors benefited the most, whereas development projects favoring industrialization over agricultural development led to increased poverty in rural areas.⁷¹ As the gap between the poor and the rich widened, it is argued that structuralist policies that promoted government-led initiatives to industrialize developing economies through import substitution turned out to be ineffective and

World Bank Attacks Poverty; Developing Countries Attack the IMF' (1999) 9 *Transnational Law and Contemporary Problems* 109.

⁶⁸ Sandra Blanco, above n 67, 110.

⁶⁹ Ibid.

⁷⁰ Ozay Mehmet, *Westernizing the Third World: The Eurocentricity of Economic Development Theories* (Routledge, 2 ed, 2002), 97.

⁷¹ Sandra Blanco, above n 67, 111.

led to dualism in developing countries.⁷² From the 1960s, therefore, many developing countries began realizing that the 'trickle down' approach could not drag them out of poverty.

As a response, efforts were diverted and devoted to promoting economic growth with equitable distribution of income. For example, the World Bank lending programs began to directly aim at the eradication of absolute poverty, and large loans were provided for rural development, urban development and development of small-scale industry as well as for improvement in health, nutrition, family planning, and educational services.⁷³ By this time, as Sandra Blanco noted, development was no longer measured by statistics only relating to economic growth, but extending to the social dimension of development: improving quality of life and conditions of housing, education, health, energy, and transportation in developing countries.⁷⁴

In addition, the 'basic needs' approach was proposed in 1975 by the United Nations, with the aim of achieving a certain specific minimum standard of living.⁷⁵ Such a standard should cover 'the minimum requirements of a family for personal consumption: food, shelter, clothing,' but also 'access to essential services, such as safe drinking water, sanitation, transport, health and education' and 'an adequately remunerated job for everyone willing to work.'⁷⁶ Hence, scholars contend that the content of development during this period was mainly about meeting basic needs,⁷⁷

⁷² Ricardo Contreras, 'Competing Theories of Economic Development' (1999) 9 *Transnational Law and Contemporary Problems* 93, 99.

⁷³ Sandra Blanco, above n 66, 111.

⁷⁴ *Ibid.*

⁷⁵ International Labour Organization, *Employment, Growth and Basic Needs: A One World Problem* (Praeger Publishers, 1977), 7.

⁷⁶ Heinz Wolfgang Arndt, *Economic Development: The History of An Idea* (University of Chicago Press, Pbk. ed, 1989), 102.

⁷⁷ James H. Mittelman and Mustapha Kamal Pasha, *Out from Underdevelopment Revisited: Changing Global Structures and the Remaking of the Third World* (St. Martin's Press, 1997), 92.

or addressing major problems such as the environment, over-population, food scarcity, the role of women, habitat destruction and unemployment.⁷⁸

A common feature of the economic and social approaches to development is that both represent a goods-based orientation in defining development, given the important role of goods production in promoting economic-social development. In economic terms, development referred to the ability of an economy to generate growth in per capita income, reduce the proportion of the population in poverty, and promote equal distribution of income.⁷⁹ A social version of development that emphasized meeting basic needs also took into account variables such as rates of life expectancy, adult literacy and infant mortality.⁸⁰ All these concerns about economic growth and basic needs have to be addressed by a sufficient supply of varieties of products and services. Hence, Barbara Ingham argues that the socio-economic dimension is a goods-oriented development.⁸¹

Nevertheless, early days of economic-social development was accompanied by failure and frustration. Notably, the 1970s witnessed the debt crisis, as many developing countries were not able to repay their loans from commercial banks in the US and Europe.⁸² To resolve the debt crisis, the IMF and World Bank proposed

⁷⁸ Gustavo Esteva, 'Development' in Wolfgang Sachs (ed), *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books, 2 ed, 2010) 1, 14.

⁷⁹ Gerald M. Meier and James E. Rauch (eds), *Leading Issues in Economic Development* (Oxford University Press, 6th ed, 1995), 7.

⁸⁰ David A. Clark, *Visions of Development: A Study of Human Values* (Edward Elgar, 2002), 23.

⁸¹ Institutional framework, industrialization, and modernization are identified factors that contribute to development in a socio-economic sense. See Barbara Ingham, 'The Meaning of Development: Interactions Between "New" and "Old" Ideas' (1993) 21(11) *World Development* 1803, 1804. For the role of institutions in development and growth, see Irma Adelman and Cynthia Taft Morris, *Society Politics and Economic Development: A Quantitative Approach* (Johns Hopkins University Press, 1967). For the analysis of structural change in relation to development, see Colin G Clark, *The Conditions of Economic Progress* (Macmillan, 1940). For the relationship between modernization and development, see Stephen A. Marglin and Frédérique Apffel Marglin (eds), *Dominating Knowledge: Development, Culture, and Resistance* (Clarendon Press, 1990).

⁸² Enrique Carrasco points out that decreased exports and high interest rates are identified factors that caused debtor countries to default on their loans, especially in Latin American countries. See Enrique Carrasco, 'Part One: Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the IMF: V. The 1980s: The Debt Crisis

in the early 1980s that debtor countries adopt the stabilization and structural adjustment programs designed to correct domestic economic problems, while the commercial banks provided new loans and stretched out external debt payments.⁸³ However, these stabilization and structural adjustment programs resulted in great social costs in developing countries. Their economies stagnated, per capita income plummeted, poverty increased, and the already wide gap between the rich and the poor widened further.⁸⁴ Commentaries point out that this is partly because many of the early projects were inappropriate for their localities, and the programs were not necessarily tailored to the specific needs of a particular population or culture.⁸⁵

Moreover, the gains made through the social welfare measures in the previous three decades had been wiped out by the macroeconomic failure of structural adjustment.⁸⁶ As the 1980s drew to a close, developing countries were poorer, more debt-ridden, and even less able to provide services such as education and health care.⁸⁷ Hence, development policymakers labelled the 1980s as 'the lost decade of development'.⁸⁸

and the Lost Decade of Development' (1999) 9 *Transnational Law and Contemporary Problems* 119, 120.

⁸³ Ibid 121. IMF stabilization measures focused on a drastic reduction in demand, including cutting public expenditure, devaluating the country's currency, and reducing the money supply. World Bank structural adjustment programs focused on liberalization of domestic and foreign trade and privatization of large and inefficient public enterprises. See *ibid* 123.

⁸⁴ Ibid 124.

⁸⁵ Sandra Blanco, 'The E-Book on International Finance and Development: Part One: Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the IMF: IV. The 1960s and 1970s: The World Bank Attacks Poverty; Developing Countries Attack the IMF' (1999) 9 *Transnational Law and Contemporary Problems* 109, 112.

⁸⁶ Enrique Carrasco, above n 82, 124.

⁸⁷ As Ray Kiely describes it,

By the beginning of the 1990s, most people in sub-Saharan Africa were poorer than they had been thirty years before. With a population of about 500 million, nearly 300 million are living in absolute poverty. In developing countries as a whole, nearly 800 million people do not get enough food, and about 500 million are chronically malnourished. Almost, one-third of the population of developing countries – about 1.3 billion – lives below the poverty line. The infant mortality rate, at about 350 per 100,000 live births, is about nine times higher than in "advanced" industrial countries.

See Ray Kiely, 'The Crisis of Global Development' in Ray Kiely and Phil Marflect (eds), *Globalization and the Third World* (Routledge, 1998) 25, 25.

⁸⁸ Enrique Carrasco, above n 82, 124.

2 Sustainable Development and Human Development

The failure of economic-social development in the previous decades called for the rearrangement of development programs in the 1990s, which mainly took the shape of sustainable development, human development, and the combination of the two: sustainable human development.

Sustainable development associates economic and social development with the sustainability of environmental and natural resources. The linking of sustainability with economic development began in the 1970s when the United Nations Conference on the Human Environment recognized that economic development, without proper regard to environmental constraint, was both wasteful and unsustainable.⁸⁹ The term sustainable development was formally introduced by the World Commission on Environment and Development report *Our Common Future* in 1987, with a view to integrating policies of environmental conservation and economic development.⁹⁰ The report defined the term as 'development that meets the need of the present without compromising the ability of the future generations to meet their own needs.'⁹¹ Afterwards, the Rio Declaration, adopted at the United Nations Conference on Environment and Development in 1992, provided a more widely accepted policy statement: sustainable development includes an environmental dimension, an economic dimension and a social dimension.⁹²

⁸⁹ W. Alan Strong and Lesley A. Hemphill, *Sustainable Development Policy Directory* (Blackwell Publishing, 2006), 1.

⁹⁰ Marie-Claire Cordonier Segger and Ashfaq Khalfan, *Sustainable Development Law: Principles, Practices and Prospects* (Oxford University Press, 2005), 5.

⁹¹ World Commission on Environment and Development, 'Our Common Future, Chapter 2: Towards Sustainable Development' (Report 20 March 1987) [1] <<http://www.un-documents.net/our-common-future.pdf>>.

⁹² The Rio Declaration states the common minimum principles of sustainable development as follows:

- (1) The recognition of the central role of human needs as well as the need for the participation of all citizens in addressing environmental issues.
- (2) The need to consider environmental protection in all development activities.
- (3) The recognition of states' sovereign rights together with a duty to cooperate with each other.
- (4) The equity dimension of sustainable development which includes the recognition of the different contributions of countries to the creation of environmental problems and the

Human development, as the name literally suggests, is concerned with advancing the richness of human life in terms of freedom and choices.⁹³ The United Nations Development Program (UNDP) launched the Human Development Report (HDR report) in 1990, which underscores the enlargement of people's choices.⁹⁴ The initial Report 1990 defines human development as:

a process of enlarging people's choices. The most critical of these wide-ranging choices are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living. Additional choices include political freedom, guaranteed human rights and personal self-respect.⁹⁵

The concept of human development puts people at the center of the development process in terms of economic debate, policy and advocacy, with the goal of going beyond income to assess the level of people's long-term wellbeing. As the UNDP announces at the 20th anniversary edition of the HDR, 'a central objective of the HDR for the past 20 years has been to emphasize that development is primarily and fundamentally about people.'⁹⁶ Barbara Ingham also notes that "[W]hen

different capabilities to address these problems (principle of common but differentiated responsibility) as well as a recognition of the inter-generational dimension of sustainable development.

(5) The need to enhance the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

(6) The need to apply a precautionary approach to prevent environmental degradation even where there is lack of full scientific certainty of threats of serious or irreversible damage.

(7) The recognition of the role and importance of local communities and indigenous peoples and the duty of state to support their interests as well as enable their participation in the realization of sustainable development.

See Philippe Cullet, *Intellectual Property Protection and Sustainable Development* (LexisNexis Butterworths, 2005), 35-36.

⁹³ As Nobel Laureate in Economics Professor Amartya Sen noted in 1998, 'Human development, as an approach, is concerned with what I take to be the basic development idea: namely, advancing the richness of human life, rather than the richness of the economy in which human beings live, which is only a part of it.' See UNDP, *About Human Development* United Nations Development Programme <<http://hdr.undp.org/en/humandev>>.

⁹⁴ UNDP, *Human Development Index (HDI)* United Nations Development Programme <<http://hdr.undp.org/en/statistics/hdi/>>.

⁹⁵ UNDP, 'Human Development Report 1990: Concept and Measurement of Human Development' (Annual Report, United Nations Development Programme, 1990) 1 <<http://hdr.undp.org/en/reports/global/hdr1990/>>.

⁹⁶ UNDP, 'Human Development Report 2010 - 20th Anniversary Edition: The Real Wealth of Nations: Pathways to Human Development' (Annual Report, United Nations Development

development is defined as human development, what is proposed is a people-oriented view of development.”⁹⁷ Thus, a people-centred interpretation has come to dominate the development discourse.

Furthermore, the UNDP proposes the idea of ‘sustainable human development’ in its 1992 HDR report, recognizing that ‘[I]f development is to widen the range of people’s choices, it must do so not only for the current generation but for future ones as well. It must be sustainable.’⁹⁸ Sustainable human development then becomes an umbrella concept that integrates human development with economic, social, and environmental dimensions of development. As Phillippe Cullet puts it, ‘it [sustainable development] constitutes today the umbrella for all discussions concerning human development, social development, economic development and environmental protection.’⁹⁹

3 Human Rights Based Approach to Development

In parallel with the idea of sustainable human development is the human rights based approach to development. Under this approach, human rights are seen as an intrinsic part of development and development as a means to realizing human rights. Specifically, the human rights approach to development incorporates a human rights framework into the design and delivery of development aid, sets the

Programme, November 2010) 1

<http://hdr.undp.org/sites/default/files/reports/270/hdr_2010_en_complete_reprint.pdf>.

⁹⁷ Barbara Ingham, 'The Meaning of Development: Interactions Between "New" and "Old" Ideas' (1993) 21(11) *World Development* 1803, 1813.

⁹⁸ UNDP, 'Human Development Report 1992: Global Dimensions of Human Development' (Annual Report, United Nations Development Programme, 1992) 13, 17

<<http://hdr.undp.org/en/reports/global/hdr1992/>>. The Report also clarifies the minimum requirements for achieving sustainable development:

The elimination of poverty; A reduction in population growth; More equitable distribution of resources; Healthier, more educated and better trained people; Decentralized, more participatory government; More equitable, liberal trading systems within and among countries, including increased production for local consumption; Better understanding of the diversity of ecosystems, locally adapted solutions to environmental problems and better monitoring of the environmental impact of development activities.

⁹⁹ Phillippe Cullet, *Intellectual Property Protection and Sustainable Development* (LexisNexis Butterworths, 2005), 38.

achievement of human rights as an objective of development,¹⁰⁰ and uses human rights as the benchmark of measuring development. It places emphasis on discrimination, exclusion and the intersectionality of disadvantages as the underpinning causes of poverty, and takes the realization of human rights as the basis of efforts to end poverty.¹⁰¹

In addition, the human rights based approach expresses development in terms of rights. Human rights entered into public discussion after the United Nations adopted the Universal Declaration of Human Rights (UDHR) in 1948, which recognizes the rights and freedoms that everyone is entitled to without discrimination in any way.¹⁰² Along with two subsequent Covenants, the International Covenant on Civil and Political Rights (ICCPR) and the International Covenants on Economic, Social and Cultural Rights (ICESCR) in 1966, this formed the institutional edifice for international human rights law to rest on, also known as the *International Bill of Rights*. Nevertheless, it was not until the World Conference on Human Rights in 1993 when human rights were linked with development. In 2000, the UNDP formally acknowledged that 'human rights and human development share a common vision and a common purpose – to secure, for every human being, freedom, well-being and dignity.'¹⁰³

The human rights approach defines development as rights, transforming the economic, social, cultural, and political content of development into entitlement.

¹⁰⁰ ODI, 'What Can We Do with a Rights-Based Approach to Development' (Briefing Paper No 3, Overseas Development Institute, September 1999) 1 <<http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/2614.pdf>>.

¹⁰¹ ACFID, 'Human Rights-Based Approaches to Development' (Practice Note, Australian Council for International Development, July 2010) 2 <<http://www.acfid.asn.au/resources-publications/publications/practice-notes/human-rights-based-approaches-to-development>>.

¹⁰² United Nations, *Universal Declaration of Human Rights* (1948) <<http://www.un.org/en/documents/udhr/>>. In addition to the UDHR, other human rights treaties include the International Covenant on Civil and Political Rights (1966) with its two Optional Protocols and the International Covenant on Economic, Social and Cultural Rights (1966).

¹⁰³ UNDP, 'Human Development Report 2000: Human Rights and Human Development' (Annual Report, United Nations Development Programme, 2000) 1 <<http://hdr.undp.org/en/content/human-development-report-2000>>.

For example, the objective of poverty reduction and meeting basic needs transforms into the fulfillment of basic economic and social rights, such as the right to food, health, housing and education. The recognition of these rights means that 'adequate food, education, and health are no longer a matter of charity, but every person has the right to have his or her basic needs met.'¹⁰⁴ This requires all programs of development co-operation, policies and technical assistance should further the realization of human rights, should be guided by human rights standards and principles, and should contribute to the development of the capacities of duty-bearers to meet their obligations and of rights-holders to claim their rights.¹⁰⁵

By the 2000s, with globalization as the focal point, development has become all-encompassing and integrated – 'a comprehensive, multi-relational process involving all the aspects of the life of a community, its relations with the outside world and its own self-awareness.'¹⁰⁶ Scholars argue that it is imperative to integrate the macroeconomic and financial aspects with the structural, social and human aspects of development at the national and global levels.¹⁰⁷ Under the World Bank's comprehensive development framework, for example, eliminating poverty, reducing inequity, and improving opportunity for people in low- and middle-income countries are central objectives.¹⁰⁸

It has to be noted that there is no consensus on the meaning of development, because development is an ongoing process that will probably evolve over time. But, for the purpose of this research, it is sufficient to understand development in a

¹⁰⁴ Brigitte I. Hamm, 'A Human Rights Approach to Development' (2001) 23(4) *Human Rights Quarterly* 1005, 1014.

¹⁰⁵ UNDG, 'Second Interagency Workshop on Implementing a Human Rights-based Approach in the Context of UN Reform' (Report, United National Development Group, 5-7 May 2003) 11-12 <http://www.undg.org/archive_docs/2290-Other_Resources_Background_Materials_-_Stamford_Workshop_Report.doc>.

¹⁰⁶ UNESDOC, 'Medium-Term Plan (1977-1982)' (Document No 19 c/4, United Nations Educational, Scientific and Cultural Organization, 1977) 56 [305] <<http://unesdoc.unesco.org/images/0003/000332/033260eo.pdf>>.

¹⁰⁷ James D. Wolfensohn, 'A Proposal for a Comprehensive Development Framework' (A Discussion Draft, World Bank Group, 21 January 1999) 7 <<http://web.worldbank.org/archive/website01013/WEB/IMAGES/CDF.PDF>>.

¹⁰⁸ World Bank, *Comprehensive Development Framework* <<http://go.worldbank.org/N2NDBE5QL0>>.

contemporary and general sense that concerns a wide range of issues including the economy, culture, politics, and environment, among others. This general understanding of development, as Brigitte Hamm explains, addresses 'the human being in relation with both resource management and participation,'¹⁰⁹ embracing the economic, political, social, environmental, and cultural dimensions of development.

4 *Development Inequality*

Whether considered in the economic, social, environmental or human rights dimensions, inequality is an issue that must be overcome. The idea of development in itself derives from the division between the wealthy and the poor. This section will show that the development process during the past half century has witnessed a widening gap between the rich and the poor, not only among different countries but also within countries, and not only in terms of income but also in terms of living conditions, access to health and education products and services, and political freedom and choices, among many others. It also explores the negative consequences of inequality, as inequality undermines the benefits of economic growth, cultural prosperity, technological advance and social welfare. Hence, equitable development is important in maximizing the effect of development in all other aspects.

(a) Inequality Between and Within Countries

One criticism of developmentalism holds that the development processes have resulted in increasing inequality between and within countries, regions and industries. Richard Peet and Elaine Hartwick point out that in some respects, economic growth functions to channel money and power to the already rich and famous.¹¹⁰ A more radical view holds that a big part of the economic development –

¹⁰⁹ Brigitte I. Hamm, above n 104, 1010.

¹¹⁰ Richard Peet and Elaine Hartwick, *Theories of Development: Contentions, Arguments, Alternatives* (The Guilford Press, 2 ed, 2009), 2.

that is, the wealth – of the rich countries is wealth imported from the poor countries, and that the world economic system generates and runs on inequality.¹¹¹

According to the UNDP Report in 2001, the gap between rich and poor countries indeed widened during the same period when development succeeded beyond expectation: the total income of the richest 10 per cent of the US population (around 25 million people) is even greater than that of the poorest 43 per cent of the world's people (around two billion people).¹¹² A recent study shows that as of 2007, the top 20 per cent of the world's population controlled about 70 per cent of its total income, compared to just two per cent of its wealth for the bottom 20 per cent of the population, and that the share of total income received by the poorest of the population increased by less than one per cent between 1990 and 2007.¹¹³

In the same vein, a World Bank working paper points out that the composition of inequality has entirely changed from being an inequality determined in equal measures by class and location to an inequality preponderantly determined by location only.¹¹⁴ By dividing the population of a given country into twenty equally-sized groups, each including 5 per cent of the population, the paper compares the income level of different groups. It finds that the poorest Danish population has an income much more than the income of the richest population in many African countries; the second poorest group of Americans is approximately at the same level of income than the richest 5 percent of Indians; and that even after adjusting

¹¹¹ C. Douglas Lummis, 'Equality' in Wolfgang Sachs (ed), *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books, 2 ed, 2010) 38, 48.

¹¹² UNDP, 'Human Development Report 2001: Making New Technologies Work for Human Development' (Annual Report, United Nations Development Programme, 2001) 19 <<http://hdr.undp.org/en/reports/global/hdr2001/>>.

¹¹³ Isabel Ortiz and Matthew Cummins, 'Global Inequality: Beyond the Bottom Billion - A Rapid Review of Income Distribution in 141 Countries' (Working Paper United Nations Children's Fund (UNICEF), April 2011) 11, 16 <http://www.unicef.org/socialpolicy/files/Global_Inequality.pdf>.

¹¹⁴ Branko Milanovic, 'Global Inequality: From Class to Location, from Proletarians to Migrants' (Policy Research Working Paper No WPS5820, World Bank, September 2011) 7 <http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2011/09/29/000158349_20110929082257/Rendered/PDF/WPS5820.pdf>.

for relative price levels, the poorest five per cent of Americans earn 35 times more than the poorest Zambians or 12 times more than the poorest Malians.¹¹⁵

Meanwhile, inequality within countries is also acute. As mentioned before, the lost decade in the 1980s saw the increased poverty of the poor and the widened gap between the rich and the poor in developing countries. The UNDP points out that, since the 1980s, income inequality has risen in many more countries than it has fallen.¹¹⁶ Despite the growth in per capita income and gross national product, economic increase was accompanied by unequal distribution of wealth nationwide, most markedly in countries of the former Soviet Union and in most countries in East Asia and the Pacific. According to the UNDP's report of 2013, countries in the group of Medium and Low Human Development ranking are mostly affected by high level of inequality, with the overall human development loss from inequality ranging from 20 per cent to 43 per cent.¹¹⁷ More recently, income distribution data in China, India and the United States suggest that 'significant and sustained economic growth has not led to more equal societies, but rather made the rich relatively richer and the poor relatively poorer.'¹¹⁸

(b) How Inequality Matters

Inequality is a cause for concern. It is commonly accepted that inequality affects government decisions on the national level and produces negative impacts on many aspects of well being, apart from inequality being fundamentally unjust.¹¹⁹ First,

¹¹⁵ Ibid 8, 9, 16.

¹¹⁶ UNDP, 'Human Development Report 2010 - 20th Anniversary Edition: The Real Wealth of Nations: Pathways to Human Development' (Annual Report, United Nations Development Programme, November 2010) 6

<http://hdr.undp.org/sites/default/files/reports/270/hdr_2010_en_complete_reprint.pdf>.

¹¹⁷ UNDP, 'Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World' (Annual Report, United Nations Development Programme, 2013) 153-155 <<http://hdr.undp.org/en/2013-report>>.

¹¹⁸ Isabel Ortiz and Matthew Cummins, above n 113, 31.

¹¹⁹ Claire Melamed and Emma Samman, 'Equity, Inequality and Human Development in a Post-2015 Framework' (Research Paper, United Nations Development Programme Human Development Report Office, February 2013) 11

<http://hdr.undp.org/sites/default/files/equity_inequality_human_development_in_post-2015_framework.pdf>.

inequality increases poverty and slows economic growth. Evidence shows that inequality affects the duration that economic growth can sustain: 'longer growth spells are robustly associated with more equality in the income distribution.'¹²⁰ The UNDP also recognizes that inequality can exacerbate the effects of market and policy failures on growth and thus on progress against poverty, and constrain people's choices and freedoms embedded in human development.¹²¹

Second, it is argued that increases in inequality lead to increases in segregation and segregation increases inequality in educational attainment,¹²² with spill over impacts on social mobility.¹²³ Referring to the concurrent loss of mobility, President Barack Obama mentioned, in a speech on 4 December 2013 in Washington, D.C., that '[A] child born in the top twenty per cent has about a two-in-three chance of staying at or near the top. A child born into the bottom twenty per cent has a less than one-in-twenty shot at making it to the top.'¹²⁴

In addition, scholars remind us that inequality may also erode social cohesion, which is in turn associated with intolerance, discrimination, and the erosion of the

¹²⁰ Andrew G. Berg and Jonathan D. Ostry, 'Inequality and Unsustainable Growth: Two Sides of the Same Coin?' (Staff Discussion Note No SDN/11/08, International Monetary Fund, 8 April 2011) 3 <<http://www.imf.org/external/pubs/ft/sdn/2011/sdn1108.pdf>>.

¹²¹ UNDP, 'Human Development Report 2001: Making New Technologies Work for Human Development' (Annual Report, United Nations Development Programme, 2001) 17 <<http://hdr.undp.org/en/reports/global/hdr2001/>>.

¹²² Susan E. Mayer, 'Income Inequality: Economic Segregation and Children's Educational Attainment' (JCPR Working Papers No 209, Northwestern University/University of Chicago Joint Center for Poverty Research, 10 Nov 2000) 1 <<http://www.finance2008.nccu.edu.tw/finance/mem/fnymchiang/FM/incomeinequality.pdf>>; Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Bloomsbury USA, 2011), 105.

¹²³ For an analysis of the impact of education on social mobility, see Robert Haveman and Timothy Smeeding, 'The Role of Higher Education in Social Mobility' (2006) 16(2) *The Future of Children* 125. See also Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Bloomsbury USA, 2011), 161 (finding that as income differences widened, social mobility declined rapidly and noting that as the main engine of social mobility in modern democracies is education, less spending on education because of income differences reduces social mobility).

¹²⁴ Amy Davidson, *Economic Inequality: A Matter of Trust?* (4 December 2013) *The New Yorker* <<http://www.newyorker.com/online/blogs/closerread/2013/12/economic-inequality-a-matter-of-trust.html>>.

rule of law and national identities leading to a vicious cycle.¹²⁵ Furthermore, empirical evidences show that inequality is inversely related to the levels of trust between members of the public,¹²⁶ but is positively correlated with violence and crime rates.¹²⁷

Considering all these harms of inequality, it is viable to argue that the goal of development will be better achieved when there is less disparity between and within countries around the world. In order to reduce inequality, substantial assistance with the development process in developing countries is expected to have mutual benefits for all. As the United Nation Conference on Trade and Development stated in 2004,

[E]xperience shows that there is a need for policy instruments specifically designed with the aim of helping countries at lower stage of development to converge on the levels of *efficiency and affluence* achieved by the more advanced economies, and to improve the *welfare* of all groups of the population. Making this the principle for policy design at both domestic and the international level requires recognition of the fact that successful development and integration of the developing countries is in the mutual interest of all countries, as longer-term growth and trading opportunities of the more advanced economies also depend on the expansion of industrial capacity and markets in the poorer economies.¹²⁸

C Measurement of Development Level

While the idea of development implies the division between developed countries and developing countries, it is not yet clear what the term 'developing country' means, in particular when it is used in relation to intellectual property. This section

¹²⁵ Joseph E. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (W. W. Norton, 2012), ch 4-7.

¹²⁶ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Bloomsbury USA, 2011), 52-53.

¹²⁷ Daniel Lederman, Pablo Fajnzylber and Norman Loayza, 'Inequality and Violent Crime' (Pt 1) (2002) 45(1) *Journal of Law and Economics* 1, 1; Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Bloomsbury USA, 2011), 135.

¹²⁸ United Nations Conference on Trade and Development, *Trade and Development Report*, UNCTAD/TDR/2004, UN Doc E.04.II.D.29 (16 September 2004) 96.

examines the different approaches to measuring development level and classifying countries at several international institutions. Three systems of country classification will be analysed: those adopted by the World Bank, the IMF and the UNDP respectively. Although each system has both merits and shortcomings, the UNDP's inequality-adjusted human development index represents comparatively the most appropriate methodology to assess development level based on a composite set of development proxies.

This section will also suggest that when development is considered in the context of intellectual property, it is helpful to draw on the additional concept of 'innovative capacity' to ascertain which countries should be classified as developing. On the basis of the UNDP classification of countries, the concept of innovative capacity is also explained and used in this thesis as a particular measurement of a country's ability to produce intellectual property.

1 World Bank and IMF Income Classification

The World Bank was established in 1944, when it was named IBRD, to facilitate post-World War Two reconstruction and development. Since the basic division between the West and other underdeveloped countries in the 1950s, the World Bank has taken the mandate of poverty alleviation in underdeveloped countries and worldwide with another affiliate, the International Development Association (IDA) established in 1960.¹²⁹ Given the increase in membership and the scarcity of donor resources, it was practically necessary to set thresholds and assess the eligibility to access the limited resources, such as the IDA eligibility and the civil works preferences.¹³⁰

¹²⁹ Today, in addition to IBRD and IDA, the World Bank also comprises three other members, i.e., the International Finance Corporation (IFC), the Multilateral Guarantee Agency (MIGA), and the International Centre for the Settlement of Investment Disputes (ICSID).

¹³⁰ In 1964, an income threshold at an annual per capita income level of US\$250 was established as a test for eligibility to access IDA resources, but throughout the 1960s the threshold was not rigidly adhered to as several countries with income levels of up to US\$300 accessed IDA resources. Besides, the Bank had also established a threshold to afford preferences to national companies in civil works procurement bids in Bank-financed

Categories of countries based on their levels of development derive from the need to determine the eligibility for various development assistance programs operated by the World Bank. Under the World Bank income classification, development level is measured by per capita Gross National Income (GNI). By the 1990s, the World Bank had established economic thresholds based on the per capita GNI at both operational and analytical levels, and countries are now basically categorized as high-income, middle-income (upper middle and lower middle) and low-income countries.¹³¹ In the World Bank publications, low- and middle-income countries are sometimes referred to as developing countries for convenience. Nevertheless, the World Bank notes that the term 'developing countries... is not intended to imply either that all the economies belonging to the group are actually in the process of developing, or that those not in the group have necessarily reached some preferred or final stage of development.'¹³²

The World Bank annually updates the classification thresholds to adjust for inflation. For example, for the fiscal year 2013, low-income economies are defined as those with a GNI per capita of US\$1 045 or less in 2013; middle-income economies are those with a GNI per capita of more than US\$1 045 but less than US\$12 746; high-income economies are those with a GNI per capita of US\$12 746 or more.¹³³

projects subject to international competitive bidding procedures, and another threshold to determine which countries should be afforded more lenient borrowing terms from the IBRD. In the early 1980s, the IBRD moved toward a more rule-based system using a GNI/n criterion. See Lynge Nielsen, 'Classifications of Countries Based on Their Level of Development: How it is Done and How it Could be Done ' (Working Paper No 11/31, International Monetary Fund, February 2011) 9-11 <<http://www.imf.org/external/pubs/ft/wp/2011/wp1131.pdf>>. See also International Economics Department, 'Per Capita Income: Estimating Internationally Comparable Numbers' (Staff Report, World Bank, 13 January 1989) 8 [53] <http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/07/16/000442464_20130716104206/Rendered/PDF/795410BR0PerOC00Box037737900PUBLIC0.pdf>.

¹³¹ International Economics Department, 'Per Capita Income: Estimating Internationally Comparable Numbers' (Staff Report, World Bank, 13 January 1989) 12 [76] <http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/07/16/000442464_20130716104206/Rendered/PDF/795410BR0PerOC00Box037737900PUBLIC0.pdf>.

¹³² Ibid.

¹³³ Under the group of middle income countries, there are lower-middle-income and upper-middle-income economies which are separated at a GNI per capita of US\$4 125. See World

The World Bank uses the GNI per capita as the criteria for country classification because it believes that this is ‘the best single indicator of economic capacity and progress’.¹³⁴ As the World Bank suggests, there is ‘a stable relationship between a summary measure of well-being, such as poverty incidence and infant mortality on the one hand, and economic variables including per capita GNI estimates based on the Bank’s Atlas method, on the other’.¹³⁵ Borrowing the World Bank’s criteria of per capita GNI, the UN World Economic Situation and Prospects (WESP) 2012 annex classifies all countries into three broad categories: developed economies, economies in transition and developing countries.¹³⁶

Similarly, the per capita GNI criterion are also used by the IMF for operational purposes to determine the eligibility for its Poverty Reduction and Growth Facility (PRGF), which was established in September 1999 to provide concessional lending to the poorest member countries.¹³⁷ At the analytical level, the IMF has established a country classification system since the 1960s, but the rationale for this classification is not explained. As the World Economic Outlook 2014 states, ‘this classification is not based on strict criteria, economic or otherwise, and it has

Bank, *Updated Income Classifications* (3 July 2014) World Bank
<http://data.worldbank.org/news/2015-country-classifications>.

¹³⁴ World Bank, *Country Classification: A Short History* World Bank
<http://go.worldbank.org/U9BK7IA1J0>.

¹³⁵ Ibid.

¹³⁶ Within each broad category, some subgroups are defined based either on geographical location or on ad hoc criteria, such as the subgroup of ‘major developed economies’, which is based on the membership of the Group of Seven. Geographical regions for developing economies are as follows: Africa, East Asia, South Asia, Western Asia, and Latin America and the Caribbean. A distinction is made between fuel exporters and fuel importers from among the economies in transition and the developing countries. Besides, it also makes reference to least developed countries (LDCs) and heavily indebted poor countries (HIPC). See United Nations, ‘Country classification: Data Sources, Country Classifications and Aggregation Methodology’ (Statistical annex, World Economic Situation and Prospects, 2014) 143-144

http://www.un.org/en/development/desa/policy/wesp/wesp_archive/wesp2014.pdf.

¹³⁷ IMF notes that the eligibility for PRGF is based principally on the IMF’s assessment of a country’s per capita income, drawing on the cut-off point for eligibility to World Bank concessional lending. See IMF, *The Poverty Reduction and Growth Facility (PRGF)* (31 July 31 2009) International Monetary Fund <https://www.imf.org/external/np/exr/facts/prgf.htm>.

evolved over time.¹³⁸ Currently, the IMF classifies its member countries into two groups: advanced countries, and emerging market and developing countries.¹³⁹

2 *The Limit of Economic Measure*

While income level can affect other aspects of development, it is but one dimension of development. As discussed before, development is a comprehensive concept that concerns not only economic growth but also sustainable human development. GNI per capita represents the economic capacity of a country, which is only a direct indicator of the economic aspect of development.

Richard Peet and Elaine Hartwick distinguish economic growth from the comprehensive concept of development, noting that economic growth means achieving a bigger economy – producing more goods and services on the one side of the national account and a larger total income on the other, while development means improvement in a complex of linked natural, economic, social, cultural, and political conditions.¹⁴⁰ Economic growth may be a primary vehicle to improve human well-being. But to achieve the development goal, there are many other aspects that need to be developed as well, such as environmental sustainability, people's choices in terms of education and health, political freedom, and more importantly the distributional equality of the achievements in the above aspects.

¹³⁸ IMF, 'World Economic Outlook: Recovery Strengthens, Remains Uneven' (World Economic and Financial Surveys, International Monetary Fund, April 2014) 157 <<https://www.imf.org/external/pubs/ft/weo/2014/01/pdf/text.pdf>>.

¹³⁹ The classification has evolved over the years. In 1964, countries were initially classified as industrial countries, other high-income countries and less-developed countries. In the 1970s, more categories were created, such as oil-exporting countries, primary producing in more developed areas and in less developed areas. In the early 1980s, the classification was simplified to include industrial countries and developing countries. The category of industrial countries was then renamed as advanced countries in 1997. In 2004, the currently used category of emerging and developing countries was created as a combination of developing countries in previous classifications and economies in transition which was used from 1993 to 2004. See Lyne Nielsen, 'Classifications of Countries Based on Their Level of Development: How it is Done and How it Could be Done ' (Working Paper No 11/31, International Monetary Fund, February 2011) 16-18 <<http://www.imf.org/external/pubs/ft/wp/2011/wp1131.pdf>>.

¹⁴⁰ Richard Peet and Elaine Hartwick, *Theories of Development: Contentions, Arguments, Alternatives* (The Guilford Press, 2 ed, 2009), 3.

Therefore, per capita GNI alone is not a complete indicator of development level in such a multi-faceted sense. As the UNDP points out, national income figures do not reveal the composition of income or the real beneficiaries.¹⁴¹ The World Bank's income criteria for country classification do not account for the distributional inequality of income within a country. In a study by the Médecins sans Frontières (MSF) and Oxfam, by the time Malaysia and Mexico join the group of high-income countries, more than 80 per cent of their populations will still fall below the US Medicaid-defined poverty line.¹⁴² A high-income country is not necessarily highly developed in other aspects of development, as high income levels are no guarantee for sustainable human development. Hence, a comprehensive index of development is needed.

3 *UNDP Human Development Index*

Given the manifold meanings of development, the measurement of development level should be based on the assessment of a wide range of variables, rather than merely focusing on economic growth rates in terms of Gross Domestic Production (GDP). In addition, given the disparity of development among countries and distributional inequality within countries, the concept of development and the assessment of development level should also take into account the effects of inequality on the development in economic, social, environmental and human rights aspects.

¹⁴¹ UNDP, 'Human Development Report 1990: Concept and Measurement of Human Development' (Annual Report, United Nations Development Programme, 1990) 9 <<http://hdr.undp.org/en/reports/global/hdr1990/>>.

¹⁴² To assess the impact of the Trans-Pacific Partnership Agreement (TPP), MSF and Oxfam used the US\$21.50/person per day measure to estimate how many millions will live below it once countries cross the high-income threshold. In eight of the 12 TPP countries for which there is data, more than a quarter of a billion people will live below the U.S. Medicaid line when their country is classified as high income. Among current high-income TPP countries, which will be forced to immediately adopt all TPP provisions, the percentage of the population under this poverty line ranges widely, going as high as 69 per cent in Chile. See Manica Balasegaram, *TPP: Still a Terrible Deal for Poor People's Health* (14 July 2014) Huffington Post <http://www.huffingtonpost.com/dr-manica-balasegaram/tpp-still-a-terrible-deal_b_5584810.html>.

In recognizing the limit of income as the measurement of development, the UNDP proposes a new way of measurement, the Human Development Index (HDI), which comprises three indicators of longevity, education and income. Beyond the growth of income, the UNDP recognizes the value of improvement in a wider range of categories reflecting quality of human life in the initial HDR report of 1990, that is,

better nutrition and health services, greater access to knowledge, more secure livelihoods, better working conditions, security against crime and physical violence, satisfying leisure hours, and a sense of participating in the economic, cultural and political activities of their communities.¹⁴³

HDI is a composite index measuring average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living.¹⁴⁴ In addition to per capita GNI, life expectancy at birth as the indicator of longevity, and educational attainment, which is measured by mean years of schooling and expected years of schooling, are also used to construct the HDI which ranges from zero to one.¹⁴⁵

According to the HDI, countries are classified into four groups: very high human development, high human development, medium human development and low human development. In the fiscal year of 2013, the cut off thresholds are an HDI of

¹⁴³ UNDP, 'Human Development Report 1990: Concept and Measurement of Human Development' (Annual Report, United Nations Development Programme, 1990) 9 <<http://hdr.undp.org/en/reports/global/hdr1990/>>.

¹⁴⁴ UNDP, *Human Development Index (HDI)* United Nations Development Programme <<http://hdr.undp.org/en/statistics/hdi/>>.

¹⁴⁵ Life expectancy at birth refers to the number of years a newborn infant could expect to live if prevailing patterns of age specific mortality rates at the time of birth stay the same throughout the infant's life. Mean years of schooling is the average number of years of education received by people ages 25 and older, converted from education attainment levels using official durations of each level. Expected years of schooling means the number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life. Gross national income (GNI) per capita refers to the aggregate income of an economy generated by its production and its ownership of factors of production, less the incomes paid for the use of factors of production owned by the rest of the world, converted to international dollars using PPP rates, divided by midyear population. See UNDP, 'Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience' (Annual Report, United Nations Development Programme, 2014) <<http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>>.

less than 0.550 for low human development, 0.550 – 0.699 for medium human development, 0.700 – 0.799 for high human development and 0.800 or greater for very high human development.¹⁴⁶

In addition, to account for the reducing effect of inequality on human development, the UNDP introduced the inequality-adjusted human development index (IHDI) in its 2010 HDR report. The IHDI looks beyond the average achievements of a country in health, education and income to show how these achievements are distributed among its residents.¹⁴⁷ It represents the HDI by capturing the loss due to inequality in distribution of the HDI within the country. Hence, the IHDI will be equal to the HDI when there is no inequality across people, but falls further below the HDI as inequality rises.¹⁴⁸

Notably, since 2010 the UNDP has adopted the classification of developed countries and developing countries, with the former at the top quartile of the HDI distribution, and the rest being developing countries in the other quartiles.¹⁴⁹ Meanwhile, a category of least developed countries is proposed as a special group of developing countries, for which the inclusion criteria use gross national income (GNI) per capita, human assets index, and economic vulnerability index.¹⁵⁰

By taking into account the many dimensions of development, the IHDI represents a comparatively more appropriate measurement of a country's development level. It is important that development should be directed at various aspects of human life, instead of focusing on economic growth alone. Equally important is how evenly the benefits of development in such aspects in one country are distributed among all its

¹⁴⁶ Ibid 156.

¹⁴⁷ Ibid 157.

¹⁴⁸ UNDP, 'Human Development Report 2010 - 20th Anniversary Edition: The Real Wealth of Nations: Pathways to Human Development' (Annual Report, United Nations Development Programme, November 2010) 87
<http://hdr.undp.org/sites/default/files/reports/270/hdr_2010_en_complete_reprint.pdf>.

¹⁴⁹ Ibid 137.

¹⁵⁰ Committee for Development Policy and Department of Economic and Social Affairs, *Handbook on the Least Developed Country Category: Inclusion, Graduation and Special Support Measures* (November 2008) United Nations, 3
<http://www.un.org/en/development/desa/policy/cdp/cdp_publications/2008cdphandbook.pdf>.

residents. Both of the two points can be reflected in the IHDI, which therefore is more appropriate than others as the indicator of development level.

4 *Measuring Development in Relation to Intellectual Property*

The TRIPs agreement administered by the World Trade Organization (WTO) is currently the most significant international agreement on the matter of intellectual property. Among all the membership of the WTO, about two thirds are developing countries, including least developed countries.¹⁵¹ The status of developing countries allows them to receive technical assistance and enjoy the transition period before which they are not required to fully implement the TRIPs agreement. However, WTO does not define 'developed' and 'developing' countries. It is up to the members to announce for themselves whether they are developed or developing countries. Nevertheless, other members can challenge the decision of a member to make use of provisions available to developing countries.¹⁵²

While the UNDP classification of countries based on IHDI criteria is used in this thesis, it does not fit squarely with the particular concern on intellectual property. For the purpose of this thesis, therefore, the concept of innovative capacity is also used as one indicator of the development level with respect to the ability to produce intellectual property.

The concept of innovative capacity was originally introduced by Professor Luis Suarez-Villa in 1990. Although with a focus on the technological aspect, Suarez-Villa's idea of innovative capacity distinguishes invention from innovation, noting that invention involves the discovery of new processes, ideas or tools, and other ideas that are patented, which become innovations when those ideas are used for

¹⁵¹ WTO currently has 160 members as of 26 June 2014. See WTO, *Members and Observers* WTO <http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm>.

¹⁵² WTO, *Who are the developing countries in the WTO?* WTO <http://www.wto.org/english/tratop_e/devel_e/d1who_e.htm>.

some economic or social purpose.¹⁵³ As Suarez-Villa puts it, innovations 'involve the applications of inventions in ways that increase the effectiveness of existing technologies, organizational forms, and social structures, or that result in radically new applications in all of these areas.'¹⁵⁴ Based on the distinction between invention and innovation, Suarez-Villa defines innovative capacity as the successful outcomes of all corporate and individual inventions, which can be assumed to be the most important systemic effect of scientific search and discovery on socioeconomic progress.¹⁵⁵

Suarez-Villa's analysis of the US invention patent data over a 106-year period (1880-1986) and the long-term socioeconomic trends suggest that innovative capacity is an important indicator of national and regional performance in invention.¹⁵⁶ Since innovations are also often the source of new ideas as well as new technologies, which are eligible subjects of intellectual property rights, innovative capacity can provide important indications of national or regional performance in producing intellectual property. To build up innovative capacity, Suarez-Villa points out that educational infrastructure that supports technological knowledge and training is an

¹⁵³ Luis Suarez-Villa, *Introduction: What Is Innovative Capacity?* Innovative Capacity <<http://www.innovativecapacity.com/Introduction.htm>>. The website that introduces Professor Suarez-Villa's works on innovative capacity adds that

Innovations have often served as the point of departure for new inventions. Innovation is typically less risky than invention, since it usually deals with known parameters, qualities or quantities. Invention, on the other hand, often involves a leap into the unknown, where trial and error, the unexpected or even chance can have a substantial influence on the outcome. The high risk of invention can act as a deterrent to many organizations and individuals, particularly when rewards cannot be clearly anticipated.

¹⁵⁴ Luis Suarez-Villa, 'Invention, Inventive Learning, and Innovative Capacity' (1990) 35(4) *Behavioral Science* 290, 295.

¹⁵⁵ Ibid.

¹⁵⁶ See generally *ibid* (exploring the relationship between innovative capacity, individual and corporate invention, and long-term socioeconomic trends by analyzing the process of resource allocation to invention and the US invention patent data); Luis Suarez-Villa, 'The Dynamics of Regional Invention and Innovation: Innovative Capacity and Regional Change in the Twentieth Century' (1993) 25(2) *Geographical Analysis* 147 (developing a macro-level measure of inventive output and innovative capacity and showing that the potential importance of endogenously generated inventions for regional development).

important prerequisite for increasing the level of innovative capacity in any nation or locality.¹⁵⁷

While Suarez-Villa uses patent statistics as a measure of innovative capacity, innovation is not limited to patents and inventions, but also includes creations in other fields of intellectual property. Hence, this thesis extends the concept of innovative capacity to include the productive capacity in other areas of intellectual property, such as literary and artistic works, industrial designs, software, new plant varieties, and so forth, in addition to invention. It has to be noted that the thesis does not attempt to introduce a new system of classifying countries by using innovative capacity as an indicator of development level with respect to intellectual property. Rather, the concept of innovative capacity is compatible with the existing approaches to country classification that use income as one proxy of development, given the implications of innovative capacity for socioeconomic progress.

Suarez-Villa points out that increases in innovative capacity typically lead to the introduction of new technologies and thus more likelihood of prosperity; for example, increasing incomes, rising educational and skill levels, more trade, greater political influence, less poverty, better infrastructure and more amenities are some of the benefits obtained by such locales.¹⁵⁸ Hence, areas that become important sources of innovative capacity usually develop faster economically, attract highly skilled populations, and experience rising incomes and trade. It is therefore reasonable to assume that a country with insufficient innovative capacity is very likely also a developing country under income classification.

¹⁵⁷ Luis Suarez-Villa, *Real World Applications Innovative Capacity* <<http://www.innovativecapacity.com/RealWorldApplications.htm>>. For discussion on the effect of public infrastructure in detail, see Luis Suarez-Villa and Syed A. Hasnath, 'The Effect of Infrastructure on Invention: Innovative Capacity and the Dynamics of Public Construction Investment' (1993) 44(4) *Technological Forecasting and Social Change* 333 (discussing the support of public infrastructure for invention and revealing a remarkable association between educational infrastructure construction and both aggregate and corporate innovative capacity).

¹⁵⁸ Luis Suarez-Villa, above n 157.

In addition to Suarez-Villa's concept of innovative capacity, there is scholarship suggesting that an assessment should be made as to whether the infrastructure under certain levels of development enables a country to capture the benefits of IPR protection at current standards. Dru Brenner-Beck argues that this threshold level of development requires the infrastructure of an educated workforce, a basic industrial capacity, domestic entrepreneurial ability, and domestic capital mobilization.¹⁵⁹ 'Educated workforce' means the existence of trained scientific and technical personnel, which requires development in education. Indicators of this include literacy rates, the percentage of the population attending post-secondary education, and the number of scientific and technical articles published. 'Basic industrial capacity' means a certain level of industrialization and the accompanying infrastructure required such as roads, telecommunications, electrification, and banking. Indicators of this industrialization include the overall annual growth rates in Gross National Production (GNP), the annual growth rates in industry and manufacturing sectors, per capita energy consumption, and annual energy production. Meanwhile, domestic investment and savings rates also reflect this capital mobilization and entrepreneurship ability.¹⁶⁰

It has to be noted that the classification between developed countries and developing countries, as the various country classification systems show, is not absolute. Neither is the standard that measures a country's innovative capacity. Notwithstanding, studies on innovative capacity and threshold level of development both suggest that in the field of intellectual property, development level, in terms of innovative capacity and supporting infrastructure, is important in understanding what the term 'developing countries' means, in addition to the consideration of the IHDI variables. Hence, in this thesis, developing countries are referred to as those countries defined as developing under the UNDP's criteria of IHDI, and at the same time with insufficient innovative capacity.

¹⁵⁹ Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 103.

¹⁶⁰ *Ibid* 104.

D *Linkage between Development and Intellectual Property*

The concept of development has been discussed above as a solution to the poverty problem existing in post-World War Two non-western countries, with a division between developed countries and developing countries emerging. For developing countries, development has become an imperative objective of national policies and government efforts.

This section will explore the conceptual link between the concept of development and intellectual property. It draws on the view that the concept of development privileges the western societies, cultures and institutions, while disparaging others; it is grounded on defining developing countries as incompetent, inferior and in need of transformation.¹⁶¹ It will suggest that the development objective provides ethical and legal justification for developed countries to introduce an IPR system into developing countries, along with other policies that they think could facilitate development. This process not only illustrates one dimension of linkage between the concept of development and intellectual property, but also underscores the instrumental status of intellectual property as a means of realizing the development objective.

1 *The Eurocentric conceptualization of development*

Ruth Gordon and Jon Sylvester have made the point that underlying the western notion of development lies an assumption that some countries are relatively inferior and inadequate and need to evolve and advance towards something else – and that something is the West.¹⁶² They contend that with the collapse of colonialism and the rise of the United States to economic dominance, there came to be a belief in the superiority of Western culture, values and people over the non-Western ones, the so-called ‘others’.¹⁶³ Hence, development is a set of practices

¹⁶¹ Ruth E. Gordon and Jon H. Sylvester, 'Deconstructing Development' (2004) 22(1) *Wisconsin International Law Journal* 1, 5.

¹⁶² Ibid.

¹⁶³ Ibid 11.

and beliefs that are part of the Western political and cultural imagination, which 'presumes a universal and superior way of ordering society, and that all societies are to advance toward the same goal.'¹⁶⁴ This belief represents a Eurocentric view, which means 'the conscious or unconscious process by which European and Euro-American assumptions are constructed as, or assumed to be, the normal, the natural or the universal.'¹⁶⁵

Ziauddin Sardar also notes that at the heart of this developmentalism is the belief that the Third World should follow the path of the West.¹⁶⁶ For example, the use of Gross National Product (GNP) and Gross Domestic Product (GDP) to measure economic modernization 'reflects the assessment of how closely a country replicates the characteristics of the West, rather than development in a whole range of indigenous senses of the term.'¹⁶⁷ In the eyes of the West, insufficiency of necessities of life is defined as poverty, and what constitutes the necessities of life is determined in reference to the West.¹⁶⁸

Consequently, scholars argue that prescriptions based on the Eurocentric development theories were top-down, technocratic, abstract and macro, pro-capital and anti-labour, and thus may not necessarily be effective in developing countries.¹⁶⁹ To solve the problem of poverty, developed countries then designed the development program, unilaterally. As Richard Peet and Elaine Hartwick put it, development represents 'one interpretation of one aspect of one people's history, made from the point of view of one class rising to dominance in Western Europe.'¹⁷⁰

¹⁶⁴ Ibid 4.

¹⁶⁵ Bill Ashcroft, Gareth Griffiths and Helen Tiffin, *Postcolonial Studies: The Key Concepts* (Routledge, 3 ed, 2013), 107.

¹⁶⁶ Ziauddin Sardar, 'Development and the Locations of Eurocentrism' in Ronaldo Munck and Denis O'Hearn (eds), *Critical Development Theory: Contributions to a New Paradigm* (Zed Books, 1999) 44, 53.

¹⁶⁷ Richard Peet and Elaine Hartwick, *Theories of Development: Contentions, Arguments, Alternatives* (The Guilford Press, 2 ed, 2009), 10-11.

¹⁶⁸ Ruth E. Gordon and Jon H. Sylvester, above n 161, 13.

¹⁶⁹ Ozay Mehmet, *Westernizing the Third World: The Eurocentricity of Economic Development Theories* (Routledge, 2 ed, 2002), 95.

¹⁷⁰ Richard Peet and Elaine Hartwick, above n 167, 14.

While identified as struck by poverty and living in conditions approaching misery, the underdeveloped countries are far from a homogeneous group, but 'possess complex histories, societies, politics, cultures and individual lives.'¹⁷¹ Poverty may be a real problem, but people now identified as impoverished may have viewed themselves and their place within their respective communities quite differently before the advent of development.¹⁷² These different opinions, however, are ignored.

Another criticism is that the development theory is based on the negation of the diversity of the recipient countries, thus reflecting 'a distorted and incomplete apprehension of the realities of poor people in developing countries'.¹⁷³ It is an irony that the policies are designed and imposed separate and apart from the communities they purport to serve. It is not surprising that some scholars contend that development is a neo-colonial notion that actually continues the processes that colonialism has left off.¹⁷⁴ In this view, development provides the ethical and legal justification for the process 'whereby the developed countries manage, control and even create the Third World economically, politically, sociologically and culturally'.¹⁷⁵ It also provides chances to introduce policies and institutions that developed countries thought would facilitate development.

¹⁷¹ Ruth E. Gordon and Jon H. Sylvester, above n 161, 76.

¹⁷² Majid Rahnema mentioned four dimensions of poverty. See Majid Rahnema, 'Poverty' in Wolfgang Sachs (ed), *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books, 2 ed, 2010) 174, 177-79. See also Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton University Press, 1995), 24.

¹⁷³ Rosemary McGee, 'Participating in Development' in Uma Kothari and Martin Minogue (eds), *Development Theory and Practice: Critical Perspectives* (Macmillan, 2002) 92-116, 93.

¹⁷⁴ Colonialism was legitimized and grounded in part on a racial discourse that defined white Europeans as a superior race with a superior culture, and other races as inferior and in need of being civilized by whites. See, eg, Uma Kothari, 'Feminist and Post-colonial Challenges to Development' in Uma Kothari and Martin Minogue (eds), *Development Theory and Practice: Critical Perspectives* (Macmillan, 2002) 35-51, 36-37; Ruth E. Gordon, 'Saving Failed States: Sometimes a Neo-colonialist Notion' (1997) 12(6) *American University International Law Review* 903.

¹⁷⁵ Vincent Tucker, 'The Myth of Development: A Critique of a Eurocentric Discourse' in Ronaldo Munck and Denis O'Hearn (eds), *Critical Development Theory: Contributions to a New Paradigm* (Zed Books, 1999) 1, 1-2.

2 *Introducing Intellectual Property in the Name of Development*

In addition to poverty-alleviation programs, developed countries have also introduced strong IPR protection into developing countries, with the professed aim of facilitating the development process. Developed countries are producers and exporters of intellectual property, and strong IPR protection serves their interests. As is discussed further below in Chapter III, by claiming that IPR protection can promote development in developing countries, and sometimes by using or threatening to use trade retaliation when such claims are resisted, developed countries successfully imposed the idea of intellectual property onto developing countries.

The basic rationale supporting the protection of IPRs in developing countries is that such protection is essential to the promotion of global innovation, and benefits the development objective of developing countries. In particular, developed countries argue that strong IPR protection can directly benefit developing countries in a number of ways. It can promote the transfer of technology from the developed nations to developing countries, and encourage direct foreign investment in developing countries.¹⁷⁶ Meanwhile, it is claimed that the protection of IPRs is able to stimulate research and development in developed countries into problems specific to developing countries, as well as strengthening the incentive for domestic innovation and creativity.¹⁷⁷

As with the idea of development, intellectual property is also a western notion that has been imposed upon developing countries through decades of confrontation and compromises, which culminated in the conclusion of the TRIPs agreement. This process started as a response to the identification of rampant infringing activities in developing countries. Western developed countries undertook the responsibility, unilaterally, of eliminating such infringement by introducing intellectual property laws and providing technical assistance in establishing intellectual property bureaucracies in developing countries.

¹⁷⁶ Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 93.

¹⁷⁷ Ibid.

Peter Drahos discusses the technical assistance activities of the European Patent Office (EPO) since the 1980s, such as training the nationals from developing countries at the EPO, and sending experts on technical assistance missions covering various aspects of how to build and administer a patent system.¹⁷⁸ This illustrates one dimension of the process whereby developed countries implanted the idea of protecting IPRs in developing countries.

In addition, the discourse of intellectual property is situated within the broader western context of capitalism, democracy, an independent judiciary, and a market economy. Theorists from the West believe that these factors are absent in other cultures, and therefore infringement of IPRs increases everywhere in those societies.¹⁷⁹ Consequently, developed countries recommend to developing countries what they believe to be 'good policies' and 'good institutions', including democracy, good bureaucracy, an independent judiciary, and strongly protected private property rights.¹⁸⁰ Nevertheless, it is questionable whether these policies

¹⁷⁸ Peter Drahos, "'Trust Me': Patent Office in Developing Countries' (2008) 34 *American Journal of Law and Medicine* 151, 157. For a more detailed discussion that patent offices have become part of a globally integrated private governance network, see Peter Drahos, *The Global Governance of Knowledge: Patent Offices and Their Clients* (Cambridge University Press, 2010).

¹⁷⁹ As William Alford argues, on the ineffective transplantation of intellectual property laws in China, 'laws premised on the values and institutions of an economically advanced capitalist democracy will not generate identical results when transplanted to a different setting. Rules that presume an independent judiciary, a professionalized bar, powerful interest groups and a rights-conscious populace fall chiefly on deaf ears in contemporary China.' See William P. Alford, 'Pressuring the Pirate', *Los Angeles Times*, 12 January 1992, M5, cited in Glenn R. Butters, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1107.

¹⁸⁰ The good policies include stable macroeconomic policies, a liberal trade and investment regime, and privatization and deregulation; the good institutions include democratic government, protection of property rights (including intellectual property), an independent central bank, and transparent corporate governance institutions and financial establishments. These policies have been embraced by the World Bank, the International Monetary Fund, and many mainstream economists, hence the term Washington Consensus. See Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (Anthem Press, 2002), 1.

are as ‘good’ as promised, partly because developing countries have not acquired sufficient innovative capacity that enables them to benefit from such policies.¹⁸¹

The process by which intellectual property was introduced to developing countries through the internationalization of IPR protection in the past decades is reminiscent of the process whereby development was proposed as a solution to the poverty problem in developing countries. Roughly speaking, both are western notions proposed to solve what the West identified as a problem, and have become universalized because the West has unilaterally imposed such ideas on the non-Western countries regardless of their respective economic and cultural circumstances.

3 *The Instrumental Status of IPR Protection*

Intellectual property, and the process for introducing the idea of intellectual property, can be seen as part of a broader package of policies that would contribute to the development objective. This section will show that the purpose of implementing intellectual property policy and protecting (strong) IPRs is to ultimately promote development, and that IPR protection is usually seen as an instrument to reach the goal of development.

The utilitarian approach to intellectual property is a particular example of the instrumental aspect of IPR protection. A textbook example of the utilitarian approach is Article 1, Section 8, Clause 8 of the US Constitution, which states that: ‘The Congress shall have the power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.’ From the language ‘to promote...by...’, it is clear that ‘securing ...the exclusive rights’ is merely the means to achieve the end

¹⁸¹ This will be discussed in detail in the next Chapter. For reference, see generally *ibid.* Ha-Joon Chang highlights the paradox that many of today’s developed countries did not pursue such policies when they were climbing the economic ladder of success in the nineteenth century. Rather, these countries implemented high tariffs and sectoral industrial policies, lagged in the introduction of democratic reforms, stole industrial technologies from one another, did not have independent central banks, and so forth.

of 'to promote the progress of science and useful arts'. Pamela Sameulson contends that this clause should be viewed in historical context as an American endorsement of England's repudiation of the speech-suppressing, anti-competitive and otherwise repressive pre-modern copyright system that the English Parliament meant to reshape through the Statute of Anne.¹⁸²

Nevertheless, there are different understandings as to the development objectives of IPR protection. Denis Borges Barbosa, Margaret Chon and Andrés Moncayo von Hase distinguish the 'development as freedom' and the 'development as growth' models of intellectual property. The former means 'regulating knowledge goods for purposes of domestic capacity-building based on the enhancement of human development.'¹⁸³ It emphasizes not just the economic objective of providing incentives for innovation, but also the other development-related objectives, such as human capability-enhancing social welfare measures including access to education or health, which in turn build national capacities for innovation and growth.¹⁸⁴ This model figures prominently in the United Nations Millennium Declaration and the UNDP's idea of human development.¹⁸⁵

By contrast, the 'development as growth' model tends to view the goal of international IPR protection as encouraging economic growth, increasing trade liberalization, promoting foreign direct investment, and ultimately, enhancing innovation through resulting technology transfer.¹⁸⁶ This approach ties intellectual property unilaterally to its capacity to encourage innovation through technology transfer, irrespective of intellectual property's function in other economic and social

¹⁸² Pamela Sameulson, 'Copyright and Freedom of Expression in Historical Perspective' (2002) 10 *Journal of Intellectual Property Law* 319, 325. Pamela Sameulson argues that core elements of the Statute of Anne are reflected in that clause's purpose ('to promote Science'), in the persons to whom rights were to be granted ('authors'), and in the duration of rights ('for limited times').

¹⁸³ Denis Borges Barbosa, Margaret Chon and Andrés Moncayo von Hase, 'Slouching Towards Development in International Intellectual Property' (2007) 2007(1) *Michigan State Law Review* 71, 75.

¹⁸⁴ Ibid 76.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid 77. See also Daniel J. Gervais, 'Intellectual Property, Trade and Development: The State of Play' (2006) 74 *Fordham Law Review* 505, 516.

sectors.¹⁸⁷ The growth model of development is often shared by international IPR institutions, such as the World Intellectual Property Organization (WIPO) and the WTO, and policymakers from developed countries with well-entrenched intellectual property industries.¹⁸⁸

In light of the above analysis of the concept of development, this thesis takes the 'development as freedom' approach. As Professor Peter Drahos defines it, development is about achieving a group of objectives for poor people, including better educational and job opportunities, greater gender equality, better health and nutrition, protection of the environment, natural resources and biodiversity.¹⁸⁹ The thesis argues that from a long term perspective and for the mutual interest of all countries, IPR policy making should incorporate development concerns in a broader sense, namely sustainable human development that encompasses economic, social, cultural, and environmental dimensions of development, instead of solely focusing on the economic growth-related aspects of IPRs.

E Comparison of Development and Intellectual Property as Human Rights

The statement that 'development is the ultimate objective of IPR policies in developing countries' means that when IPR protection runs counter to development interests, such as the right to health in the human rights dimension, development interests should prevail. The process of introducing intellectual property to developing countries, as discussed before, represents one perspective from which one can look at the conceptual link between the idea of development and intellectual property.

¹⁸⁷ Denis Borges Barbosa, Margaret Chon and Andrés Moncayo von Hase, 'Slouching Towards Development in International Intellectual Property' (2007) 2007(1) *Michigan State Law Review* 71, 77.

¹⁸⁸ Ibid.

¹⁸⁹ Peter Drahos, 'Introduction' in Peter Drahos and Ruth Mayne (eds), *Global Intellectual Property Rights: Knowledge, Access, and Development* (Palgrave Macmillan Limited, 2002) 1, 3-4.

This section will provide another perspective by comparing the two ideas as species of human rights. At the point where development discourse is filled with human rights discussions, even the concept of development itself can be understood as a species of human rights, namely the right to development. Meanwhile, proponents of intellectual property, especially those seeing IPRs as property rights, have taken their inspiration from the right to property, advancing intellectual property in the framework of human rights as the right to intellectual property. The question is, if both are human rights, whether they are on the same rank, or whether one is superior to the other. The following discussion will suggest that the right to development is a fundamental human right that should prevail when conflicts occur with the right to intellectual property.

1 *The Right to Development*

In the legal sense, the right to development was initially articulated by Senegalese Justice Keba M'Baye in a 1972 lecture at the International Institute of Human Rights in Strasbourg, who asserted that development is 'a right belonging to all men'.¹⁹⁰ In political circles, as early as 1972 at the United Nations Conference for Trade and Development in Santiago de Chile, the governments of developing countries claimed the right to development as part of a new, more just and egalitarian economic world order, in light of the disparity of economic development between the North and the South.¹⁹¹ Then in 1986, the United Nations adopted the *Declaration on the Right to Development* (UNDRD), acknowledging that

[T]he right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy

¹⁹⁰ Isabella D. Bunn, 'The Right to Development: Implications for International Economic Law' (2000) 15 *American University International Law Review* 1425, 1433.

¹⁹¹ Brigitte I. Hamm, 'A Human Rights Approach to Development' (2001) 23(4) *Human Rights Quarterly* 1005, 1008.

economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.¹⁹²

Seeing development as a fundamental human right converts development from being merely a goal or aspiration into an entitlement. It concedes that there is an obligation to provide foreign assistance and to take part in the development project.¹⁹³ However, if development is a right, who will assume the obligation to realize the right to development? Despite the UNDRD's declaration, the content of the right to development is vague and lacking consensus. Since there is no sanction for non-recognition of the UNDRD, developed countries consistently reject such an obligation, although they indeed provide some assistance through development aid programs.¹⁹⁴

2 *The Right to Intellectual Property*

In light of the human rights discourse, intellectual property is also recalibrated as a human right, based on two sources of international law: the UNDR and the two Covenants – the ICESCR and the ICCPR. Proponents of the right to intellectual property usually refer to the right to property as prescribed in Article 17.1 of the UDHR and Article 27.2 on 'the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author'. But this right has to be understood in tandem with Article 27.1, that 'everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.'¹⁹⁵

In addition to the UDHR provisions, Article 15.1 (c) of the ICESCR straightforwardly recognizes the right of an author to 'benefit from the protection of the moral and

¹⁹² United Nations, *Declaration on the Right to Development*, A/RES/41/128, General Assembly 97th plenary meeting mtg, UN Doc 41/128 (4 December 1986) art 1 [1].

¹⁹³ Ruth E. Gordon and Jon H. Sylvester, 'Deconstructing Development' (2004) 22(1) *Wisconsin International Law Journal* 1, 63.

¹⁹⁴ *Ibid* 64.

¹⁹⁵ For the explanations and views on this right, see, e.g., Audrey R. Chapman, 'Towards an Understanding of the Right to Enjoy the Benefits of Scientific Progress and its Applications' (2009) 8 *Journal of Human Rights* 1.

material interests resulting from any scientific, literary or artistic production' produced by the author. Again, both the ICESCR and the ICCPR place a discernible emphasis on the interests that humans have in the diffusion of knowledge, other than the protection of intellectual property.¹⁹⁶ Hence, it is argued that under the UDHR and the two Covenants, the juxtaposition of the right to intellectual property and the right to the benefits of scientific progress generates a 'human rights paradox': a conceptual obfuscation of human rights and intellectual property rights.¹⁹⁷ The paradox arises because of 'a clash between the right to control information and the right to use it for such purposes as attaining health and education, participating in cultural activities, engaging in expressive conduct, or freely pursuing intellectual inquiry.'¹⁹⁸

In contrast, opponents of seeing intellectual property as a human right argue that most property rights cannot be included in the category of fundamental human rights, except those needs-based personal property rights, without which the exercise of other rights like the right to life would be meaningless.¹⁹⁹ Property rights should be distinguished from fundamental human rights norms that prohibit genocide, torture and slavery, because property rights can and sometimes should be adjusted to suit domestic economic and social circumstances, while the latter cannot.²⁰⁰ In addition, property rights are sometimes described as the means by

¹⁹⁶ For example, Article 11 of the ICESCR provides for the need to promote the dissemination of knowledge in the context of freedom from hunger; Article 15.2 states that the right in Article 15.1 requires states to take steps to diffuse science and culture; Article 19.2 of the ICCPR links freedom of expression to the flow of information. Cited in Peter Drahos, 'Intellectual Property and Human Rights' (1999) 3 *Intellectual Property Quarterly* 349, nn 30.

¹⁹⁷ Aurora Plomer, 'The Human Rights Paradox: Intellectual Property Rights and Rights of Access to Science' (2013) 35(1) *Human Rights Quarterly* 143, 144.

¹⁹⁸ Rochelle C. Dreyfuss, 'Patents and Human Rights: Where is the Paradox?' (Law and Economics Research Paper No 06-38 New York University, 13 September 2006) 2 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=929498>.

¹⁹⁹ Henry G. Schermers, 'The International Protection of the Right of Property' in Franz Matscher and Herbert Petzold (eds), *Protecting Human Rights: The European Dimension* (Carl Heymanns Verlag KG, 1988) 565-580. Cited in Peter Drahos, 'Intellectual Property and Human Rights' (1999) 3 *Intellectual Property Quarterly* 349, 360.

²⁰⁰ Peter Drahos, 'Intellectual Property and Human Rights' (1999) 3 *Intellectual Property Quarterly* 349, 360.

which governments solve the negative externality of commons.²⁰¹ Hence, if intellectual property is a property right, then it is the instrument by which to 'serve the interests and needs that citizens identify through the language of human rights as being fundamental.'²⁰²

3 *A Comparison of the Two Rights*

Intellectual property and development can both be understood as types of human rights. From the perspective of developing countries, however, even as a form of human rights, IPRs are still secondary to the more fundamental right to development. Clarifying the instrumental status of IPRs, or the right to intellectual property, relative to other fundamental human rights including the right to development, has profound implications for the development objective.

In the case of patents, for example, while patent protection for pharmaceuticals can encourage firms to invest in the research and development of new drugs, it will also increase the price for some life-saving medicines, such as medicines for the HIV/AIDS epidemic, to an unaffordable level for the population living in poor countries. Notably, Sub-Saharan Africa is the region most affected by HIV/AIDS, with nearly one in every 20 adults living with HIV, while 69 per cent of all people in the world living with HIV are living in this region.²⁰³ As a result of the unaffordability of patented pharmaceuticals, many people died in Africa because of lack of access to medicines and treatment.²⁰⁴ The preventable death of large numbers of a state's

²⁰¹ Externality is a concept in economics and known as the problem of the 'tragedy of the commons' proposed by Garrett Hardin in his classic work, Garrett Hardin, 'The Tragedy of the Commons' (Pt New Series) (1968) 162(3859) *Science* 1243. Harold Demsetz employed this concept in the economics of property rights, discussing the economic efficiency theory of property rights using analysis of externalities which include external costs, external benefits, and pecuniary as well as non-pecuniary externalities. See Harold Demsetz, 'Toward a Theory of Property Rights' (1967) 57 *The American Economic Review* 347.

²⁰² Peter Drahos, above n 200, 367.

²⁰³ WHO, *HIV/AIDS: Fact sheet N°360* (October 2013) World Health Organization <<http://www.who.int/mediacentre/factsheets/fs360/en/index.html>>.

²⁰⁴ Pharmaceutical patents raise the prices of medicines because it eliminates the competition from generic producers. One response by patent holders was to offer heavily discounted drugs to poor countries, but it has been found to be extremely difficult to plan public health programmes around pharmaceutical companies' discount schemes. See e.g.,

population lowers its stock of human capital, thereby interfering in its development processes.²⁰⁵

While Article 25 of the UDHR and Article 12 of the ICESCR explicitly recognize the right to health as the enjoyment of the highest attainable standard of health, the existence of IPR protection provides a basis for restricting access of medicines to the poor.²⁰⁶ This highlights the conflict between IPR protection and the right to health and development. If such conflicts take place, the instrumental status of IPR protection will indicate a solution that adjusts intellectual property policy so as to accommodate the need to fulfil basic human rights, including the right to development. As the Committee of Economic, Social and Cultural Rights (CESCR) notes at paragraph 35 of the General Comment No 17,

Ultimately, intellectual property is a social product and has a social function. States parties thus have a duty to prevent unreasonably high costs for access to essential medicines, plant seeds or other means of food production, or for schoolbooks and learning materials, from undermining the rights of large segments of the population to health, food and education. Moreover, States parties should prevent the use of scientific and technical progress for purposes contrary to human rights and dignity, including the rights to life, health and privacy, e.g. by excluding inventions from patentability whenever their commercialization would jeopardize the full realization of these rights.²⁰⁷

Kevin Outterson, 'Pharmaceutical Arbitrage: Balancing Access and Innovation in International Prescription Drug Markets' (2005) 5 *Yale Journal of Health Policy, Law and Ethics* 193, 255; Amanda Barratt, 'The Curious Absence of Human Rights: Can the WIPO Development Agenda Transform Intellectual Property Negotiations?' (2010) 14 *Law Democracy and Development* 14, 18.

²⁰⁵ Peter Drahos, above n 200, 363.

²⁰⁶ Duncan Matthews, 'Intellectual Property Rights, Human Rights and the Right to Health' in Willem Grosheide (ed), *Intellectual Property Rights and Human Rights: A Paradox* (Edward Elgar, 2010) 118-139, 129 (discussing the tensions between provisions on the fundamental right to health, and the view that intellectual property rights are human rights, with reference to the experience of Brazil and Sub-Africa).

²⁰⁷ Social and Cultural Rights (CESCR) UN Committee on Economic, *General Comment No. 17 (2005): The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from any Scientific, Literary or Artistic Production of Which He or She is the Author (Art. 15, Para. 1 (c) of the Covenant)*, E/C.12/GC/17, 35 sess, (12 January 2006) [35].

The comparison of the two western ideas, development and intellectual property, reveals that from the inception of such ideas, development was shaped as an objective, while intellectual property is part of a broader system of policies designed to achieve that objective, no matter whether the system of IPR protection explicitly states that development is an objective.

F *Objectives of IPR Protection in TRIPs*

This section will examine the objectives of IPR protection set out in international and national intellectual property laws. As discussed before, development is the national objective of developing countries. Strong IPR protection serves the interests of developed countries that are producers and exporters of intellectual property and have strong economic and political power. Given the weak bargaining power of developing countries, the international IPR regime is unlikely to reflect the development objective of developing countries in the same manner as it safeguards strong IPR protection for developed countries.

The TRIPs agreement is particularly illustrative in this regard. Article 7 and Article 8 of the TRIPs agreement are the only provisions that embody the proposals of developing countries on the objective and principles of protecting intellectual property at the time of TRIPs negotiations.²⁰⁸ Even this was only possible at the

²⁰⁸ As Daniel Gervais recounts the drafting history of the TRIPs agreement, he points out that the current text of the TRIPs agreement has essentially embodied proposals of the developed countries, whereas the concerns of developing countries are reflected in large part in two provisions – Articles 7 and 8. See Daniel J. Gervais, 'Intellectual Property, Trade and Development: The State of Play' (2006) 74 *Fordham Law Review* 505, 508. To be specific, Article 7 and 8 of the TRIPs agreement derive from the provision in Article 2 of Chapter 1, Part II of the submission from developing countries to the Uruguay Round of GATT negotiations. See Brazil Communication from Argentina, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania, and Uruguay, *Group of Negotiations on Goods (GATT) Negotiating Group on Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods*, MTN.GNG/NG11/W/71 (14 May 1990) art 2 of Chapter 1, Part II.

insistence of developing countries on the link between IPR protection and the promotion of economic, social and technological development.²⁰⁹

In particular, Articles 7 and 8 of the TRIPs agreement explicitly state that IPR protection should promote innovation and dissemination of technology in a manner conducive to economic and social welfare, and should promote socioeconomic and technological development. Notably, the provisions are contained in the body rather than the preamble of the TRIPs agreement, which means that, as the UNCTAD-ICTSD puts it, Articles 7 and 8 should carry greater weight in the process of implementation and interpretation.²¹⁰

Article 7 provides the objectives of IPR protection and enforcement, as it states:

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.²¹¹

This provision contains five objectives. They are the promotion of technological innovation, the transfer and dissemination of technology, the promotion of production and use of technological knowledge, the promotion of social and economic welfare, and the balance of rights and obligations. Peter Yu contends that the first three objectives focus mainly on technological development, which may only apply to industrial property, while the latter two have a much broader focus and cover virtually all forms of intellectual property rights.²¹² The focus on technology, as Carlos Correa explains, is probably attributable to developing

²⁰⁹ Abdulqawi A. Yusuf, 'TRIPs: Background, Principles and General Provisions' in Carlos M. Correa and Abdulqawi A. Yusuf (eds), *Intellectual Property and International Trade: The TRIPs Agreement* (Kluwer Law International, 2nd ed, 2008), 10.

²¹⁰ UNCTAD-ICTSD, *Resource Book on TRIPs and Development* (Cambridge University Press, 2005), 124.

²¹¹ *Agreement on Trade-Related Aspects of Intellectual Property Rights*, signed 15 April 1994, (entered into force 1 January 1995) art 7 ('*TRIPs Agreement*').

²¹² Peter K. Yu, 'The Objectives and Principles of the TRIPs Agreement' (2009) 46(4) *Houston Law Review* 979, 1000.

countries' preoccupation with the impact of higher standards of IPR protection on the access to innovations and the products and services derived therefrom, which they thought at the time were particularly important to their development.²¹³

Meanwhile, the first paragraph of Article 8 of the TRIPs agreement allows member countries to formulate or amend their laws and regulations to protect public health and nutrition and to promote socioeconomic and technological development. This provision seems to suggest that IPR protection is not an end in itself, but is supposed to benefit society as a whole, as it states that:

1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.
2. Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.²¹⁴

The development objective is also incorporated in some national intellectual property laws. For example, the aforementioned provision in the US Constitution makes it clear that the granting of patents and copyrights is to promote the progress of science and useful arts. Another example is the objectives of the Chinese patent law. Article 1 of the *Patent Law 2008* states that

This law is enacted for the purpose of protecting the lawful rights and interests of patentees, encouraging invention-creation, promoting the application of invention-

²¹³ Carlos M. Correa, *Trade Related Aspects of Intellectual Property Rights: A Commentary on the TRIPS Agreement* (Oxford University Press, 2007), 92.

²¹⁴ *Agreement on Trade-Related Aspects of Intellectual Property Rights*, signed 15 April 1994, (entered into force 1 January 1995) art 8 ('TRIPs Agreement').

creation, enhancing innovation capability, promoting the advancement of science and technology and the economic and social development.²¹⁵

Similarly, Article 1 of the Chinese *Copyright Law 2010* states that '[t]his law is enacted ...for the purpose of ...promoting the progress and flourishing of socialist culture and sciences.'²¹⁶ Article 1 of the Chinese *Trademark Law 2013* states that '[t]his law is enacted for the purpose[s] of ...protecting the interests of consumers, producers and operators and promoting the development of the socialist market economy.'²¹⁷

G Conclusion

Intellectual property was introduced to developing countries as one of the institutions that a few developed countries thought would facilitate the development objective. The development objective contains multiple dimensions of goals, including economic, social and sustainable human development. IPR protection is only a means of realizing such development goals.

The idea of intellectual property shares the same origin as the concept of development, and both can be regarded as human rights. However, whether as a human right or as public policy introduced for the purpose of development, intellectual property is always second to the more fundamental objective of development, at least in the context of developing countries.

The development objective is expressed in the most significant international agreement on intellectual property, the TRIPs agreement, although only in two articles. It is therefore compulsory for member countries to implement the TRIPs agreement in accordance with the provisions on the development objective. This

²¹⁵ 《中华人民共和国专利法》 [Patent Law of the People's Republic of China] 2008 (Standing Committee of the National People's Congress, People's Republic of China) art 1.

²¹⁶ 《中华人民共和国著作权法》 [Copyright Law of the People's Republic of China] 2010 (Standing Committee of the National People's Congress) art 1.

²¹⁷ 《中华人民共和国商标法》 [Trademark Law of the People's Republic of China] 2013 (Standing Committee of the National People's Congress, People's Republic of China) art 1.

thesis also sees it as important for research on intellectual property to acknowledge this development objective.

How the objective will be realized depends on the policy design of intellectual property laws in each state. Nevertheless, the space for countries to design their intellectual property laws adaptive to their respective development levels has constantly been reduced by the post-TRIPs expansion of IPR protection and enforcement through bilateral and plurilateral trade agreements, which will be discussed in detail in the next chapter.

III EXPANSION OF IPR PROTECTION AND THE IMPLICATIONS FOR DEVELOPING COUNTRIES

A *Introduction*

Intellectual property is an invaluable asset for firms in almost every sector, from chemicals to electronics, and from agriculture to publishing. The World Intellectual Property Organization (WIPO) defines intellectual property as ‘creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce.’²¹⁸ For producers of intellectual property, legal protection in the form of state-granted exclusive rights to use and authorize to use such intellectual property is of paramount importance to ensuring the ability of not just recovering production costs, but also making a profit. It is thus understandable that the producers and owners of intellectual property always have incentives to claim stronger IPR protection.

On the other hand, the users and consumers of intellectual property might want lower levels of protection, considering the costs of use and access. It follows that one’s identity and status as a producer or user determines whether she prefers strong or weak protection (if not zero protection) of IPRs. Although there is no absolute standard of measuring if a country is an IP producer or user, as discussed in the previous chapter, innovative capacity and the level of technological and cultural development can indicate whether a country is a developed or a developing country. Generally speaking, developing countries usually do not have the innovative capacity sufficient to benefit from strong IPR protection that benefits their developed counterparts. In this sense, to run the risk of simplification, developing countries are on the opposite side to developed countries on the matter of IPR protection.

²¹⁸ WIPO, *What is Intellectual Property* (Publication No. 450(E)) World Intellectual Property Organization, 2
<http://www.wipo.int/export/sites/www/freepublications/en/intproperty/450/wipo_pub_450.pdf>.

This Chapter describes the conflicting positions of developing countries and developed countries, especially a few most developed countries, and the confrontation between them in the process of increasing international IPR protection. It draws on the scholarship that examines the history of IPR protection in developed countries, and scholarship that details the political economy of the setting of international IPR norms. One important lesson learned from this scholarship is that in early stages of development, developed countries adopted weak standards of IPR protection; however, they became advocates of strong IPR protection once their development levels increased.

This chapter argues that this change of attitude implies that the objective of development may be best served by a system of IPR protection that is adapted to the development level of a country. It will also suggest that the standards of IPR protection have been elevated to a level that may not facilitate the development objective in developing countries, and that such strong protection is not a part of sound economic policy in these countries, but rather a strategic compromise under exogenous political pressure.

The following discussion starts with an historical review of IPR policies adopted by developed countries when they were developing. It shows that developed countries invariably adopted low standards of IPR protection, especially for foreign intellectual property, in order to promote the development of domestic industries and build up national innovative capacity. When they became developed countries, however, they began advancing stronger IPR protection nationally and internationally, which is obviously in the interests of themselves as producers and exporters of intellectual property.

Then the Chapter discusses the process by which the standards of IPR protection are expanded and enhanced globally. It shows that developed countries employed a number of strategies for that purpose, including industry lobbying, regime shifting and the 'carrot and stick' strategy. Nevertheless, the now developing countries, the users and importers, cannot benefit from strong IPR protection to the same extent as developed countries do.

The chapter proceeds to show that increased IPR protection fails to benefit developing countries as developed countries claimed. Rather, developing countries have to bear significant economic and social costs when they join the international regime of IPR protection. When they realized these costs of strong IPR protection, developing countries began acting to reform and adapt the international regime to take into consideration their specific development situations. The chapter will highlight some of the achievements in this respect.

B *Intellectual Property and Developed Countries: A Historical Perspective*

In his famous historical study of development strategies employed by the now developed countries when they were developing, Ha-Joon Chang demonstrated that instead of taking on the *laissez-faire* approach many of the now developed countries, including Britain, the US, Germany, France, Sweden, Belgium, the Netherlands, Switzerland, Japan, Korea and Taiwan, adopted infant industry protection strategies to facilitate early development and industrialization.²¹⁹ These protectionist strategies included tariffs for imported foreign products, reduced duties for export and even subsidies to encourage export, and other forms of government aid, for example, grant of government land, public educational investment, and financial support for transportation infrastructure.²²⁰ Hence, Chang argues that the technological and economic lead of the now developed countries has been achieved through long-lasting industry protectionism, as opposed to the trade liberalization that they now recommend to developing countries.

B. Zorina Khan has examined the early intellectual property systems in Europe and the US, revealing that weak and incomplete protection for intellectual property has been the normal feature in these countries, in particular non-patentability of certain

²¹⁹ Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (Anthem Press, 2002), 19-51.

²²⁰ Ibid 30-31.

products and no copyright protection for foreign works.²²¹ Christopher May and Susan Sell also provide historical insights into the 'lax' standards of IPR protection, in particular the lack of protection for foreign invention and works, in earlier stages of development in European countries and the US.²²² The lax standards of IPR protection allowed free imitation of foreign works, products and technologies, which has proved to be a critical element to the economic, technological and cultural development in these western countries. As Susan Sell notes,

As a matter of public policy, most states had adopted intellectual property policies to encourage the migration of useful inventions to their territory and to facilitate the reading public's access to an extensive range of published materials. These policies included introductory patents, compulsory licensing, working requirements, differential treatment for citizens versus foreigners, and by contemporary standards, weak or lax intellectual property protection.²²³

This section draws on these and other relevant studies and discusses IPR protection in the development process of several developed countries. It briefly reviews the history of IPR protection in Britain, the US, Japan and Korea when they were still developing countries. It will suggest that these developed countries have adopted protectionist intellectual property policies in their early stages of development.

1 *Britain and Weak IPR Protection*

The British history of inventive activities during the industrialization period is exemplary of the role of imitation and copying in facilitating product innovation for the better part of the 17th and 18th centuries. While many scholars argue that the patent system in the early industrialisation process had a strong stimulating effect

²²¹ B. Zorina Khan, 'Intellectual Property and Economic Development: Lessons from American and European History' (Study Paper No 1a, Commission on Intellectual Property Rights, 2002) <http://www.cipr.org.uk/papers/pdfs/study_papers/sp1a_khan_study.pdf>.

²²² See generally Christopher May and Susan Sell, *Intellectual Property Rights: A Critical History* (Lynne Rienner Publishers, 2006).

²²³ Susan Sell, 'Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement' (2004) 38 *Loyola of Los Angeles Law Review* 267, 282.

on inventive activities,²²⁴ it is notable that the patent system at the time was significantly different from what it is today.

Before the *Statutes of Monopolies* was enacted in 1624, privileges were awarded to those who brought new technologies to the kingdom. Foreign inventions were protected only to the extent that they encouraged the migration of skilled artisans into the territory. As Christopher May and Susan Sell point out, before the legal formalization of patent laws in Europe, grants of monopolies were a method for encouraging the migration of skilled artisans into the territory concerned, because rulers hoped that foreign master craftsmen would introduce the 'mysterie' of their respective arts.²²⁵ For example, in 1326 the king of England indicated a policy of encouraging the importation of new arts from abroad; a 1337 statute provided that all cloth workers of other countries would be given special franchises and privileges if they settled in England and practised and taught their arts; letters of grant were granted in 1440 to John Shiedame for importing a salt-making invention.²²⁶ The mobility of artisans seeking employment in foreign countries contributed to the effective technology transfer and importation among European countries.²²⁷

Even when Britain established a regulatory system of patent by the 18th century, patents were offered to the 'first and true inventor', interpreted to include the importer of foreign inventions, which scholars argue had a primary emphasis on diffusion of technologies rather than on incentives for creativity.²²⁸ Moreover,

²²⁴ See, e.g., H. I. Dutton, *The Patent System and Inventive Activity During the Industrial Revolution 1750-1852* (Manchester University Press, 1984), 73-75; Richard J Sullivan, 'England's "Age of invention": The Acceleration of Patents and Patentable Invention During the Industrial Revolution ' (1989) 26(4) *Explorations in Economic History* 424, 435.

²²⁵ Christopher May and Susan Sell, *Intellectual Property Rights: A Critical History* (Lynne Rienner Publishers, 2006), 53.

²²⁶ P. J. Federico, 'Origin and Early History of Patents' (1929) 11 *Journal of The Patent Office Society* 292, 293.

²²⁷ For a discussion on the labour movement in industrial Britain, see Humphrey Southall, 'Mobility, the Artisan Community, and Popular Politics in Early Nineteenth Century England' in Gerry Kearns and Charles W.J. Withers (eds), *Urbanising Britain: Essays on Class and Community in the Nineteenth Century* (Cambridge University Press, 1991) 103-130.

²²⁸ B. Zorina Khan, 'Intellectual Property and Economic Development: Lessons from American and European History' (Study Paper No 1a, Commission on Intellectual Property

patent laws at the time did not protect products, thus allowing the imitation and reverse engineering of foreign products. After importing a new foreign product, domestic producers were allowed to imitate the product by using new processes to produce the product or using local raw materials, which usually resulted in the creation of completely new products that substituted or even improved upon the original foreign products in inventiveness, value and rarity.²²⁹

In addition, under early patent laws, high costs and cumbersome procedures required for patent application discouraged the application for patents, and thus patents were limited in number and in certain sectors and areas,²³⁰ leaving many innovations outside the coverage of the patent system. Scholars point out that a few particularly innovative and rapidly growing industries in the 18th century such as mining, chemicals, textiles, and machine-tool making, among others, had witnessed a low level of recorded patent applications.²³¹ Fewer patents meant more freedom of imitation and copying. In these industries, new technologies were usually disclosed and competitors could freely make use of the released information as a result of the voluntary knowledge spill-overs.²³²

Thus, it can be argued that weak IPR protection in the early development stage of Britain enabled free importation and introduction of foreign technologies and skills, a process which promoted domestic technological advance by imitation and copying, and served to sustain 'learning by doing' and facilitate the localization of

Rights, 2002) 11

<http://www.cipr.org.uk/papers/pdfs/study_papers/sp1a_khan_study.pdf>.

²²⁹ For example, based on an existing technique used on wood, furnishings, and coach panels, new forms of varnish were developed for use on papier mâché and tin-plated ware. In the process of imitating an imported luxury process, British producers invented a new process and distinctive janned-ware products. Maxine Berg, 'From Imitation to Invention: Creating Commodities in Eighteenth-Century Britain' (2002) 55(1) *The Economic History Review* 1, 19.

²³⁰ B. Zorina Khan, above n 228, 11-12.

²³¹ Christine MacLeod, *Inventing the Industrial Revolution: The English Patent System, 1660-1800* (Cambridge University Press, Illustrated ed, 2002), 97-114.

²³² Christine MacLeod and Alessandro Nuvolari, 'Inventive Activities, Patents and Early Industrialization: A Synthesis of Research Issues' (Working Paper No 06-28, Danish Research Unit for Industrial Dynamics, 2006) 14-15 <<http://www3.druid.dk/wp/20060028.pdf>>.

new technologies.²³³ Maxine Berg contends that this process has contributed to the dominance of Britain within the international economy in the 19th century.²³⁴

2 *United States and Weak IPR Protection*

While the US has established one of the most successful patent systems in the world, early patent systems in the US nevertheless denied protection to foreign technology, a legal response to the development level at the time. Throughout most of the 19th century, the US was a net technology importer, and thus it was decided in the US that at that stage of development, the best policy for the US was lax enforcement of foreign intellectual property.²³⁵ Under the US patent law in the 19th century, one could not obtain patents for the importation of foreign inventions, but it allowed free use of foreign inventions and patents were restricted to American citizens only until 1861.²³⁶

Consequently, the early patent system in the US provided much space for imitation and diffusion of scientific knowledge, which contributed to the accumulation of a knowledge base and the building up of innovative capacity in the US. One commentary points out that some key technologies that lay at the heart of the industrialization process, such as high pressure steam engines, steamboats, iron production techniques, etc. were at times developed on the basis of minor changes and alterations to existing technologies which fell outside the coverage of patent protection.²³⁷

²³³ Learning by doing is one method which can help to localize new technologies. See Joseph E. Stiglitz, 'Learning to Learn, Localized Learning and Technological Progress' in Partha Dasgupta and Paul Stoneman (eds), *Economic Policy and Technological Performance* (Cambridge University Press, 2005) 125-153, 129.

²³⁴ Maxine Berg, 'From Imitation to Invention: Creating Commodities in Eighteenth-Century Britain' (2002) 55(1) *The Economic History Review* 1, 19.

²³⁵ Robert P. Merges, 'Battle of Lateralisms: Intellectual Property and Trade' (1990) 8 *Boston University International Law Journal* 239, 245. Susan Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge University Press, 2003), 64.

²³⁶ B. Zorina Khan, above n 228, 23.

²³⁷ Christine MacLeod and Alessandro Nuvolari, 'Inventive Activities, Patents and Early Industrialization: A Synthesis of Research Issues' (Working Paper No 06-28, Danish Research Unit for Industrial Dynamics, 2006) 17-18 <<http://www3.druid.dk/wp/20060028.pdf>>.

In his seminal work on invention and innovation, Professor Luis Suarez-Villa analysed the inventive performance of the US over a 106-year period (1880-1986) with U.S. invention patent data.²³⁸ He identified the two most important factors that supported US scientific and technological creativity in the 19th and 20th centuries. One was broad access to education while preserving quality. The other was diffusion of scientific and technological knowledge.²³⁹ Luis Suarez-Villa contended that by increasing diffusion while improving access to education, a formidable cumulative advantage in reproducing inventive creativity was built up that was essential for the emergence of techno-capitalism in the US.²⁴⁰

In addition, the US copyright law did not protect foreign works until the Chace Act in 1891, 100 years after its first copyright law in 1790. One explanation is that, because the US at the time was still a developing country and a net importer of material culture from Europe, the recognition of foreign copyright would have led to a net deficit in international royalty payments.²⁴¹ For this reason, the 1790 copyright law explicitly 'authorized the Americans to take free advantage of the cultural output of other countries, and the legal system continued to encourage international copyright piracy for a century.'²⁴²

Thanks to a century of piracy of foreign works, in particular English books, the US was able to increase literacy and artistic capabilities through learning and copying, though under name of 'the buccaneers of books'.²⁴³ Even after the conclusion of the

²³⁸ Luis Suarez-Villa, 'Invention, Inventive Learning, and Innovative Capacity' (1990) 35(4) *Behavioral Science* 290.

²³⁹ Luis Suarez-Villa, *Invention and the Rise of Technocapitalism* (Rowman and Littlefield, 2000), 12, 17.

²⁴⁰ Ibid 17.

²⁴¹ B. Zorina Khan, above n 228, 39.

²⁴² B. Zorina Khan, *The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790-1920* (Cambridge University Press, 2005), 258. Chapter Nine of this book discusses American copyright piracy.

²⁴³ See Robert W. Kastenmeier and David Beier, 'International Trade and Intellectual Property: Promise, Risks, and Reality' (1989) 22 *Vanderbilt Journal of Transnational Law* 285, 302 (citing the Testimony of Patent and Trademark Commissioner Donald J. Quigg for U.S. *Adherence to the Berne Convention Hearings Before the Subcommittee on Patents, Copyrights, and Trademarks of the Senate Committee on the Judiciary*, 99th Congress, first and second Session, 119 (1986), and quoting the remarks of Senator Chace in 1884 that the

Berne Convention for the Protection of Literary and Artistic Works (Berne Convention) in 1883, the US refused to sign it until 1988, giving the US another century without equal copyright protection for foreign works.

Therefore, for two centuries the US had been engaged in extensive copying of foreign cultural products, which considerably enhanced its capacity for cultural innovation, enough to generate one of the most profitable industries: film and entertainment. Based on this recognition, Khan concludes that the United States benefited from piracy, and that the choice of copyright regime was endogenous to the level of economic development.²⁴⁴

3 *Weak Protection in Japan and South Korea*

The development of Japan and South Korea from developing to developed countries was accomplished in a different international environment from that for Britain and the US in the 18th and 19th centuries. The international IPR system had already been established, and with many European countries and the US having developed into exporters of intellectual property, they began persistently pressing other developing countries to protect their intellectual property.

Nevertheless Japan and South Korea, as developing countries at the time, should be distinguished from the now developing countries, because international treaties before the 1980s did not restrict the national policy space as much as the TRIPs agreement and TRIPs-plus regimes. For example, the Paris Convention and the Berne Convention, the leading international treaties on intellectual property before TRIPs, did not impose compulsory obligations on member states and there were no backing-up mechanisms to force member countries to obey the rules. Therefore, developing countries at the time still had sufficient autonomy, though not as much

United States is 'the Barbary Coast of literature and the people of the United States ... the buccaneers of books').

²⁴⁴ B. Zorina Khan, 'Does Copyright Piracy Pay? The Effects of U.S. International Copyright Laws on the Market for Books, 1790-1920' (Working Paper No 10271, National Bureau of Economic Research, February 2004) <<http://www.nber.org/papers/w10271.pdf>>.

as Britain and the US had in the previous centuries, to tailor their IPR policies to the local development situations.

Japan greatly benefited from its IPR policy in its early stage of development, a policy that focused not simply on the protection of IPRs but placed more attention on the diffusion and assimilation of foreign technologies. A study of the weak patent protection in the evolution of Japan's economy demonstrates that Japan's policy, which tolerated the copying of imports, appears to have benefitted its economy in the early period of development, without producing long-term negative effects.²⁴⁵

One such policy design was the exclusion of food, chemical and pharmaceutical products from patentability before 1975.²⁴⁶ Because a product can be obtained by various methods and by using different starting materials, the grant of a product patent would exclude all potential methods of producing such product, thus deterring the follow-on innovation of new methods of production, which in turn undermines the public interest in benefiting from more innovations as well as the interest of late innovators.²⁴⁷ Therefore, as with the British experience, Japan only protected new processes to produce a product, especially in key sectors such as food, chemicals and pharmaceuticals. Thus, when a new product was imported under certain process patent, domestic producers were allowed to develop new processes to produce the same product. Under such an approach, imitating the product was free and legal, provided that it did not infringe on the process patent.

Another policy tool was the protection of utility models and industrial design patents for technologies that slightly modified the existing inventions, thus encouraging Japanese nationals to build incrementally on fundamental technologies

²⁴⁵ Carter Mackley, 'The Role of the Patent System in Technology Transfer: The Japanese Experience' (1987) 26 *Columbia Journal of Transnational Law* 131, 165.

²⁴⁶ Nagesh Kumar, 'Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries' (Study Paper No 1b, Commission on Intellectual Property Rights, 2003) 22

<http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Development/IPR_TechnologyandEconomicDevelopment-Nagesh_Kumar.pdf>.

²⁴⁷ Alberto Bercovitz-Rodriguez, 'Historical Trends in Protection of Technology in Developed Countries and Their Relevance for Developing Countries' (Study, United Nations Conference on Trade and Development, 1990) 6.

developed by domestic and foreign inventors.²⁴⁸ It was reported that 99.9 per cent of all utility models were granted to Japanese nationals during the period from 1905 to 1979.²⁴⁹ Together with other designs such as first to file, pre-grant disclosure, narrow claims, and compulsory license, it is argued that the Japanese patent system effectively facilitated absorption, transfer and diffusion of technology by encouraging technology diffusion and incremental innovation.²⁵⁰ As a result, as Nagesh Kumar argues, by the 1970s Japanese enterprises had developed their technological capability adequately, and therefore needed protection for their own innovative activity.²⁵¹

South Korea adopted a patent law only in 1961. As with the Japanese patent law at the time, South Korean patent law excluded the patentability of products and processes to manufacture food products, chemical substances and pharmaceuticals, as well as protecting utility models and industrial designs.²⁵² This policy design benefited the development of domestic industries in South Korea through imitation, learning and assimilation. Linsu Kim defines Korea's technological learning as a three-stage process from duplicative imitation to creative imitation to the innovation stage, gradually establishing the capability of technological innovation.²⁵³ He highlights the role of informal, non-market-mediated mechanisms in acquiring foreign technologies in the duplicative imitation stage of Korea's industrialization, such as literature, reverse engineering and technical assistance, as

²⁴⁸ Keith E. Maskus and Christine McDaniel, 'Impacts of the Japanese Patent System on Productivity Growth' (1999) 11 *Japan and the World Economy* 557, 560.

²⁴⁹ Susumu Watanabe, 'The Patent System and Indigenous Technology Development in the Third World' in Jeffrey James and Susumu Watanabe (eds), *Technology, Institutions and Government Policies: A Study Prepared for the International Labour Office Within the Framework of the World Employment Programme* (Macmillan Press, 1985) 217-257, 237.

²⁵⁰ Keith E. Maskus and Christine McDaniel, above n 248, 572.

²⁵¹ Nagesh Kumar, above n 246, 23.

²⁵² *Ibid.*

²⁵³ Linsu Kim, 'The Dynamics of Technological Learning in Industrialization' (Discussion Paper Series No 2007, United Nations University, Institute for New Technology, October 2000) 17-26

<<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.18.1244&rep=rep1&type=pdf>>.

this enabled Korean firms to obtain technical information at very low cost when they were developing.²⁵⁴

4 *Kicking Away the Ladder*

As the previous discussion shows, the path by which developed countries became developed is lined with protectionist attitudes towards technology and trade policies, including intellectual property laws. However, when these countries achieved development through protectionist policies and free imitation of foreign products and technologies, they denied the now developing countries the opportunity to do what they themselves achieved. Hence, from a more critical perspective, instead of assisting the development objective, developed countries actually 'kick away the ladder' they have climbed up and deny the opportunities for developing countries to catch up in the same way. As Ha-Joon Chang observes,

When they were in catching up positions, the now developed countries protected infant industries, poached skilled workers and smuggled contraband machines from more developed countries, engaged in industrial espionage, and wilfully violated patents and trademarks. However, once they joined the league of the most developed countries, they began to advocate free trade and prevent the outflow of skilled workers and technologies; they also became strong protectors of patents and trademarks. In this way, the poachers appear to have turned gamekeepers with disturbing regularity.²⁵⁵

This stark contrast in terms of the attitude towards IPR protection implies that the standards of IPR protection have to change as a country's development level increases, so as to best serve the interests of that country and its domestic industries. From the perspective of developed countries, this change of attitudes towards IPR protection is reasonable. However, from the perspective of developing

²⁵⁴ Linsu Kim, *Imitation to Innovation: The Dynamics of Korea's Technological Learning* (Harvard Business Press, 1997), 226.

²⁵⁵ Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (Anthem Press, 2002), 64.

countries, it seems unfair and coercive when developed countries impose the high standards of IPR protection onto countries with lower levels of development.

As will be discussed in the next section, the process of introducing IPR protection systems to developing countries through various international forums clearly shows the hypocrisy of developed countries. While recommending laissez-faire policies, the developed countries themselves did not adopt liberal trade policies and strong protection for intellectual property when they were developing. Rather, before they became developed countries, they used infant industry protection policies by imposing high tariffs for importation or subsidies for exportation. Likewise, developed countries, who themselves adopted weak or no protection for foreign intellectual property, urged developing countries to protect IPRs that are mainly foreign owned at standards no less than those provided in the TRIPs agreement.

C Internationalization of IPR Protection

This section discusses the process by which IPR protection has been increased and expanded internationally under a push by developed countries, which persuade developing countries to adopt, and sometimes forcefully impose upon them, high standards of IPR protection, in the name of helping them with the development objective. However, it is questionable whether those high standards of IPR protection will suit developing countries with low levels of development and benefit the users of intellectual property as much as they benefit producers.

It has to be noted that multinational companies that are intellectual property-intensive and depend on intellectual property for a significant value or value-add, have played a significant role in the internationalization of IPR protection. These companies are primarily producers and owners of intellectual property mainly based in developed countries. Thus, it is understandable that they have incentives to request stronger IPR protection to secure their profits, and they are also able to influence the decision making process of their governments using lobbying strategies.

This section will suggest that to achieve the goal of strengthening international IPR protection, developed countries constantly use the strategy of lobbying, regime shifting and economic co-operation and coercion to eliminate the resistance from developing countries. This draws on a body of scholarship that has made the point that the conclusion of the TRIPs agreement is a result of shifting the forum of intellectual property discourse from the WIPO to the WTO, while more extensive protection is then achieved through the shift from multilateral trade agreements to bilateral and plurilateral agreements.

1 *Industry Lobbying*

In the international intellectual property norm-setting process, it is well documented that as intellectual property owners, many rent-seeking multinational companies lobbied for stronger IPR protection. In fact, the lobbying of firms and corporations is not new in English legal history. The enactment of the first copyright law, the *Statute of Anne* 1710, and the subsequent debate on perpetual literary property in 18th century England, took place as a result of petitions and litigation by booksellers and other members of the Stationer's Company.²⁵⁶ The negotiations on the first international treaty of protecting intellectual property across national borders, the Paris Convention of 1883, began primarily at the insistence and

²⁵⁶ Lyman Ray Patterson, *Copyright in Historical Perspective* (Vanderbilt University Press, 1968); Brad Sherman and Lionel Bently, *The Making of Modern Intellectual Property Law* (Cambridge University Press, 1999), 11-59. For the debate on perpetual copyright, see generally Mark Rose, *Authors and Owners: The Invention of Copyright* (Harvard University Press, 1993), 67-91. See also James Raven, 'Booksellers in Court: Approaches to the Legal History of Copyright in England before 1842' (2012) 104(1) *Law Library Journal* 115; Edward S. Rogers, 'A Chapter in the History of Literary Property: The Booksellers' Fight for Perpetual Copyright' (1910) 5 *Illinois Law Review* 551. The Stationer's Company, a London guild, controlled the printing, publishing and selling of books. See John Feather, *A History of British Publishing* (Routledge, Second ed, 2006), 27-40 (introducing the history of the Stationer's Company and its influence on the English publishing industry before and after it was granted a royal charter in 1556 which recognized the legal status of the Stationer's Company).

presence of industrial interests,²⁵⁷ although the focus of this Convention was limited to international patenting, leaving unregulated enforcement mechanisms.

The significance of European and US lobbyists in increasing the standards of international IPR protection, in both the past and the present, should not be neglected. It is no exaggeration to say that the international expansion of IPR protection since the 1980s was moved forward by coalitions of multinational companies in various industries, who commonly sought increased protection for their intellectual property.

However, the process can be observed as early as 1876, when four hundred leading merchants and manufacturers from New York, Boston, and Philadelphia petitioned the US Congress to enact criminal sanctions to punish the counterfeiting of trademark goods or the sale or dealing of counterfeit goods.²⁵⁸ More than a century later in 1979, another large group of American manufacturers joined together to form the IACC, with a membership comprised of pharmaceutical and chemical companies, movie and entertainment companies, software and semi-conductor companies, as well as luxury status goods brands. Petitions from IACC eventually led to the enactment of the *Trademark Counterfeiting Act of 1984* in the US.²⁵⁹

In March 1986, the Intellectual Property Committee was created as an ad hoc coalition of 13 major US corporations, such as Pfizer, IBM, DuPont, Monsanto, General Electric and Bristol-Myers.²⁶⁰ The Committee sent delegations to Europe

²⁵⁷ Beier Friedrich-Karl, 'One Hundred Years of International Co-operation: The Role of the Paris Convention in the Past, Present and Future' [1] (1984) 15(1) *International Review of Industrial Property and Copyright Law* 1.

²⁵⁸ In response, Congress amended the Trademark Act of 1870 by adding to it the 1876 criminal amendment entitled "An Act to Punish the Counterfeiting of Trade-mark Goods and the Sale or Dealing in of Counterfeit Trade-mark Goods. See Jed S. Rakoff and Ira B. Wolff, 'Commercial Counterfeiting: The Inadequacy of Existing Remedies' (1983) 73 *Trademark Reporter* 493, 508.

²⁵⁹ Ibid 493. See also William N. Walker, 'A Program to Combat International Commercial Counterfeiting' (1980) 70 *Trademark Reporter* 117, 120 (discussing steps that the IACC had taken to combat counterfeiting).

²⁶⁰ The 13 corporations are Bristol-Myers, DuPont, FMC Corporation, General Electric, General Motors, Hewlett-Packard, IBM, Johnson & Johnson, Merck, Monsanto, Pfizer, Rockwell International and Warner Communications. For an account of Pfizer executives

and Japan to persuade businesses in those countries that they also had an interest in seeing the *General Agreement on Tariffs and Trade* (GATT) become a vehicle for globally enforceable IPRs.²⁶¹ As a result, both European and Japanese industries responded by putting pressure on their governments to put intellectual property on the trade agenda, which eventually led to the negotiations of the TRIPs agreement.

Nowadays, these industrial giants continue to have significant interests, incentives and influence in persuading their governments, and sometimes foreign governments, to push for stringent international IPR protection. In the US, content owners and industry associations, such as the Motion Picture Association of America (MPAA) and the Recording Industry Association of America (RIAA), effectively convinced the Congress to enact the *Digital Millennium Copyright Act* of 1998 (DMCA) and the *Sonny Bono Copyright Term Extension Act* of 1998 (CTEA).²⁶² More recently, intellectual property industries have continued the tradition of allying and lobbying and are now co-ordinating and organizing anti-counterfeiting and enforcement activities. For example, copyright industry coalitions in the US mobilized successfully to have the *Stop Counterfeiting in Manufactured Goods Act* (SCMGA) passed in 2006,²⁶³ and attempted unsuccessfully to introduce another two Acts in 2011, the *Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act* (PIPA) and the *Stop Online Piracy Act* (SOPA), in response to the problems of piracy and counterfeiting exacerbated by Internet technologies.²⁶⁴

managing to use their established business networks to influence the views of the state and politicians to push intellectual property standards in favour of Pfizer's interests, see Peter Drahos and John Braithwaite, *Information Feudalism* (Earthscan Publications, 2002), ch 4.

²⁶¹ See *ibid* 118. See also Susan Sell, 'TRIPs and the Access to Medicines Campaign' (2002) 20 *Wisconsin International Law Journal* 481, 485, which discusses the power of agency in mobilizing corporate efforts to pursue stronger protection and enforcement of intellectual property prior to and after the TRIPs agreement.

²⁶² Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock down Culture and Control Creativity* (Penguin Press, 2004), 216-218.

²⁶³ See White House, 'Fact Sheet: President Bush Signs the Stop Counterfeiting in Manufactured Goods Act' 16 March 2006 <<http://georgewbush-whitehouse.archives.gov/news/releases/2006/03/20060316-6.html>>.

²⁶⁴ The efforts to steadily increase levels of enforcement of intellectual property rights are called the 'alphabet soup' of trans-border intellectual property enforcement by Professor

In addition to national and regional anti-counterfeiting agencies, at the international level there are the International Medical Products Anti-Counterfeiting Taskforce (IMPACT),²⁶⁵ the Anti-Counterfeiting Group (ACG),²⁶⁶ Business Action to Stop Counterfeiting and Piracy (BASCAP),²⁶⁷ and the Global Anti-Counterfeiting Network (GACG),²⁶⁸ among others. These organizations played and will continue to play a key, propelling role in strengthening anti-counterfeiting measures and intellectual property enforcement globally.

2 Regime Shifting

Regime shifting, as Lawrence Helfer defines it, is 'an attempt to alter the status quo ante by moving treaty negotiations, lawmaking initiatives, or standard setting activities from one international venue to another.'²⁶⁹ Because the international IPR system is comprised of nested, overlapping, and parallel treaties and institutions, it allows states and non-state actors to relocate rule-making processes to international venues whose mandates and priorities favour their concerns and

Peter Yu. For a detailed discussion, see Peter K. Yu, 'The Alphabet Soup of Transborder Intellectual Property Enforcement' (2012) 60 *Drake Law Review Discourse* 16.

²⁶⁵ IMPACT was launched in February 2006 by the World Health Organization (WHO) responding to the growing public health crisis of counterfeit drugs, and particularly to the growing concern with counterfeiting by the stakeholders, primarily the pharmaceutical manufacturers. See IMPACT, *About Us*, < <http://www.who.int/impact/about/en/>>.

²⁶⁶ ACG is a trade association founded in the UK in 1980 with just 18 brand owners and now represents the interests of UK and international companies, manufacturing practically everything imaginable, from toothpaste to mobile phones, chocolate to car parts. See *About ACG*, <<http://www.a-cg.org/guests/about-acg>>.

²⁶⁷ In 2004, the International Chamber of Commerce (ICC), a sincere representative of the interests of businesses, launched the Business Action to Stop Counterfeiting and Piracy (BASCAP) to combat product counterfeiting and copyright piracy worldwide. See *About BASCAP*, <<http://www.iccwbo.org/advocacy-codes-and-rules/bascap/about/>>.

²⁶⁸ The Network works as a common forum for various anti-counterfeiting organizations around the world to exchange and share information, to participate in appropriate joint activities and to co-operate in the resolution of specific IP problems and challenges in their respective national or regional areas. See GACG, *Global Anti-Counterfeiting Network*, < <http://www.gacg.org/>>.

²⁶⁹ Laurence Helfer, 'Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Law-making' (2004) 29 *Yale Journal of International Law* 1, 14.

interests.²⁷⁰ During the past decades, the international intellectual property regime has been effectively strengthened, as the forum of negotiations was shifted by developed countries from WIPO to GATT to the TRIPs agreement.

In 1979, the International Anti-Counterfeiting Coalition (IACC) was formed, a US-based industrial coalition comprised of like-minded companies seeking greater IPR protection. Working closely with US trade representatives, IACC took actions to garner the attention of the Tokyo Round of GATT multilateral trade negotiations on the issue of trade in counterfeit products.²⁷¹ In the same year, the US in concert with Canada, the EU, and Japan proposed a framework agreement on anti-counterfeiting codes that was designed to strengthen rules and procedures against trade in counterfeit goods.²⁷² While the international anti-counterfeiting code dealt initially with trademark counterfeiting, IACC soon considered expanding the coverage of the international code to embrace other types of IPRs.²⁷³

At the same time, a new round of negotiations on the revision of the Paris Convention was initiated. This revision was proposed by developing countries because they wanted to seek more protection against patent abuse and to protect

²⁷⁰ Laurence R. Helfer, 'Regime Shifting in the International Intellectual Property System' (2009) 7(1) *Perspectives on Politics* 39, 39
<<http://infojustice.org/download/gcongress/waysandmeansdevelopment/helfer%20article.pdf>>.

²⁷¹ As the head of the US delegation to the Tokyo Round of GATT multilateral trade negotiations in 1978, William Walker directed a diplomatic effort to introduce the subject of counterfeiting into the negotiations. See William N. Walker, 'A Program to Combat International Commercial Counterfeiting' (1980) 70 *Trademark Reporter* 117, 122.

²⁷² Michael Blakeney, *Intellectual Property Enforcement: A Commentary on the Anti-Counterfeiting Trade Agreement (ACTA)* (Edward Elgar, 2012), 28-29. See also William N. Walker, above n 271, 122. Walker points out that

The codes are government-to-government agreements; therefore, unlike statutory laws, they bind government behaviour and cannot be directly invoked by individual companies. However, in addition to this international dimension, the signatory governments are obliged to implement the provisions of the codes in their national laws in order to make them effective domestically. Thus, the codes have a dual legal character: they are diplomatic instruments on the one hand, embodying international political commitments of the signatory governments; on the other hand, however, they modify local law and, upon ratification, have the force and effect of domestic law.

²⁷³ See William N. Walker, above n 271, 130.

the social and economic interests of the developing countries.²⁷⁴ Hence, the purpose of this revision was to align the Paris Convention to the development needs of developing countries, and in particular to introduce a program of preferential treatment favouring technology transfer.²⁷⁵

On the other hand, the developed countries considered that the main purpose of the Paris Convention was not the transfer of technology as suggested by developing countries, but rather effective protection of IPRs.²⁷⁶ Consequently, developed countries, especially the US, rejected the revising proposal of developing countries and opposed any effort to reduce the current standards of IPR protection. Thus the revision of the Paris Convention moved to a deadlock.

Since the majority of the membership of the Paris Convention consists of developing countries, developed countries saw no possibility of increasing the standards of IPR protection and enforcement within the conventional regime administered by WIPO.²⁷⁷ In response, developed countries shifted the forum to GATT.

The Uruguay Round of GATT multilateral trade negotiations started in 1986. In the same year, the Intellectual Property Committee was formed and extensive lobbying activities were launched to reach consensus among developed countries on the idea that the GATT was a better forum for intellectual property law-making. For example, an investigation was instituted at the request of the USTR into the impact on US trade of deficiencies in IPR protection in foreign countries, which surveyed 736 US domestic companies and generated an estimate of US\$23.8 billion in economic losses due to inadequate protection of US intellectual property rights in

²⁷⁴ Developing countries proposed revision of the Paris Convention in the areas of national treatment; right of priority; independence of patents; compulsory licensing and revocation; and importation of products manufactured by a process patented in the importing country. See Regina A. Loughran, 'The United States Position on Revising the Paris Convention: Quid Pro Quo or Denunciation' (1981) 5(2) *Fordham International Law Journal* 411, 420.

²⁷⁵ *Ibid* 413.

²⁷⁶ *Ibid* 424.

²⁷⁷ Hans Peter Kunz-Hallstein, 'United States Proposal for a GATT Agreement on Intellectual Property and the Paris Convention for the Protection of Industrial Property' (1989) 22(2) *Vanderbilt Journal of Transnational Law* 265, 266.

foreign countries.²⁷⁸ In addition to their significant negotiating leverage in the GATT talks, and with a more effective dispute settlement mechanism, it is argued that developed countries turned to GATT also because the linkage with trade issues expanded the scope of agreement among states with widely divergent interests.²⁷⁹

Years of negotiations eventually led to the conclusion of the TRIPs agreement in April 1994, which incorporated most of the proposals of developed countries and enhanced the substantive rules of IPR protection. From then on, linking intellectual property with trade issues as a form of regime or forum shifting has proved to be an effective strategy to ratchet up international IPR protection standards.

In the post-TRIPs era, developed countries have continued to use the forum shifting strategy to achieve much higher global standards for IPR protection and enforcement. Not satisfied with the minimum standards of protection locked in the TRIPs agreement, developed countries started the negotiations for the *Substantive Patent Law Treaty* (SPLT). But when realizing that the WTO had been dominated by public health discussions around 2001, the US returned to the WIPO to restart the negotiations for SPLT in 2002.²⁸⁰

The use of forum shifting is also reflected in the vertical shift from the multilateral level to plurilateral, bilateral and regional levels of negotiating, norm-setting, rule-making, implementation, and enforcement, which is known as vertical forum

²⁷⁸ Specifically, the United States International Trade Commission was asked to determine, to the extent possible, the sales lost to counterfeit and other infringing products imported into the United States, and U.S. export sales as well as revenues from both U.S. and foreign sources lost as a result of protection deficiencies, and to identify the products, source countries, markets, and protection deficiencies that represent the most serious problems for U.S. firms. See USITC, 'Foreign Protection of Intellectual Property Rights and the Effect on US Industry and Trade' (Report to the United States Trade Representative, Investigation No 332-245, United States International Trade Commission, February 1988) <<http://www.usitc.gov/publications/332/pub2065.pdf>>.

²⁷⁹ Laurence Helfer, 'Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Law-making' (2004) 29 *Yale Journal of International Law* 1, 21.

²⁸⁰ Susan K. Sell, 'TRIPs Was Never Enough: Vertical Forum Shifting, FTAS, ACTA and TPP' (2011) 18 *Journal of Intellectual Property Law* 447, 450.

shifting.²⁸¹ Plurilateral norm-setting includes the proposed *Anti-Counterfeiting Trade Agreement* (ACTA) and the ongoing negotiations for the Trans-Pacific Partnership Agreement (TPP), which is also a typical example of regional agreements.²⁸² At the bilateral level, the US is the largest user of bilateral trade and investment agreements for the purpose of ratcheting up the standards of IPR protection in foreign countries. As of today, the US has free trade and investment agreements in force with 20 countries.²⁸³

These bilateral and plurilateral agreements contain IPR protection standards that exceed those found in the TRIPs agreement, or require developing countries to implement their treaty obligations before the end of the TRIPs transition periods.²⁸⁴ In some cases, they extend to intellectual property that is not covered by the TRIPs agreement, or incorporate ‘most favored nation’ clauses or ‘national treatment’ principles without the exceptions provided for under international treaties.²⁸⁵ Therefore, these trade agreements are usually called by scholars the ‘TRIPs-plus’ protection of intellectual property rights.

3 The ‘Carrot and Stick’ Strategy

During the Uruguay Round of GATT trade negotiations, developed countries including the US, Japan, and Switzerland proposed draft agreements on trade-

²⁸¹ As Susan Sell puts it, ‘vertical forum shifting refers to negotiating, norm-setting, rule-making, implementation, and enforcement at levels below the multilateral level (e.g., plurilateral, bilateral, unilateral, and granular/local). See *ibid* 451.

²⁸² The ACTA is another example of regime shifting initiated by leading developed countries after the TRIPs agreement was concluded, as a response to the frustration which principally the US and the EU shared about the inadequacy of the international intellectual property regime to deal with the growth of counterfeiting. See Michael Blakeney, *Intellectual Property Enforcement: A Commentary on the Anti-Counterfeiting Trade Agreement (ACTA)* (Edward Elgar, 2012), 44.

²⁸³ These countries include Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore.

²⁸⁴ Laurence Helfer, above n 279, 24.

²⁸⁵ See Carlos M. Correa, *Bilateral Investment Agreements: Agents of New Global Standards for the Protection of Intellectual Property Rights* (03 August 2004) Grain <<http://www.grain.org/article/entries/125-bilateral-investment-agreements-agents-of-new-global-standards-for-the-protection-of-intellectual-property-rights>>.

related aspects of intellectual property rights, including anti-counterfeiting. They argued for effective protection of IPRs, dispute settlement, domestic enforcement and standards of protection, while developing countries such as India, Chile, and many others opposed introducing new substantive IPR norms.²⁸⁶

The success in concluding the TRIPs agreement is attributed not only to the lobbying of private interested parties, but also to the backing up by the governments of their countries by means of the so called 'carrot and stick' strategy. On the one hand, developed countries promised that by acceding to the TRIPs agreement, developing countries could gain market access for their textile and agricultural goods, and more technology transfer and investment to developing countries would also help them with economic development. On the other hand, developed countries used or threatened to use unilateral trade sanctions to press developing countries to accept the deal and provide IPR protection. As Susan Sell puts it,

Prior to and throughout the TRIPS negotiations, the U.S. engaged in bilateral and regional negotiations with developing countries to eliminate their resistance to TRIPS. The U.S. was able to wield the carrot of increased market access and potential future investment, along with the stick of economic coercion, in order to get developing countries to sign on to much higher standards of IPR protection.²⁸⁷

In particular, the US Special 301 provisions function as an important and effective 'stick'. Special 301 refers to Section 182 of the *Trade Act of 1974* as amended by the *Omnibus Trade and Competitiveness Act of 1988*. Under the Special 301 provisions, the US Trade Representative (USTR) reviews annually the intellectual property legislations and practices in other countries and can decide to use unilateral trade sanctions or retaliation, such as tariff increase and withdrawal of the most-favoured nation status, against countries that do not grant sufficient protection for the US

²⁸⁶ For developing countries' proposal, see Brazil Communication from Argentina, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania, and Uruguay, *Group of Negotiations on Goods (GATT) Negotiating Group on Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods*, MTN.GNG/NG11/W/71 (14 May 1990).

²⁸⁷ Susan K. Sell, above n 280, 451.

intellectual property.²⁸⁸ As of 1989, the US has used the Special 301 provisions against countries ranging from the Caribbean states to South America and Asia.

As a result of this economic coercion, the US entered into bilateral or regional trade agreements with over a dozen developing countries, which contained requirements for IPR protection. This prepared these countries for the signing of the TRIPs agreement. The 'carrot and stick' approach, along with the vertical forum shifting strategy, has successfully reduced the resistance of developing countries and created a negotiating advantage for the US over almost all other GATT members.

4 *Expansion from Protection to Enforcement*

In the post-TRIPs era, further attempts continue to be made to strengthen the international intellectual property regime. Lobbying, regime shifting and trade co-operation and coercion never stop. But the focus of these strategies was shifted from requiring developing countries to provide laws of IPR protection, to ensuring effective enforcement of such laws.

²⁸⁸ The 2013 Special 301 Report states that

Under Special 301 provisions, USTR must identify those countries that deny adequate and effective protection for IPR or deny fair and equitable market access for persons that rely on IPR protection.

Countries that have the most onerous or egregious acts, policies, or practices and whose acts, policies, or practices have the greatest adverse impact (actual or potential) on the relevant U.S. products must be designated as "Priority Foreign Countries." Priority Foreign Countries are potentially subject to an investigation under the Section 301 provisions of the Trade Act of 1974. USTR may not designate a country as a Priority Foreign Country if it is entering into good faith negotiations or making significant progress in bilateral or multilateral negotiations to provide adequate and effective protection of IPR.

USTR has created a "Priority Watch List" and "Watch List" under Special 301 provisions. Placement of a trading partner on the Priority Watch List or Watch List indicates that particular problems exist in that country with respect to IPR protection, enforcement, or market access for persons relying on intellectual property. Additionally, under Section 306, USTR monitors a country's compliance with bilateral intellectual property agreements that are the basis for resolving an investigation under Section 301. USTR may apply sanctions if a country fails to satisfactorily implement an agreement.

See Demetrios Marantis, '2013 Special 301 Report' (Annual Report, United States Trade Representative, May 2013)

<<http://www.ustr.gov/sites/default/files/05012013%202013%20Special%20301%20Report.pdf>>.

See also A. Lynne Puckett and William Reynolds, 'Rules, Sanctions and Enforcement under Section 301: At Odds with the WTO?' (1996) 90(4) *American Journal of International Law* 675; Qingjiang Kong, *WTO, Internationalization and the Intellectual Property Rights Regime in China* (Marshall Cavendish, 2005), 3.

For the past 20 years after the TRIPs agreement was concluded, all WTO member countries, 165 in total as of 2014, have established national systems for IPR protection set at no less than the TRIPs minimum standards, except some least developed countries which are allowed to defer implementation of some provisions of the TRIPs agreement until 2016.²⁸⁹ However, the issue of enforcement has come to be a new concern to developed countries, because laws without enforcement provide no protection at all. Therefore, developed countries have been keen to create some new international norms with respect to enforcement.

In addition to inserting intellectual property chapters into bilateral agreements, developed countries launched the negotiations for the ACTA, an international plurilateral agreement designed to curb trade in counterfeit products and strengthen the standards of IPR enforcement. The ACTA was initially negotiated in October 2007 among the US, Japan, South Korea, Mexico, New Zealand, Switzerland and the European Union (EU),²⁹⁰ going through eleven rounds in secrecy with the draft text not available to the public until 2010. On 1 October 2011, eight negotiating partners signed the ACTA in Tokyo.²⁹¹

Commentaries argue that this anti-counterfeiting trade agreement represents a new set of global standards on IPR enforcement, including detailed and comprehensive rules on criminal offences, liability and penalties as well as other

²⁸⁹ A decision of the Council for TRIPS of 27 June 2002 provides that 'least-developed country Members will not be obliged, with respect to pharmaceutical products, to implement or apply Sections 5 and 7 of Part II of the TRIPS Agreement or to enforce rights provided for under these Sections until 1 January 2016.' See *Extension of the Transition Period under Article 66.1 of the TRIPS Agreement for Least-Developed Country Members for Certain Obligations with Respect to Pharmaceutical Products*, (1 July 2002) World Trade Organization <http://www.wto.org/english/tratop_e/trips_e/art66_1_e.htm>.

²⁹⁰ Participants in the negotiations included: Australia, Canada, the European Union (EU), represented by the European Commission and the EU Presidency and the EU Member States, Japan, Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the United States of America.

²⁹¹ The United States, Australia, Canada, Korea, Japan, New Zealand, Morocco, and Singapore signed the ACTA at a ceremony on October 1, 2011, in Tokyo. See Note, *Anti-counterfeiting Trade Agreement* United States Trade Representative <<http://www.ustr.gov/acta>>.

specific remedies.²⁹² As Carlos Correa argues, ACTA is a Trojan horse for expanding IPR protection and enforcement in developing countries, which has increased enforcement standards, especially the criminalization of infringements including copyright violation and patent infringement, and eroded the policy space and flexibilities available under the TRIPs agreement.²⁹³

Since the ACTA goes so far as to restrict freedom of speech on the Internet, on this occasion not only developing countries but also civil society, interest groups, and even individuals protested the signing of the ACTA.²⁹⁴ On 11 February 2012, thousands of protesters marched in rallies across many European cities.²⁹⁵ The protesters were concerned that the treaty would stifle freedom of expression on the Internet by allowing massive online surveillance, and criminalizing file-sharing activities and the downloading of music and movies for free entertainment.²⁹⁶ European Parliament rapporteur Kader Arif resigned from the post in protest

²⁹² For comments on the ACTA, see generally Henning Grosse Ruse-Khan, 'From TRIPS to ACTA: Towards a New 'Gold Standard' in Criminal IP Enforcement?' (Research Paper No 10-06, Max Planck Institute for Intellectual Property, Competition and Tax Law 19 April 2010) <<http://ssrn.com/abstract=1592104>> (providing a preliminary analysis of the draft provisions of the Anti-Counterfeiting Trade Agreement (ACTA) on criminal IP enforcement and their impact on TRIPS); Michael Blakeney, *Intellectual Property Enforcement: A Commentary on the Anti-Counterfeiting Trade Agreement (ACTA)* (Edward Elgar, 2012) (providing systematic analysis of the negotiating context and the provisions of ACTA); Peter K. Yu, 'ACTA and Its Complex Politics' (2011) 3 *WIPO Journal* 1 (providing a political economic analysis of the negotiations for ACTA); Duncan Matthews, 'The Rise and Fall of the Anti-Counterfeiting Trade Agreement (ACTA): Lessons for the European Union' (Legal Studies Research Paper No 127, Queen Mary University of London, School of Law, 15 October 2012) (discussing the arguments, debates and controversies that led up to the European Parliament's rejection of ACTA and the implications for the scrutiny of international intellectual property agreements in the EU); Kenneth L. Port, 'A Case Against the ACTA' (2012) 33(3) *Cardozo Law Review* 1131 (discussing three manufacturers of luxury status goods to consider whether the ACTA will have positive or negative consequences).

²⁹³ Carlos M. Correa, 'Anti-Counterfeiting: A Trojan Horse for Expanding Intellectual Property Protection in Developing Countries' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 59-74.

²⁹⁴ In February 2012, thousands of protesters marched in rallies across many European cities against the signing of the ACTA. See Erik Kirschbaum and Irina Ivanova, *Protests Erupt Across Europe Against Web Piracy Treaty* (11 February 2012) Reuters <<http://www.reuters.com/article/2012/02/11/us-europe-protest-acta-idUSTRE81A0I120120211>>.

²⁹⁵ Ibid.

²⁹⁶ Ibid.

against the process leading up to the signing of ACTA. He said that 'I condemn the whole process which led to the signature of this agreement: [there has been] no consultation of the civil society, [a] lack of transparency since the beginning of negotiations, repeated delays of the signature of the text without any explanation given, [and a rejection] reject of Parliament's recommendations as given in several resolutions of our assembly.'²⁹⁷

Because of the various concerns regarding ACTA, on 4 July 2012 the European Parliament rejected the ratification of ACTA by a vote with absolute predominance of 478 to 39.²⁹⁸ Since the EU was one of the primary negotiators, its rejection made ACTA almost dead. Nevertheless, scholars contend that the ACTA provisions may re-appear in bilateral or regional trade agreements going forward in an effort to raise global standards of protection.²⁹⁹ In fact, a new regional agreement is on the way to provide ACTA-plus standards of IPR enforcement.

The new initiative intended for the strengthening of enforcement is the ongoing negotiation for a regional, Asia-Pacific trade agreement, the TPP. The US launched the negotiations in 2009, and formally met with 11 other countries throughout the Asia-Pacific region in 2010, aiming 'to conclude an ambitious, next-generation, Asia-Pacific trade agreement that reflects U.S. economic priorities and values.'³⁰⁰ An

²⁹⁷ Dave Lee, *European Parliament Rapporteur Quits in ACTA Protest* (27 January 2012) BBC News <<http://www.bbc.com/news/technology-16757142>>. As David Levine summarizes, the primary concerns about the lack of disclosure and accountability since the beginning of the ACTA negotiations have been '(1) general erosion of deliberative democracy, (2) one-sided input that reflects primary commercial perspectives, (3) speculation and guesswork replacing real discussion of the issues, and (4) deterioration of the legitimacy of the process and the law being created.' See David S. Levine, 'Transparency Soup: The ACTA Negotiating Process and "Black Box" Law-making' (2011) 26(3) *American University International Law Review* 811, 828; Peter K. Yu, 'Six Secret (and Now Open) Fears of ACTA' (2011) 64 *SMU Law Review* 975, 998.

²⁹⁸ Don Melvin, *EU Parliament rejects ACTA anti-piracy treaty* Sydney Morning Herald <<http://www.smh.com.au/it-pro/government-it/eu-parliament-rejects-acta-antipiracy-treaty-20120705-21idd.html>>.

²⁹⁹ Susan K. Sell, 'TRIPs Was Never Enough: Vertical Forum Shifting, FTAS, ACTA and TPP' (2011) 18 *Journal of Intellectual Property Law* 447, 456.

³⁰⁰ These 11 countries include Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. See *Overview of the Trans Pacific Partnership*, Office of the United States Trade Representative <<http://www.ustr.gov/tpp/overview-of-the-TPP>>.

analysis of the leaked US proposals for the intellectual property chapter suggests that the US proposal, if adopted, would create the highest IPR protection and enforcement standards in any free trade agreement to date.³⁰¹ However, scholars argue that the intellectual property provisions in TPP would predictably lead to higher prices and decreased access to a broad range of consumer products in many TPP member countries, from medicines to textbooks to information on the internet, with little or no benefit from increased innovation, creativity or local economic activity.³⁰²

So far this chapter has argued that developed countries adopted weak standards of IPR protection when they were still developing, yet pursued stronger IPR protection once they became developed economically and technologically. This history suggests that the attitude towards IPR protection changes as the development level of a country improves. It also reveals the rationale that the development goal of a country may be best served by a system of IPR protection that is adapted to the development level of that country. This rationale is a proven method for advancing technological and economic development, tested frequently and successfully by many of today's developed countries during their history.³⁰³

As producers and exporters of intellectual property, developed countries have vital interests in strong IPR protection and enforcement internationally. For these countries, it seems that the TRIPs agreement is never enough and even TPP is not the end.³⁰⁴ However, developing countries with interests in use and access to intellectual property prefer less protection of such exclusive rights. As Robert

³⁰¹ Sean M. Flynn et al, 'Public Interest Analysis of the US TPP Proposal for an IP Chapter' (PIJIP Research Paper Series No 2012-07, American University Washington College of Law, 6 December 2011) <<http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1023&context=research>>.

³⁰² Ibid. See also Manica Balasegaram, *TPP: Still a Terrible Deal for Poor People's Health* (14 July 2014) Huffington Post <http://www.huffingtonpost.com/dr-manica-balasegaram/tpp-still-a-terrible-deal_b_5584810.html>.

³⁰³ Robert L. Ostergard Jr, 'Economic Growth and Intellectual Property Rights Protection: A Reassessment of the Conventional Wisdom' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2 ed, 2014) 3-40, 39.

³⁰⁴ See Susan K. Sell, above n 297, 297.

Ostergard argues, 'it is rational for these states to obtain IP as inexpensively as possible, and to grow their IP protection level in parallel with economic development and according to their own industrial and commercial strengths.'³⁰⁵

As long as the disparity of development exists, it is very likely that the confrontation between developed countries and developing countries will continue on the matter of IPR protection. This confrontation may be more acute when developing countries come to realise the costs of strong IPR protection.

D The Costs of Strong IPR Protection in Developing Countries

The TRIPs agreement has increased the standards for the protection and enforcement of intellectual property rights of all kinds. On the basis of the Paris and Berne Conventions, the TRIPs agreement significantly enlarges the scope of IPR protection. Meanwhile, TRIPs-plus bilateral agreements signed between developed countries and developing countries contribute to further elevating the standards of global IPR protection.

To persuade developing countries to accept the high standards of IPR protection embedded in the TRIPs agreement, developed countries have put forward the argument that such protection would stimulate innovation and economic growth in developing countries. Specifically, the asserted potential benefits from strong IPR protection include: increased domestic research and development; increased flow of new products; enhanced value of patent rights; increased inward investment and technology transfer; and improvements in the local knowledge base.³⁰⁶

However, the question raised by all this activity at the international and regional levels is: do high standards of intellectual property bring effective technology transfer and promote development in developing countries? Many studies have

³⁰⁵ Robert L. Ostergard Jr, above n 303, 39.

³⁰⁶ Alan S. Gutterman, 'The North-South Debate Regarding the Protection of Intellectual Property Rights' (1993) 28 *Wake Forest Law Review* 89, cited in Robert L. Ostergard Jr, above n 301, 129.

both theoretically and empirically given the answer: not necessarily. This section reviews studies on the impact of strong IPR protection on developing countries. It will suggest that high standards of IPR protection are not adaptive to low levels of development in many developing countries, and as a result these countries assume more costs than benefits from high standards of IPR protection.

The purpose of this discussion is to show that the actual effects of enhanced IPR protection on developing countries are inconsistent with what developed countries claim. The recognition of the costs of strong IPR protection will lead to further resistance from developing countries, which aggravates the confrontation between developed and developing countries in the international IPR norm-setting process.

1 *Overview of the Costs of Strong Protection*

In order to justify the high level of IPR protection enshrined the TRIPs agreement, developed countries have put forward the argument that expanded and strengthened protection of intellectual property would bring about increased flows of foreign direct investment (FDI) and technology transfer to developing countries, and that enhanced IPR protection would also stimulate local innovation. But there have been suspicions on the part of developing countries that enhanced protection for IPRs will not effectively promote the development process, but instead limit the access to technology.³⁰⁷

Drawing on studies in this respect, it is generally believed that increased IPR protection in developing countries raises prices of products protected under such rights, making valuable ideas and works unaffordable to a large low-income population, and thus restricts access to knowledge and increases the costs of imitation and adaptation of new technologies.³⁰⁸ Meanwhile, studies on the impact

³⁰⁷ Carlos M. Correa, 'Review of the TRIPS Agreement: Fostering the Transfer of Technology to Developing Countries' (1999) 2(6) *Journal of World Intellectual Property* 939, 939. See also Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 99.

³⁰⁸ The general costs of IPR protection will be discussed in detail in Chapter IV, Section D.1 and the accompanying references.

of intellectual property on generic industry,³⁰⁹ biodiversity,³¹⁰ and cultural heritage,³¹¹ reveal a similarly negative relationship between intellectual property and the sustainable development of cultural and environmental resources in the absence of an open, vibrant intellectual commons or public domain.³¹²

One particular economic study of the relationship between IPR protection and economic growth found no consistent evidence that IPR protection contributes significantly to economic growth cross-nationally.³¹³ In this study, Robert Ostergard compared the impact of IPR protection on economic growth in developed and developing countries, finding that there was no clear domestic benefit for developing countries to maintain strong IPR protection.³¹⁴ He also pointed out that a weak intellectual property regime allows states to acquire inexpensive technology by not paying royalties and licensing fees for the use of intellectual property, and these may more than offset possible gains in increased FDI and technology transfer.³¹⁵

Moreover, TRIPs-plus protection of intellectual property has eliminated much of the legally permitted flexibility under TRIPs, and thus narrowed the policy space for developing countries to devise intellectual property laws adaptive to their national

³⁰⁹ For more discussions on this topic, see articles collected in Ricardo Melendez-Ortiz and Pedro Roffe (eds), *Intellectual Property and Sustainable Development* (Edward Elgar, 2009).

³¹⁰ For discussions on this topic, see e.g., Martin Khor, *Intellectual Property, Biodiversity and Sustainable Development: Resolving the Difficult Issues* (Zed Books, 2002).

³¹¹ For discussions on this topic, see e.g., Toshiyuki Kono (ed), *Intangible Cultural Heritage and Intellectual Property: Communities, Cultural Diversity and Sustainable Development* (Intersentia, 2009).

³¹² James Arvanitakis, 'Explaining the Common' on James Arvanitakis, *Prof. James Arvanitakis* (2010) <<http://jamesarvanitakis.net/the-commons-institute/explaining-the-commons/>>; Anupam Chander and Madhavi Sunder, 'The Romance of the Public Domain' (2004) 92 *California Law Review* 1331, 1336 (noting that 'Genetic research builds on a vast public domain of information').

³¹³ Robert L. Ostergard Jr, 'Economic Growth and Intellectual Property Rights Protection: A Reassessment of the Conventional Wisdom' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2 ed, 2014) 3-40, 17.

³¹⁴ Ibid 26. Robert Ostergard uses data on both legislation and enforcement of intellectual property as a measure of IPR protection, and uses variables of consumption, investment, and labour capacity to establish an economic model, in order to evaluate the relationship between IPR protection and economic growth. See ibid 17.

³¹⁵ Ibid 27.

development objectives. Carlos Correa examined the main changes in intellectual property legislations that took place in Latin America countries since the 1990s, finding that the use by these countries of the flexibilities built into the TRIPs agreement has been uneven, and some countries which did use them to accommodate local conditions and needs have stepped back in the context of free trade agreements signed with the US.³¹⁶ He concluded that in Latin America, the relationship between intellectual property and development remains nebulous, but several studies point to considerable costs which have arisen due to the implementation of higher standards of IPR protection, notably increased prices and more limited access to medicines.³¹⁷

2 *Impact on Technology Transfer*

Since most developing countries do not have sufficient domestic innovative capacity, the aforementioned five benefits are most often characteristic of advanced, industrialized, developed countries that do not face the specific issues that developing countries confront. According to Robert Ostergard Jr, the only relevant benefits important to developing countries are investment, technology transfer, and local knowledge building.³¹⁸ However, the efficiency of technology transfer and the associated effect of improving the local knowledge stock are also increasingly brought into question.

It is clear that developed countries have failed to implement their obligations under the TRIPs agreement to increase incentives for technology transfer to developing countries. According to Article 66.2 of the TRIPs agreement, developed countries are obliged to increase incentives to enterprises and institutions in their territories 'for the purpose of promoting and encouraging technology transfer to least developed country members in order to enable them to create a sound and viable

³¹⁶ Carlos M. Correa, 'TRIPs and TRIPs-Plus Protection and Impacts in Latin America' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPs-Plus Era* (Oxford University Press, 2 ed, 2014) 141-179, 142.

³¹⁷ Ibid 178.

³¹⁸ Robert L Ostergard Jr, above n 313, 130.

technological base.’³¹⁹ In 2003, a WTO Working Group on Trade and Transfer of Technology was formed and the TRIPS Council decided to require developed countries to submit detailed annual reports on their activities, pursuant to Article 66.2.³²⁰

However, an analysis of the countries’ reports on the performance of this obligation suggests that developed countries did not effectively create incentives for their enterprises and institutions to transfer technology to LDCs, and some of them never even submitted the required reports.³²¹ Statistics show that only 31 per cent of all programs and policies reported target LDC WTO Members, but about one-third of programs that do target LDCs do not actually promote technology transfer, which means that only 22 per cent of programs involve technology transfer specifically targeted to LDC WTO Members.³²²

Studies also demonstrate that stronger IPR protection does not necessarily bring about more effective technology transfer and diffusion in developing countries. There are various channels of technology transfer and diffusion. Formal channels of technology transfer include foreign patenting and licensing activities, foreign direct investment (FDI), trade in goods and services that enables reverse engineering or learning of production methods, and movement of skilled workers.³²³ Technology can also be transferred through informal channels such as imitation and utilizing data in patent applications, as well as sending scientists and students to universities and research institutes in advanced countries.³²⁴

³¹⁹ *Agreement on Trade Related Aspects of Intellectual Property Rights*, signed 15 April 1994, art 66[2] ('*TRIPs Agreement*').

³²⁰ Suerie Moon, 'Does TRIPS Art. 66.2 Encourage Technology Transfer to LDCs? An Analysis of Country Submissions' (policy brief No 2, UNCTAD - ICTSD Project on IPRs and Sustainable Development, December 2008) 2 <http://unctad.org/en/Docs/iprs_pb20092_en.pdf>.

³²¹ *Ibid* 6.

³²² *Ibid* 9.

³²³ Rod Falvey, Neil Foster and Olga Memedovic, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (Working Paper United Nations Industrial Development Organization, 2006) 24 <http://www.unido.org/fileadmin/import/60030_05_IPR_rights_in_technology_transfer.pdf>.

³²⁴ *Ibid*.

Studies that examine the relationship between IPR protection and technology transfer usually use cross-country or panel data techniques to investigate how IPR protection influences one or more of the above mentioned channels that may induce technology transfer. One working paper of the UN Industrial Development Organization (UNIDO), which recently reviewed the literature in this respect, revealed that many studies find a positive relationship between IPR protection and the formal channels of technology transfer, such as FDI, foreign patenting and licensing and international trade,³²⁵ but also found that IPR protection alone is insufficient for generating strong incentives for firms to invest in a country.³²⁶

However, the effect of these formal channels on technology diffusion is ambiguous. The UNIDO working paper goes further to conduct a threshold analysis, suggesting that FDI can only be a source of technology diffusion in countries that have reached a certain level of absorptive capacity.³²⁷ This means that even though strong IPR protection can increase FDI flows, its impact on technology transfer in terms of quality and efficacy remains open to question. Similarly, while studies show that the strength of IPR protection is positively related to foreign patenting and licensing activities,³²⁸ stronger protection enhances technology diffusion through foreign patenting only in countries with significant levels of imitative ability.³²⁹ Countries with little imitative ability and countries with a lack of significant innovative capacity

³²⁵ Ibid 23-39.

³²⁶ Keith E. Maskus, 'The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer' in Carsten Fink and Keith E. Maskus (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 41-73 (arguing that a joint implementation of a pro-competitive business environment covering many issues is essential for FDI, including taxes, investment regulations, production incentives, trade policies, and competition rules).

³²⁷ Rod Falvey et al, above n 323, 33.

³²⁸ See, e.g. Lee Branstetter, Raymond Fisman and C. Fritz Foley, 'Do Stronger Intellectual Property Rights Increase International Technology Transfer? Empirical Evidence from U.S. Firm-Level Data' (Working Paper No 11516, National Bureau of Economic Research, August 2005) <<http://www.nber.org/papers/w11516>> (concluding that for affiliates of US multinational firms, R&D expenditures and total levels of foreign patent applications increase in response to the enhancement of IPR protection in 16 countries over the 1982-1999 period). See also Bin Xu and Eric P. Chiang, 'Trade, Patents and International Technology Diffusion' (2005) 14(1) *Journal of International Trade and Economic Development* 115 (finding that the strength of intellectual property rights protection is significantly related to foreign patenting across different income groups of countries).

³²⁹ Rod Falvey et al, above n 323, 36.

do not appear to benefit from diffusion through patenting, with even a negative effect on growth for countries with small markets.³³⁰

Given the ambiguous effect of the formal channels on technology transfer and diffusion, it is questioned whether increased IPR protection can bring about effective technology transfer. As early as 1988, Judith Chin and Gene Grossman pointed out the conflicting positions between developed countries and developing countries on the matter of IPR protection, suggesting that the strengthening of IPR protection may not enhance world efficiency.³³¹ They found that, since developing countries at best can only imitate if patent protection for process innovations is not enforced by their government, they are benefiting from their ability to 'pirate' technology, while developed countries are harmed by such actions.³³²

In the meantime, country-specific studies show that many countries, including the now developed countries, have benefited from soft IPR protection that encouraged informal channels of knowledge diffusion in the early stages of industrialization. As discussed previously, Britain, the US, Japan and South Korea did not adopt strong IPR protection in their early stages of development, which allowed imitation and copying of foreign products and technologies, thus significantly contributing to the accumulation of knowledge base and the building up of their innovative capacities.³³³

³³⁰ Ibid 39.

³³¹ Judith C. Chin and Gene M. Grossman, 'Intellectual Property Rights and North-South Trade' (Working Paper No 2769 National Bureau of Economic Research, November 1988) <<http://www.nber.org/papers/w2769>>.

³³² Ibid.

³³³ See, e.g. Linsu Kim, 'Technology Transfer and Intellectual Property Rights: The Korean Experience' (Issue Paper No 2, UNCTAD-ICTSD Project on IPRs and Sustainable Development, June 2003) <http://www.ictsd.org/downloads/2008/06/cs_kim.pdf> (discussing the role of informal, non-market-mediated mechanisms in acquiring foreign technologies in the duplicative imitation stage of Korea's industrialization, such as literature, reverse engineering and technical assistance). See also Nagesh Kumar, 'Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries' (Study Paper No 1b, Commission on Intellectual Property Rights, 2003) <http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Development/IPR_TechnologyandEconomicDevelopment-Nagesh_Kumar.pdf> (finding that weak IPR

In the case of developing countries, Nagesh Kumar discusses the history of the Indian pharmaceutical and chemical industries. In the 1960s, domestic pressure accumulated in protest against the foreign patent owners who restricted market entry, which led to the enactment of a new patent act in India that excluded the patentability of products in food, chemicals and pharmaceuticals. This change is widely thought to have helped facilitate the development of local technological capability in chemicals and pharmaceuticals.³³⁴

In small countries like Lebanon, a net importer of technological information and innovative products and services, there is relatively little basis for technology and product development, and one anticipated outcome of stronger IPR protection would be a rise in royalty payments to foreign rights holders.³³⁵ Domestic pharmaceutical firms, for example, could not afford to engage in the massive research and development programs required to develop patentable active ingredients in order to support their own products. Therefore, the extension of patents to drug products in Lebanon, if they were registered by foreign firms and their local agents, would remove access to generic copies of patented ingredients and could markedly raise input costs.³³⁶ A survey of 117 Lebanese manufacturing and service firms revealed that patents were infrequently applied for; they were typically requested for minor improvements in inventions; and the disclosure requirements provided little effective technology transfer.³³⁷ In this context, Keith Maskus used partial equilibrium models to calculate the impact of stronger IPR protection in different industries in this country, and found that the static effects of stronger protection on prices, employment and output are likely to be negative.³³⁸

protection that encouraged diffusion, imitation and learning has played a critical role in the development of many Asian countries).

³³⁴ Nagesh Kumar, above n 333, 27.

³³⁵ Keith E. Maskus, 'Strengthening Intellectual Property Rights in Lebanon' in Carsten Fink and Keith E. Maskus (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 259-293, 264.

³³⁶ Ibid 263.

³³⁷ Ibid 261.

³³⁸ Ibid.

While strong IPR protection may increase international trade, FDI or foreign patenting and licensing, these channels do not necessarily bring about effective technology transfer and diffusion in developing countries, especially in those with insufficient, or without absorptive and imitative, capacity. On the contrary, weak IPR protection that allows for imitation, reverse engineering and adaptation can facilitate technology diffusion more effectively. This raises great concerns on the part of developing countries that stronger IPR protection will result in more costs than benefits in these countries.

3 *Impact on Access to Medicines and Public Health*

Another issue that engenders fierce debate between developed countries and developing countries is the impact of increased IPR protection on access to medicines and public health in developing countries. A report by the Committee on Government Reform in the United States House of Representatives examines the compliance of US free trade agreements with the *Doha Declaration on TRIPs Agreement and Public Health*, finding that the 'U.S. trade negotiators have repeatedly used the trade agreements to restrict the ability of developing nations to acquire medicines at affordable prices.'³³⁹

On the one hand, developed countries use the frame of consumer protection to push for strengthened IPR enforcement. As the 2007 G8 Summit declares, '[t]he protection of IPRs is of core interest for consumers in all countries, particularly in developing countries.'³⁴⁰ Especially on the matter of counterfeiting, some argue that it can be a strategy for advocates of stronger intellectual property rights to

³³⁹ Committee on Government Reform- Minority Staff Special Investigations Division, 'Trade Agreements and Access to Medications Under the Bush Administration' (Report, United States House of Representatives, June 2005) i
<http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Access_to_Medicines/TradeAgreementsandAccessToMedicationsUnderTheBushAdmini.pdf>. See also Sean M. Flynn, 'Special 301 and Access to Medicine in the Obama Administration' (2012) 2(2) *American University Intellectual Property Brief* 5 (discussing how the US uses the Special 301 program to restrict access to generic medicines in developing countries).

³⁴⁰ This is the official declaration of the 2007 G8 Summit. G8 Summit, *Chair's Summary* (8 June 2007), 2 <http://www.g-8.de/Content/EN/Artikel/_g8-summit/anlagen/chairs-summary,templateId=raw,property=publicationFile.pdf/chairs-summary.pdf>.

underscore the danger of counterfeited and pirated goods.³⁴¹ Among the most dramatic advertisements is the brochure published by the International Medical Products Anti-Counterfeiting Taskforce (IMPACT) which uses the slogan 'Counterfeit drugs kill!' above a picture of a biting snake.³⁴²

As will be discussed later in this thesis, the definition of counterfeit medicines used by IMPACT extends the TRIPs definition of counterfeiting as broadly as to include 'a wide range of drug products, from those resulting in criminal acts of homicide, to placebos, to safe and effective drugs from Canada.'³⁴³ However, what can cause danger to public health and consumer safety is very limited and restricted to 'contaminated products peddled by criminal gangs.'³⁴⁴ This limited effect is nevertheless used to describe the overall impact of all counterfeit medicines under such a broad definition. The purpose of so doing is raising political support for the expansion of IPR protection and enforcement.³⁴⁵

On the other hand, developing countries lament that high standards of IPR protection and enforcement have restricted the production of generic medicine, and reduced the possibility of using compulsory licensing and parallel importation to meet the demand for essential medicines in countries without pharmaceutical manufacturing capacities. Before the TRIPs agreement, many developing countries, for example India and China, did not protect pharmaceutical products. Article 27.1 of the TRIPs agreement, however, obliges all member countries to recognize patents on products in all fields of technology. It is argued that product patents are the fundamental building blocks of protection for large pharmaceutical companies, which potentially confer enormous market power over the use of the basic

³⁴¹ At a CropLife America meeting on December 1, 2007, Dan Glickman, then head of the Motion Picture Association, recommended this strategy. See Susan K. Sell, 'TRIPs Was Never Enough: Vertical Forum Shifting, FTAS, ACTA and TPP' (2011) 18 *Journal of Intellectual Property Law* 447, 459.

³⁴² The brochure is available at the World Health Organization website at <http://www.who.int/impact/resources/ImpactBrochure.pdf>.

³⁴³ Kevin Outterson and Ryan Smith, 'Counterfeit Drugs: The Good, The Bad and The Ugly' (2006) 16 *Albany Law Journal of Science and Technology* 525, 530.

³⁴⁴ Ibid 534.

³⁴⁵ Ibid.

compound they wish to protect.³⁴⁶ Compulsory licensing and parallel importation are among the most often used tools to regulate this market power.³⁴⁷

However, the TRIPs-plus intellectual property bilateral agreements usually contain provisions that restrict the use of compulsory licensing and parallel importation of patented medicines, requiring the consent of patent owners for the approval of generic medicines, and incorporate automatic patent term extensions beyond the twenty year term provided in the TRIPs agreement.³⁴⁸ As Susan Sell puts it, these provisions not only impose extra burdens on developing countries whose administrative resources are already limited, but more importantly, could eliminate the TRIPs-compliant opportunity to access affordable patented drugs, which is especially crucial in the case of second-line HIV/AIDS drugs that are patented and for which no generics are available.³⁴⁹ It is argued that by injecting considerable uncertainty into the calculations of would-be generic competitors, the automatic extension for delays in patent examination could also delay the introduction of competing and affordable products.³⁵⁰

The conflict with the interests in access to medicines resulted from increased IPR protection and anti-counterfeiting enforcement is exemplified by the case of Kenya

³⁴⁶ As Peter Drahos puts it, 'Once the product patent is in place they use other types of patents such as formulation patents, process patents and method-of-treatment patents to build a wall of protection around the original compound.' See Peter Drahos, 'Four Lessons for Developing Countries from the Trade Negotiations over Access to Medicines' (2007) 28 *Liverpool Law Review* 11, 16.

³⁴⁷ Susan K. Sell, 'TRIPs Was Never Enough: Vertical Forum Shifting, FTAs, ACTA and TPP' (2011) 18 *Journal of Intellectual Property Law* 447, 454. See also Carlos M. Correa, 'Implications of Bilateral Free Trade Agreements on Access to Medicines' (2006) 84(5) *Bulletin of the World Health Organisation* 399 (discussing the measures that limit the competition of generic medicines and the implications for access to medicines). Committee on Government Reform- Minority Staff Special Investigations Division, 'Trade Agreements and Access to Medications Under the Bush Administration' (Report, United States House of Representatives, June 2005) i-ii
<http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Access_to_Medicines/TradeAgreementsandAccessToMedicationsUnderTheBushAdmini.pdf>. The report finds that the free trade agreements delay approval of generic drugs, require patent extensions, link drug approval to patent status, restrict compulsory licensing, prohibit parallel importation, and expand patent protections.

³⁴⁸ See Susan K. Sell, above n 347, 454.

³⁴⁹ *Ibid.*

³⁵⁰ *Ibid* 455; Carlos M. Correa, above n 347, 401.

anti-*Anti-Counterfeit Act* activities. In 2008, the Parliament of Kenya enacted the *Anti-Counterfeit Act* to prohibit trade in counterfeit goods. The next year three people living positively with HIV/AIDS challenged the constitutionality of the Act on the ground that the provisions in the Act may 'affect or be likely to affect their access to affordable and essential drugs and medicines, including generic drugs and medicines thereby infringing their fundamental right to life, human dignity and health.'³⁵¹ In 20 April 2012 the High Court of Kenya found that the *Anti-Counterfeit Act* failed to distinguish between counterfeit and generic medicines,³⁵² noting that

The danger that the petitioners see in the possibility of the terms 'generic' and counterfeit' being used interchangeably is borne out by the fact that there have been instances, admittedly in other jurisdictions, in which generic medication has been seized while in transit on the basis that it is counterfeit. Such seizures have affected

³⁵¹ High Court of Kenya, 'Judgment: Petition No 409 of 2009' (Judgement, 409, 20 April 2012) [1] <<http://kelinkkenya.org/wp-content/uploads/2012/04/Judgment-Petition-No-409-of-20092.pdf>>.

³⁵² Section 2 of the *Anti-Counterfeit Act* provides as follows:

"counterfeiting" means taking the following actions without the authority of the owner of intellectual property right subsisting in Kenya or elsewhere in respect of protected goods- (a) the manufacture, production, packaging, re-packaging, labelling or making, whether in Kenya or elsewhere, of any goods whereby those protected goods are imitated in such manner and to such a degree that those other goods are identical or substantially similar copies of the protected goods;

(b) the manufacture, production or making, whether in Kenya or elsewhere, the subject matter of that intellectual property, or a colourable imitation thereof so that the other goods are calculated to be confused with or to be taken as being the protected goods of the said owner or any goods manufactured, produced or made under his licence;

(c) the manufacturing, producing or making of copies, in Kenya or elsewhere, in violation of an author's rights or related rights;

(d) in relation to medicine, the deliberate and fraudulent mislabelling of medicine with respect to identity or source, whether or not such products have correct ingredients, wrong ingredients, have sufficient active ingredients or have fake packaging;

The World Health Organisation defines generic medicine as 'a pharmaceutical product, usually intended to be interchangeable with an innovator product, that is manufactured without a licence from the innovator company and marketed after the expiry date of the patent or other exclusive rights'.

Hence, the Court held that

Generic drugs thus '....have correct ingredients... ' and 'sufficient active ingredients' within the meaning of section 2 of the *Anti-Counterfeit Act*. In a legal regime that is focused on protection of intellectual property rights, the danger that such generic drugs can be seized under section 32 and 34 of the Act is therefore manifest. ...In my view, the definition of 'counterfeit' in section 2 of the Act is likely to be read as including generic medication.

See *ibid* [73], [77], [78].

users of generic drugs in developing countries which, like Kenya, have large populations dependent on generic HIV medication for survival.³⁵³

The Court recognized that *the Anti-Counterfeit Act* has prioritised enforcement of intellectual property rights in dealing with the problem of counterfeit medicine, but the primary concern of [the state] should be the interests of those infected with HIV/AIDS to whom it owes the duty to ensure access to appropriate health care and essential medicines.³⁵⁴ Consequently, the Court ruled that the *Anti-Counterfeit Act* restricted access to appropriate health care and essential medicines, and therefore violated the right to life, the right to human dignity and the highest attainable standard of health guaranteed under Kenya's Constitution.³⁵⁵

E *Responses of Developing Countries*

At the time of negotiations for the TRIPs agreement, Susan Sell suggests that developing countries did not fully comprehend the impact of such an international agreement that embraces compulsory obligations to provide minimum standards of IPR protection. They signed it partly because of the constant pressure from developed countries, and partly in exchange for market access in developed countries for their agricultural and textile products.³⁵⁶ As Robert Ostergard points out, developing countries adopt intellectual property policies not as a part of sound economic policy, but rather as a result of political pressure, pressure from domestic industries that have an interest in protecting their intellectual property, and from foreign governments to increase IPR protection.³⁵⁷

When realizing the real impact of high standards of IPR protection, as discussed in the previous section, developing countries start seeking the balance between the

³⁵³ Ibid [75].

³⁵⁴ Ibid [83], [84].

³⁵⁵ Ibid [87].

³⁵⁶ Susan Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge University Press, 2003), 9.

³⁵⁷ Robert L. Ostergard Jr, 'Economic Growth and Intellectual Property Rights Protection: A Reassessment of the Conventional Wisdom' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2 ed, 2014) 3-40, 30.

task of promoting intellectual property rights and promoting development objectives.³⁵⁸ Their efforts resulted in the recognition of public health needs at the Doha Round of WTO negotiations and the adoption of the Development Agenda at WIPO. This section will present a brief discussion of the response of developing countries in this respect.

1 *TRIPs Agreement and Doha Declaration*

After the conclusion of the TRIPs agreement, developing countries became more vocal and joined forces to advance their interests in access to knowledge and access to medicines. While the TRIPs agreement mainly embodies the claims of developed countries in protecting intellectual property rights, there are at least two provisions that reflect the proposals of developing countries. They are Articles 7 and 8 of the TRIPs agreement, which provide the objectives and principles of IPR protection. Article 7 concerns the balance of right producers and users, and the promotion of technology innovation and dissemination in a manner conducive to social and economic welfare. Article 8 allows member countries to adopt measures to protect public health and other public interests, while simultaneously preventing the abuse of intellectual property rights.

To further realize the benefits of the two provisions, developing countries, in collaboration with civil society and Non-Government Organizations (NGOs), launched the campaign for access to medicines and successfully put the public health issue on the global agenda. The campaign gained significant momentum with the defeat of a lawsuit brought by 39 pharmaceutical companies against the South African government in 1998 and culminated in the Doha Declaration on the TRIPs Agreement and Public Health (Doha Declaration) in November 2001.³⁵⁹

³⁵⁸ Carlos M. Correa, 'Review of the TRIPS Agreement: Fostering the Transfer of Technology to Developing Countries' (1999) 2(6) *Journal of World Intellectual Property* 939, 940.

³⁵⁹ Developing countries involved in the campaign for access to medicines included Brazil, India, and the African Group, with civil-society and non-governmental organizations such as Médecins Sans Frontières (MSF) and the Consumer Project on Technology (CPTech, now Knowledge Ecology International). See Ahmed Abdel Latif, 'The Emergence of the A2K

The fourth WTO Ministerial Conference held in Doha in 2001 reinforced the development related objective and principles set forth in the two Articles. The Doha Declaration clarifies the flexibilities embedded in the TRIPs agreement in relation to public health. It recognizes that 'each provision of the TRIPs Agreement shall be read in the light of...its objectives and principles,' and allows compulsory licence to be granted in circumstances that member countries are free to determine.³⁶⁰ At the same time, the general Ministerial Declaration of 14 November 2001 explicitly stated that the undertakings of the TRIPs Council 'shall be guided by the objectives and principles set out in Articles 7 and 8 of the TRIPs agreement and shall take fully into account the development dimension.'³⁶¹ The Doha declarations, especially the declaration on TRIPs and public health, as Peter Drahos puts it, is a win for weaker actors through networking and coalition.³⁶²

It is worth noting that the campaign for access to medicines has now developed into a wider ranging movement called Access to Knowledge (A2K), as developing countries moved the debate beyond TRIPs and public health to other public-policy objectives of importance to developing countries, such as access to educational

Movement: Reminiscences and Reflections of a Developing-Country Delegate' in Gaëlle Krikorian and Amy Kapczynski (eds), *Access to Knowledge in the Age of Intellectual Property* (Zone Books, 2010) 99-125, 101.

³⁶⁰ WTO, *Declaration on the TRIPs Agreement and Public Health*, WT/MIN(01)/DEC/2 (14 November 2001) (DOHA WTO MINISTERIAL 2001: TRIPS) art 5.

³⁶¹ Article 19 reads:

We instruct the Council for TRIPS, in pursuing its work programme including under the review of Article 27.3(b), the review of the implementation of the TRIPS Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this declaration, to examine, inter alia, the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by members pursuant to Article 71.1. In undertaking this work, the TRIPS Council shall be guided by the objectives and principles set out in Articles 7 and 8 of the TRIPS Agreement and shall take fully into account the development dimension.

See WTO, *Ministerial Declaration*, WT/MIN(01)/DEC/1 (14 November 2001) (Doha WTO Ministerial 2001: Ministerial Declaration) [19].

³⁶² Peter Drahos, 'Four Lessons for Developing Countries from the Trade Negotiations over Access to Medicines' (2007) 28 *Liverpool Law Review* 11, 19. Drahos notes that The Doha Declaration is a case of a weak coalition making a gain that an observer would not have predicted given the power resources of the US-led coalition.

material and scientific knowledge.³⁶³ The A2K attempts to challenge the system of existing IPR rules by articulating a series of critical concepts and ideas such as the 'public domain', the 'commons', 'sharing' or 'openness,' as well as 'access'.³⁶⁴ Some of its language has found way into the WIPO Development Agenda.

2 *WIPO Development Agenda*

Since the formation of the A2K movement, developing countries and NGOs have used this forum to engage in the WIPO dialogue, and reform the WIPO intellectual property agenda to take into consideration their specific economic and technological situations. Developing countries and NGOs argued that the mandate of WIPO should not be limited to the IPR protection; as a UN agency, WIPO should fully integrate and mainstream the development dimension into its activities on IPR protection.³⁶⁵

With increased participation of developing countries, civil society and NGOs in WIPO discussions, a major policy initiative was conceived to bring change to the status quo that simply focused on enhancing IPR protection, so that the development objective of developing countries could be represented at WIPO's agenda. The A2K movement supported the initiative to integrate development into WIPO activities and processes, as it also reflected the key elements and concerns of the A2K.³⁶⁶

In 2005, the Group of Friends of Development (GFD) comprised of 15 developing countries submitted a paper for WIPO, outlining proposals on how to establish a

³⁶³ Ahmed Abdel Latif, 'The Emergence of the A2K Movement: Reminiscences and Reflections of a Developing-Country Delegate' in Gaëlle Krikorian and Amy Kapczynski (eds), *Access to Knowledge in the Age of Intellectual Property* (Zone Books, 2010) 99-125, 103.

³⁶⁴ For a discussion of these concepts embraced in A2K, see generally Amy Kapczynski, 'Access to Knowledge: A Conceptual Genealogy' in Gaëlle Krikorian and Amy Kapczynski (eds), *Access to Knowledge in the Age of Intellectual Property* (Zone Books, 2010) 17-56, 30-39; Rajeswari Kanniah, 'Access to Knowledge in the Public Domain' (2006) 16(3) *Consumer Policy Review* 97.

³⁶⁵ Ahmed Abdel Latif, above n 363, 109.

³⁶⁶ Ibid 115.

development agenda.³⁶⁷ In 2007, WIPO adopted 45 Development Agenda recommendations, grouped into six clusters: technical assistance and capacity building; norm-setting, flexibilities, public policy and public domain; technology transfer, information and communication technologies and access to knowledge; assessment, evaluation and impact studies; institutional matters including mandate and governance; and other issues.³⁶⁸ The Development Agenda also requires intellectual property norm setting should take into account the different levels of development and the balance between costs and benefits.³⁶⁹ The adoption of the Development Agenda is another important milestone in the process whereby developing countries fight the intellectual property battle with their powerful developed counterparts.

F *Conclusion*

The basic division of developed countries and developing countries in terms of innovative capacity hinges on their different and even opposite interests in protecting intellectual property. When both parties fight for their respective interests, conflicts occur. What makes things complicated is that developed countries have powerful economic and political tools to suppress resistance from developing countries, whereas developing countries may occupy the majority of membership in most international institutions that can be used to counter the suppression.

To a lesser extent, the expansion of international IPR protection under the push of developed countries also suggests that the relationship between intellectual property and development depends on whether the standards of IPR protection correspond with a country's level of development. To simplify the dynamics of the

³⁶⁷ See The Group of Friends of Development, 'Proposal to Establish a Development Agenda for WIPO: An Elaboration of Issues Raised in Document WO/GA/31/11' (Submission No IIM/1/4, 6 April 2005) <http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=42376>.

³⁶⁸ *The 45 Adopted Recommendations under the WIPO Development Agenda*, World Intellectual Property Organization <<http://www.wipo.int/ip-development/en/agenda/recommendations.html>>.

³⁶⁹ Ibid.

two actors, a low standard of IPR protection suits lower levels of development, and higher levels of development may be better served by a higher standard of protection. Hence, the currently high standards of IPR protection required under the TRIPs agreement and TRIPs-plus bilateral and plurilateral agreements result in great economic and social costs in many developing countries, especially the least developed countries.

To summarize, the process of developed countries first using protectionist policies to become industrialized countries, and then self-interestedly pushing for stronger IPR protection at the expense of the now developing countries, vividly illustrates how the change in status and objective of a country influences the value and institution of IPR protection and enforcement. When developed countries were still developing, they adopted weak protection of intellectual property and infant protection policies to promote the development of domestic industries and national innovative capacity. Now that they have acquired sufficient innovative capacity and have become the producers and exporters of intellectual property, they are seeking higher standards of IPR protection and enforcement globally. In addition, since weak standards of IPR protection allowed imitation of foreign products, which eventually facilitated the development goal, this history also demonstrates that imitation was a critical force that has driven the economic and technological development in these countries. This value of imitation to development will be discussed in the next chapter.

IV THE DYNAMIC RELATIONSHIP BETWEEN INTELLECTUAL PROPERTY, INNOVATION, IMITATION AND DEVELOPMENT

A Introduction

The previous chapters have shown that development is an objective for developing countries, and that in the past countries have usually pursued a system of IPR protection that is adaptive to their development levels in order to advance the development objective. This chapter will suggest that the result of adopting a standard of IPR protection *not* adaptive to development levels may have a retarding effect on development.

Chapter III made the point that high standards of IPR protection bring about more costs than benefits in developing countries, and discussed the ambiguous effect of strong IPR protection on technology transfer and diffusion in these countries. This chapter adds to this discussion by examining how IPR protection which is too strong becomes a barrier to innovation in developing countries rather than stimulating it. It takes a somewhat different approach, analysing the relationship between four actors: IPR protection, innovation, imitation and development, and a different focus: highlighting the importance of imitation to development.

The chapter starts with an analysis of the utilitarian theory of intellectual property, which is based on an ideal balance between rights holders and rights users, and between incentives for innovation and for dissemination. It has been widely accepted that scientific and technological innovation is the driving force behind industrial growth and development.³⁷⁰ Any policy that can promote scientific and technological innovation must also propel the development process. The protection of IPRs is said to be one such policy. Under the contemporary utilitarian approach,

³⁷⁰ This argument is first articulated in the foundational work of Joseph Schumpeter. See Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (George Allen & Unwin, 5 ed, 1976) (first published 1943).

the protection of intellectual property can stimulate innovation as well as encourage dissemination of knowledge, thereby promoting the progress of science and useful arts.³⁷¹

However, the trade-off between the protection of intellectual property and the dissemination of knowledge is not always in good equilibrium. This chapter proceeds to consider the problems that account for the imbalance between protecting initial innovation and follow-on innovation under a high standard of IPR protection. It argues that when IPR protection becomes too expansive, the ideal of the utilitarian theory about the balance between rights owners and rights users falls on shaky ground.

The chapter goes on to review numerous empirical studies on the impact of strong IPR protection on innovation and development. Since patent law is related to scientific and technological innovation, and technological development is a key concern of developing countries, a considerable body of research exists on the effect of patents on innovation. Accordingly, this chapter will draw on studies in this particular respect. The review of existing studies finds that both theoretical and empirical studies suggest that IPR protection does not always stimulate innovation, nor does it promote development in the same manner in all countries. These studies also suggest that to benefit from strong IPR protection, a country has to achieve certain levels of development, in terms of innovative capacity, imitative capacity, market openness and competitiveness, as well as other complementary policies.

It will be argued that, with insufficient innovative capacity, developing countries need more imitation to facilitate their development objectives before they reach a level of development which enables them to capture the benefits of strong IPR protection. The lack of innovative capacity means that domestic innovation is not

³⁷¹ The language of 'promoting the progress of science and useful arts' comes from the intellectual property clause in the US Constitution. The original text reads in Article 1, Section 8, Clause 8: 'The Congress shall have the power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.'

enough to drive industrial growth and development in developing countries. In the period before sufficient innovative capacity is acquired, developing countries still have to rely substantially on imitation, copying and adaptation, as well as incremental improvement to benefit themselves in economic, social and technological aspects, and more importantly to build up that innovative capacity.

The chapter will also examine the value of imitation to development, based on scholarship that reveals the positive effects of imitation on knowledge diffusion and follow-on innovation. The previous chapter discussed the historical experiences of some developed countries when they were developing, and found that these countries adopted weak standards of IPR protection that allowed imitation and adaptation of foreign products and technologies. This chapter takes this analysis a step further and argues that history demonstrates the critical role of imitation in early stages of development.

The following section briefly introduces the values, assumptions and the objectives of IPR protection under the utilitarian approach to intellectual property. The ideal of utilitarian theory, especially the balance between the protection of intellectual property and the incentives for follow-on innovation, is nearly impossible to achieve in reality. This will be discussed in Section 4.3, while Section 4.4 considers the negative implications of the imbalance: restricting the potential of innovation for development. Then the chapter discusses the benefits of imitation for development in Sections 4.5 and 4.6, while Section 4.7 examines how development level affects the role of IPR protection.

B *Utilitarian theory of intellectual property*

This section briefly reviews the incentive theory and the balance theory, which together constitute the ideal under the utilitarian approach to intellectual property. In the critique of the main arguments used to justify intellectual property rights, Edwin Hettinger asserts that the utilitarian justification is ‘the strongest and the

most widely appealed [to]'.³⁷² The utilitarian approach to intellectual property presumes the value of innovation to development and argues that IPR protection for innovation provides incentives for further innovation, which will ultimately produce social welfare benefits and promote development. Those who espouse the utilitarian approach do not support infinite rights to intellectual property. Rather, they set limits to the scope and duration of IPR protection in order to balance private rights against public interests in knowledge dissemination, and balance the protection for current innovation against the incentive for follow-on innovation.

1 *Incentive Theory of Intellectual Property*

According to the utilitarian theory, IPR protection is justified because it can produce socially beneficial consequences by providing incentives for innovation, while at the same time encouraging disclosure and diffusion of knowledge. The incentive theory holds that without IPR protection, there would be no incentive for original innovation. This is because intellectual property is a form of pure public good that has two main qualities: it is non-rivalrous in consumption and non-excludable.³⁷³ It means that more than one person may use an intellectual work at the same time without interfering with any other person; one's copying and use of the works does not deprive another's use, and may even occur without the knowledge of the creator. The non-rivalrous characteristic was nicely articulated by Thomas Jefferson who wrote in a letter that

[A]n individual may exclusively possess [an idea] as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me,

³⁷² Edwin C. Hettinger, 'Justifying Intellectual Property' (1989) 18(1) *Philosophy and Public Affairs* 31, 47 (also criticizing the Lockean labour theory, the desert theory, and the sovereignty theory).

³⁷³ Inge Kaul, Isabelle Grunberg and Marc A. Stern, 'Defining Global Public Goods' in Inge Kaul, Isabelle Grunberg and Marc A. Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press, 1999) 2-19, 3.

receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me.³⁷⁴

In an economic sense, the non-rivalrous nature means that intellectual works are expensive to create but inexpensive to copy. It results in the failure in the marketplace of ideas without intervention from outside. Because intangible objects are non-rivalrous, once produced, intellectual works are very easy to reproduce and imitate. Nevertheless, it is argued that it is in each person's self-interest to 'let others develop products and then mimic the result.'³⁷⁵ Thus, the utilitarian approach assumes that in a competitive market, if everyone can simply copy another's works at no cost, there would be no incentive to engage in original research and development of new works, because the original producer who bears the initial costs may not be able to appropriate the benefits and recover the costs.³⁷⁶ The result would be a net loss to society. To avoid this disastrous result and to remedy the market failure in compensating the original producer, intellectual property law intervenes by conferring the creator exclusive rights to his original works. By so doing the law also creates an artificial scarcity in order to give rewards to a few at the expense of the many, because intellectual property does not have the same problem of scarcity as for physical property.³⁷⁷

While IPR protection is necessary because of the non-rivalrous nature of intellectual works, such protection is important because it is assumed to be able to stimulate innovation, which is a driving force of economic development and social welfare. Recognizing the value of innovation, the utilitarian theory argues that adequate

³⁷⁴ Thomas Jefferson, 'Thomas Jefferson to Isaac McPherson (13 August 1813)' in Philip B. Kurland and Ralph Lerner (eds), *The Founders' Constitution* (University of Chicago and Liberty Fund, 1987) vol 3, 42-44, 42.

³⁷⁵ Edwin C. Hettinger, above n 372, 48.

³⁷⁶ See William M. Landes and Richard A. Posner, *The Economic Structure of Intellectual Property Law* (Harvard University Press, 2003), 294-297 (discussing the economics of patent and patent law).

³⁷⁷ Lawrence C. Becker, 'Deserving to Own Intellectual Property' (1993) 68 *University of Chicago-Kent Law Review* 609, 616 (noting that the natural scarcity is eliminated in the realm of intellectual property, but intellectual property rights are introduced to sustain scarcity by artifice for the benefit of the owners). See also Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Peterson Institute, 2000), 28-29.

economic incentive has to be in place to induce the investment in producing innovation, and IPR protection provides this incentive. Because society at large will benefit from the overall increase in innovations, the utilitarian theory states that IPR protection, by stimulating innovation, will ultimately enhance social welfare and promote development.

2 *Balance of Incentives for Initial Innovation and Follow-on Innovation*

Edwin Hettinger notes that the utilitarian approach is paradoxical, as it restricts the current availability and use of intellectual works for the purpose of increasing the production and future availability and use of new intellectual works.³⁷⁸ This paradox can be re-phrased as balancing the protection for current intellectual works against the incentives for future intellectual works. However, too much protection of current intellectual works may restrict the opportunity and ability to create future intellectual works.

This contradiction of incentives for initial innovation and future innovation derives from the cumulative nature of innovation. It is commonly accepted that the production of innovation is cumulative, which means that innovation is building on pre-existing innovations. The intellectual commons, a concept describing the reservoir of ideas free to use by all, provides a shared base of knowledge that everyone can use for their individual appropriation. With more ideas created, the intellectual commons is surely to expand over time. So it is not surprising that late-coming creators may borrow ideas from others, or use prior existing materials to create new intellectual works. For example, a number of Walt Disney's films based on well-known folk stories and fairy tales, such as Snow White, Pinocchio, Cinderella, Robin Hood, Sleeping Beauty, among others.³⁷⁹

³⁷⁸ Edwin C. Hettinger, above n 372, 48.

³⁷⁹ Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock down Culture and Control Creativity* (Penguin Press, 2004), 23. See also Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008),

Mark Lemley points out that an inventor often builds on the work of those who came before, and new ideas may result from changes in market demand or the availability of new or cheaper starting materials.³⁸⁰ Based on a close examination of 157 individual patents randomly selected from a pool of more than 300,000 patents, Wilfred Schoenmakers and Geert Duysters found that 'radical inventions are, to a higher degree, based on existing knowledge and especially on a combination and re-combination of mature and emergent technologies than non-radical inventions.'³⁸¹ Even for pioneering inventions such as the steam engine, cotton gin, telegraph, telephone, light bulb, automobile, airplane and radio, among many others, 'simultaneous invention and incremental improvement are the way innovation works.'³⁸²

Given the cumulative nature of innovation, IPR protection for initial innovation affects the incentives for follow-on innovation. Controlling access to intellectual works affects the availability and use of these works. Any late-coming innovators may face the risk of infringing on the IPRs for the current innovation. Consequently, too narrow or too broad protection of IPRs will lead to an imbalance of incentives between early and later inventors. Narrow protection for the initial innovation may give insufficient incentives for the original creator to innovate in the first place. Meanwhile, broad protection is likely to restrict the opportunity of follow-on creators to improve on the early technical solution or develop alternative solutions to the same technical problem, as the risk of infringement by so doing is increased. In addition, broad protection of the preceding invention means that second

31 (noting that Disney has made enormous use of the public domain, but it is reluctant to put anything back in the public domain).

³⁸⁰ Mark A. Lemley, 'The Myth of the Sole Inventor' (2012) 110 *Michigan Law Review* 709, 711.

³⁸¹ See Wilfred Schoenmakers and Geert Duysters, 'The Technological Origins of Radical Inventions' (2010) 39(8) *Research Policy* 1051, 1057. Likewise, Sam Arts and Reinhilde Veugele, analysing the US patent record in biotechnology from 1976 to 2001, also conclude that biotech breakthroughs build substantially on prior art, and the novelty comes from combining technological components or subfields for the first time in history. See Sam Arts and Reinhilde Veugelers, 'The Technological Origins and Novelty of Breakthrough Inventions' (FEB Research Report No MSI_1302, Faculty of Business and Economics, KU Leuven, January 2013) 21-22 <https://lirias.kuleuven.be/bitstream/123456789/377027/1/MSI_1302.pdf>.

³⁸² Mark A. Lemley, above n 380, 716.

generation inventors have to buy license for the use of the initial technology, thus raising the costs of later invention and reducing the later inventor's share of market value of the new products.³⁸³

Nevertheless, incentives for future innovation are crucial to increasing the overall stock of new ideas and knowledge. As discussed before, one of the objectives of IPR protection under the utilitarian approach is to promote the proliferation and dissemination of more intellectual works and eventually maximize social welfare. Granting IPRs to the creator for a limited time is merely a means to that end. As Dan Burk and Mark Lemley argue, for patents, 'the purpose of the patent system is to promote innovation by granting exclusive rights to encourage invention.'³⁸⁴ The patent monopoly is justified if, and only if, the monopoly is likely to lead to genuine incentives for research and for bringing new products to market.³⁸⁵

3 *Disclosure and Limited Term: Strategies to Keep Balance*

It follows that to maximize the positive effects of IPR protection on innovation requires establishing the optimal standards of IPR protection in terms of both breath and length. It is therefore important to reach and maintain the subtle balance between 'on one hand, the power of exclusive rights to stimulate the creation of inventions and works of art and, on the other, the partially offsetting tendency of such rights to curtail widespread public enjoyment of those creations.'³⁸⁶

A key means of maintaining this balance is the requirement of disclosure and the limitation on the duration and scope of IPRs. Along with the incentive argument, the utilitarian approach to justifying IPRs requires disclosure of the subject matter and

³⁸³ Suzanne Scotchmer, 'Standing on the Shoulders of Giants: Cumulative Research and Patent Law' (1991) 5(1) *Journal of Economic Perspectives* 29, 32.

³⁸⁴ Dan L. Burk and Mark A. Lemley, 'Policy Levers in Patent Law' (2003) 89 *Virginia Law Review* 1575, 1580.

³⁸⁵ John Barton, 'Issues Posed by a World Patent System' in Keith E. Maskus and Jerome H. Reichman (eds), *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (Cambridge University Press, 2005) 617, 623.

³⁸⁶ William Fisher, 'Theories of Intellectual Property' in Stephen Munzer (ed), *New Essays in the Legal and Political Theory of Property* (Cambridge University Press, 2001) 168-200, 169.

limits the duration of protection to a fixed term. The limit of protection varies across different types of IPRs and across different jurisdictions. The TRIPs agreement requires member countries to provide protection of at least 20 years for patents, 10 years for industrial designs, and 50 years (usually plus lifetime for natural persons) for copyright.³⁸⁷ But for trademarks, although the term of protection is no less than 7 years after initial registration, it can be indefinitely renewed, which potentially means perpetual protection.³⁸⁸ Similarly, trade secrets can be protected indefinitely.

The disclosure requirement is particularly relevant to patents. One argument for the patent system is that patent is granted to inventors for a limited time in exchange for the public disclosure of the subject innovation which otherwise would be kept secret.³⁸⁹ This trade-off argument is known as the 'quid pro quo' of patent disclosure between the public and individual creators.³⁹⁰ Lord Mansfield was among the first to formulate this point when he pronounced, in a 1778 case, that:

The law relative to patents requires, as a price the individual should pay the people for his monopoly, that he should enroll, to the very best of his knowledge and judgment, the fullest and most sufficient description of all the particulars on which the effect depended, that he was at the time able to do.³⁹¹

While the disclosure requirement may not necessarily be applicable in cases of copyrights and trademarks, there is no denial that the disclosure of patent

³⁸⁷ Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs agreement), art 33, 12. 26[3].

³⁸⁸ Ibid art 18.

³⁸⁹ William M. Landes and Richard A. Posner, *The Economic Structure of Intellectual Property Law* (Harvard University Press, 2003), 294. It is worth noting that disclosure of technical information about inventions is a requirement, rather than a justification, for granting patent rights for a limited time. As Lisa Ouellette observes, 'we do not grant patents because of disclosure – we require disclosure because we grant patents.' See Lisa Larrimore Ouellette, 'Do Patents Disclose Useful Information?' (2012) 25(2) *Harvard Journal of Law and Technology* 531, 533.

³⁹⁰ See, e.g., *Eldred v Ashcroft* (2003) 537 U.S. 186, 225 (referring to a patent as a 'quid pro quo' for disclosure); Jeann C. Fromer, 'Patent Disclosure' (2009) 94 *Iowa Law Review* 539, 542; Lisa Larrimore Ouellette, 'Do Patents Disclose Useful Information?' (2012) 25(2) *Harvard Journal of Law and Technology* 531.

³⁹¹ *Liardet v Johnson* (1778) 1 W.P.C. 52, 54.

information is important to knowledge diffusion and follow-on innovation, especially in technological fields. The purpose of the disclosure requirement is to ensure that the benefits of innovation can be enjoyed by the public. Making the ideas embedded in the patented innovation available for public use, though at certain costs during the period of patent protection, is a means to offset the costs of monopoly under patent rights. Once a patent expires, the subject innovation will fall into public domain completely and permanently.

With the compulsory disclosure requirement and the limitation of term of protection, the utilitarian theory implies that, within IPR systems, it is possible to reach the balance between exclusion and access, and between the protection of private rights and public interests, so as to maximize social welfare.

C The Malfunction of the Utilitarian Ideal

Unfortunately, the ideal of the utilitarian approach is not easy to realize in reality. The optimal level of protection, where the positive effects of IPR protection can be maximized, turns out to be difficult to reach because of the difficulty in setting the delicate balance between incentives for initial innovation and follow-on innovation. Given the disparity of economic power between rights holders and rights users, it seems that the balance of IPR protection seems to tilt in favour of the rights holders who frequently seek the expansion of IPR protection in terms of both scope and duration, as discussed previously in Chapter III.

This section will discuss three problems that account for the malfunction of the utilitarian approach to intellectual property in practice. First, inadequate disclosure of technical information in patents reduces the opportunity for follow-on innovation. Second, expansion of IPR protection in terms of both breadth and length further diminishes the incentives for future innovation. A third problem concerns the abuse of intellectual property rights. Because of these problems, it is argued that the benefits of IPR protection, along with the value of innovation, fail to materialize in the way in which utilitarian theory predicts.

1 *Inadequate Disclosure*

As mentioned before, the disclosure requirement is most relevant in patents. Under the trade-off argument, patents are granted to inventors for a limited time in exchange for the public disclosure of the subject invention, which otherwise would be kept secret. The underlying assumption is that the subject invention can be kept secret and would be kept secret without patent grant. However, not all inventions can be kept secret or can be kept secret for long.

Those inventions that may be disclosed immediately or not long after releasing are called self-disclosing inventions. Katherine Strandburg distinguishes self-disclosing inventions from non-self-disclosing inventions and argues that only for those non-self-disclosing inventions, the return from patent exclusivity is larger than from keeping a trade secret.³⁹² She goes on to argue that only in this case would the disclosure quid pro quo be in operation, and that only when the use of disclosure leads to faster or broader follow-on innovation than the original inventor would produce, would the public actually gain from the disclosure quid pro quo.³⁹³

Nevertheless, Katherine Strandburg also points out that patent claims for non-self-disclosing inventions are particularly vague, such as industrial processes and complicated software programs.³⁹⁴ This view is supported by other scholars. Ben Klemens finds that patents on software and other information-processing technologies are notoriously vague and virtually useless for disclosure purposes.³⁹⁵ Alan Devlin also notes that '[m]any patents fail to disclose properly the inner workings of the protected technology.'³⁹⁶ A recent survey on nanotechnology

³⁹² Katherine J Strandburg, 'What Does the Public Get - Experimental Use and the Patent Bargain' (2004) 2004(1) *Wisconsin Law Review* 81, 103.

³⁹³ Ibid.

³⁹⁴ Ibid.

³⁹⁵ Ben Klemens, 'The Rise of the Information Processing Patent' (2008) 14 *Boston University Journal of Science and Technology Law* 1, 35.

³⁹⁶ Alan Devlin, 'The Misunderstood Function of Disclosure in Patent Law' (2010) 23(2) *Harvard Journal of Law and Technology* 401, 410. For a criticism of the role of the disclosure requirement in disseminating information, see also Jeann C. Fromer, 'Patent Disclosure' (2009) 94 *Iowa Law Review* 539, 560. See also James E. Bessen, 'Patents and the Diffusion

researchers suggests that 40 per cent of researchers find the technical information in patents is not useful because patents are confusingly written, unreliable, duplicative of journal articles or out of date.³⁹⁷ Another 62 per cent of researchers said they could not reproduce the invention without additional information.³⁹⁸

The inadequacy of disclosure means that the dissemination of technical information embedded in existing patents is inefficient, thus reducing the ability of late-coming innovators to use the existing patented technologies. A possible reason for inadequate disclosure is that firms often have incentives to prevent competitors from producing follow-on inventions in order to maintain their own competitive advantage, while at the same time reaping the rewards from patent rights. As mentioned before, the disclosure requirement for patents is intended to balance the protection for current innovation and the availability and use of such innovation for future innovation. If the patent specifications fail to disclose the ideas embedded in the subject innovation, patent would actually lock on those ideas for the period of protection, delaying the use of those ideas for follow-on innovation.

2 *Extension of IPR Protection Term*

Both the scope and the duration of IPR protection have increased dramatically in the past century. The subject matter of patents has been extended from processes to products and from traditional technical solutions to computer software, business methods, and human genes. In addition, IPR protection has crossed borders through international treaties and agreements. More notably, the duration of IPR protection, in particular copyright term, has been extended dramatically, compared to the term provided in the first copyright law.

The extension of copyright term in the US is a typical example. In 1790, when the first copyright law was enacted, authors were granted copyright for 14 years upon

of Technical Information' (2004) 86(1) *Economics Letters* 121 (noting that diffusion is not necessarily more likely with a patent system).

³⁹⁷ Lisa Larrimore Ouellette, 'Do Patents Disclose Useful Information?' (2012) 25(2) *Harvard Journal of Law and Technology* 531, 561.

³⁹⁸ *Ibid* 562.

registration of their works, with the right to renew once for another 14 years if the author was alive at the end of the initial 14 years.³⁹⁹ In 1831 the US Congress extended the initial term to 28 years and extended the renewal term to 28 years in 1909, setting a maximum term of 56 years.⁴⁰⁰ Again in 1976 the Congress changed the copyright regime dramatically by abandoning the renewal system and setting a fixed term of 75 years for corporate authors, and lifetime plus 50 years for natural authors.⁴⁰¹ This term was extended by 20 years in 1998 under the Sonny Bono Copyright Term Extension Act (CTEA), meaning that copyright of some works may last for a century.⁴⁰²

Given the extension of copyright term, Lawrence Lessig laments that '[d]espite the requirement that terms be "limited," we have no evidence that anything will limit them.'⁴⁰³ His objection to the unlimited power of the Congress to extend copyright term has been brought to the Supreme Court in the case *Eldred v Ashcroft*, where the constitutionality of the CTEA was challenged on the grounds that extending existing terms by another 20 years violated the 'limited time' requirement in Article I, section 8 of the US Constitution and the First Amendment.⁴⁰⁴ The case was lost by Eldred, although dissenting opinions held that 'the term of copyrights has become so long as to be effectively unlimited.'⁴⁰⁵

The extension of IPR protection terms is not limited to the US copyright law, but also occurs in the international IPR regime. As already discussed in the previous

³⁹⁹ Copyright Act, Stat 124 §§ 1-2 1 (1790).

⁴⁰⁰ An Act to Amend the Several Acts Respecting Copyrights, 4 Stat 436 § 1 (1831).

⁴⁰¹ An Act for the general revision of the Copyright Law, title 17 of the United States Code, and for other purposes, 90 Stat 2541 Public Law 94-553 §§ 3.302-5 (1976).

⁴⁰² An Act to amend the provisions of title 17, United States Code, with respect to the duration of copyright, and for other purposes (Sonny Bono Copyright Term Extension Act), 112 Stat 2827 Public Law 105-298 § 102 (1998). See also Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock down Culture and Control Creativity* (Penguin Press, 2004), 134-135.

⁴⁰³ Lawrence Lessig, above n 402, 135.

⁴⁰⁴ Ibid 228; *Eldred v Ashcroft* (2003) 537 U.S. 186.

⁴⁰⁵ Lawrence Lessig, above n 402, 243 (noting that Justices Breyer and Stevens wrote very strong dissents: Justice Stevens argued that the tradition of intellectual property law should not support this unjustified extension of terms, while Justice Breyer argued that the term of copyrights has become so long as to be effectively unlimited).

chapter, the US has led the movement to increase the standards and duration of international IPR protection. Through multilateral, bilateral and plurilateral trade agreements, the US standards of IPR protection have been consistently imposed on developing countries, especially through the TRIPs agreement. Chapter III has showed that the minimum term of protection required under the TRIPs agreement is already much longer than that which was provided in many western countries when they were developing.

3 *Abusive Use of IPRs*

Intellectual property as an exclusive right enables rights holders to collect royalties and enforce their rights against infringers. However, these rights have a number of disadvantages. Joseph Stiglitz points out that one of the fundamental problems within the intellectual property system is that intellectual property grants (temporary) monopoly power, which may lead not only to inequities but also to major distortions of resource allocations.⁴⁰⁶ In addition, a recent report on UK intellectual property and growth led by Professor Ian Hargreaves (Hargreaves Review) points out that increasing numbers of patents are likely to cause the development of 'thickets' of patents with overlapping claims.⁴⁰⁷ It suggests that patent thickets may lead to high transaction costs and encourage strategic or defensive patenting behaviour, which in turn causes firms to under-invest in the commercialization of downstream technologies.⁴⁰⁸

To be specific, there are concerns about the abusive use of IPRs to shield competition and follow-on innovation by unilateral refusal to license IPRs, incorporating patents into collaboratively set standards, cross-licensing and patent

⁴⁰⁶ 'Declaration of Joseph E. Stiglitz', *Association for Molecular Patenting v. United States Patent and Trademark Association* [2010] 702 F. Supp. 2d 181, United States District Court for the Southern District of New York, 20 January 2010, 15 (Stiglitz, Joseph E.).

⁴⁰⁷ Ian Hargreaves, 'Digital Opportunity: Review of Intellectual Property and Growth' (Independent Report 18 May 2011) 56 [6.13]
<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/i_preview-finalreport.pdf>.

⁴⁰⁸ Ibid 56-57.

pools, and tying and bundling of IPRs, among others.⁴⁰⁹ By obtaining a large portfolio of IPRs on a wide range of technologies and products in a certain sector, the rights holder can sue or threaten to sue competitors who do not have a counterpart portfolio, forcing them to either pay a large amount of royalties or get out of the market. They may also sign cross-licensing agreements with competitors who have a comparable size and quantity of IPRs and establish an IPR cartel, sharing the markets in the respective sectors.⁴¹⁰ Consequently, new entrants to the market will confront a web of patents that deters them from doing research in the same field.

There are numerous cases where IPRs, and in particular patents, have been used to establish the monopoly status of a few corporate players in certain sectors. For example, as early as 1924 the world's leading producers of electric lamps (Osram, Philips, Tungsram, International General Electric) signed a cartel agreement based on the exchange of patents; in the chemical industry, the US firm DuPont concluded the Patent and Process Agreement in 1929 with the UK's Imperial Chemical Industries, creating a dominant position in the American and British markets.⁴¹¹ Patent sharing agreements, as Peter Drahos notes, 'did exactly the same things that good old-fashioned cartel agreements did.'⁴¹² Similar agreements on the division of world markets using intellectual property rights have occurred in almost all of the key industries during the early 20th century, including rubber, nitrogen, aluminium, magnesium, electric lights, motion pictures, and publishing.⁴¹³

⁴⁰⁹ See generally US Department of Justice and the Federal Trade Commission, 'Anti-trust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition' (Report, April 2007) <www.usdoj.gov/atr/public/hearings/ip/222655.pdf>.

⁴¹⁰ Adam B. Jaffe and Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (Princeton University Press, 2009), 59-60.

⁴¹¹ Peter Drahos and John Braithwaite, *Information Feudalism* (Earthscan Publications, 2002), 53.

⁴¹² Ibid.

⁴¹³ For example, in 1908, the main players in the US motion picture industry formed the Motion Picture Patents Company, a patent pool that licensed only members of the company to produce pictures. After World War I, the US and English publishers entered into an agreement called the 'British Publishers Traditional Market Agreement'. Under the agreement British publishers agreed not to compete in the US market and in return they

Another example is Texas Instruments, a semi-conductor firm that has used patent litigation to earn licensing revenues. Adam Jaffe and Josh Lerner point out that, from the mid-1980s to 1999, patent royalties collected using this strategy represented more than 55 per cent of Texas Instrument's total net income.⁴¹⁴ In the semiconductor sector, it is especially difficult to tie a patent to a particular product, and products change too quickly for a patent to be used effectively to garner economic returns from innovation.⁴¹⁵ Thus, many semiconductor patents are disused or dormant, and investment in innovation can be better recovered by first-mover advantage instead of patents.⁴¹⁶ In this case, patents have less social value than those that can be effectively applied, but they are still used as offensive weapons to threaten and disrupt the ongoing and future business plans of competitors.⁴¹⁷ Although this strategy is profitable as a means of increasing royalty income, it significantly undermines the incentives for follow-on innovation, given the cumulative nature of innovation.

Another criticism made of the patent system is that there are non-practising entities (NPEs) using patent licensing or litigation to derive income. Known pejoratively as 'patent trolls', NPEs do not apply patents to the manufacturing of products. The sole purpose of obtaining patents for NPEs is to assert patent claims and extract value from other practicing entities by suing or threatening to sue for infringement. One study shows that as of 2012, litigation by NPEs represents a majority (58.7 per cent) of all patent litigations filed in the US, a sharp rise from 2007 when the number was only 24.6 per cent.⁴¹⁸ In this case, patents are used against competitors and new entrants. The result is that not only the innovation protected under such rights is wasted, but also follow-on innovation is blocked. Hence, with NPEs, the value of innovation to social welfare may be destroyed.

received the 70 or so countries that were or had been Commonwealth members. See *ibid* 54-55.

⁴¹⁴ Adam B. Jaffe and Josh Lerner, above n 410, 57.

⁴¹⁵ *Ibid.*

⁴¹⁶ *Ibid.*

⁴¹⁷ *Ibid* 56.

⁴¹⁸ Robin Feldman, Thomas Ewing and Sara Jeruss, 'The AIA 500 Expanded: The Effects of Patent Monetization Entities' (Research Paper No 45, UC Hastings, 9 April 2013) <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2247195>.

These practices of IPR abuse allow the monopoly under IPRs to transform into an actual monopoly position for a few big firms, which dominate the market in certain industries and suppress competition from small firms and start-ups. In this way, the costs of follow-on innovation may be too high for late-coming innovators to afford, thus diminishing the incentives for future innovation.

These costs for innovation may be more evident in developing countries, as their domestic industries have a relatively lower innovative capacity and less IPRs than those multinational companies based in the US and other developed countries. In addition, it has long been questioned whether developing countries have a well-functioning anti-trust legal system that is specifically aiming to regulate the abusive use of IPRs and which is effectively enforced.⁴¹⁹ Therefore, strong IPR protection is likely to result in more abuses in developing countries, which may probably deter domestic follow-on innovation.

D *IPR Protection and Innovation*

Given the practical problems discussed in the previous section, it is not surprising that IPR protection does not always promote innovation and development. This is confirmed by a growing body of empirical work. This section reviews existing studies on the impact of IPR protection on innovation and development. It finds that the relationship between IPR protection and development is nebulous, but many studies show that IPR protection does not always stimulate innovation, and that over-strong protection will restrict access to knowledge and block follow-on innovation.

⁴¹⁹ See Susan Sell, 'Intellectual Property Protection and Anti-trust in the Developing World: Crisis, Coercion, and Choice' (1995) 49(2) *International Organization* 315, 334 (discussing the anti-trust policy changes in developing countries and pointing out that they adopted anti-trust laws primarily because economic liberalization around the 1990s required protecting private actors and foreign companies from discrimination, rather than for the purpose of regulating IPR abuses). See Dina I. Waked, 'Anti-trust Enforcement in Developing Countries: Reasons for Enforcement & Non-Enforcement Using Resource-Based Evidence' (Paper presented at the Conference on Empirical Legal Studies 2010, New Haven, Connecticut, US, 12 July 2011) 10 <<http://ssrn.com/abstract=1638874>> (noting that the newly adopted specialized competition laws in most developing countries are replicas of laws developed in the West, with the potential for enforcement at varying degrees).

1 *Effect of IPR Protection in General*

In Chapter III, it was observed that in order to persuade developing countries to accept high standards of IPR protection, developed countries claim that IPR protection can stimulate innovation, induce foreign direct investment, and facilitate technology transfer. There are some studies supporting this claim. The 1996 study by David Gould and William Gruben, using cross-country (including developed and developing countries) data on patent protection and GDP per capita, finds a positive relationship between strong IPR protection and economic growth, with this relationship more pronounced in open economies.⁴²⁰ Similarly, Sunil Kanwar and Robert Evenson examined whether more stringent protection of intellectual property does encourage innovation, utilizing cross-country panel data on research and development investment, patent protection and other country-specific characteristics spanning the period 1981-1990. They found that the protection of intellectual property rights unambiguously provides significant incentives for spurring innovation and technological change.⁴²¹ Hence, scholars argue that a specific model of IPR protection, namely the enactment of European-style intellectual property laws in developing countries, is a necessary prerequisite to economic progress and development.⁴²²

However, the data used by Sunil Kanwar and Robert Evenson were collected mainly from developed countries, with a few middle-income developing countries.⁴²³ It is thus questionable whether the same conclusion can be applicable with equal force to low-income developing countries and least developed countries.

⁴²⁰ David M. Gould and William C. Gruben, 'The Role of Intellectual Property Rights in Economic Growth' (1996) 48(2) *Journal of Development Economics* 323, 345.

⁴²¹ Sunil Kanwar and Robert Evenson, 'Does Intellectual Property Protection Spur Technological Change?' (Center Discussion Paper No 831, Yale University Economic Growth Center, June 2001) 22 <http://www.econ.yale.edu/growth_pdf/cdp831.pdf>.

⁴²² See e.g., Richard T. Rapp and Richard P. Rozek, 'Benefits and Costs of Intellectual Property Protection in Developing Countries' (1990) 24(5) *Journal of World Trade* 75; Robert M. Sherwood, *Intellectual Property and Economic Development* (Westview Press, 1990).

⁴²³ Sunil Kanwar and Robert Evenson, above n 421, 29.

At the same time, there are scholars skeptical of the stimulating role of IPR protection. Early studies by Gene Grossman and Elhanan Helpman found that strong protection can increase innovate rates in the short term, but the long-term effect will be the reduction of innovation rates as producers tend to produce the older products instead of innovating.⁴²⁴ In the same vein, Mark Lemley found an inverted 'U' relationship between IPR protection and innovation, noting that:

adding more and more IPR protection not only had diminishing marginal benefits, but at some point has a net negative impact on innovation, because the strengthening of existing rights stifles more new innovation building on those rights than further expansion encourages.⁴²⁵

Mark Lemley summarizes the cost of intellectual property as follows. First, intellectual property rights distort markets away from the competitive norm, and therefore create static inefficiencies in the form of deadweight losses. Second, intellectual property rights interfere with the ability of other creators to work and therefore create dynamic inefficiencies. Third, the prospect of intellectual property rights encourages rent-seeking behaviour that is socially wasteful. Fourth, enforcement of intellectual property rights imposes administrative costs. Finally, over-investment in research and development is itself distortionary.⁴²⁶

As has been emphasized earlier in this chapter, under the utilitarian approach, patents in particular are argued to be a stimulator of scientific and technological innovation. However, there is ample evidence suggesting otherwise. Edwin Mansfield, an enthusiastic supporter of the patent system, reminds us that the essentiality of patent protection varies among industries: it is only for chemical and pharmaceutical industries that patent protection has proved to be significantly

⁴²⁴ See Gene M. Grossman and Elhanan Helpman, *Innovation and Growth in the Global Economy* (MIT Press, 1991) (arguing that stronger protection would lower the global rate of technical innovation); Elhanan Helpman, 'Innovation, Imitation and Intellectual Property Rights' (1993) 61(6) *Econometrica* 1247 (finding that that only in the short term will strong protection increase innovation rate as it raises profitability, whereas in the long term it will cause the rate of innovation to fall as the producers tend to produce the older products).

⁴²⁵ Mark A. Lemley, 'Property, Intellectual Property, and Free Riding' (2005) 83 *Texas Law Review* 1031, 1068.

⁴²⁶ *Ibid* 1058.

essential for the development and introduction of inventions, whereas for other industries the importance of patent protection is very limited.⁴²⁷ James Bessen and Michael Meurer made the same point by presenting a variety of studies and data that suggest, except in the pharmaceutical industry, the profitability of patents have decreased as new technologies have grown exponentially since the mid-1990's.⁴²⁸

Petra Moser uses data from the Crystal Palace Exhibition in London in 1851 and the Centennial Exhibition in Philadelphia in 1876, where inventors and firms exchanged technological information internationally, to reveal that patent laws did not increase levels of innovative activity, and that especially in industries such as scientific instruments and food processing, countries without patent laws were able to bring more innovations than those having patent laws.⁴²⁹ For example, 27 per cent of Switzerland's exhibits and 23 per cent of Denmark's exhibits at the Crystal Palace were of scientific instruments, while no other country had comparable shares of innovations in scientific instruments, with Britain exhibiting 6 per cent, France 10 per cent, and the US 13 per cent.⁴³⁰ It seems that the cost of possibly weaker incentives for domestic invention in countries without patent laws was offset by the benefit of not having patent laws: the ability to legally copy foreign inventions.⁴³¹

⁴²⁷ Edwin Mansfield, 'Patents and Innovation: An Empirical Study' (1986) 32(2) *Management Science* 173, 174. After sampling 100 firms in 12 industries, Mansfield finds that in chemical and pharmaceutical industries, patent protection induces 30 per cent or more of inventions, while for industries such as electrical equipment, motor vehicles, primary metals, rubber, and textiles, etc., the number is less than 10 per cent.

⁴²⁸ James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, 2008), 121.

⁴²⁹ Countries without patent laws, such as Denmark, Switzerland, and the Netherlands, were able to bring forth a considerable number of innovations. Switzerland, a country that did not adopt patent laws until 1907, exhibited the second largest number of innovations per capita (110 exhibits), after Belgium (117 exhibits). Exhibits per capita measure total exhibits at the Crystal Palace per million inhabitants in 1851. See Petra Moser, 'How Do Patent Laws Influence Innovation? Evidence from Nineteenth-Century World Fairs' (Working Paper No 9909, National Bureau of Economic Research, August 2003) 23-25 <<http://www.nber.org/papers/w9909.pdf>>.

⁴³⁰ Ibid 27.

⁴³¹ Ibid 25. Notably, the absence of patent laws seemed to direct innovation in industries where alternative mechanisms for protecting innovation were available. For example, secrecy proved to be more effective than patents in inducing more innovations in the food

Similarly, Josh Lerner examined the impact of major patent policy shifts in sixty of the most economically developed countries over a 150-year period (1850-1999) on patent applications by residents of the nation undertaking such policy change. The results show that the enhancement of patent protection was negatively related to the number of patent applications by local residents in countries that adopted such policy change.⁴³²

These findings are understandable. As Professor Luis Suarez-Villa points out, one of the most important factors that support scientific and technological creativity is the diffusion of scientific and technological knowledge.⁴³³ While patent law requires the disclosure of specifications of each particular invention, its effect on technology diffusion is very limited, given the inadequacy of disclosure as discussed before.

Another reason concerns the extent to which an invention is self-disclosing. As discussed before, only for non-self-disclosing inventions would the patent-and-disclosure trade-off be in operation. However, as many scholars have pointed out, if an invention is easy to keep secret firms as rational economic actors may prefer having it protected as a trade secret rather than applying for patent, because the term of protection for trade secrets is indefinite and the competitive advantage can be more effectively maintained.⁴³⁴ In this case, patents are useless in encouraging dissemination of scientific and technological knowledge.

processing and scientific instruments industries. After the Netherlands abolished her patent system in 1869, the Dutch share of food processing innovations increased from 11 to 37 percent. See *ibid* 6.

⁴³² Josh Lerner, 'Patent Protection and Innovation Over 150 Years' (Working Paper No 8977, National Bureau of Economic Research, June 2002) 27 <<http://www.nber.org/papers/w8977>>; Josh Lerner, 'The Empirical Impact of Intellectual Property Rights on Innovation: Puzzles and Clues' (Pt Papers and Proceedings of the One Hundred Twenty-First Meeting of the American Economic Association) (2009) 99(2) *American Economic Review* 343, 346.

⁴³³ Luis Suarez-Villa, *Invention and the Rise of Technocapitalism* (Rowman and Littlefield, 2000), 12, 17.

⁴³⁴ See David Encaoua, Dominique Guellec and Catalina Martinez, 'Patent Systems for Encouraging Innovation: Lessons from Economic Analysis' (2006) 35(9) *Research Policy* 1423, 1427 (discussing some survey results that suggest patent is less emphasized than other mechanisms, such as first mover advantage and secrecy in many industries, especially in the services sector). See also Wesley M. Cohen, Richard R. Nelson and John P. Walsh,

Considering the problems in IPR systems as discussed in the previous section, it seems more appropriate to agree with the view that intellectual property can have both benefits and costs. Whether there will be more benefits or costs depends on whether the standards of protection correspond with the level of development in a country. As discussed in Chapter III, the current standards of IPR protection in developing countries are too high and not suitable for their development levels. Therefore, it can be anticipated that strong IPR protection produces more costs than benefits in these countries, and the costs may be especially obvious for domestic follow-on innovation.

2 The Restricting Effect on Follow-on Innovation

As a form of temporary monopoly privilege, IPRs delay the entry of knowledge into the public domain and thus may hinder sequential innovation. Brian Martin gives a few examples that confirm this. As he notes, from the year 1875, the US firm AT&T collected patents in order to secure its monopoly on telephones, which slowed down the introduction of radio for some 20 years; similarly, the General Electric used control of patents to retard the introduction of fluorescent lights.⁴³⁵ In addition, Susan Sell and Christopher May also point out that James Watt held the patent for the steam engine, but refused to license his invention for the thirty-year period of protection. It is argued that by so doing, he may have held back the development of the metalworking industry for over a generation.⁴³⁶

'Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)' (Working Paper No 7552, National Bureau of Economic Research, February 2000) <<http://www.nber.org/papers/w7552.pdf>> (finding that based on surveys, patents tend to be the least emphasized by firms in the majority of manufacturing industries, among a range of IPR mechanisms, including patents, secrecy, lead time advantages and the use of complementary marketing and manufacturing capabilities).

⁴³⁵ Brian Martin, 'Against Intellectual Property' (1995) 21 *Philosophy and Social Action* 7, 10.

⁴³⁶ Susan Sell and Christopher May, 'Forgetting History is Not an Option! Intellectual Property, Public Policy and Economic Development in Context' (Paper presented at the Intellectual Property Rights for Business and Society, Birkbeck College, University of London, September 15th 2006) 8 <<http://www.dime-eu.org/files/active/0/MaySell.pdf>>.

This is supported by many other studies. When an innovation builds on the preceding innovations and may be developed by more than one firm, as James Bessen and Eric Maskin argue, strong patents will function as an impediment.⁴³⁷ Because of knowledge accumulation, there are many cases of simultaneous and overlapping inventions.⁴³⁸ Bessen and Maskin go further to argue that the equilibrium of innovative activity without patents is more nearly optimal with sequential, rather than with static, innovation, and the levels of social welfare and innovation when there is patent protection are actually lower on average than when there is not.⁴³⁹

In addition, it is argued that, for cumulative and incremental innovations, the first innovator usually has 'less incentive to come up with disruptive new technologies that improve on the initial invention, because most of the sales they would displace are their own.'⁴⁴⁰ For example, Thomas Edison did not have sufficient stimulus to improve his light bulb technology after effectively establishing the monopoly in the lamp market.⁴⁴¹ With the patent for the steam engine, James Watt ceased

⁴³⁷ James Bessen and Eric Maskin, 'Sequential Innovation, Patents, and Imitation' (Working Paper No 00-01, Massachusetts Institute of Technology, January 2000) 613 <<http://dspace.mit.edu/handle/1721.1/64176>>.

⁴³⁸ Amy L. Landers, 'Ordinary Creativity in Patent Law: The Artist Within the Scientist' (2010) 75(1) *Missouri Law Review* 1, 62 (noting that simultaneous invention is a 'logical next step' of knowledge accumulation within a field).

⁴³⁹ James Bessen and Eric Maskin, above n 437, 614. See also Adam B. Jaffe and Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (Princeton University Press, 2009); James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, 2008); Michael Heller, *The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives* (Basic Books, 2008).

⁴⁴⁰ Mark A. Lemley, 'The Myth of the Sole Inventor' (2012) 110 *Michigan Law Review* 709, 740 citing Morton I. Kamien and Nancy L. Schwartz, *Market Structure and Innovation* (Cambridge University Press, 1982), 29-30.

⁴⁴¹ Mark A. Lemley, above n 440, 741 (noting that Edison rested on his light bulb patent and his 75 per cent market share, rather than improving his lighting technology). See also Susan Sell, 'Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement' (2004) 38 *Loyola of Los Angeles Law Review* 267, 298 (describing that instead of improving on the existing technology on lighting, Thomas Edison followed the patent business strategy based on aggressive lawsuits against infringers, which effectively absorbed competition and restricted follow-on innovation).

attempting to invent new things.⁴⁴² Based on these lessons, Mark Lemley concludes that ‘in industry after industry, substantial improvement doesn’t occur until after broad pioneering patents expire or are otherwise avoided. ... By contrast, industries in which the basic technologies were not patented ... thrived in the absence of that strong central patent right.’⁴⁴³

More recently, Heidi Williams uses data on the sequencing of the human genome by the public Human Genome Project and the private firm Celera, and examines the impact of Celera's gene-level intellectual property on subsequent scientific research and product development.⁴⁴⁴ She finds that Celera's intellectual property, though only having two years of protection, led to reductions in subsequent scientific research and product development in the order of 20 to 30 per cent, which suggests that Celera's intellectual property had persistent negative effects on subsequent innovation, relative to the situation if Celera genes had always been in the public domain.⁴⁴⁵

Meanwhile, scholars also criticize copyright protection as it may enable rights holders to block potentially important new technologies. As the Hargreaves Review notes:

We have experienced this [that innovation is blocked and growth hampered] when the interests of rights owners have put them in conflict with developers of video recorders and web search engines. Research scientists, including medical researchers, are today being hampered from using computerized search and analysis techniques on data and text because copyright law can forbid or restrict such usage. As data farming becomes routine in systems across the economy, from the management of transport to the administration of public services, copyright issues become ever more

⁴⁴² Watt wrote in a letter that ‘it [is] now full time to cease attempting to invent new things, or to attempt anything which is attended with any risk of not succeeding Let us go on executing the things we understand’ F. M. Scherer, ‘Invention and Innovation in the Watt-Boulton Steam-Engine Venture’ (1965) 6(2) *Technology and Culture* 165, 174.

⁴⁴³ Mark A. Lemley, above n 440, 743.

⁴⁴⁴ Heidi L. Williams, ‘Intellectual Property Rights and Innovation: Evidence from the Human Genome’ (Working Paper No 16213, National Bureau of Economic Research, July 2010) <<http://www.nber.org/papers/w16213>>.

⁴⁴⁵ See *ibid* (relating to Breast Cancer Susceptibility Genes 1 and 2 (“BRCA 1/2”)).

important as potential obstacles. In these circumstances, copyright in its current form represents a barrier to innovation and economic opportunity.⁴⁴⁶

Based on the same evidence, Michele Boldrin and David Levine go as far as to argue that intellectual property is an 'unnecessary evil' that produces monopolies and suppresses innovation and technology development.⁴⁴⁷

It has to be noted that these effects are not limited to developing countries, with many forms of costs also occurring under the IPR systems in developed countries. For example, Adam Jaffe and Josh Lerner point out that a proliferation of patent awards of dubious merit and a sharp increase in patent litigation makes the patent system 'a distraction from innovation rather than a source of incentive'.⁴⁴⁸

Nevertheless, the negative effects may be more pronounced in developing countries for two reasons. First, insufficient innovative capacity means that there is generally a much smaller stock of domestic innovation that is eligible for IPR protection in developing countries. Thus, the role of domestic innovation in driving economic growth and development is limited. Second, since the majority of IPRs in many developing countries are currently owned by foreigners, too much IPR protection reduces domestic access to knowledge and raises the risk of infringement, thus undermining the incentive for follow-on domestic innovation that builds on existing foreign innovation.

⁴⁴⁶ Ian Hargreaves, 'Digital Opportunity: Review of Intellectual Property and Growth' (Independent Report 18 May 2011) 43 [5.10]
<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/i_preview-finalreport.pdf>.

⁴⁴⁷ Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008), 11, 72-82 (discussing the cost of patent, including using patent to establish monopolistic advantage and block competition). See also Brian Martin, 'Against Intellectual Property' (1995) 21 *Philosophy and Social Action* 7, 9.

⁴⁴⁸ Adam B. Jaffe and Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (Princeton University Press, 2009), 12, 13.

3 *Effect on Intellectual Property Users*

In addition to the scholarship on the effect of IPR protection on innovation, several studies have been completed which examine the negative effects of IPR protection on intellectual property users and the general social welfare. As discussed before, the utilitarian approach to intellectual property is built on a paradox – ensuring more accessibility of intellectual works by reducing current accessibility.

In practice, the paradox manifests itself in the fact that IPR protection allows rights holders to charge a higher price well above the marginal cost of production, whereas higher prices reduce access to intellectual property. Without access or with limited access, it is not exaggerating to say that the value of innovation is primarily a value to the right holders, a value to those who are already powerful and wealthy, and a value that the public at large cannot really enjoy. The worst case may be that IPRs have increasingly become the rent-seeking tool of the powerful and wealthy firms to ruthlessly make profits from innovation, at the expense of intellectual property users, the weak and the poor.

One frequently cited example is that people living with HIV/AIDS in poor countries cannot benefit from pharmaceutical innovation. According to the WHO estimates, there were 35 million people worldwide living with HIV at the end of 2013, with 32.6 million from low- and middle-income countries and 24.7 million from Sub-Saharan Africa. Among all those affected, however, only 12.5 million people were receiving HIV antiretroviral therapy (ART).⁴⁴⁹ It is of great concern that the high cost of medicines and a lack of financing prevent the wider use of ART in poor countries, especially when 69 per cent of all the world's people living with HIV live in Sub-Saharan Africa.⁴⁵⁰ As Michele Boldrin and David Levine point out, while AIDS drugs are inexpensive to produce, the large pharmaceutical companies charge an enormous premium over the cost of producing the drugs to reap large profits from sales in Western countries, creating artificial scarcity and excluding Africa from AIDS

⁴⁴⁹ WHO, *HIV/AIDS: Fact sheet N°360* (October 2013) World Health Organization <<http://www.who.int/mediacentre/factsheets/fs360/en/index.html>>.

⁴⁵⁰ Ibid.

drugs.⁴⁵¹ Hence, high prices in countries with significant inequality put basics like health and education out of reach of the vast majority of the population, even if accessible to the some parts of the population.

Moreover, it is argued that because of patent protection, people living with AIDS in poor countries have to wait for a decade or two until the patents expire for access to lifesaving antiretroviral medicines and treatment.⁴⁵² If the choice is between life and death for millions on the one hand, and patent protection for private property on the other, which one should prevail? Judge Mumbi Ngugi at the High Court of Kenya gave an answer in the judgment for a Petition against the *Anti-Counterfeit Act 2008*: 'the right to life, dignity and health of the petitioners (three patients living with HIV) must take precedence over the intellectual property rights of patent holders.'⁴⁵³

This stance is consistent with the findings in the previous chapter. The previous chapter showed that development is an objective of developing countries, and the development objective contains not only economic-social meanings but also concerns human rights and human development. The comparison between intellectual property and development as two types of human rights suggests that the right to development and the right to health are fundamental rights that should be prioritized over intellectual property rights.

To summarize, strong IPR protection does not always benefit developing countries with respect to stimulating innovation, developing innovative capacity or promoting social welfare, especially in developing countries. At least in the short term, many

⁴⁵¹ Michele Boldrin and David Levine, above n 447, 69-70. Michele Boldrin and David Levine argue that AIDS drugs are so sufficiently inexpensive to produce that the benefits to Africa in lives saved exceeds the costs of producing the drugs by orders of magnitude.

⁴⁵² Kevin Outterson, 'The Vanishing Public Domain: Antibiotic Resistance, Pharmaceutical Innovation and Intellectual Property Law' (2005) 67 *University of Pittsburgh Law Review* 67, 74 (arguing that the pharmaceutical knowledge is exhaustible in the sense that drug resistance may develop over time, so that when a pharmaceutical patent expires, the public receive a drug that is no longer useful, and therefore the fruits of pharmaceutical innovation should remain in common instead of becoming exclusive property of the rich).

⁴⁵³ High Court of Kenya, 'Judgment: Petition No 409 of 2009' (Judgement, 409, 20 April 2012) [85] <<http://kelinkenya.org/wp-content/uploads/2012/04/Judgment-Petition-No-409-of-20092.pdf>>. For more details, see the discussion in Chapter III, Section D.3.

developing countries seem to be more likely to bear significant costs, rather than benefiting from, strong IPR protection. One important reason is that, as discussed before, unlike developed countries that are producers and exporters of intellectual property, developing countries do not have sufficient innovative capacity nor have sufficient domestic innovation to benefit from strong IPR protection. Then the question is, how do they realize the development objective? The next section will show that developing countries mostly rely on imitation and learning to facilitate their development objectives.

E Imitation and Development

The preceding sections have showed that strong IPR protection does not always stimulate innovation, and may become an impediment to follow-on and domestic innovation in developing countries. It is argued that, consequently, developing countries without sufficient innovative capacity have to rely instead on imitation to realize the development objective.

This section explores the benefits of imitation to economic, cultural and social welfare. Drawing on studies on the relationship between imitation and innovation, this section will show that imitation can facilitate the flow of ideas and the diffusion of knowledge, which is essential to the learning process and the building up of innovative capacity. In addition, imitation of a new product in the market may benefit the inventor by advertising effects and increasing future profitability, although it may reduce the profits and market share gained by the inventor in the short term. This section further argues that imitation may contribute to the development of technological capacity, economic growth, and cultural prosperity in a number of ways, and therefore should be encouraged under national IPR policy to the most possible extent.

1 Imitation Facilitates Knowledge Diffusion

A body of studies that will be examined in this section suggest that copying and imitation are central activities that lead to knowledge diffusion and assimilation.

Borrowing ideas from others, and creating something new out of something old, is the established pattern for many industries and countries to grow both economically and culturally. This is particularly exemplified in the case of copyright. For example, the early cartoon industry in the 1920s was filled with imitation and copying – slight variations on winning themes and re-telling of ancient stories.⁴⁵⁴ As noted before, a number of Walt Disney's films draw on such pre-existing stories as Snow White, Pinocchio, Cinderella, Robin Hood, Sleeping Beauty, among others. The copying and re-telling of stories in another form is a kind of creativity. 'Walt Disney Creativity', as Lawrence Lessig calls it, 'builds on the culture around us and makes it something different.'⁴⁵⁵

This pattern of copying and creating still, and perhaps especially, holds true in the digital world. Almost every use of intellectual works in the digital environment involves copying. The use of new technologies such as text and data mining and search engine indexing requires copies of various copyright works online, for commercial and non-commercial purposes. Copying is also necessary for digitising and putting online the collections of national libraries, as well as large archives and museums that would otherwise decay and have gone for good.⁴⁵⁶ The Hargreaves Review pointed out that '[T]he exploitation of digital in order to create new and more efficient services generally relies on transmission, display and analysis of data

⁴⁵⁴ Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock down Culture and Control Creativity* (Penguin Press, 2004), 23. See also Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008), 31 (noting that Disney has made enormous use of the public domain, but it is reluctant to put anything back).

⁴⁵⁵ Lawrence Lessig, above n 454, 24.

⁴⁵⁶ There is much societal and economic benefit from the digitalization of collections in libraries, archives and museum. 'Not only is there a strong demand for access from consumers for such material, (the Europeana service receiving over 13 million hits an hour at its launch), there is also strong evidence from technology SMEs and large telecommunication companies such as Orange, presented to the Comité des Sages November 2010 hearing, as to their demand for more digital content to be made available online in order for them to build new and innovative products and services around the content.' See Joint Information Systems Committee (JISC), 'Response from the Joint Information Systems Committee (JISC) to the Independent Review of Intellectual Property and Growth' 15
<http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/ipreview-c4e-sub-thejoint.pdf>.

through copying, which digital technology makes possible almost instantly and on a global scale.⁴⁵⁷

This in turn raises intellectual property concerns, particularly copyright concerns. The Hargreaves Review acknowledged that '[D]igital technology has enabled use and reuse of material by private individuals in ways that they do not feel are wrong – such as sharing music tracks with immediate family members, or transferring a track from a CD to play in the car.'⁴⁵⁸ There are also cases where one may copy and remix copyright works to create a parody, pastiche, satire and homage, which are arguably defined to be infringements of copyright in some jurisdictions, such as the UK. The Hargreaves Review pointed out that the UK copyright law at the time did not have exceptions for private copying or for parody, which made 'everyday consumer activities, such as back-up and format-shifting of music, films and e-books, illegal.'⁴⁵⁹

With digital technologies come new forms of social and economic innovation that build on the use of existing intellectual works. The Consumers Focus submission to the Hargreaves Review contended that '[P]arody, pastiche, satire and homage have been an important vehicle for social and commercial innovation, with these types of work being among the most commercially successful and well-known works in British history.'⁴⁶⁰ Without copyright protection or fair dealing defence for these works, however, parodists and those who make their works available to the public face considerable risk of being sued for copyright infringement, and hence having

⁴⁵⁷ Ian Hargreaves, 'Digital Opportunity: Review of Intellectual Property and Growth' (Independent Report 18 May 2011) 28 [4.11] <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/preview-finalreport.pdf>.

⁴⁵⁸ Ibid 43 [5.10].

⁴⁵⁹ Consumer Focus, 'Consumer Focus response to Independent Review of IP and Growth Part 1 - The Governance Framework: providing the institutional foundations for competition, innovation and growth' (Submissions to the Call for Evidence for the Hargreaves review, March 2011) 8 <<http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/ipreview-c4e-sub-consumer.pdf>>.

⁴⁶⁰ Ibid 20.

their works removed by internet hosts.⁴⁶¹ It was thus argued that the legal uncertainty surrounding such works had a chilling effect on commercial and social innovation, and further brings copyright law into disrepute in the eyes of consumers.⁴⁶² In the same vein, Cory Doctorow also noted that,

If copying on the Internet were ended tomorrow, it would be the end of culture on the Internet too. YouTube would vanish without its storehouse of infringing clips; LiveJournal would be dead without all those interesting little user-icons and those fascinating paste bombs from books, news-stories and blogs; Flickr would dry up and blow away without all those photos of copyrighted, trademarked and otherwise protected objects, works, and scenes.⁴⁶³

Consequently, the Hargreaves Review recommended that the UK introduce a few exceptions of copyright infringement, allowing use of new research tools (for example, data analytics) for non-commercial purposes and private copying required for the normal use of new media devices (including format-shifting and family sharing), as well as exceptions for parody and pastiche.⁴⁶⁴ Some of these

⁴⁶¹ Ibid 21.

⁴⁶² Ibid 22. It argues that Companies commonly develop products and services for consumers around fair use rights in law. Without a clear fair use right for format-shifting, UK based companies risk being sued if they develop products which have no other legal function, or if they market products for the purpose of format-shifting. See *ibid* 9.

⁴⁶³ Cory Doctorow, *Cory Doctorow: Why I Copyright* (6 November 2008) Locus Magazine <<http://www.locusmag.com/Features/2008/11/cory-doctorow-why-i-copyright.html>>.

⁴⁶⁴ Ian Hargreaves, *above* n 457, 48-49. Notably, the Consumer Focus submission recommends that the UK copyright laws (1) introduce a non-commercial use exception, covering format-shifting, back-up and any other copying consumers may do in order to enjoy the copyrighted content they have purchased on different hardware and software; (2) introduce fair dealing for parody, pastiche, satire and homage in UK copyright law, allowing the copying of copyrighted works for the purpose of creating such works, and the communication to the public of the new works on a commercial and non-commercial basis. See Consumer Focus, 'Consumer Focus response to Independent Review of IP and Growth Part 1 - The Governance Framework: providing the institutional foundations for competition, innovation and growth' (Submissions to the Call for Evidence for the Hargreaves review, March 2011) 12, 24 <<http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/ipreview-c4e-sub-consumer.pdf>>.

recommendations now acted upon but not all.⁴⁶⁵ Given the role of the 'remix' culture in driving economic growth, Lawrence Lessig also called for the deregulation of amateur remix and copying and redirecting the copyright law focus on use rather than copy.⁴⁶⁶

The legal exceptions for copying and use of copyright works for educational purposes and for research are intended to promote knowledge, skills and innovation in an economy, without unduly undermining the incentive for the creation of original works.⁴⁶⁷ Proponents of IPRs accept without question that the temporary protection of exclusive rights over intellectual works is expected to realize the purpose of ensuring the availability and use of more knowledge. Even within the term of protection, relative space has to be left for free use of the works under IPR protection without the risk of infringement. This is important to maintain a free culture that 'leaves a great deal open for others to build upon.'⁴⁶⁸ Therefore, this thesis suggests that IPR protection should be as strong as is necessary to sustain incentives for innovation, but no stronger so as not to restrict the benefits derived from imitation and copying.

2 Imitation Increases Innovation

Imitation and copying can help to build up the capacity for producing innovation, either on the individual level or on industrial and country levels. As mentioned before, imitation and copying is an important method for diffusing knowledge. It

⁴⁶⁵ Some exceptions have been recently introduced in 2014, including personal copies for private use, and some limited, reasonable use for caricature, parody or pastiche, for research and private study, for education and teaching, for archiving and preservation, and for text and data mining. See *The Copyright and Rights in Performances (Quotation and Parody) Regulations 2014*; *The Copyright and Rights in Performances (Personal Copies for Private Use) Regulations 2014*; *The Copyright and Rights in Performances (Research, Education, Libraries and Archives) Regulations 2014*; *The Copyright and Rights in Performances (Disability) Regulations 2014*.

⁴⁶⁶ Lawrence Lessig, 'In Defense of Piracy' (2008) *The Wall Street Journal* <<http://online.wsj.com/article/SB122367645363324303.html>>.

⁴⁶⁷ Ian Hargreaves, above n 449, 42 [5.5] <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/i_preview-finalreport.pdf>.

⁴⁶⁸ Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock down Culture and Control Creativity* (Penguin Press, 2004), 30.

follows that imitation helps to reduce the costs of diffusion that have been raised by IPR protection, and to transfer technical knowledge from the innovator to future innovators, as well as those in need of the innovation.⁴⁶⁹ In most cases, effective technology transfer also requires the adaptation of new technologies to local conditions,⁴⁷⁰ for which imitation can be a catalyst. Furthermore, studies also find that, because the imitator may have valuable ideas not available to the original innovator, imitation can enhance the overall pace of innovation by raising the possibility of follow-on inventions.⁴⁷¹ In this sense, copying and imitation may help to maximize both the economic and social values of innovation.

Another way that imitation stimulates innovation is through the process of learning. Learning is a process that inevitably involves copying and imitation. As Lawrence Lessig puts it, '[c]reators are always and at all times building upon the creativity that went before and that surrounds them now.'⁴⁷² Learning by copying is a specific form of learning by doing, which Joseph Stiglitz asserts is one of the two sources of improvement in technology, the other being direct expenditure on research and development.⁴⁷³ Professor Suarez-Villa reviews the US invention activities over a 106-year period, and contends that invention is a process of experiential and adaptive learning based on the accumulation of knowledge, reservoirs of new organizations, technologies, and social structures.⁴⁷⁴

A good example of learning by imitation is the Zongshen Industrial Group, a company in the motorcycle business. Willy Shih and Nancy Hua Dai conducted a case study of the Zongshen Group by tracing the development of capabilities in the

⁴⁶⁹ Stuart Macdonald and Tim Turpin, 'Fair Copy? A Look at the Anti-Counterfeiting Lobby' (Paper presented at the Creative Industries and Intellectual Property Conference, London, 22-23 May 2008) 5 <<http://www.dime-eu.org/files/active/0/MacdonaldTurpinPAPER.pdf>>.

⁴⁷⁰ Joseph E. Stiglitz, 'Learning to Learn, Localized Learning and Technological Progress' in Partha Dasgupta and Paul Stoneman (eds), *Economic Policy and Technological Performance* (Cambridge University Press, 2005) 125-153, 130.

⁴⁷¹ James Bessen and Eric Maskin, 'Sequential Innovation, Patents, and Imitation' (Working Paper No 00-01, Massachusetts Institute of Technology, January 2000) 612 <<http://dspace.mit.edu/handle/1721.1/64176>>.

⁴⁷² Lawrence Lessig, above n 468, 29.

⁴⁷³ Joseph E. Stiglitz, above n 470, 130.

⁴⁷⁴ Luis Suarez-Villa, 'Invention, Inventive Learning, and Innovative Capacity' (1990) 35(4) *Behavioral Science* 290, 292.

Group. They found that the Group has transformed from an imitator, who used the early imitation phase to foster rapid technological learning and upgrading, to an innovator who increasingly focuses on innovation as a way to expand beyond the hyper-competitive commodity business.⁴⁷⁵ In conclusion, they argued that products are imitated for the purpose of increasing technological sophistication as a nation's labour force accumulates knowledge and skill.⁴⁷⁶ Hence, before the human capital matures and when the capacity for innovation is still lacking, the primary source of productivity growth is product variety imitation.⁴⁷⁷

Finally, imitation and copying can spur innovation through creating competition. It is commonly known that competition is a significant source of economic and cultural vibrancy, as it keeps prices low and quality high. Competition is closely associated with copying; as Peter Drahos puts it, at base it depends on businesses being able to imitate and learn from each other.⁴⁷⁸ There is an enormous body of scholarship on the link between competition and innovation, and most scholars find that, to a varying degree, competition spurs innovation more than monopoly, including IPRs.⁴⁷⁹ Meanwhile, there is competition even among imitators, in

⁴⁷⁵ Willy Shih and Nancy Hua Dai, 'From Imitation to Innovation: Zongshen Industrial Group' (Case No 610-057, Harvard Business School, 11 May 2010).

⁴⁷⁶ Ibid [8], 4.

⁴⁷⁷ Ibid [44], 16.

⁴⁷⁸ Peter Drahos and John Braithwaite, *Information Feudalism* (Earthscan Publications, 2002), 216.

⁴⁷⁹ See, e.g., Aamir Rafique Hashmi, 'Competition and Innovation: The Inverted-U Relationship Revisited' (Working Paper No 1101, National University of Singapore, Department of Economics, 15 February 2011) <<http://www.fas.nus.edu.sg/ecs/pub/wp/wp1101.pdf>> (finding a positive relationship between competition and innovation); Yaniv Gal, 'Patent Law in the Anti-Trust Scope: Between Social Advancement and Competition Impingement' (2011) 11(2) *John Marshall Review of Intellectual Property Law* 367, 386 (finding that a freely-competitive market is more beneficial to the advancement of technology); Yosuke Okada, 'Competition and Productivity in Japanese Manufacturing Industries' (Working Paper No 11540, National Bureau of Economic Research, August 2005) <<http://www.nber.org/papers/w11540>> (finding that competition, as measured by lower levels of industrial price-cost margin, enhances productivity growth, controlling a broad range of industrial and firm-specific characteristics); Wendy Carlin, Mark Schaffer and Paul Seabright, 'A Minimum of Rivalry: Evidence from Transition Economies on the Importance of Competition for Innovation and Growth' (Working Paper No 670, William Davidson Institute, May 2004) <<http://deepblue.lib.umich.edu/bitstream/handle/2027.42/40056/wp670.pdf?sequence=3>> (finding evidence of the importance of a minimum of rivalry in both innovation and growth).

addition to competition between imitator and the original innovator. Thus, innovators have incentives to improve upon the original product or learn to produce it at a cheaper cost, in order to collect as large a competitive rent as possible.⁴⁸⁰ Hence, the outcome of the imitation process is likely to increase productive capacity and innovation.

3 *Imitation Benefits the Original Innovator*

Charles Caleb Colton, an English writer well known for his eccentricities, has a saying that 'Imitation is the sincerest form of flattery.'⁴⁸¹ In addition to stimulating innovation, imitation and copying may also benefit the original innovator by effectively expanding the market for the original innovation. Mark Lemley finds that copying and imitation play essential roles in making pioneering and substantially inventive technologies familiar to potential consumers, if they are to go to commercialization.⁴⁸² The more radical the innovation, the more familiarization the market requires. Copying can be a market signal that a new product is a successful innovation, and this may well enhance the value of the original.⁴⁸³

In the fashion and design industry, the advertising effect of copying and imitation is especially pervasive. Kal Raustiala and Christopher Sprigman examine the effect of imitation in these industries and find that imitation makes a new design into a trend, while too much imitation renders the trend obsolete, thus producing the urge to create new trends.⁴⁸⁴ Hence, for those industries where trends and fads play a powerful role, copying and imitation serve as the underlying force to drive innovation as well as advertisement for brands.

⁴⁸⁰ See Aamir Rafique Hashmi, above n 479.

⁴⁸¹ Charles Caleb Colton, *Lacon, Or, Many Things in a Few Words: Addressed to Those Who Think* (S. Marks, 8 ed, 1824) 114.

⁴⁸² Mark A. Lemley, 'The Myth of the Sole Inventor' (2012) 110 *Michigan Law Review* 709.

⁴⁸³ Stuart Macdonald and Tim Turpin, 'Fair Copy? A Look at the Anti-Counterfeiting Lobby' (Paper presented at the Creative Industries and Intellectual Property Conference, London, 22-23 May 2008) 7 <<http://www.dime-eu.org/files/active/0/MacdonaldTurpinPAPER.pdf>>.

⁴⁸⁴ Kal Raustiala and Christopher Sprigman, *The Knockoff Economy: How Imitation Sparks Innovation* (Oxford University Press, 2012), 41.

Economic analysis of the dynamic model of sequential innovation shows that imitation does not occur instantly. As Michele Boldrin and David Levine point out, because entry to markets requires investment in fixed capital and, more importantly, because it is difficult to imitate a product whose internal components are not obviously known, it is often expensive and time-consuming to carry out the imitation process, thus creating first-mover advantage for the innovator. First-mover advantage may allow the innovator, by virtue of inside information, to earn vastly more than the social value due to the first-mover advantage.⁴⁸⁵

James Bessen and Eric Maskin also argue that innovators are better off when they are imitated by competitors, because imitation enhances the probabilities of follow-on innovations which in turn improve the innovator's future profit.⁴⁸⁶ They point out that especially when innovation is sequential and complementary, 'imitation becomes a spur to innovation.'⁴⁸⁷ This leads them to conclude that inventors themselves benefit from the absence of patent protection and gain from being imitated, whether or not there is patent protection.⁴⁸⁸

4 *Historical Lessons: Imitation Promotes Development*

In addition to empirical studies, the history of development in many countries also provides evidence of the value of imitation and copying. In the previous chapter, the historical review of IPR protection in several developed countries when they were developing, including Britain, the US, and then Japan and South Korea, showed that all these countries had invariably adopted weak standards of IPR protection in their early stages of development. The same history also suggests that weak and lax standards of IPR protection, or even no protection at all, allowed imitation of foreign products and technologies, which in turn contributed to the

⁴⁸⁵ Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008), 137-142.

⁴⁸⁶ James Bessen and Eric Maskin, 'Sequential Innovation, Patents, and Imitation' (Working Paper No 00-01, Massachusetts Institute of Technology, January 2000) 612 <<http://dspace.mit.edu/handle/1721.1/64176>>.

⁴⁸⁷ Ibid 613.

⁴⁸⁸ Ibid 614.

development of the domestic innovation capacity and thus promoted the economic and cultural advances in these countries.

Because the early British IPR system encouraged the importation of foreign technologies and excluded the patentability of certain products, it created a favourable environment for diffusion of technologies, importation of foreign technologies and imitation of foreign products.⁴⁸⁹ Maxine Berg has documented how 'imitative' inventions pervaded product development in 18th century Britain. After importation of a new foreign product, domestic producers began to imitate the process of producing the product using local raw materials. In this process of imitation, they might come up with new processes to produce the product, or create completely new products that excelled and substituted the original foreign products in inventiveness, value and rarity.⁴⁹⁰ More importantly, the domestic technological knowledge accumulated in this process of imitation, and domestic producers eventually acquired the capability of producing innovations themselves. Therefore, Berg argues that imitation was at the heart of the 18th century product innovation in Britain.⁴⁹¹

The US is notorious for copyright piracy during the 19th century. But it is widely recognized that the US also greatly benefited from this period of imitation and copying activities. Without copyright protection for foreign works, the domestic publishers in the US made enormous profit from unauthorized and unremunerated publication of British writers, and they justified their practices on the grounds that it was in the American public interest to have great works available for the cheapest

⁴⁸⁹ B. Zorina Khan, 'Intellectual Property and Economic Development: Lessons from American and European History' (Study Paper No 1a, Commission on Intellectual Property Rights, 2002) 11
<http://www.cipr.org.uk/papers/pdfs/study_papers/sp1a_khan_study.pdf>. In fact, before the Statutes of Monopolies was enacted in 1706, privileges were particularly awarded to those who brought new technologies to the kingdom.

⁴⁹⁰ Maxine Berg, 'From Imitation to Invention: Creating Commodities in Eighteenth-Century Britain' (2002) 55(1) *The Economic History Review* 1, 19.

⁴⁹¹ Ibid 2.

possible prices.⁴⁹² This process of free access and copying of foreign works, mostly English books, enabled the US to increase literacy and develop a strong publishing industry. This leads B. Zorina Khan to conclude that the United States benefited from piracy and that the choice of copyright regime was adaptive to the level of economic development.⁴⁹³

Similarly, to encourage assimilation and imitation of foreign technologies was an important objective of early IPR policy in Japan. For this purpose, the patent law did not protect food, chemicals, or pharmaceutical products but provided protection for utility models and industrial designs for technologies that slightly modified the existing invention. These policy designs facilitated diffusion of technological knowledge within the country and increased incentives for domestic imitation. More importantly, with imitation and learning by doing (such as incremental changes to existing technologies), by the 1970s Japanese firms gradually acquired the capacity for independent innovation, which propelled the industrial growth and development of the country.⁴⁹⁴

South Korea followed the path of Japan in not protecting food, chemical and pharmaceutical products, while protecting utility models and industrial designs.⁴⁹⁵ Yee Kyoung Kim (et al) examined the impact of intellectual property in countries with different levels of development, and found that the protection of utility models does have a statistically significant positive association (at the 10 per cent level) with the R&D intensity of developing countries.⁴⁹⁶ Under such supporting

⁴⁹² Carla Hesse, 'The Rise of Intellectual Property, 700 B.C. - A.D. 2000: An Idea in the Balance' (2002) 131(2) *Daedalus* 26, 41.

⁴⁹³ B. Zorina Khan, 'Does Copyright Piracy Pay? The Effects of U.S. International Copyright Laws on the Market for Books, 1790-1920' (Working Paper No 10271, National Bureau of Economic Research, February 2004) <<http://www.nber.org/papers/w10271.pdf>>.

⁴⁹⁴ Nagesh Kumar, 'Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries' (Study Paper No 1b, Commission on Intellectual Property Rights, 2003) 23
<http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Development/IPR_TechnologyandEconomicDevelopment-Nagesh_Kumar.pdf>.

⁴⁹⁵ Ibid.

⁴⁹⁶ Yee Kyoung Kim et al, 'Appropriate Intellectual Property Protection and Economic Growth in Countries at Different Levels of Development' (2012) 41(2) *Research Policy* 358, 374.

policies, South Korea was able to develop into an industrialized country before the conclusion of the TRIPs agreement.

To conclude this section, it is clear that imitation and copying have significant social and economic values. As Michele Boldrin and David Levine argue, 'On the one hand, imitation is a technology that allows us to increase productive capacity. ...On the other hand, imitation is also a technology that allows further innovation.'⁴⁹⁷ If innovation is cumulative, then most of the future innovation must involve imitation of prior innovation.

While IPR protection may provide incentives for innovation, such incentives may not be effective in economies without sufficient domestic innovative capacity. Given the value of imitation discussed above, this thesis argues that imitation and copying are of paramount importance to developing countries, without or with limited innovative capacity. It further suggests that while at the same time protecting innovation, these countries should incorporate the value of imitation into their national innovation policies, including their IPR policy. As Kal Raustiala and Christopher Sprigman argue:

Imitation and innovation can co-exist. ... We do not face a stark choice between them. [Given that] Imitation can fuel innovation, serves as a form of advertising for originals, spurs more competitive markets, and leads to better, more valuable new creations ... creativity can survive and even thrive despite copying.⁴⁹⁸

F *Development Affects the Role of IPR Protection*

The above analysis suggests that, directly or indirectly, the role of IPR protection and the value of imitation have a strong association with the development level of a country. Drawing on numerous studies on IPR protection and development, this

⁴⁹⁷ Michele Boldrin and David Levine, *Against Intellectual Property Monopoly* (Cambridge University Press, 2008), 146.

⁴⁹⁸ Kal Raustiala and Christopher Sprigman, *The Knockoff Economy: How Imitation Sparks Innovation* (Oxford University Press, 2012), 168, 172.

section examines the influence of developmental elements on the role of IPR protection. These elements include income level, innovative capacity, educational attainment that affects the quality of human capital, openness of and freedom within an economy, and the extent of complementary policies interacting with intellectual property policy.

It is argued that the strength of these elements affects development levels, which in turn affects whether (strong) IPR protection can have a stimulating effect and that, due to the disparity of development among countries, the utilitarian theory that intellectual property promotes development through providing incentives for innovation does not work so well in developing countries as it does in developed economies. This also reinforces the view that low levels of development determine that a country will still need imitation and learning to facilitate its early stages of development.

1 Innovative and Imitative Capacity

Many studies find that development level in terms of innovative capacity is a decisive factor in determining whether stronger IPR protection can promote innovation, technology diffusion and economic development. Rod Falvey, Neil Foster and Olga Memedovic group countries into advanced countries with innovative capability, middle-income countries with imitative capability and innovative potential, and poor countries with neither.⁴⁹⁹ They point out that strong IPR protection raises growth for advanced countries through increased innovation, whereas there is no overall effect on growth for middle-income countries, where the benefits of domestic innovation and technological diffusion offset the growth-enhancing benefits gained from imitation precluded by stringent IPR protection.⁵⁰⁰ For countries without significant imitative or innovative capability now and perhaps

⁴⁹⁹ Rod Falvey, Neil Foster and Olga Memedovic, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (Working Paper United Nations Industrial Development Organization, 2006) 45
<http://www.unido.org/fileadmin/import/60030_05_IPR_rights_in_technology_transfer.pdf>.

⁵⁰⁰ Ibid 45-46.

in the near future, strengthening IPR protection has no effect on domestic innovation.⁵⁰¹

Similarly, based on a panel analysis of 38 countries with varying income levels over a 30-year period, Abdul Sattar and Tahir Mahmood demonstrate that the impact of IPR protection on economic growth is more significant in high income countries as compared with middle and low income countries.⁵⁰² Yee Kyoung Kim et al examine the impacts of IPR protection on countries with different levels of development, and the results indicate that while patent protection plays a more important role in the innovation process of developed countries, for developing economies, stronger IPR protection has a statistically insignificant influence on research and development and economic growth.⁵⁰³ Similarly, a 2006 study on the role of IPR protection in technology transfer suggests that IPR protection without technological capacity building cannot do anything for developing countries.⁵⁰⁴

Nevertheless, some studies find that low-income countries may benefit from strong IPR protection, because of the increased technology flows. Rod Falvey, Neil Foster and David Greenway investigated the impact of IPR protection on economic growth in a panel of 79 countries using threshold regression analysis. They showed that although IPR protection encourages innovation in high-income countries, middle-income countries may have offsetting losses from reduced scope for imitation; but such protection has a positive effect on technology flows to low-income countries.⁵⁰⁵ Recently, a new study on the impact of strengthening IPR protection on agricultural productivity in 69 countries for the period 1961-2011 produces a

⁵⁰¹ Ibid 46.

⁵⁰² Abdul Sattar and Tahir Mahmood, 'Intellectual Property Rights and Economic Growth: Evidence from High, Middle and Low Income Countries' (2011) 49(2) *Pakistan Economic and Social Review* 163, 181.

⁵⁰³ Yee Kyoung Kim et al, 'Appropriate Intellectual Property Protection and Economic Growth in Countries at Different Levels of Development' (2012) 41(2) *Research Policy* 358, 374.

⁵⁰⁴ H Salar Amoli and A Shamsavari, 'Modernisation of National Intellectual Property Legislation in I.R. Iran and Its Effect on Technology Transfer through Foreign Direct Investment' (2006) 3(3) *World Review of Science, Technology and Sustainable Development* 223, 233.

⁵⁰⁵ Rod Falvey, Neil Foster and David Greenway, 'Intellectual Property Rights and Economic Growth' (2006) 10(4) *Review of Development Economics* 700, 712.

similar finding: strong IPR protection has a significant effect in high- and low-income countries, but for middle-income developing countries, it turned out to be significantly and negatively correlated with productivity growth.⁵⁰⁶

However, the increased trade and technology flows in low-income countries may not be attributed to IPR protection. Carsten Fink and Keith Maskus point out that it is likely that multinational trading firms do not base their export decisions on IPR protection in the poorest countries, where the local threats of reverse engineering are weakest.⁵⁰⁷ Without imitative capacity, therefore, low-income countries do not pose a threat to multinational companies, even without strong protection of IPRs.

The same logic may be applied to industries where imitation is difficult. David Encaoua, Dominique Guellec and Catalina Martinez examine the economic literature on the impact of patent protection, finding that the value of patent protection depends on the ease of imitation in a market, the gains from first mover advantage, and the cumulative character of innovation.⁵⁰⁸ All these factors vary across industries. Hence, the trade flows in many high-tech industries where imitation is difficult are less sensitive to IPR protection than other medium-technology industries.⁵⁰⁹

In addition, an empirical study by Yongmin Chen and Thitima Puttitanun finds that a positive relationship exists between innovation and intellectual property in developing countries, and also suggests that this positive effect should be viewed as

⁵⁰⁶ Mercedes Campi, 'Do Intellectual Property Rights Encourage Productivity Growth? Evidences from Agriculture' (Paper presented at the EMAEE 2013: 8th European Meeting on Applied Evolutionary Economics, France, 10-12 June 2013) 1 <<http://ofce-skema.org/wp-content/uploads/2013/06/campi.pdf>>.

⁵⁰⁷ Carsten Fink and Keith E. Maskus, 'Why We Study Intellectual Property Rights and What We Have Learned' in Carsten Fink and Keith E. Maskus (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 1-15, 7.

⁵⁰⁸ David Encaoua, Dominique Guellec and Catalina Martinez, 'Patent Systems for Encouraging Innovation: Lessons from Economic Analysis' (2006) 35(9) *Research Policy* 1423, 1429.

⁵⁰⁹ Carsten Fink and Keith E. Maskus, above n 507, 7.

part of broader effects on entrepreneurial activities.⁵¹⁰ It goes on to argue that the incentive to protect IPRs corresponds with the level of development as measured by entrepreneurial (innovative) ability, and thus the best way to increase IPR protection in developing countries is to help them increase innovative ability.⁵¹¹

2 Complementary Laws and Policies

Another important lesson from studies on the relationship between IPR protection and development is that intellectual property law has to operate interactively with complementary policies to maximize the benefits of IPR protection. As Keith Maskus points out, economic development may be promoted or hindered by the IPR system, depending on how the system works together with related policies, including competition policy and technology development policy.⁵¹² He also recognizes the importance of the 'complementarities among intellectual property, market liberalization and deregulation, technology development policies, and competition regimes as a far broader set of influences on inducing additional inward foreign direct investment and technology transfer.'⁵¹³

As Shanker Singham puts it, '[T]he objectives of competition policy and intellectual property policy are in fact the same: to stimulate and encourage innovation', as well as to improve consumer welfare.⁵¹⁴ This view is consistent with the analysis of

⁵¹⁰ Yongmin Chen and Thitima Puttitanun, 'Intellectual Property Rights and Innovation in Developing Countries' (2005) 78 *Journal of Development Economics* 474, 490.

⁵¹¹ Ibid.

⁵¹² Keith E. Maskus, 'Intellectual Property Rights and Economic Development' (2000) 32 *Case West Reserve Journal of International Law* 471, 502; Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Peterson Institute, 2000), 169 (indicating that strengthening IPR protection could raise or lower economic growth, though the relationships would be complex and dependent on circumstances). For the complementary role of related policies, see also John Barton et al, 'Integrating Intellectual Property Rights and Development Policy' (Report of Commission on Intellectual Property Rights, September 2002) ch 7 <http://www.cipr.org.uk/papers/pdfs/final_report/CIPRfullfinal.pdf>.

⁵¹³ Keith E. Maskus, 'The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer' in Carsten Fink and Keith E. Maskus (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 41-73, 71.

⁵¹⁴ See Shanker A. Singham, 'Competition Policy and the Stimulation of Innovation: TRIPs and the Interface between Competition and Patent Protection in the Pharmaceutical

Philippe Aghion et al, where the relationship between innovation and competition was found to be an inverted 'U' relationship,⁵¹⁵ which means innovative activities increase with competition to an optimal level before declining. Hence, neither competition nor intellectual property alone can fully propel the machine of innovation; rather they have to work together in a balanced manner.⁵¹⁶

In addition to competition laws, the development of other policies and infrastructure is also important to maximizing the role of IPR protection, such as educational infrastructure. Yi Qian evaluates the effects of patent protection on pharmaceutical innovations for 26 countries and suggests that national patent protection alone does not stimulate domestic innovation, but that domestic innovation accelerates in countries with higher levels of economic development, educational attainment, and economic freedom.⁵¹⁷ Keith Maskus, Sean Dougherty, and Andrew Mertha also point out that,

upgrading protection for IPRs alone is a necessary but not sufficient condition for the purpose [of promoting economic development]. Rather, the system needs to be strengthened within a comprehensive and coherent set of policy initiatives that optimize the effectiveness of IPRs.⁵¹⁸

Industry' (2001) 26 Brooklyn Journal of International Law 363 (discussing the use of competition policy to maximize the effect of the patent right system in the pharmaceutical industry, but the assertion is incomplete, stating that 'without strong and enforced patent right, it is unlikely that the developing worlds' health problems will be solved').

⁵¹⁵ Philippe Aghion et al, 'Competition and Innovation: An Inverted-U Relationship' (2005) 120 *Quarterly Journal of Economics* 701.

⁵¹⁶ Susan S. DeSanti et al, 'To Promote Innovation: The Power Balance of Competition and Patent Law and Policy' (Report Federal Trade Commission, October 2003) <http://www.ftc.gov/os/2003/10/innovationrptsummary.pdf> (discussing and making recommendations for the patent system to maintain a proper balance with competition law and policy.) Yaniv Gal, 'Patent Law in the Anti-Trust Scope: Between Social Advancement and Competition Impingement' (2011) 11(2) *John Marshall Review of Intellectual Property Law* 367 (discussing the deficiencies and benefits of the current legal system of patent rights and suggesting a compromise efficient incentive for inventors which balances the competition rationales).

⁵¹⁷ Yi Qian, 'Do National Patent Laws Stimulate Domestic Innovation in a Global Patenting Environment? A Cross-Country Analysis of Pharmaceutical Patent Protection, 1978-2002' (2007) 89(3) *Review of Economics and Statistics* 436, 450.

⁵¹⁸ See Keith E. Maskus, Sean M. Dougherty and Andrew Mertha, 'Intellectual Property Rights and Economic Development in China' in Keith E. Maskus and Carsten Fink (eds),

While analyzing the Chinese situation, they suggest that such initiatives may include further structural reform of enterprises, trade and investment liberalization, promotion of financial and innovation systems to commercialize new technologies, expansion of educational opportunities to build human capital for absorbing and developing technology, and specification of rules for maintaining effective competition in Chinese markets.⁵¹⁹

In the same vein, Daniel Gervais notes that '[S]ufficient and adequate IP protection is but one ingredient in a complex recipe to achieve a successful economic development soufflé. Put differently, IPR protection is essential, but in itself insufficient, to ensure growth.'⁵²⁰ He points out the importance of a broad, knowledge-oriented economic strategy within which a 'balanced' IPR regime could be constructed. For this purpose, there are a series of factors that has to be considered, including co-operation and coalition building, priority setting, education and institutional capacity building, subsidies and awards, FDI marketing, non-IP regulatory adaptation, and patent mining.⁵²¹

Further, Luis Suarez-Villa suggests that public infrastructure, especially educational infrastructure that supports technological knowledge and training, and infrastructure that directly promotes the diffusion of new knowledge, is an important prerequisite for increasing the level of innovative capacity in any nation or locality.⁵²² Therefore, he suggests that building the types of infrastructure that are needed is a particularly important concern for developing countries that seek to

Intellectual Property and Development: Lessons from Recent Economic Research (World Bank and Oxford University Press, 2005) 295-331, 297.

⁵¹⁹ See *ibid.*

⁵²⁰ Daniel J. Gervais, 'Intellectual Property, Trade and Development: The State of Play' (2006) 74 *Fordham Law Review* 505, 524.

⁵²¹ *Ibid.*

⁵²² Luis Suarez-Villa, *Invention and the Rise of Technocapitalism* (Rowman and Littlefield, 2000), 12, 17. Luis Suarez-Villa, *Innovative Capacity: Real World Applications* <<http://www.innovativecapacity.com/RealWorldApplications.htm>>. For discussion in detail, see Luis Suarez-Villa and Syed A. Hasnath, 'The Effect of Infrastructure on Invention: Innovative Capacity and the Dynamics of Public Construction Investment' (1993) 44(4) *Technological Forecasting and Social Change* 333 (discussing the support of public infrastructure for invention, and revealing a remarkable association between educational infrastructure construction and both aggregate and corporate innovative capacity).

establish a platform from which invention and innovation can develop.⁵²³ Similarly, Douglas Addison's study on productivity and product variety growth finds that 'education policy choices can drive productivity directly through research and development employment, and indirectly through the imitation of product variety.'⁵²⁴

3 *Low Development, Weak Protection*

A 1995 study finds that universally imposed minimum standards of IPR protection are not likely to contribute to increased growth in developing countries unless a particular level of development has been achieved.⁵²⁵ This level of development is called the threshold level. Dru Brenner-Beck notes that 'this threshold level is marked by...per capita gross national product at a level significantly above the subsistence level, ...a sufficient degree of technical sophistication to profit from the incentives offered by a rigorous system of IPR protection, ...[and] sufficient investment capital to support sustained growth.'⁵²⁶ Hence, an educated workforce, basic industrial capacity, domestic entrepreneurial ability, and domestic capital mobilization are measures of achieving the development threshold for a country to capture the benefits of IPR protection. Dru Brenner-Becker goes on to argue that 'piracy fosters many of these factors' in the early stage of development.⁵²⁷

Based on the same recognition, Rafik Bawa proposes a 'progressive' approach to applying TRIPS minimum standards of IPR protection, according to whether a

⁵²³ Ibid.

⁵²⁴ Douglas M. Addison, 'Productivity Growth and Product Variety: Gains from Imitation and Education' (Policy Research Working Paper No 3023, World Bank, April 2003) [58], 21 <<http://elibrary.worldbank.org.ezproxy.lib.uts.edu.au/doi/pdf/10.1596/1813-9450-3023>>.

⁵²⁵ Francis W. Rushing and Mark A. Thompson, 'An Empirical Analysis of the Impact of Patent Protection on Economic Growth' (Research Paper No 54, Policy Research Center of the Andrew Young School of Policy Studies, June 1995) <http://www.issuelab.org/resource/empirical_analysis_of_the_impact_of_patent_protection_on_economic_growth>.

⁵²⁶ Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 84.

⁵²⁷ Ibid 103.

country reaches its threshold level of development.⁵²⁸ The principal idea of the progressive approach is that countries with development levels below the threshold are exempt from the obligation of implementing the TRIPs-mandate rules. Before such a threshold is achieved, the role of strong intellectual property is limited by the insufficient innovative capacity, the immature market economy, or the incomplete structure of complementary policies.

The economic and historical studies reviewed in this chapter have clearly shown that countries with low levels of development can benefit more from lower standards of IPR protection than stronger protection, and that the development objective is better served by imitation and copying, given the insufficient innovative capacity in developing countries. In the early stage of development, as Anselm Kamperman Sanders argues, sharing information and absorbing knowledge, rather than proprietizing intellectual effort, appears to have been key to economic development.⁵²⁹

G Conclusion

Strong protection of IPRs does not necessarily stimulate innovation. The effect of such protection could be negative in developing countries at lower levels of development and without sufficient innovative capacity. On the contrary, imitation is important to knowledge accumulation in early stages of development, which could be better promoted under low standards of IPR protection rather than strong protection. Imitation is also an essential part of building up the innovative capacity of developing countries. Innovative capacity affects the ability to produce intellectual property and therefore affects the decision of whether to adopt strong standards of IPR protection. Different approaches to intellectual property in different countries at different times reflect their needs at different stages of development. As Susan Sell and Christopher May observe,

⁵²⁸ Rafik Bawa, 'The North - South Debate over the Protection of Intellectual Property' (1997) 6 *Dalhousie Journal of Legal Studies* 77, 117.

⁵²⁹ Anselm Kamperman Sanders, 'Intellectual Property Treaties and Development' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2007) 157-170, 168.

All other things being equal (which they never are), a technological leader will prefer strong protection of its innovations, whereas a follower will favour access over protection: strong economies will be served by expanding the markets for their goods, while weak economies are best served by cheap or free access to the technologies of advancement and development.⁵³⁰

Given the value of imitation to early stages of development, it is important for developing countries to incorporate this value into their national intellectual property policy or other development policies, in addition to the protection of innovation.

In addition, this chapter suggests that an IPR system could be used not only to protect innovation, but also can be used to enable imitation and copying. In industrial Britain, patent law claimed to protect and encourage inventions, but it was actually encouraging domestic inventions through imitation and copying of foreign inventions. Japan's patent law before 1975 was particularly designed to facilitate assimilation and imitation of foreign technologies, although providing patent protection for foreign inventions. Given the great disparity of development among countries, a system of IPR protection that works well in the US will probably stifle local innovation and reduce social welfare in Sub-Saharan Africa. Hence, for developing countries that have little or limited capacity for innovation, it is crucial to encourage assimilation and absorption of foreign knowledge by properly designing national intellectual property policy to allow for imitation and copying at the most accessible and practical level.

Despite all of this, the continuous strengthening of international IPR protection makes free imitation and copying of foreign intellectual works no longer possible, where such imitation will be prohibited under the category of counterfeiting. This will be discussed in the next chapter.

⁵³⁰ Susan Sell and Christopher May, 'Forgetting History is Not an Option! Intellectual Property, Public Policy and Economic Development in Context' (Paper presented at the Intellectual Property Rights for Business and Society, Birkbeck College, University of London, September 15th 2006) 5 <<http://www.dime-eu.org/files/active/0/MaySell.pdf>>.

PART TWO ANALYSIS OF COUNTERFEITING

The preceding three chapters make it clear that developing countries adopt strong IPR protection as a result of the enhanced international IPR protection standards pushed by developed countries, which claim that increased protection of IPRs would stimulate global innovation and help to realize the development objective of developing countries. At the same time, it is also clear that strong IPR protection does not necessarily increase innovation or encourage knowledge diffusion, with the actual effect depending on whether a country has achieved a certain level of development and acquired sufficient innovative capacity. For countries without sufficient innovative capacity, innovation cannot drive industrial growth and development simply because there is limited domestic innovation, and in this case strong IPR protection deters knowledge dissemination and follow-on domestic innovation. Therefore, they have to rely on imitation and learning to realize the development objective, the same strategy that developed countries have adopted in their early stages of development.

In light of these conceptual findings, the following two chapters will analyse the issue of counterfeiting. Chapter V looks at the different uses of the term counterfeiting and proposes to understand counterfeiting as a form of imitation, which has become illegal in developing countries due to the dramatic increase in standards of IPR protection in the past decades, especially after following the TRIPs agreement. Chapter VI will suggest that the nature of imitation is such that counterfeiting can still benefit the developing economies in many of the same ways that imitation has benefited developed countries when they were developing. It will also examine some of the wide-spread anti-counterfeiting arguments that focus on the negative side of counterfeiting, and illustrate how they are framed in order to raise political support for anti-counterfeiting initiatives. Given the benefits of counterfeiting for developing economies, this part argues that the prohibition of counterfeiting as illegal imitation represents the imbalance between the standards of IPR protection and the levels of development in developing countries. It thus calls for a restoration of such balance in national and international IPR regimes.

V MEANING OF COUNTERFEITING

A Introduction

What would you think if you saw a sign at a watch shop that reads ‘Genuine Fake Watches’? An investigative attorney Marc Weber Tobias visited the Turkish city Kusadasi in 2012 where hundreds of shops sold different kinds of goods. But he observed ‘nothing is real, except the rugs and the leather in the jackets.’⁵³¹ When told by one of the shop owners that he only dealt with high-end genuine fake watches, Marc was perplexed as anyone would be. ‘How can you have a genuine fake? Aren’t all fakes not genuine?’ Actually there are two levels of fakes, Marc was told. One is close to originals, the so-called genuine fake products, and the other is essentially junky and easy to spot. According to the shop owner, the ‘genuine fake’ watches are produced in consultation with retired craftsmen from the actual factories that make the originals, so that the fake watches they make are almost indistinguishable from the originals in both appearance and quality.⁵³²

This is an example of the different uses of the terms ‘fake’ and ‘genuine’. In this case, the term fake is used to mean that the production of such watches is without the authorization of the original trademark owner, while those watches are called ‘genuine’ because they may be produced using the same skills of the craftsmen who have produced the original. However, the definition of ‘genuine’ in the Oxford Dictionary of English states that ‘genuine’ means ‘truly what something is said to be; authentic.’⁵³³ Obviously, there is no mention of using the same skills that are used for the original.

The two terms are often used to explain the meaning of ‘counterfeit’ and sometimes the term fake is used interchangeably with counterfeit. A similar

⁵³¹ Marc Weber Tobias, *How To Buy A Genuine Fake Watch In Turkey* Forbes <<http://www.forbes.com/sites/marcwebertobias/2012/09/19/how-to-buy-a-fake-watch-in-turkey/2/>>.

⁵³² Ibid.

⁵³³ Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 3418.

problem for the term counterfeit is that there are different definitions of counterfeiting in law and in practice. This chapter aims to clarify the meaning of counterfeiting by examining the different uses of the term on different occasions, with the focus on counterfeiting in intellectual property law.⁵³⁴

The following section will draw on the explanation in the Oxford Dictionary of English for several relevant terms, including ‘fake’, ‘genuine’, ‘forge’ and ‘original’, and compares them with the term counterfeit to clarify the linguistic boundaries of each term. Section C reviews a few occurrences of counterfeiting in history and the regulatory systems before the TRIPs agreement was concluded. It suggests that, prior to TRIPs, counterfeiting was used, understood and defined in law as a criminal offence that involves imitation with the intent to defraud or deceive, and will be subject to criminal penalties.

Then the chapter turns to the meaning of counterfeiting in intellectual property law in Section D. It reviews the TRIPs definition of ‘counterfeited trademark goods’, the Organization of Economic Co-operation and Development (OECD) definition of ‘counterfeiting’, and the World Health Organization (WHO) definition of ‘counterfeit medicine’. The analysis of the three definitions will suggest that while the TRIPs agreement distinguishes product counterfeiting from counterfeiting in criminal law, and defines product counterfeiting as a violation of trademark law only, the other two definitions tend to expand the scope of counterfeiting under the TRIPs agreement to include infringement of other types of IPRs or to link with quality and safety issues. It is sometimes argued that these are the strategies that earn political and ethical support for anti-counterfeiting initiatives that aim to eliminate counterfeiting, as will be discussed in Section E.

Drawing on criticisms of such an anti-counterfeiting approach to the definition of counterfeiting, Section F points out that the TRIPs definition should be the only

⁵³⁴ The thesis uses the terms counterfeit and counterfeiting, both as nouns, interchangeably. Counterfeit can be a noun or a verb. As a noun, counterfeit refers to something that is counterfeited, while counterfeiting means the act of making a counterfeit. The choice of words depends on the circumstances.

source of law when deciding what constitutes counterfeiting in a legal sense. Meanwhile, it revisits the TRIPs definition of 'counterfeited trademark products' – goods bearing a trademark that is identical to, or not able to be distinguished in essential aspects from, a trademark registered for such goods, but without authorisation.⁵³⁵ It will suggest that using an identical or indistinguishable trademark will inevitably involve imitation of a trademark if it is not created independently, while using such trademark on the same goods in practice will almost always involve imitation of products. Meanwhile, the intent to deceive, or the consequence of deception, is not required under the TRIPs definition of counterfeiting.

Therefore, the thesis argues that the TRIPs definition excludes the concept of 'deception' or 'defraud' that lies at the heart of general law understanding of counterfeiting. But even under the TRIPs definition, counterfeiting can be understood as a form of imitation, including trademark imitation and production imitation, but that product imitation may or may not infringe upon other types of IPRs. Hence, counterfeiting is a trademark infringement that may or may not involve infringement of other types of IPRs. Emphasizing imitation rather than deception is important to assessing the real impact of counterfeiting.

B The Meaning and Use of 'Counterfeit' and Other Related Words

The term counterfeit is often referred to by similar terms such as imitation, fake or forge. And the explanations of these terms in turn refer to their antithesis, for example original and genuine. Thus, it is important to clarify the meaning of these relevant terms in order to better understand the meaning of counterfeit.

This section examines the meaning of counterfeiting by providing a comparative analysis of these relevant terms, mainly based on the definitions given by the

⁵³⁵ *Agreement on Trade Related Aspects of Intellectual Property Rights*, signed 15 April 1994, fn 14 (a) to art 51 ('TRIPs Agreement').

Oxford Dictionary of English. This linguistic analysis will provide the foundation to discuss counterfeiting in intellectual property law as a form of imitation.

1 *Definitions in Oxford Dictionary of English*

According to the Oxford Dictionary of English, the term counterfeit as an adjective means 'made in exact imitation of something valuable with the intention to deceive or defraud; pretended; sham;' as a noun, it means 'a fraudulent imitation of something else;' and as a verb, it means 'imitate fraudulently.'⁵³⁶

The definition shows that counterfeit is explained by referring to the term imitation. According to the Oxford Dictionary of English, imitate means 'take or follow as a model; copy or simulate.'⁵³⁷ Copy as a verb means 'make a similar or identical version of; reproduce;' and as a noun it means 'a thing made to be similar or identical to another.'⁵³⁸ If there is a copy or imitation, there must be an original. Original as a noun means 'the earliest form of something, from which copies may be made.'⁵³⁹ Imitation and copy are in contrast with original, and vice versa. Thus, imitation means the act of copying the original, making a similar or identical version of the original, or the copy produced by such act.

In the meantime, counterfeiting is also often referred to by terms such as 'fake' and 'forge'. For example, a search in the Dictionary.com for the definition of counterfeit shows that counterfeit as a noun means 'an imitation intended to be passed off fraudulently or deceptively as genuine; forgery;' or as a verb 'to make a counterfeit of; imitate fraudulently; forge.'⁵⁴⁰

The term fake is explained by using its antithesis: genuine. According to the Oxford English Dictionary, the word 'fake', as an adjective, means 'not genuine; imitation or

⁵³⁶ Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 1892.

⁵³⁷ Ibid 4123.

⁵³⁸ Ibid 1835.

⁵³⁹ Ibid 5992.

⁵⁴⁰ See online search using 'counterfeit' as a keyword at Dictionary.com, at <http://dictionary.reference.com/browse/counterfeit?s=t>.

counterfeit'; and as a noun, it means 'a thing that is not genuine; a forgery or sham.'⁵⁴¹ The term genuine is an adjective, which means 'truly what something is said to be; authentic.'⁵⁴² Hence, if something is not truly what it is said to be, that is fake. The term fake can also be a verb, which means 'forge or counterfeit (something)'.⁵⁴³ According to the Oxford Dictionary of English, forge means 'produce a fraudulent copy or imitation of (a document, signature, banknote, or work of art)'.⁵⁴⁴

It seems that the three terms – fake, forge and counterfeit – are synonyms with nearly the same meaning, at least when taken as verbs, which is to imitate fraudulently or produce a fraudulent copy or imitation. In the following discussion, this meaning will be called the general meaning of counterfeit or counterfeiting, or the meaning in the general sense. The general meaning of counterfeit will be distinguished from the definition of counterfeiting given by intellectual property laws, which emphasizes the lack of authorization when using an identical trademark on certain goods.

2 Distinguish Fake, Forge and Counterfeit

Although the three terms have almost the same meaning in many cases, they are used differently in law. Generally speaking, forge and the similar verb counterfeit are commonly used in criminal law, while fake appears mostly in popular language. For instance, according to Black's Law Dictionary, 'counterfeiting' as the noun for the verb counterfeit refers to

The unlawful forgery, copying, or imitation of something, especially money and a negotiable instrument (such as a security or promissory note) or other officially issued item of value (such as a postage stamp), or the

⁵⁴¹ Angus Stevenson, above n 536, 2937.

⁵⁴² Ibid 3418.

⁵⁴³ Ibid 2937.

⁵⁴⁴ Ibid 3196.

unauthorized possession of such an item, with the intent to deceive or defraud by claiming or passing the item as genuine.⁵⁴⁵

In a supplementary note it states that ‘counterfeiting includes producing or selling an item that displays a reproduction of a genuine trademark, usually to deceive buyers into thinking they are purchasing genuine merchandise.’⁵⁴⁶ In addition, it defines ‘counterfeit trademark’ as ‘a spurious mark that is identical to, or substantially indistinguishable from, a registered trademark.’⁵⁴⁷

From this definition, it seems that counterfeiting is a general concept that includes the fraudulent imitation or forgery of currency, banknotes, stamps and other officially issued items of value that are regulated by criminal law, as well as trademark copying which is related to intellectual property law. In both of the two senses, counterfeiting is used with the general meaning: imitation with the intent to defraud or deceive. It also absorbs the meaning of fake – claiming the item as genuine – but does not explicitly use the term.

Nevertheless, while dictionaries repeatedly use ‘imitation’ to explain the meaning of counterfeit, in practice counterfeit products are more often referred to as fake rather than imitation, especially in anti-counterfeiting propaganda. The reason is probably that the term fake implies deception, which aligns with the attempt to define counterfeit as fraudulent imitation.

Given that ‘genuine’ means ‘truly what it is claimed to be’, then ‘fake’ means claiming to be something that it is not. In a sense, whether a product is genuine or fake depends on what the product is claimed to be. For example, when a product is claimed to be a Prada handbag, it is genuine if it is produced by the qualified manufacturer of Prada products, or bears the Prada logo with the authorization of the right holder of the Prada trademark. If a product is claimed to be a Prada handbag but it actually is not produced by the authorized manufacturer and bearing the Prada logo without authorization, it is a fake. But when a product is claimed to

⁵⁴⁵ Bryan A. Garner (ed), *Black's Law Dictionary* (Thomson/West, 8 ed, 2004), 376.

⁵⁴⁶ Ibid.

⁵⁴⁷ Ibid 1531.

be a handbag, it is sufficient to be genuine if it is physically a bag that one can carry with hands, not a basket or a pair of shoes.

Notably, using a trademark on a product or its packaging can be deemed as claiming that the product is produced with authorization of the trademark owner or it otherwise originates from the trademark owner. When a trademark is attached to a certain product that actually uses the trademark without the authorization of the trademark owner, the product is a fake because it is not what it is claimed to be. At the same time, it is counterfeit because it violates the exclusive right to use the trademark on the same goods, according to the TRIPs definition of trademark counterfeiting. In the case of the handbag, if the handbag looks exactly the same as a Prada handbag and bears a Prada trademark without authorization, it is a genuine handbag, but a counterfeit and fake Prada handbag.

3 *Comparison of Counterfeit and Fake*

From the above analysis, as related to products, the term fake is the closest to the term counterfeit, except that the term fake is not formally used in law. However, neither counterfeit nor fake products will definitely cause deception. Deception means the consequence that the purchaser of a counterfeit or fake product is misled into believing that such product is genuine.⁵⁴⁸ Thus, whether counterfeiting causes deception depends on whether or not the relevant consumers know that the product is counterfeit.

While counterfeiting in a general sense means imitation with the intent to deceive or defraud, the intent to deceive is different from the consequence of deception. The intent to deceive is an ex ante purpose of making an imitation, but the purpose may not be realized if the imitator does not actually claim that the imitation is an original, and no actual deception will be caused if the purchaser of the imitation knows that it is a counterfeit. To the extent that the intent to deceive is

⁵⁴⁸ The term deceive is defined as 'deliberately cause (someone) to believe something that is not true; give a mistaken impression.' See Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 2156.

distinguished from the actual consequence of deception, counterfeit can be understood as an imitation that does not necessarily cause deception. And the term original will be used as the antithesis of counterfeit.

Likewise, claiming a product to be genuine when it is actually a fake will not cause deception if the purchaser knows that it is a fake at the time of purchase. Likewise, the act of using a trademark without authorization may not necessarily cause deception as to the origin of the product, because in some cases consumers can tell from the price or from the location of purchase that the product is not genuinely from authorized producers. This is especially true for fake luxury status goods that are priced much lower than the genuine.

This understanding is important to the assessment of the impact of counterfeiting, because imitation without the actual consequence of deception has far different implications than deceptive imitation. This will be discussed in more detail in the next chapter. At present, it suffices to recognize this basic character of counterfeiting: intent to deceive but not necessarily causing deception.

Nevertheless, intellectual property law such as the TRIPs agreement does not require either the intent to deceive or the consequence of deception to constitute trademark counterfeiting. As the chapter will detail later, this is a big shift from the conventional understanding and the general meaning of counterfeiting. For the purpose of convenience, the following discussion will use counterfeit products or counterfeit goods to mean counterfeit as a noun, while the term counterfeiting is used to describe the act of counterfeiting which refers to counterfeit as a verb.

C Counterfeiting in Historical Perspective

Counterfeiting has a long history, even longer than the history of the IPR system. This section reviews the use of the term counterfeiting in criminal law and in some early trademark laws prior to the TRIPs agreement. It finds that well before IPRs were protected in law, counterfeiting had been used in the general sense, meaning imitation with the intent to deceive. Counterfeiting in this general sense refers to

criminal offences and can apply to currency, securities, certificates and stamps, among others, as well as marks used to identify goods. Thus, counterfeiting in history was mainly regulated in criminal law. This section will also suggest that even in early trademark legislations, counterfeiting was defined as a criminal offence with the same meaning of fraudulent imitation.

1 *Early Examples of Counterfeiting*

The earliest incidence of counterfeiting in record can be traced back to 600 B.C. when a base metal core was plated with a precious metal exterior and passed off as genuine coins. Such coins are known as *fourrée*, a French word meaning 'filled'.⁵⁴⁹ Harsh punishment followed immediately after the detection of counterfeit coins.⁵⁵⁰ At one time in English legal history, counterfeiting coins had been a treasonable felony warranting death, while under modern statutes it is also a felony subject to capital penalties.⁵⁵¹ Today, not only the act of counterfeiting money is criminalized, but also the acts of buying, selling, possessing, importing and exporting counterfeit money will face criminal punishment.⁵⁵²

Currency counterfeiting 'involves creating artificial money for financial gain and deceives others in making them believe that it is real.'⁵⁵³ The making and use of counterfeit money can cause damage and disorder to economies, as it may lead to inflation and undermine the credibility of currency issuing authorities, and generate

⁵⁴⁹ Reid Goldsborough, *Ancient Fourree Counterfeits* (2013) <<http://counterfeitcoins.reidgold.com/fourrees.html>>.

⁵⁵⁰ Jack Lynch, 'The Golden Age of Counterfeiting' (2007) Summer 2007 *Colonial Williamsburg Journal* <<http://www.history.org/foundation/journal/summer07/counterfeit.cfm#top>>; Amy Nutt, *History of Counterfeit Money* <http://ezinearticles.com/?History-of-Counterfeit-Money&id=1338273> (noting that harsh punishments followed immediately after the detection of counterfeit coins).

⁵⁵¹ Jack Lynch, above n 550.

⁵⁵² See, e.g., *Crimes (Currency) Act 1981* (Australia) ss 6-10.

⁵⁵³ Amy Nutt, above n 550. In relation to currency counterfeiting in America, see Lynn Glaser, *Counterfeiting in America: the history of an American way to wealth* (C.N. Potter, 1968); Kenneth Scott, *Counterfeiting in Colonial America* (University of Pennsylvania Press, 2000).

distortions in economic activity and trade.⁵⁵⁴ For these reasons, currency counterfeiting has been and still is strictly prohibited by criminal laws, and is subject to severe penalties in almost every country, regardless of the economic development level.⁵⁵⁵ The same applies for counterfeiting of bank notes, securities, or credit cards, among others, which are characterized by the intent to deceive and the act of forging and imitation.

The first recorded counterfeit product is a French stopper for a wine amphora, dated 27 BC, found in France.⁵⁵⁶ Wine amphorae at the time looked very similar, but this original stopper belonged to a merchant who sold expensive wines to Romans, and on the stopper was 'marked the name of the merchant as a guarantee of quality and shortcut for a better profit.'⁵⁵⁷ An illiterate Gaulish wine merchant imitated the stopper by notching a series of indecipherable characters where the name should be, and filling in the amphora with cheap French wines instead.⁵⁵⁸ Whether he succeeded in passing them off as the original wines is unknown, but the idea of imitating the well-known marks, labels, words or symbols has been shared by followers who wanted to free ride on other's reputation on certain products.

It has to be noted that before the emergence of modern trademark law, the right to trademark has been recognized and trademark imitation was punished in individual cases. Edward Rogers studies the history of trademarks and points out that in France, trademarks were protected against infringement through civil remedies and as early as the 13th century; imitation of valuable marks was made a misdemeanour

⁵⁵⁴ Because of the presence of counterfeit money, on some occasions, mutually beneficial trades cannot take place, while on others trades occur but terms of trade are distorted by the private information problem. See Yiting Li and Guillaume Rocheteau, 'On the Threat of Counterfeiting' (2011) 15(S1) *Macroeconomic Dynamics* 10, 12.

⁵⁵⁵ Criminal law in most countries provides for criminal penalties for currency counterfeiting associated with financial fraud. See the United States' 18 USC Chapter 25 'Counterfeiting and Forgery', UK Forgery and Counterfeiting Act 1981 c. 45 Part II, Australian Crimes (Currency) Act 1981, South Africa's Prevention of Counterfeiting of Currency Act 16 of 1965, Nigeria's Counterfeit Currency (Special Provisions) Act, etc.

⁵⁵⁶ Tim Philips, *Knock-off: The Deadly Trade in Counterfeit Goods* (Kogan Page, 2005), 7.

⁵⁵⁷ Ibid.

⁵⁵⁸ Ibid.

and in some cases a felony.⁵⁵⁹ For example, a French royal edict of Charles IX in 1564 even placed imitators of marks in the same category as criminal counterfeiters of currency who were punished capitally.⁵⁶⁰

2 UK Merchandise Marks Act 1862

With the establishment of a formal IPR system in European countries since the 16th to 17th century, trademarks came to be protected under specialized trademark law. By 1875, England had adopted legislation providing both civil and criminal sanctions for trademark infringement.⁵⁶¹ However, the term counterfeiting was not used in these traditional trademark laws and the specific matter of trademark imitation and copying was left to be regulated in specialized statutes. In 1862, for example, England enacted the *Merchandise Marks Act*, making it a criminal offence to forge or counterfeit another's trademark 'with intent to defraud or to enable another to defraud'.⁵⁶²

According to the *Merchandise Marks Act*, counterfeiting means 'the fraudulent making or alteration of a writing to the prejudice of another man's right' or as 'a

⁵⁵⁹ Edward S. Rogers, 'Some Historical Matter Concerning Trademarks' (1910) 9(1) *Michigan Law Review* 29, 33.

⁵⁶⁰ Ibid.

⁵⁶¹ In 1875, England enacted the *Trade Marks Registration Act* which allowed formal trademark registration for the first time, and provided for civil and criminal remedies for trademark infringement other than counterfeiting. See Jed S. Rakoff and Ira B. Wolff, 'Commercial Counterfeiting: The Inadequacy of Existing Remedies' (1983) 73 *Trademark Reporter* 493, 505; William Henry Browne, *A Treatise on the Law of Trade-Marks and Analogous Subjects* (Little, Brown and Company, 1898), 560-72 (introducing various countries' trademark laws).

⁵⁶² Article 2 provides that

Every person who, with intent to defraud, or to enable another to defraud any person, shall forge or counterfeit, or cause or procure to be forged or counterfeited, any trade mark, or shall apply, or cause or procure to be applied, any trade mark or any forged or counterfeited trade mark to any chattel or article not being the manufacture, workmanship, production, or merchandise of any person denoted or intended to be denoted by such trade mark, or denoted or intended to be denoted by such forged or counterfeited trade mark, ..., shall be guilty of a misdemeanour, and every person so committing a misdemeanour shall also forfeit to Her Majesty every chattel and article belonging to such person..., and every instrument in the possession or power of such person, ..., shall be forfeited to Her Majesty; and the court before which any such misdemeanour shall be tried may order such forfeited articles as aforesaid to be destroyed or otherwise disposed of as such court shall think fit.

See Harry Bodkin Poland, *Trade Marks: The Merchandise Marks Act, 1862*. 25 & 26 *Vict. C. 88* (John Crockford, 1862), 22-23.

false making, a making, *malo animo*, of any writing instrument for the purpose of fraud and deceit'.⁵⁶³ It used counterfeit as an alternative for the word 'forge', the same way it was used in the *Forgery Act 1861*, a criminal act that provided punishments for forging or counterfeiting of royal seals, government documents, bank notes, bonds, bills, and so forth.⁵⁶⁴ Hence, the *Merchandise Marks Act of 1862* used the term 'counterfeit' in the same sense as in criminal law.

It is worth noting that the *Merchandise Marks Act of 1862* prohibited imitation of trade marks in a separate clause, but imitation of trademarks with the intent to defraud or being likely to deceive was deemed to be forging or counterfeiting as mentioned above. Section 5 of the Act stated that,

...every imitation of any trade mark which shall be made, applied, or used with intent to defraud, or to enable any other person to defraud, ...or shall cause such imitation of a trade mark to resemble any genuine trade mark so or in such manner as to be calculated or likely to deceive, shall be and be deemed to be a false, forged, and counterfeited trade mark within the meaning of this act.⁵⁶⁵

This suggests that trademark counterfeiting under this law included imitation of trademarks with the intent to defraud or with the likelihood to deceive, in addition to the aforementioned act of forging and altering trademarks. All these acts were subject to criminal penalties. But this provision also implies that the intent to defraud or likelihood of deception was a necessary condition to criminalize the imitation of trademarks. In other words, imitation of trademarks without proof of the intent to defraud or the likelihood of deception could not be prohibited under this law.

3 *US Trademark Anti-Counterfeiting Act 1984*

The US adopted the same approach to understanding trademark counterfeiting. To follow England's trademark law reform in the mid-19th

⁵⁶³ Ibid 24.

⁵⁶⁴ *Forgery Act 1861* 24 and 25 Vict, c 98.

⁵⁶⁵ Harry Bodkin Poland, above n 562, 33.

century, the US passed the *Trademark Act of 1870* and added a criminal amendment in 1876 entitled '*An Act to Punish the Counterfeiting of Trade-mark Goods and the Sale or Dealing in of Counterfeit Trade-mark Goods*'.⁵⁶⁶ Nevertheless, the *Trademark Act of 1870* was short lived, as it was ruled unconstitutional in 1879, along with the criminal amendment.⁵⁶⁷ All trademark acts after that, including the *1881 Trademark Act* and the *1946 Trademark Act*, made no mention of the criminal sanction of trademark counterfeiting until the *Trademark Counterfeiting Act of 1984*.

During the 1980s was another critical time for the US IPR-owning companies and anti-counterfeiting scholars argued strongly for greater criminal sanctions for commercial counterfeiting. From 1979 when a large group of American manufacturers joined together to form the International Anti-Counterfeiting Coalition (IACC), multi-year efforts eventually led to the enactment of the *Trademark Counterfeiting Act of 1984*.⁵⁶⁸ The new legislation was then added to the US criminal law as Section 2320, Chapter 113 'Stolen Property' of Title 18 of the *United States Code*, which is still effective today.⁵⁶⁹

According to the *Trademark Counterfeiting Act 1984*, the term 'counterfeit mark' means a spurious mark

- (i) that is used in connection with trafficking in goods or services; (ii) that is identical with, or substantially indistinguishable from, a mark registered for those goods or services on the principal register in the United States Patent and Trademark Office

⁵⁶⁶ For the 1876 amendment, punishments were provided for anyone who, with intent to defraud, manufactured, sold, or dealt in counterfeit trademarks or in goods or packages to which counterfeit marks were attached. Jed S. Rakoff and Ira B. Wolff, 'Commercial Counterfeiting: The Inadequacy of Existing Remedies' (1983) 73 *Trademark Reporter* 493, 509.

⁵⁶⁷ *Trade-Mark Cases* (1879) 100 U.S. 82 (United States Supreme Court). The Trade-Mark Cases are a set of three cases about alleged counterfeiting of marks, *United States v. Steffens*, *United States v. Wittemean*, and *United States v. Johnson*, which were consolidated into a single appeal before the United States Supreme Court in 1879.

⁵⁶⁸ See Jed S. Rakoff and Ira B. Wolff, above n 566, 494; William N. Walker, 'A Program to Combat International Commercial Counterfeiting' (1980) 70 *Trademark Reporter* 117, 120.

⁵⁶⁹ *Trademark Counterfeiting Act*, Public Law 98-473 § 1502 98 STAT. 2178(1984).

and in use, whether or not the defendant knew such mark was so registered; and (iii) the use of which is likely to cause confusion, to cause mistake, or to deceive.⁵⁷⁰

This definition requires the likelihood of deception and the lack of authorization as conditions for the criminalization of counterfeiting, which refers to the act of trafficking goods or services bearing a mark that is identical with, or indistinguishable from, a registered trademark. It does not specify the imitation of trademark. But being identical with or indistinguishable from a registered trademark in most cases is the result of imitating and copying the registered trademark, given that the term ‘copy’ means to make identical versions of something.

It is clear that this definition also uses counterfeiting in the general sense. By this definition, counterfeiting refers to a criminal offence that will definitely lead to criminal penalties, implying an absolute link between the term counterfeiting and criminal penalties. That means, if certain

⁵⁷⁰ The Trademark Counterfeiting Act reads in pertinent part:

(1)the term “counterfeit mark” means— (A)a spurious mark—
(i)that is used in connection with trafficking in any goods, services, labels, patches, stickers, wrappers, badges, emblems, medallions, charms, boxes, containers, cans, cases, hangtags, documentation, or packaging of any type or nature;
(ii)that is identical with, or substantially indistinguishable from, a mark registered on the principal register in the United States Patent and Trademark Office and in use, whether or not the defendant knew such mark was so registered;
(iii)that is applied to or used in connection with the goods or services for which the mark is registered with the United States Patent and Trademark Office, or is applied to or consists of a label, patch, sticker, wrapper, badge, emblem, medallion, charm, box, container, can, case, hangtag, documentation, or packaging of any type or nature that is designed, marketed, or otherwise intended to be used on or in connection with the goods or services for which the mark is registered in the United States Patent and Trademark Office; and
(iv)the use of which is likely to cause confusion, to cause mistake, or to deceive; or
(B)a spurious designation that is identical with, or substantially indistinguishable from, a designation as to which the remedies of the Lanham Act are made available by reason of section 220506 of title 36 [where the US Olympic Committee is conferred the exclusive right to use its name, seals, emblems, and badges];
but such term does not include any mark or designation used in connection with goods or services, or a mark or designation applied to labels, patches, stickers, wrappers, badges, emblems, medallions, charms, boxes, containers, cans, cases, hangtags, documentation, or packaging of any type or nature used in connection with such goods or services, of which the manufacturer or producer was, at the time of the manufacture or production in question, authorized to use the mark or designation for the type of goods or services so manufactured or produced, by the holder of the right to use such mark or designation;

Trademark Counterfeiting Act of 1984, 113 18 U.S. Code § 2320 (f) (1985).

unauthorized imitation of a registered trademark infringes on the trademark right, but does not meet the criminal threshold, it cannot be called counterfeiting.

Hence, before and during the early IPR systems, counterfeiting has been used in the general sense and in criminal law, to refer to false making or fraudulent imitation with the intent to defraud or with the likelihood of deception. Even for trademark, the term counterfeiting was used only in association with criminal sanctions. This is different from counterfeiting with only civil liabilities, as will be discussed in the next section.

D Counterfeiting in International IPR Law

This section examines the different approaches to understanding counterfeiting as related to intellectual property, including the TRIPs definition of 'counterfeited trademark goods', the OECD definition of 'counterfeiting' and the WHO definition of 'counterfeit medicine'. In the TRIPs agreement, counterfeiting is clearly set up as a serious trademark infringement that requires (a) border measures and (b) criminal penalties for willful acts, as compared to ordinary infringement. However, the purpose of defining counterfeiting in the TRIPs agreement may be quite different from the purpose for which OECD and other institutions are using the term. Notably, there is quite a lot of strategic use of the term counterfeiting, because the label of counterfeiting attaches moral opprobrium and justifies harsher penalties and in particular the expenditure of state resources to counter it.

In this section, the comparative analysis suggests that, under the TRIPs definition, counterfeiting means unauthorized use of identical trademarks on the same goods, a trademark violation only, and that counterfeiting can be a type of trademark infringement that is only subject to civil liabilities, in addition to counterfeiting that will lead to criminal penalties. It also points out that since the TRIPs agreement is an important primary source of international law, the TRIPs definition of counterfeiting should be followed by other institutions and scholars. However, the OECD definition and the WHO definition go beyond the scope of trademark counterfeiting under the

TRIPs agreement, by including all types of IPR infringement or by linking with quality and safety issues.

Prior to the TRIPs agreement, one of the leading international treaties dealing with IPR protection was the *Paris Convention for the Protection of Industrial Property* (Paris Convention). The Paris Convention does not explicitly use the word 'counterfeit' or 'piracy' in any way, but three Articles may apply to commercial counterfeiting: Article 6bis, prohibiting use and registration of confusing trademarks; Article 9, prohibiting importation of goods unlawfully bearing trademarks; and Article 10bis, providing protection against unfair competitive measures.⁵⁷¹ Lacking an explicit provision on counterfeiting, the Paris Convention can only be employed by interpreting the three articles in a way that prohibits the use of counterfeited trademarks and the importation of goods bearing counterfeited trademarks.

Given the inadequacy of enforcing intellectual property rights internationally under the then-existing international regime, in 1979 the US in concert with Canada, the EU, and Japan proposed a framework agreement on anti-counterfeiting codes that was designed to strengthen rules and procedures to regulate cases of trade in counterfeit goods.⁵⁷² Much of the language in this agreement eventually found its way into the TRIPs agreement.

1 *The TRIPs Definition of 'Counterfeited Trademark Goods'*

Today, the most significant rules at the international level are those provided in the TRIPs agreement. The TRIPs agreement goes beyond the criminal sphere to define counterfeiting as a trademark infringement. Significantly, it thereby discards the intent to deceive or the consequence of deception. It seems that the TRIPs approach is based on the modern intellectual property law assumption that intellectual property is a private, civil right, the protection of which should normally

⁵⁷¹ William N. Walker, 'A Program to Combat International Commercial Counterfeiting' (1980) 70 *Trademark Reporter* 117, 119.

⁵⁷² See *ibid* 122.

rely on civil remedies. Criminal penalty may be a result, but it is no longer a necessary consequence of trademark counterfeiting.

The TRIPs agreement provides a definition of ‘counterfeit trademark goods’ and ‘pirated copyright goods’, as it states in footnote 14 to Article 51 that:

For the purposes of this Agreement: (a) “counterfeited trademark goods” shall mean any goods, including packaging, bearing without authorization a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation;

(b) “pirated copyright goods” shall mean any goods which are copies made without the consent of the right holder or person duly authorized by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a copyright or a related right under the law of the country of importation.

From the language of these provisions, counterfeiting refers to the unauthorized use of a trademark which is identical to, or not able to be distinguished in essential aspects from, a registered trademark on the same goods for which the trademark is registered. Notably, Article 51 concerns the provision of cross-border measures against the importation of goods infringing IPRs. Therefore, it is provided that the aforementioned counterfeiting must also constitute trademark infringement under the importing country’s law. Moreover, the TRIPs definition of counterfeiting is limited to the infringement of trademark rights, while piracy is defined separately as unauthorized copying of copyrighted works.

The TRIPs definition of counterfeiting does not require the intent to deceive or the likelihood of causing deception to constitute trademark counterfeiting, which are key elements of the general law understanding of counterfeiting. Nor does it mention the imitation or copying of a trademark. Rather, as long as the trademark

used without authorization is identical or indistinguishable from the registered trademark, it will be regarded as counterfeited trademark.

Any goods within the scope of goods for which a trademark is validly registered will be counterfeit goods if bearing such a counterfeited trademark without authorization. This means that the lack of authorization is the most important factor that determines counterfeiting – the same factor that determines other types of trademark infringement. Hence, the TRIPs agreement marks a shift in the definition of counterfeiting from the general meaning of fraudulent imitation to trademark infringement because of lack of authorization.

In addition, Article 61 of the TRIPs agreement obliges member countries to ‘provide for criminal procedures and penalties to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale’.⁵⁷³ The use of ‘at least’ here means that this is a minimum requirement for member countries to criminalize wilful trademark counterfeiting on a commercial scale. It implies that member countries are allowed not to provide criminal procedures and penalties in cases of not wilful or commercial trademark counterfeiting. In other words, counterfeiting that is not wilful or not on a commercial scale may lead to only civil liabilities or no liability. Hence, this provision severs the link between counterfeiting and criminal liability provided in early trademark laws mentioned before. It also reinforces the argument that the TRIPs definition of counterfeiting is different from the general meaning of counterfeiting. In this way, the TRIPs agreement indirectly defines a civil law sense of trademark counterfeiting.

A different view is that trademark counterfeiting under the TRIPs definition is still a criminal offence which only refers to wilful trademark counterfeiting on a commercial scale and will only be punished by criminal penalties. Unauthorized use of a trademark in cases where the activity cannot easily be proved to be wilful, or where the trademark is not identical but very similar, cannot be regarded as

⁵⁷³ *Agreement on Trade Related Aspects of Intellectual Property Rights*, signed 15 April 1994, art 61 ('TRIPs Agreement').

counterfeiting, because it is normal trademark infringement, for which only civil procedures apply.⁵⁷⁴

On the one hand, this interpretation of the TRIPs definition aligns with the general meaning of counterfeiting and keeps consistency with the criminal law tradition. But on the other hand, this view misunderstands the provision in Article 61 of the TRIPs agreement. As discussed before, Article 61 provides a minimum standard, which means that there are cases of trademark counterfeiting where criminal penalties may not be applied.

2 *OECD Definition of 'Counterfeiting'*

While the TRIPs agreement defines counterfeiting as a trademark violation, the OECD runs counter to this definition and uses counterfeiting to describe all types of IPR infringement. As an alliance of economically advanced countries, the OECD also plays the role of advancing increased protection of IPRs for the benefit of its member countries, in addition to its normal function of promoting economic co-operation and development. In this sense, it is not surprising that OECD will support a broad definition of counterfeiting, given its advantages for anti-counterfeiting enforcement and IPR protection.

In a report on the economic impact of counterfeiting and piracy, the OECD defines counterfeiting and piracy as 'terms used to describe a range of illicit activities linked to intellectual property rights infringement', including trademarks, copyrights,

⁵⁷⁴ Charles Clift, 'Combating Counterfeit, Falsified and Substandard Medicines: Defining the Way Forward?' (Briefing paper No GH BP 2010/01, Chatham House, November 2010) 6-7 <http://www.accesstomedicineindex.org/sites/www.accesstomedicineindex.org/files/charles_clift_-_combating_counterfeit.pdf>. Nevertheless, this view misunderstands the provision in Article 61 of the TRIPs agreement, where member countries are required to provide criminal procedures and penalties *at least* in cases of wilful trademark counterfeiting on a commercial scale. That means, there are cases of trademark counterfeiting where criminal penalties could not be provided, because providing criminal sanctions in cases of wilful trademark counterfeiting on a commercial scale is a minimum standard.

patents, design rights, as well as a number of related rights.⁵⁷⁵ The OECD explains that:

Technically, the English term 'counterfeiting' only refers to specific cases of trademark infringement. However, in practice, the term is allowed to encompass any making of a product which so closely imitates the appearance of the product of another as to mislead a consumer that it is the product of another. Hence, it may also include the unauthorised production and distribution of a product that is protected by other intellectual property rights, such as copyright and neighbouring rights.⁵⁷⁶

By this definition, the OECD combines the concept of trademark counterfeiting and copyright piracy under the TRIPs agreement, and creates a much broader concept of counterfeiting that includes the deceptive imitation of products protected by any type of IPRs. This use seems in compliance with the general meaning of counterfeiting. But it also creates the risk that all of such product imitation may be criminalized, which will significantly reduce incentives for product imitation and increase the standards of IPR protection.

Moreover, the OECD definition of counterfeiting is inconsistent with the TRIPs provision on 'counterfeited trademark goods', because it provides that imitation of product appearance can be counterfeiting, even without bearing a counterfeited trademark. In addition, this broad concept of counterfeiting also extends to the unauthorized production and distribution of a product under IPR protection, which virtually includes infringement of any type of IPRs.

The overly broad definition of counterfeiting will significantly enlarge the scope of anti-counterfeiting enforcement that is already spread all around the world. More imitation and copying activities will be restricted as a result of the overbroad definition of counterfeiting. Moreover, since counterfeiting faces harsher penalties

⁵⁷⁵ OECD, 'The Economic Impact of Counterfeiting and Piracy' (Executive Summary, Organization of Economic Co-operation and Development, 2007) 8
<<http://www.oecd.org/dataoecd/13/12/38707619.pdf>>.

⁵⁷⁶ Hema Vithlani, 'The Economic Impact of Counterfeiting' (Report, Organization of Economic Development and Cooperation, 1998) 5
<<http://www.oecd.org/industry/ind/2090589.pdf>>.

than ordinary infringement, if such a broad definition of counterfeiting was adopted in international law, the level of anti-counterfeiting enforcement and IPR protection would be dramatically increased.

3 WHO/IMPACT Definition of 'Counterfeit Medicine'

Another example of the expansion in the meaning of counterfeiting is in the field of medicines, where counterfeit medicines are conflated with substandard medicines that may or may not infringe on a valid trademark right.

The WHO has long recognized the problem of spurious, falsely labelled, counterfeit, and substandard medicines.⁵⁷⁷ In 1992, the first international meeting on counterfeit medicines was organized by the International Federation of Pharmaceutical Manufacturers Associations (IFPMA), representing the interests of pharmaceutical companies, and the WHO. This meeting provided a definition of 'counterfeit medicines', which was then adopted by the International Medical Products Anti-Counterfeiting Taskforce (IMPACT), launched by the WHO in 2006.⁵⁷⁸ It declared that

⁵⁷⁷ The problem of Spurious/falsely-labelled/falsified/counterfeit (SFFC) medicines was first addressed at the international level in 1985 at the Conference of Experts on the Rational Use of Drugs in Nairobi. The meeting recommended that WHO, together with other international and non-governmental organizations, should study the feasibility of setting up a clearing house to collect data and to inform governments about the nature and extent of counterfeiting. In 1988 the World Health Assembly adopted resolution WHA41.16, which requested the Director-General of WHO to initiate programs for the prevention and detection of the export, import and smuggling of falsely labelled, counterfeited or substandard pharmaceutical preparations. See WHO, *Spurious/falsely-labelled/falsified/counterfeit (SFFC) medicines* <<http://www.who.int/medicines/services/counterfeit/en/>>.

⁵⁷⁸ IMPACT aims to build co-ordinated networks across and between countries in order to halt the production, trading and selling of counterfeit medicines. It is a partnership comprised of all the major anti-counterfeiting players, including international organizations, non-governmental organizations, enforcement agencies, pharmaceutical manufacturers' associations and drug regulatory authorities. See IMPACT, 'International Medical Products Anti-Counterfeiting Taskforce: The Handbook' 69 <http://www.who.int/impact/handbook_impact.pdf>.

In a sense, it is understandable that the WHO defined counterfeit medicines inconsistently with the TRIPs definition of counterfeiting, because the WHO definition was first proposed in 1992, well before the TRIPs agreement was concluded. However, the IMPACT initiative

A counterfeit medicine is one which is deliberately and fraudulently mislabelled with respect to identity and/or source. Counterfeiting can apply to both branded and generic products and counterfeit products may include products with the correct ingredients or with the wrong ingredients, without active ingredients, with insufficient active ingredient or with fake packaging.⁵⁷⁹

In this definition, falsely labelled, falsified, and substandard medicines are all included in the category of counterfeit medicines. Obviously, it goes beyond the TRIPs definition of counterfeiting by linking counterfeiting with quality and safety issues. Nevertheless, it has to be noted that falsely labelled medicines may not necessarily infringe trademark rights, because the label used on the medicines may neither be identical with, nor indistinguishable from, a registered trademark. Falsified medicines are falsified in relation to their identity, history, or source, and may contain sub-standard or falsified ingredients, or inactive ingredients or ingredients in the wrong dosage, including active ingredients.⁵⁸⁰ Although falsified medicines may also be sold under labels which infringe trademarks, there is no necessary link between falsified medicines and trademark counterfeiting. Similarly, substandard medicines are medicines with compromised quality, safety and efficacy, which in itself is not a concern for IPR protection.⁵⁸¹

was launched in 2006, well after the TRIPs agreement was implemented, and still used the same definition of counterfeit medicines that the WHO created fourteen years ago.

⁵⁷⁹ WHO, 'Counterfeit Drugs: Guidelines for The Development of Measures to Combat Counterfeit Medicines' (Document No WHO/EDM/QSM/99.1, Essential Drugs and Other Medicines Department, World Health Organization, 1999) 8
<http://whqlibdoc.who.int/hq/1999/WHO_EDM_QSM_99.1.pdf>.

⁵⁸⁰ 'Proposal for a Directive of the European Parliament and of the Council: Amending Directive 2001/83/EC as regards the prevention of the entry into the legal supply chain of medicinal products which are falsified in relation to their identity history or source', (Proposal No COM(2008) 668 Commission of the European Communities, 10 December 2008) 2
<[http://www.europarl.europa.eu/meetdocs/2009_2014/documents/com/com_com\(2008\)0668/_com_com\(2008\)0668_en.pdf](http://www.europarl.europa.eu/meetdocs/2009_2014/documents/com/com_com(2008)0668/_com_com(2008)0668_en.pdf)>.

⁵⁸¹ In addition to the over-broad definition of counterfeit medicines, the IMPACT initiative is also criticized on the grounds that counterfeiting is a matter for WTO and WIPO but not WHO, which should be focused on falsely labelled, spurious, or substandard medicines. See Sangeeta Shashikant, *Clash over WHO's Role in "Counterfeits", IMPACT* (25 May 2010) Third World Network <<http://www.twinside.org.sg/title2/health.info/2010/health20100505.htm>>.

Linking quality and safety issues with counterfeiting not only goes beyond the TRIPs definition of counterfeiting, but also crosses the boundary of intellectual property law. Recognizing the distinction between counterfeit medicines and substandard medicines, Duncan Matthews points out that counterfeit medicine may contain correct active ingredients but nonetheless violate trademark law, which should be distinguished from substandard medicines that are manufactured below established standards of safety, quality and efficacy.⁵⁸² Substandard medicines may additionally be considered as counterfeit when they are deliberately or fraudulently mislabelled with respect to identity and/or source, or inserted into packaging that violates trademark.⁵⁸³

As a result of including substandard medicines in the definition of counterfeiting, it is not surprising that the WHO claims that counterfeiting medicines is 'a vile and serious offence that puts human lives at risk and undermines the credibility of health systems.'⁵⁸⁴ But it has to be noted that the real threat to public health and safety is not counterfeit medicines, but substandard medicines, especially falsified medicines that contain the wrong ingredients, no active ingredients, or insufficient active ingredients. This thesis examines counterfeiting as an intellectual property issue only, which is not necessarily associated with quality, health and safety problems.

When realizing this mistake in the 62nd World Health Assembly,⁵⁸⁵ WHO refined its terminology in 2010 and modified its understanding of 'counterfeit medicines' by using the term 'spurious/falsely-labelled/ falsified/counterfeit (SFFC) medicines' as

⁵⁸² Duncan Matthews, 'Counterfeiting and Public Health' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 42-58, 46.

⁵⁸³ Ibid 47.

⁵⁸⁴ WHO, 'Conclusions and Recommendations of the WHO International Conference on Combating Counterfeit Medicines: Declaration of Rome' 18 February 2006) art 1.

⁵⁸⁵ WHO, 'Counterfeit Medical Products' (Paper presented at the 63rd World Health Assembly, 22 April 2010) <http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_23-en.pdf> (pointing out that concerns were raised about the use of the term 'counterfeit medicines' on the 62nd World Health Assembly).

an umbrella concept.⁵⁸⁶ It undertook a survey of the national legislation of the member countries on 'counterfeit medicines', conceding that the definition of counterfeit medicines is varying from country to country.⁵⁸⁷ At the same time, WHO defines counterfeit medicine as 'a drug made by someone other than the genuine manufacturer, by copying or imitating an original product without authority or right, with a view to deceive or defraud, and then marketing the copied or forged drug as the original.'⁵⁸⁸ While this new definition requires the intent to deceive, it distinguishes counterfeit medicines from substandard medicines that refer to pharmaceutical products that do not meet their quality standards and specifications.⁵⁸⁹

E *Anti-counterfeiting Approach to Counterfeiting*

This section discusses several perspectives from which anti-counterfeiting activists examine counterfeiting, and offers criticism of those perspectives. It will suggest that linking quality and safety issues with counterfeiting has become one of the most important strategies used by anti-counterfeiting activists to exaggerate the scope of counterfeiting. The quality frame is used not only for counterfeit medicines, but for virtually all kinds of counterfeit products. The safety frame is not limited to public health, but also extends to the threat of organized crimes and even terrorism. This section will also show that counterfeiting is sometimes rhetorically defined as

⁵⁸⁶ WHO, 'Medicines: spurious/falsely-labelled/ falsified/counterfeit (SFFC) medicines' (Fact sheet) <<http://www.who.int/mediacentre/factsheets/fs275/en/>>.

⁵⁸⁷ WHO, 'Preliminary Draft Survey on National Legislation on "Counterfeit Medicines": Feedback from Member States to the Circular Letter CL 25.2009' (Working document No WHO/ACM/1, World Health Organization, 4 May 2010) <http://www.who.int/medicines/services/counterfeit/WHO_ACM_Report.pdf>.

⁵⁸⁸ WHO, *General Information on Counterfeit Medicines* WHO <<http://www.who.int/medicines/services/counterfeit/overview/en/>>.

⁵⁸⁹ Each pharmaceutical product that a manufacturer produces has to comply with quality standards and specifications at release and throughout the product shelf-life required by the territory of use. Normally, these standards and specifications are reviewed, assessed and approved by the applicable National Medicines Regulatory Authority before the product is authorized for marketing. See WHO, 'New Definitions for "Substandard Medicines"' (Working document No QAS/10.344/Rev.1, World Health Organization, May 2010) 3 <<http://www.who.int/medicines/services/expertcommittees/pharmprep/14052010NewDefinitionSubstandardMeds-QAS10-344Rev1.pdf>>.

theft, an intellectual property crime, which reflects the tendency to restore the absolute link between counterfeiting and criminal liabilities.

1 *Link with Public Health and Organized Crime*

In an explanation of product counterfeiting, the Anti-Counterfeiting Group (ACG), founded in the UK in 1980 to represent the interests of trademark owners, literally follows the TRIP provision on ‘counterfeited trademark goods’, but it defines counterfeiting as ‘inferior illegal copies’. It states that product counterfeiting is

a deliberate attempt to deceive consumers by copying and marketing goods bearing well-known trademarks, together with packaging and product configuration, so that they look like they are made by a reputable manufacturer when they are, in fact, inferior illegal copies.⁵⁹⁰

However, this view is misleading. As discussed before in the case of counterfeit medicines, inferior quality is not a defining element of counterfeiting. Neither the TRIPs definition nor the OECD’s broad concept of counterfeiting requires the presence of quality inferiority to constitute counterfeiting. WHO has also revised its definition of counterfeit medicine when realizing the inappropriateness of mixing substandard and falsified medicines with counterfeiting. Hence, there is no legal ground for the over-broad anti-counterfeiting approach to defining counterfeiting beyond the intellectual property law sphere.

There is the counterargument that it is hard to identify substandard medicines or products on visual inspection, while trademarks act as a shortcut to assuring customers about the quality of goods, but counterfeits interfere with the ability of trademarks to do that job. But this does not suffice to justify that counterfeit product are necessarily substandard. Accordingly, damage caused by products of substandard quality cannot be used to justify punishment for counterfeiting. Even if

⁵⁹⁰ See The Anti-Counterfeiting Group, *What Is Product Counterfeiting* <http://www.a-cg.org/guest/pdf/what_is_product_counterfeiting.pdf> (finding that counterfeit goods are a global public health problem as they cause injuries, harm and death, particularly counterfeit drugs, alcohol, cigarettes, foods, and personal care items).

counterfeiting is punishable, it should be punishable only because it infringes on certain IPRs, not because of potential harms to the health and safety of consumers. Hence, to link public health and safety problems with counterfeiting is a misleading mixture of the two separate issues.

The same misleading effect comes from the linkage of counterfeiting with organized crime and terrorism. The IACC is representative of anti-counterfeiting activists in denouncing the negative effects of counterfeiting. In its 2005 report, the IACC not only defines counterfeiting as a threat to public health and safety, but also highlights the link between counterfeiting and organized crime: proceeds from counterfeiting are used to finance organized crimes, and organized criminal groups are heavily involved in trademark counterfeiting and copyright piracy.⁵⁹¹ In the same way counterfeiting is also rhetorically linked with terrorism.⁵⁹²

However, the linkage of counterfeiting and organized crime and terrorism is standing on shaky ground. First of all, there is no sound empirical evidence to support the view that counterfeiting finances organized crime and terrorism. Second, even if it was true, funding criminal activities with proceeds from any business is legally wrong; it does not inexorably follow that the business that makes such proceeds is illegal. Thus, the argument that counterfeiting is illegal because it funds illegal activities is not logically defensible. Carsten Fink, Keith E. Maskus and Yi Qian point out that 'the presence of this type of negative externality [organized

⁵⁹¹ International Anti-Counterfeiting Coalition, 'The Negative Consequences of International Intellectual Property Theft: Economic Harm, Threats to the Public Health and Safety, and Links to Organized Crime and Terrorist Organizations' (White Paper International Anti-Counterfeiting Coalition, January 2005) 15

<<http://counterfeiting.unicri.it/docs/International%20AntiCounterfeiting%20Coalition.White%20Paper.pdf>>. See also Michael Roudaut, 'From Sweatshops to Organized Crime: The New Face of Counterfeiting' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 75.

⁵⁹² International Anti-Counterfeiting Coalition, above n 591, 20-25. See also Larry C. Johnson, 'Hearing on Intellectual Property Crimes: Are Proceeds from Counterfeited Goods Funding Terrorism' (Testimony, House International Relations Committee, 16 July 2003) <http://commdocs.house.gov/committees/intlrel/hfa88392.000/hfa88392_of.htm>.

crimes and terrorism] should give rise to self-standing public enforcement action, independent of private rights enforcement.⁵⁹³

2 *Counterfeiting and IPR Theft*

The argument that counterfeiting is a theft is based on the assumption that intellectual property is a property right. Drawing on the analogy to physical property, the use without authorization of something under IPR protection is assumed to be the same as taking another's physical property. In recognition that trademark is a property, for instance, the US Code puts 'trafficking of counterfeit goods or services' in the crime of 'stolen property' under Chapter 113, title 18.

Characterizing counterfeiting as theft has become a manoeuvre to raise ethical and political support for anti-counterfeiting initiatives and strengthening IPR enforcement. The IACC report on counterfeiting was entitled 'The Negative Consequences of International Intellectual Property Theft: Economic Harm, Threats to the Public Health and Safety, and Links to Organized Crime and Terrorist Organizations'. In the report, IACC strongly asserts that 'the reality is that counterfeiters and pirates steal from the corporations, steal from the community, steal from the government, steal from the consumers they deceive and pose real dangers to the public health and safety.'⁵⁹⁴ Because the general public tends not to have specialized knowledge of the nuanced differences between intellectual property and physical property, they are very likely to accept the claim that counterfeiting is morally wrong because it is the theft of intellectual property.

However, it remains open to debate whether IPRs are property rights in the same sense as real property is a property right, and whether the rules for physical

⁵⁹³ Carsten Fink, Keith E. Maskus and Yi Qian, 'The Economic Effects of Counterfeiting and Piracy: A Literature Review' (Paper presented at the WIPO Advisory Committee on Enforcement Sixth Session, Geneva, 1-2 December 2010) <http://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_6/wipo_ace_6_7.pdf>.

⁵⁹⁴ International Anti-Counterfeiting Coalition, above n 591, 14. In addition, The Canadian Standing Committee on Industry, Science and Technology issued its report on counterfeiting in 2007, entitled '*Counterfeiting and Piracy Are Theft*'. See Science and Technology Standing Committee on Industry, House of Commons, Canada Parliament, *Counterfeiting and Piracy Are Theft* (2007) June 2007 (Rajotte, James).

property can be applied with equal force to intellectual property. On the one hand, some argue that IPRs are exclusive rights to information, which in nature is the same as property rights over physical objects. For example, Judge Frank Easterbrook has pointed out that: 'Intellectual property is intangible, but the right to exclude is no different in principle from General Motors' right to exclude Ford from using its assembly line, or an apple grower's right to its own crop.'⁵⁹⁵

On the other hand, others insist that IPRs are a form of public policy to solve public goods problems, or an instrument to realize some higher level of objectives.

Because of the non-rivalrous characteristic of knowledge and information, an intellectual work can be used by more than one person simultaneously without them interfering with each other. For physical objects, however, one's use will deprive others their use of it. Therefore, Mark Lemley argues that intellectual property is not a species of real property, because property rights are designed to internalize negative externalities, such as the problem of tragedy of commons,⁵⁹⁶ whereas the use of intellectual property produces positive externalities and confers benefits to many others.⁵⁹⁷ Similarly, Peter Drahos examines a number of theories

⁵⁹⁵ Frank H. Easterbrook, 'Intellectual Property Is Still Property' (1990) 13(1) *Harvard Journal of Law and Public Policy* 108, 109. See also Henry E. Smith, 'Intellectual Property as Property: Delineating Entitlements in Information' (2007) 116 *Yale Law Journal* 1742 (discussing whether allowing intellectual property to assume property rights over information, like property in general, solves a complex co-ordination problem of attributing outputs to inputs). Notably, the language of 'theft' is not only used to refer to counterfeiting, but also rhetorically used to include copyright infringement. See Patricia Loughlan, "'You Wouldn't Steal A Car..." Intellectual Property and the Language of Theft' (Legal Studies Research Paper No 08/35, University of Sydney Law School, April 2008) <http://www.hca.uws.edu.au/staff/unit_sites/summer/100483/assets/loughlan_language%20and%20intellectual%20property.pdf>.

⁵⁹⁶ Externality is a concept in economics and known as the problem of the 'tragedy of the commons' proposed by Hardin, Garrett in his classic work, Garrett Hardin, 'The Tragedy of the Commons' (Pt New Series) (1968) 162(3859) *Science* 1243. Harold Demsetz employed this concept in the economics of property rights, discussing the economic efficiency theory of property rights using analysis of externalities which include external costs, external benefits, and pecuniary as well as non-pecuniary externalities. See Harold Demsetz, 'Toward a Theory of Property Rights' (1967) 57 *The American Economic Review* 347.

⁵⁹⁷ See Mark A. Lemley, 'Property, Intellectual Property, and Free Riding' (2005) 83 *Texas Law Review* 1031, 1032 (arguing that treating intellectual property as a species of real property is to create strong exclusive control over knowledge and information, to internalize the positive externalities, and to condemn those who imitate and compete with intellectual property owners).

justifying intellectual property, and argues that intellectual property is a privilege instead of a property right, suggesting a philosophical attitude of instrumentalism toward intellectual property.⁵⁹⁸

Given the controversy over whether intellectual property assumes property rights, the claim that counterfeiting is theft remains open to question. As discussed in Chapter II, this thesis supports the view that IPR protection is an instrument to realize a higher level of objectives. In addition, since the non-rivalrous nature is a commonly agreed characteristic of intellectual property, it is certain that taking intellectual property without depriving others of possession and use is different from theft of physical property. Therefore, this thesis does not agree with the rhetoric use of the language 'theft' to define counterfeiting or other infringements of intellectual property.

The anti-counterfeiting approach to understanding counterfeiting has strayed too far from the TRIPs definition of trademark counterfeiting. In particular, the attempt to define counterfeiting as theft reflects the tendency to restore the absolute link between counterfeiting and criminal liabilities, which has been broken down by the TRIPs agreement. This approach even goes beyond the OECD definition that is already broad enough to include infringement of other types of IPRs. The anti-counterfeiting concept of counterfeiting has a focus not limited to intellectual property, but extends its concern to areas outside intellectual property law.

3 *Debates among Scholars*

The different definitions of counterfeiting used in intellectual property law draw debate among scholars. Generally speaking, the controversy over the definition of counterfeiting is centred on what type or types of intellectual property rights are

⁵⁹⁸ See Peter Drahos, *A Philosophy of Intellectual Property* (Dartmouth Publishing Company, 1996), 1-2 (arguing that should be the guide in constructing theories of intellectual property). See also Lionel Bently, 'Trade Secrets: Intellectual Property But Not Property?' in Helena R. Howe and Jonathan Griffith (eds), *Concepts of Property in Intellectual Property Law* (Cambridge University Press, 2013) 60-93, 62 (arguing that confidential information protected as a trade secret in intellectual property law should not be classed as 'property').

violated by the act of counterfeiting, and whether the intent to deceive, the lack of authorization, the quality of the product and the link to other illegal activities are essential factors in constituting counterfeiting.

Duncan Matthews and Carlos Correa insist on the narrow approach to defining counterfeiting as trademark violation, which strictly adheres to the definition provided in the TRIPs agreement.⁵⁹⁹ Jason Rutter and Jo Bryce hold the same view, but they deny the intent to defraud as a defining factor, and provide a neutral definition that counterfeit goods illegally imitate, copy or duplicate a good or use a registered trademark without authorisation and, therefore, infringe upon the legal right to copy of the right's owner.⁶⁰⁰

In the meantime, some scholars see counterfeiting as applicable to all types of IPRs. For example, in her scholarly research on counterfeiting, Peggy Chaudhry points out that 'products which can be classified as counterfeit are those made without authorization from the owners of intellectual property rights (trademark and patent and copyright) associated with those products.'⁶⁰¹ Another study of counterfeit purchases defines product counterfeiting as comprising of 'any unauthorized manufacturing of goods whose special characteristics are protected as intellectual property rights.'⁶⁰²

More interestingly, Kevin Outterson suggests the definition should be different across product sectors. He explains that:

⁵⁹⁹ See Duncan Matthews, 'Counterfeiting and Public Health' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 42-58; Carlos M. Correa, 'Anti-Counterfeiting: A Trojan Horse for Expanding Intellectual Property Protection in Developing Countries' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 59-74.

⁶⁰⁰ Jason Rutter and Jo Bryce, 'The Consumption of Counterfeit Goods: 'Here be Pirates?'' (2008) 42(6) *Sociology* 1146.

⁶⁰¹ Peggy Chaudhry and Alan Zimmerman, *The Economics of Counterfeit Trade* (Springer, 2009).

⁶⁰² Victor V. Cordell, Nittaya Wongtada and Robert Jr. Kieschnick, 'Counterfeit Purchase Intentions: Role of Lawfulness Attitudes and Product traits as Determinants' (1996) 35 *Journal of Business Research* 41.

In copyright and patent practice, a “counterfeit” or “pirated” copy is one that was manufactured by an unlicensed source, but it might well be as functional as the genuine article. In pharmaceuticals, the term “counterfeit” should be reserved for a drug which does not contain the poorer active ingredient. A safe and effective pill which is produced without a patent license should be called an “unlicensed’ product”.⁶⁰³

In light of the debate over the definition of counterfeiting, the next section proposes to understand counterfeiting based on its general meaning – imitation – and at the same time adhering to the TRIPs definition of trademark counterfeiting.

F *Counterfeiting Is a Form of Imitation*

The previous discussion has shown that the meaning of counterfeiting changes with the context within which the term is used. Criminal law uses the general meaning of counterfeiting; that is, imitation with intent to deceive. Imitation of currency, bank notes, or other items issued exclusively by state authorities, and the intent to deceive are the two most important elements to constitute counterfeiting in criminal law. In contrast, counterfeiting in intellectual property law, as the TRIPs agreement defines it, means unauthorized use of a trademark which is identical to, or indistinguishable from, a registered trademark on the same goods for which the trademark is registered. This definition does not mention either imitation or the intent to deceive. Does that mean counterfeiting in intellectual property law does not concern imitation or the intent to deceive?

This section re-analyses the TRIPs definition by referring to the general meaning of counterfeiting and points out that trademark counterfeiting in practical terms not just involves imitation, but involves two types of imitation: imitation of trademark and product imitation. While the intent to deceive is not required, the TRIPs definition emphasizes the element of unauthorized use to constitute trademark

⁶⁰³ Kevin Outterson, 'Resolving dysfunctional pharmaceutical arbitrage and counterfeit drugs through the proposed Pharmaceutical R&D Treaty' (Submission Paper WHO Commission on Intellectual Property Rights, Innovation and Public Health 15 November 2004) <http://www.who.int/intellectualproperty/submissions/en/pharma_arbitrage.pdf>.

counterfeiting, making counterfeiting a particular type of trademark infringement. So the thesis warns that the scope of counterfeiting should not be extended beyond the TRIPs definition by overreaching to other forms of IP infringement.

In addition, this section distinguishes counterfeiting as a form of imitation from counterfeiting as an infringement of trademark right, and suggests that counterfeiting in intellectual property law is still a form of imitation. Imitation concerns that which is involved in counterfeiting, while the TRIPs agreement defines what kind of imitation is illegal. Based on this clarification of the meaning of counterfeiting, this section will also distinguish counterfeiting from a few relevant concepts, including 'knock off', passing off and piracy.

1 Re-analysis of the TRIPs Definition

Under the TRIPs definition, at least three conditions have to be met to constitute trademark counterfeiting: (1) a trademark which is identical with or indistinguishable from a registered trademark; (2) using such a trademark on the same goods for which the trademark is registered; and (3) such use without authorization from the registered trademark owner.

A trademark that is identical with or indistinguishable from a registered trademark is called a counterfeited trademark. As discussed before, to copy means to make an identical version of something, and to imitate means to copy or simulate. Thus, it can be assumed that a counterfeited trademark is actually produced by imitation and copying of the registered trademark. While the TRIPs definition does not mention the term imitation or copy, by its very nature the act of using an identical trademark must involve imitation of trademarks, except in extremely rare cases where someone comes up with an identical trademark independently.

In circumstances where one creates independently and subsequently a trademark that nevertheless resembles a registered trademark, even without the act of copying, the unauthorized use of such independent trademark is equally prohibited under the TRIPs agreement and may be treated as counterfeiting under the TRIPs

definition that does not require the intent to deceive, deception or imitation. However, the concept of deception or defraud lies at the heart of the general law understanding of counterfeiting as discussed in the first section of this Chapter. Hence, it is viable to say that the TRIPs definition extends the scope of counterfeiting as understood in general sense. This reflects the trend to expand the protection for trademarks in the TRIPs agreement, given that acts that are treated as commercial counterfeiting will face criminal penalties and may result in border seizures of related goods, which are usually not available to ordinary trademark infringements.

Nevertheless, it has to be noted that in practical terms it is not much common to create an independent trademark that is identical with or indistinguishable from a registered trademark. This is because (a) such a trademark will be of no value to the creator if it is not allowed to be used; (b) search of existing registered trademarks has been made easier to avoid repeated creation of identical trademarks; and (c) it is hard to prove that a trademark is independently created when an identical trademark has been registered. Given the rarity of independent identical trademarks, this thesis assumes that to make identical trademarks requires imitation or copying.

In addition, counterfeit goods must be the same goods with those for which the valid trademark is registered. When applying for the registration of a trademark, the applicant must indicate on what goods or services the trademark will be used, according to the *International Classification of Goods and Services for the Purposes of the Registration of Marks* (Nice Classification).⁶⁰⁴ It is a common practice and rule

⁶⁰⁴ Nice Classification was established by an Agreement concluded at the Nice Diplomatic Conference in 1957. The countries party to the Nice Agreement constitute a Special Union within the framework of the Paris Union for the Protection of Industrial Property. They have adopted and apply the Nice Classification for the purposes of the registration of marks. Use of the Nice Classification is mandatory not only for the national registration of marks in countries party to the Nice Agreement, but also for the international registration of marks effected by WIPO, the African Intellectual Property Organization (OAPI), the African Regional Intellectual Property Organization (ARIPO), the Benelux Organisation for Intellectual Property (BOIP) and the European Union Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM). See *About NCL*, World Intellectual

that, once approved, the list of goods and services at the time of registration cannot be expanded. Goods and services within the Nice Classification system are divided into 45 classes, with each class having a list of items that trademark applicants can choose from for their trademark.⁶⁰⁵ According to the Nice classification, a product is in principle classified by its function or purpose or, at a secondary level, by the material of which the product is made or its mode of operation.⁶⁰⁶ Therefore, to make the same goods usually requires imitation of the appearance, the function or purpose, the mode of operation or the material of the target goods. In this sense, counterfeiting under the TRIPs definition is most likely to involve product imitation.

In the meantime, the thesis acknowledges that the same class of goods under the Nice Classification system can include more than one specific kind of goods. It is possible that a trademark can be registered for different kinds of goods under the same class but it is used on only one kind of such goods. In this case, if someone uses an identical trademark on a different kind but the same class of goods, it would

Property Organization

<http://www.wipo.int/classifications/nice/en/about_the_ncl/preface.html>.

⁶⁰⁵ Ibid.

⁶⁰⁶ The relevant text reads:

If a product cannot be classified with the aid of the List of Classes, the Explanatory Notes and the Alphabetical List, the following remarks set forth the criteria to be applied:

- a) A finished product is in principle classified according to its function or purpose. If the function or purpose of a finished product is not mentioned in any class heading, the finished product is classified by analogy with other comparable finished products, indicated in the Alphabetical List. If none is found, other subsidiary criteria, such as that of the material of which the product is made or its mode of operation, are applied.
- b) A finished product which is a multipurpose composite object (e.g., clocks incorporating radios) may be classified in all classes that correspond to any of its functions or intended purposes. If those functions or purposes are not mentioned in any class heading, other criteria, indicated under (a), above, are to be applied.
- c) Raw materials, unworked or semi-worked, are in principle classified according to the material of which they consist.
- d) Goods intended to form part of another product are in principle classified in the same class as that product only in cases where the same type of goods cannot normally be used for another purpose. In all other cases, the criterion indicated under (a), above, applies.
- e) When a product, whether finished or not, is classified according to the material of which it is made, and it is made of different materials, the product is in principle classified according to the material which predominates.
- f) Cases adapted to the product they are intended to contain are in principle classified in the same class as the product.

See *Nice Classification: General Remarks*, (14 April 2014)

<http://web2.wipo.int/nicepub/edition-20140101/general_remarks/#?lang=en&_suid=1415253909380005414780423372245>.

be counterfeiting even though there is no imitation of the same kind of goods. It is only in this case where trademark counterfeiting may not involve product imitation.

However, although counterfeiting under the TRIPs definition does not have to involve product imitation, in practical terms it almost always will. Effective product imitation requires imitation of both trademark and product, which produces full counterfeits, because it is only by making and selling full counterfeit products that the counterfeiting company can generate sufficient sales to survive. Product imitation without trademark counterfeiting will not be a successful strategy.

In addition, a trademark becomes meaningful only when it is used on products, whether registered products or counterfeited. The perceived similarities, in terms of physical product attributes between original and counterfeit products, are known as key drivers for the demand of counterfeit products.⁶⁰⁷ Because of this bond between trademark and products, imitation of products in terms of appearance, design, function or purpose, and material often coincides with the imitation of a registered trademark. Especially when a trademark is registered for a product shape, product imitation will inevitably involve trademark counterfeiting.

Another point that is worth of noting about the TRIPs definition is the distinction between counterfeiting and ordinary trademark infringement. If an imitated trademark is used on goods that are different to the class of goods for which the original trademark is registered for, then there would be no counterfeiting. However, without authorization, such use may or may not infringe the trademark right, depending on whether the registered trademark is a well-known trademark or not. For example, the Australian *Trade Marks Act* provides that using as a trademark a sign that is substantially identical to, or deceptively similar to, the trademark on goods of the same description as that of registered goods, is an infringement.⁶⁰⁸ If a

⁶⁰⁷ Elfriede Penz and Barbara Stöttinger, 'Corporate Image and Product Similarity: Assessing Major Demand Drivers for Counterfeits in a Multi-Country Study' (2008) 25(4) *Psychology and Marketing* 352, 369.

⁶⁰⁸ The original text reads:

A person infringes a registered trade mark if the person uses as a trade mark a sign that is substantially identical with, or deceptively similar to, the trade mark in relation to...goods of

well-known trademark is imitated, then the unauthorized use of the imitated trademark on any goods, including different class of goods, constitutes infringement.⁶⁰⁹ If the trademark being imitated is not a well-known trademark and the imitated trademark is used on completely different classes of goods, then such use will probably not infringe the registered trademark right.

Finally and more importantly, while trademark counterfeiting in many cases involve product imitation, product imitation by itself does not necessarily infringe IPR rights. Trademark law protects the exclusive right to use a registered trademark or a trademark that is identical or similar.⁶¹⁰ If a trademark is different (not identical nor similar) from a registered trademark, or if the use of an imitated trademark is authorized by the trademark owner, there would be no infringement of trademark right, even used on the same kind of goods for which a trademark is registered. Nevertheless, the imitation of goods might infringe other types of IPRs. For example, if a patent exists for a particular product, then the unauthorized production of this product will be an infringement of the patent right. But not all product imitation will be IPR infringement.

Under the TRIPs definition, a line can be drawn between counterfeiting and IPR infringement – not all trademark infringement will amount to counterfeiting. However, under the OECD definition, this boundary is eliminated and counterfeiting

the same description as that of goods (registered goods) in respect of which the trade mark is registered.

See *Trade Marks Act 1995* (Australia) Part 12, 120 (2) (a).

⁶⁰⁹ The text reads:

Article 6bis of the Paris Convention (1967) [on infringement of well-known trademark right] shall apply, mutatis mutandis, to goods or services which are not similar to those in respect of which a trademark is registered, provided that use of that trademark in relation to those goods or services would indicate a connection between those goods or services and the owner of the registered trademark and provided that the interests of the owner of the registered trademark are likely to be damaged by such use.

See *Agreement on Trade Related Aspects of Intellectual Property Rights*, signed 15 April 1994, art 16 [3] ('TRIPs Agreement').

⁶¹⁰ For example, Article 16 (1) of the TRIPs agreement provides that:

The owner of a registered trademark shall have the exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs for goods or services which are identical or similar to those in respect of which the trademark is registered where such use would result in a likelihood of confusion.

See *ibid* art 16 [1].

is regarded as equal to the infringement of all IPRs. For reasons that have been discussed in previous sections, this thesis does not agree with the broad definition of counterfeiting, but would rather adhere to the TRIPs provision, although it goes beyond the general law understanding of counterfeiting. Given the international law status of the TRIPs agreement, at least in legal terms acts that fall within the TRIPs definition of counterfeiting will be prohibited. In the meantime, the thesis particularly makes the point that counterfeiting in many cases involves product imitation that is not necessarily illegal.

2 *Linking Product Imitation with Counterfeiting*

Since product imitation may or may not infringe IPRs, it should be distinguished from those imitation activities that constitute counterfeiting in criminal law. In criminal law, counterfeiting means the imitation of currency, securities, banknotes, certificates, stamps, and other items issued exclusively by state authorities. It is the act of such imitation that attracts criminal penalties. In contrast, while trademark counterfeiting under the TRIPs agreement involves product imitation as well as trademark imitation, it is illegal and punishable merely because of the unauthorized use of such an imitated trademark which infringes on the trademark right in question. Product imitation by itself is not necessarily violating intellectual property law.

Another important feature of product imitation is that even for the exact imitation of certain products, one may still distinguish it from the original based on other factors, which means no deception will have been caused in this case. A recent survey reports that 'a large amount of [leisure] goods (e.g., films, music or fashion items etc.) are consumed with the knowledge that they are counterfeit as price, location of purchase, and the form of the good itself all act as indicators.'⁶¹¹ For example, a Rolex watch that sells at 100 dollars from a street vendor can hardly be an original. Even knowing that it is a counterfeit, however, one may still be willing to buy because it is cheap and looks genuine. In circumstances of knowing purchase

⁶¹¹ Jason Rutter and Jo Bryce, 'The Consumption of Counterfeit Goods: 'Here be Pirates?'' (2008) 42(6) *Sociology* 1146, 1154.

of counterfeit products, the degree of deception is reduced to zero, known as non-deceptive counterfeiting.⁶¹²

Knowing purchase of counterfeit products is quite common in markets such as Beijing's Silk Street Market in China, Stand Centre in Sao Paulo of Brazil, La Salada in Buenos Aires of Argentina, and Panthip Plaza in Bangkok, among others.⁶¹³ The Silk Street Market in Beijing has even become a place 'well known and well visited by tourists', as reported by an Australian blogger Rod L'Huillier.⁶¹⁴ Despite product imitation, counterfeit goods in many sectors are easy to recognize from either the price or the place of purchase.

Since it does not cause deception, non-deceptive counterfeiting is actually beneficial, especially to consumers who want but cannot afford the expensive original products. The benefits of product imitation or non-deceptive counterfeiting, as will be discussed in more detail in the next chapter, make the prohibition or elimination of counterfeiting under intellectual property law, at the very least, contestable. It also raises the suspicion of whether non-deceptive imitation of trademark and product should be treated as counterfeiting at all, as the TRIPs agreement currently does.

In particular, developing countries without sufficient innovative capacity cannot produce as many innovations as developed countries can. They may benefit more from product imitation than IPR protection. It can be imagined that imitative products increase consumer welfare by meeting the huge demand of consumers from low-income groups, and may benefit the original goods manufacturer by providing free advertising and increasing future purchase of the original products when the economic status of these consumers improves. Moreover, intellectual

⁶¹² Carsten Fink, Keith E. Maskus and Yi Qian, 'The Economic Effects of Counterfeiting and Piracy: A Literature Review' (Paper presented at the WIPO Advisory Committee on Enforcement Sixth Session, Geneva, 1-2 December 2010) [13]

<http://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_6/wipo_ace_6_7.pdf>.

⁶¹³ For a list of notorious markets of counterfeit products, see Peggy Chaudhry and Alan Zimmerman, *The Economics of Counterfeit Trade* (Springer, 2009), 42-43.

⁶¹⁴ Rod L'Huillier, 'Silk Street Market Beijing' on Rod L'Huillier, *Welcome to China* (16 May 2010) <<http://welcometochina.com.au/silk-street-market-beijing-301.html>>.

property is a private right granted upon the examination of whether certain requirements are met. There is the possibility that such right could be mistakenly granted, in which case the public interests in access to the information embedded in such intellectual property will be unjustifiably restricted. In this case, product imitation may function as a remedy for public interests by actually enabling dissemination and free use of such information. Hence, it is important for policy makers in developing countries to take into account the benefits and costs of product imitation before any policy change is made to expand the scope of counterfeiting and increase anti-counterfeiting enforcement standards.

3 *Distinguish from Relevant Concepts*

The above analysis investigates the meaning of counterfeiting by referring to imitation. This understanding can be used to distinguish counterfeiting from a few relevant concepts that are frequently used interchangeably and confusingly with counterfeiting. A comparison with relevant concepts is also useful to further clarify the concept of counterfeiting used in this thesis.

It is sometimes the case that counterfeit products are called 'knock-off' products,⁶¹⁵ but this is based on a misunderstanding. In fact, knock-off is an informal expression of 'a copy or imitation, especially of an expensive product.'⁶¹⁶ No mention is made of whether such copying or imitation is lawful or not. Nor is any mention made of whether there is intention to deceive or defraud with knock-off products. Therefore, knock-off can be simply understood as another name, perhaps a bad one, for product imitation which may or may not infringe on any IPRs.

Passing off is a legal phrase that may cause confusion with counterfeiting. To explain the meaning of counterfeiting, it is often said that counterfeiting is imitation

⁶¹⁵ For example, the following scholars refer to counterfeit products as knock-offs. See, e.g., Tim Philips, *Knock-off : The Deadly Trade in Counterfeit Goods* (Kogan Page, 2005); Lauren D. Amendolara, 'Knocking Out Knock-Offs: Effectuating the Criminalization of Trafficking in Counterfeit Goods' (2005) 15 *Fordham Intellectual Property Media & Entertainment Law Journal* 789.

⁶¹⁶ Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 4589.

with the intent to deceive or pass off as the original. Here, pass off is used literally to mean 'pass off as' or 'pretend to be something else'. As a legal term, however, passing off is a cause of action in the common law system. The law against passing off assumes that '[a] trader with an established reputation is entitled to protect his goodwill, which is a form of property fully recognised,'⁶¹⁷ whether he has a registered trademark or not. So the remedies for passing off in common law require the proving of some reputation or good will, deceptive conduct, and existence or threat of damage as a result of that conduct.⁶¹⁸ Hence, passing off and counterfeiting are legal terms with different applicable circumstances. The law against passing off protects a trader's good reputation, while counterfeiting is regulated by trademark law which protects the exclusive right of a registered trademark. However, they may be overlapping when a trader's good reputation, associated with a trademark right, is damaged by another's act of trademark counterfeiting.

Comparable to the term counterfeiting, piracy is a term originating in criminal law but which has a different meaning in intellectual property law. In criminal law, piracy is a high sea crime, 'the practice of attacking and robbing ships at sea', while in intellectual property law it means 'the unauthorized use or reproduction of another's work.'⁶¹⁹ The criminal law sense of piracy involves taking away another's property, often violently. In 1716, William Hawkins defined a pirate as 'one who, to enrich himself, either by surprise or open force, sets upon merchants or others trading by sea, to spoil them of their goods and treasure.'⁶²⁰ A central meaning underlying this definition of pirate is the deprivation of others from owning their (physical) property.

⁶¹⁷ Geoffrey W. Tookey Q. C., 'Passing off and Trade Names' (1956) 46(6) *Trademark Reporter* 713.

⁶¹⁸ Andrew Stewart, Philip Griffith and Judith Bannister, *Intellectual Property In Australia* (4th ed, 2010), 511.

⁶¹⁹ Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 6478.

⁶²⁰ Russell G Smith, 'Internet Piracy' (Trends & issues in crime and criminal justice No 65, Australian Institute of Criminology, January 1997) 1
<<http://www.aic.gov.au/documents/B/2/E/%7BB2E568F9-3A27-4E29-827C-0AF13795FCE4%7Dti65.pdf>>.

The use of 'piracy' to describe violation of IPRs strongly implies that intellectual property piracy is theft that attracts criminal penalties. For example, by making an analogy to copyright piracy on the Internet, Russell Smith puts it this way:

Almost three centuries later, digital treasure in the form of information is carried internationally via fibre optic cables and satellites and is being set upon by pirates who, again for self-enrichment, make copies of works belonging to others in order that they may use the information contained therein free of charge or pass them off as their own intellectual creations.⁶²¹

However, as discussed before, theft presupposes that someone else has property, but whether intellectual property is a form of property rights remains controversial. It is thus not appropriate to use the term piracy because it contains the meaning of theft, given that the TRIPs agreement has provided a definition. The TRIPs agreement defines 'pirated copyright goods' as copies made without the consent of the copyright right holder or person duly authorized by the right holder. Under this definition, piracy means the unauthorized copying of copyrighted works.

This thesis follows the TRIPs provisions on trademark counterfeiting and copyright piracy. It acknowledges that counterfeiting and piracy that falls within the definitions provided in the TRIPs agreement is illegal, and may be punished by different civil or criminal penalties. Meanwhile, as the previous discussion suggests, counterfeiting involves product imitation which can be the imitation of any kind of goods, including copyrighted goods. In this sense, counterfeiting can be regarded as including the copying activities under the concept of piracy.

G Conclusion

Counterfeiting may be a pejorative description of imitation, but it is still imitation, including not only trademark imitation but also product imitation. Given the international law status of the TRIPs agreement, the TRIPs definition of trademark

⁶²¹ Ibid.

counterfeiting should be followed as the primary legal source if counterfeiting is to be defined in the national laws. Under this definition, counterfeiting involves product imitation as well as trademark copying, but it is illegal not because of the act of imitation, but because the unauthorized use of an imitated trademark infringes certain trademark rights. The specific scope of the definition depends on what the national law stipulates in a given country. The TRIPs agreement only obliges member countries to provide criminal sanctions for wilful trademark counterfeiting at commercial scale. This means that there is flexibility for member countries to determine what is unintentional trademark counterfeiting at non-commercial scale, for which criminal sanctions may not apply.

Nevertheless, it is true that in practice the term counterfeiting has been used and understood differently. The anti-counterfeiting activists have employed this uncertainty to formulate a broad concept of counterfeiting that favours the interests of intellectual property owners, as the definition of counterfeiting determines the scope of national and international anti-counterfeiting enforcement. For intellectual property users who have different or opposite interests, it is strategically important to use the TRIPs definition as a restriction on the attempt to increase the standards of IPR enforcement through expanding the scope of counterfeiting.

Emphasizing imitation as the key to understand counterfeiting has profound implications for the assessment of the impact of counterfeiting. It sets the groundwork for applying the findings on the benefits of imitation to the case of counterfeiting, which in turn allows the argument for the positive effects of counterfeiting. This will be discussed in the next chapter.

VI RETHINKING THE IMPACT AND THE CAUSE OF COUNTERFEITING

A Introduction

Georgio Armani, the founder of the Emporio Armani brand, purchased a fake Armani watch on a trip to Shanghai. It was an identical copy of an Emporio Armani watch. Instead of condemning the unauthorized copying of his watches, he said that 'it's flattering to be copied. If you are copied, you are doing the right thing.'⁶²²

Georgio Armani is not the only one doing the right thing. Nike, Gucci, Adidas, Prada, Coach, and Louis Vuitton are among the most often copied brands. The annual turnover of these companies keeps growing at astonishing rates, despite or perhaps because of being copied. For example, Nike's revenue in 2013 has increased by approximately 69 per cent compared to the year of 2006;⁶²³ Microsoft has seen its turnover increase by 75 per cent over the same period;⁶²⁴ and Prada Group has even seen revenue doubled over the period from 2009 to 2013.⁶²⁵ An analysis of the stock and revenue data for Coach, LVMH, and Richemont, three luxury-status-goods makers among the most counterfeited, also shows that each firm has kept growing and profitable with increased rather than reduced revenue, even in the presence of counterfeiting.⁶²⁶

⁶²² Stuart Whitwell, *Brand piracy: faking it can be good* (May 2006) Intangible Business <<http://www.intangiblebusiness.com/news/marketing/2006/05/brand-piracy-faking-it-can-be-good>>.

⁶²³ The revenue at Nike was US\$25 313 million in 2013 and US\$14 955 million in 2006. See Nike Inc., *Annual Reports* <<http://investors.nikeinc.com/Investors/Financial-Reports-and-Filings/Annual-Reports/default.aspx>>.

⁶²⁴ Microsoft reached US\$77 849 million in 2013; the number was US\$44 282 million in 2006. See Microsoft, *Annual Reports* <<https://www.microsoft.com/investor/annualreports/default.aspx>>.

⁶²⁵ Total revenue at Prada reached about €3 297 million in 2013, more than double that in 2009, which was around €1 644 million. See Prada Group, *Financial Reports* <<http://www.pradagroup.com/en/investors/financial-reports>>.

⁶²⁶ Kenneth L. Port, 'A Case Against the ACTA' (2012) 33(3) *Cardozo Law Review* 1131.

This chapter re-evaluates the economic and social impact of counterfeiting, with a focus on the positive effects of counterfeiting, and re-thinks the reason for the rampant existence of counterfeiting in many developing countries. The previous chapter showed that counterfeiting inevitably involves product imitation, whether under the TRIPs definition or under the broad definition of counterfeiting. Counterfeiting is illegal not because of imitation, but because the unauthorized use of an imitated trademark infringes on certain trademark rights. In Chapter IV the analysis of the benefits of imitation concluded that in developing economies, imitation and copying play a critical role in facilitating the development of industrial and innovative capacity. In combination with the figures provided above, it can be confidently inferred that counterfeiting as a form of imitation can have positive effects on developing economies.

One primary task for this chapter is to examine in more detail the positive effects of counterfeiting. It will suggest that counterfeiting in nature is a form of imitation, which includes product imitation that can have positive effects on developing economies. These benefits include facilitating the diffusion of knowledge and creating competition with original producers and stimulating innovation, either by encouraging original producers to differentiate their products from counterfeits, or by enabling imitators to be able to compete with original producers. The chapter will argue that the positive effects of counterfeiting are more pronounced in developing economies and in countries without sufficient innovative capacity because they still rely on imitation to develop such capacity.

Another important task for this chapter is to demonstrate how the relationship between intellectual property and development shapes the trajectory from imitation to counterfeiting. This explanation is built on the argument in Chapter IV that IPR protection may stimulate or stifle innovation depending on: whether a country has achieved a certain level of innovative capacity; whether there is an open and competitive market system; and whether complementary institutions are in place to operate collaboratively with intellectual property policy, such as educational infrastructure and competition laws. In developing countries the

standards of IPR protection required by the TRIPs agreement are too high to be adaptive to the development levels of the aforementioned aspects, especially in terms of innovative capacity. Low levels of development determine the need for imitation and copying at low, if not zero, cost to gradually build up innovative capacity. This imbalance, as the chapter will argue, requires that those imitation activities are necessary for the development objective in developing countries, although they are prohibited under strong intellectual property laws in the category of counterfeiting.

The rest of the chapter is organized as follows: Section B reviews the anti-counterfeiting claims on the negative effects of counterfeiting and provides a critical analysis of these claims; Section C examines the positive effects of counterfeiting as a form of imitation. Then the thesis proceeds to explain the occurrence of counterfeiting; In Section D, a discussion on the existing theories explaining the practice of counterfeiting will be presented; in Section E the thesis proposes a new explanation based on the relationship between IPR protection and development.

B *The Anti-counterfeiting Claims on the Negative Effects of Counterfeiting*

This section discusses the anti-counterfeiting perceptions on the impact of counterfeiting, based on

- three reports by the Organization of Economic Co-operation and Development (OECD);⁶²⁷

⁶²⁷ The OECD issued three reports on the impact of counterfeiting in 1998, 2007 and 2008 respectively. See Hema Vithlani, 'The Economic Impact of Counterfeiting' (Report, Organization of Economic Development and Cooperation, 1998) <<http://www.oecd.org/industry/ind/2090589.pdf>>; OECD, 'The Economic Impact of Counterfeiting and Piracy' (Executive Summary, Organization of Economic Co-operation and Development, 2007) <<http://www.oecd.org/dataoecd/13/12/38707619.pdf>>; OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008) <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

- a report issued by the Centre for Economics and Business Research (CEBR) on behalf of the Global Anti-Counterfeiting Group (GACG);⁶²⁸
- a paper of the International Anti-Counterfeiting Coalition (IACC);⁶²⁹
- two commissioned reports of the Business Action to Stop Counterfeiting and Piracy (BASCAP) at the International Chamber of Commerce (ICC);⁶³⁰
- a working paper of the International Intellectual Property Institute (IIPi);⁶³¹
- and a series of documents issued by the World Health Organization (WHO) and the International Medical Products Anti-Counterfeiting Taskforce (IMPACT), a WHO initiative.⁶³²

⁶²⁸ CEBR, 'The Impact of Counterfeiting on Four Key Sectors in the European Union' (Report, Center for Economics and Business Research, June 2000) <www.gacg.org/Content/Upload/Documents/eucebrFinal.doc>.

⁶²⁹ International Anti-Counterfeiting Coalition, 'The Negative Consequences of International Intellectual Property Theft: Economic Harm, Threats to the Public Health and Safety, and Links to Organized Crime and Terrorist Organizations' (White Paper International Anti-Counterfeiting Coalition, January 2005) <<http://counterfeiting.unicri.it/docs/International%20AntiCounterfeiting%20Coalition.White%20Paper.pdf>>.

⁶³⁰ The BASCAP commissioned Frontier Economics to study the economic impact of counterfeiting and its impact on governments and consumers. See Frontier Economics, 'The Impact of Counterfeiting on Governments and Consumers' (Commissioned Report, Business Action to Stop Counterfeiting and Piracy, May 2009) <<http://www.icc.se/policy/statements/2009/BASCAP.pdf>>; Frontier Economics, 'Estimating the Global Economic and Social Impacts of Counterfeiting and Piracy' (Commission Report International Chamber of Commerce, Business Action to Stop Counterfeiting and Piracy (BASCAP), February 2011) <<http://www.iccwbo.org/Advocacy-Codes-and-Rules/BASCAP/BASCAP-Research/Economic-impact/Global-Impacts-Study/>>.

⁶³¹ This report studies the negative effects of counterfeit goods on public health and safety. See Michele Forzley, 'Counterfeit Goods and the Public's Health and Safety' (Study, International Intellectual Property Institute, July 2003) <http://iipi.org/wp-content/uploads/2010/12/Counterfeit_Goods_Web_Version.pdf>.

⁶³² WHO is at the forefront of fighting against counterfeit medicines, with the IMPACT initiative launched in 2006. See WHO, 'Counterfeit Drugs: Guidelines for The Development of Measures to Combat Counterfeit Medicines' (Document No WHO/EDM/QSM/99.1, Essential Drugs and Other Medicines Department, World Health Organization, 1999) <http://whqlibdoc.who.int/hq/1999/WHO_EDM_QSM_99.1.pdf>; WHO, 'Principles and Elements for National Legislation against Counterfeit Medical Products' (International Medical Products Anti-Counterfeiting Taskforce, World Health Organization, 12 December 2007) <<http://www.who.int/impact/events/FinalPrinciplesforLegislation.pdf>>; IMPACT, 'International Medical Products Anti-Counterfeiting Taskforce: The Handbook' <http://www.who.int/impact/handbook_impact.pdf>.

Among these studies, the OECD 2008 report presents a summary of all the possible negative effects of counterfeiting which have been identified in existing studies. These are divided into general socio-economic effects, effects on rights holders, effects on consumers, and effects on governments. At the general socio-economic level, the report claims that counterfeiting undermines the incentives for innovation and economic growth, reduces foreign investment, produces environmentally damaging consequences, results in employment loss, and may negatively affect the structure of trade.⁶³³ For rights holders, counterfeiting is claimed to cause a reduction of sales volume and royalties, create price pressure on the original producers through competition, and damage the brand value and firm reputation of the original producers.⁶³⁴ In addition, the reduced sales volume and lower prices due to counterfeiting also means a loss of tax revenue for the governments, while additional costs associated with fighting counterfeiting will be incurred for both rights holders and government.⁶³⁵

All these arguments, however, are premised on the OECD broad definition that counterfeiting includes the infringement of any type of IPR. In other words, these reported harms are arguably the consequence of not only trademark counterfeiting under the TRIPs definition, but also patent infringement and violation of other IPRs.

⁶³³ OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 137-141 <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

⁶³⁴ Ibid 142-148. Simon Rodwell et al, 'Effects of Counterfeiting on EU SMEs and A Review of Various Public and Private IPR Enforcement Initiatives and Resources' (Final Report, European Commission, 31 August 2007) <http://ec.europa.eu/enterprise/enterprise_policy/industry/doc/Counterfeiting_Main%20Report_Final.pdf>; Daniel C.K. Chow and Thomas J. Schoenbaum, *International Business Transactions: Problems, Cases and Materials* (Second ed, 2010), 557.

⁶³⁵ OECD 2008, above n 633, 152-153. The costs of counterfeiting for government and consumers were further illustrated by the Business Action to Stop Counterfeiting and Piracy in a commissioned report which claims 'The G20 economies lose approximately €62 billion in tax revenues and higher welfare spending, €20 billion in increased costs of crime, €14.5 billion in the economic cost of deaths resulting from counterfeiting and another €100 million for the additional cost of health services to treat injuries caused by dangerous fake products.' See Frontier Economics, 'The Impact of Counterfeiting on Governments and Consumers' (Commissioned Report, Business Action to Stop Counterfeiting and Piracy, May 2009) <<http://www.icc.se/policy/statements/2009/BASCAP.pdf>>.

But the OECD definition is not a primary source of law. Even though it defines counterfeiting as it is in practice – in practice counterfeiting involves product imitation that may (or may not) infringe other types of IPRs apart from trademark – this definition cannot be used as the basis to legalize counterfeiting in such a broad sense. Only the TRIPs definition – unauthorized use of a counterfeited trademark on the same class of goods – establishes the scope of a country's legal obligation to provide criminal penalties for, and border seizures of, counterfeit goods.

Therefore, those negative effects of counterfeiting as claimed in the OECD reports should not be regarded as reflecting the impact of counterfeiting defined under the TRIPs agreement. Nevertheless, since the same claims have been made in other anti-counterfeiting documents, the following discussion will analyse some of the most commonly reported consequences of counterfeiting as proclaimed by the anti-counterfeiting groups, and points out the problems in the methodology that they have used to quantify the economic loss from counterfeiting.

In addition to the lack of reliable empirical data, this section will also show that linking counterfeiting with public health problems and with organized crime and terrorism has the effect of exaggerating the negative effects of counterfeiting. It conflates an intellectual property law issue with product quality issue and other criminal activities that deserve separate self-standing enforcement. Based on this analysis, this section reminds us that while counterfeiting may infringe on the exclusive rights over ideas and works under IPR protection, this effect should not be overstated.

1 Losses of Sales Volume, Royalties and Brand Value

In 1995, the US government estimated that American businesses were losing US\$200 billion each year because of counterfeiting.⁶³⁶ The OECD report of 2007 indicated that the volume of tangible counterfeit and pirated products in

⁶³⁶ U.S. Government Printing Office, 'Anti-Counterfeiting Consumer Protection Act of 1995' (Senate Report, 104-177, 28 November 1995) <<http://www.gpo.gov/fdsys/pkg/CRPT-104srpt177/html/CRPT-104srpt177.htm>>.

international trade could be up to US\$200 billion,⁶³⁷ a number they updated in 2009 to US\$250 billion.⁶³⁸ The BASCP also reported that 'counterfeiting and piracy are estimated to cost G20 governments and consumers over €100 billion every year.'⁶³⁹ More recently, BASCP issued a new report, noting that if all other categories of production and consumption of counterfeiting are included,⁶⁴⁰ 'the total global economic value of counterfeit and pirated products is as much as US\$650 billion every year.'⁶⁴¹ The figure is even larger when the social impacts of counterfeiting are included, and by 2015 the global value of counterfeit and pirated products could be up to US\$1.77 trillion.⁶⁴²

It has to be admitted that short term costs of counterfeiting may be incurred by IPR holders who have invested a considerable amount of human and financial resources into the research and development of new innovations. These costs include the reduction of sales volume and royalties, or the damage to the reputation of the original brand owners. Through direct competition with IPR products, counterfeiting results in a reduction of demand for the original products, thus leading to a decline in sales volume. This belief is based on the assumption that 'every purchased counterfeit item represents a lost sale to the legitimate producer'.⁶⁴³

⁶³⁷ OECD, 'The Economic Impact of Counterfeiting and Piracy' (Executive Summary, Organization of Economic Co-operation and Development, 2007) 15 <<http://www.oecd.org/dataoecd/13/12/38707619.pdf>>.

⁶³⁸ OECD, 'Magnitude of Counterfeiting and Piracy of Tangible Products: An Update' (November 2009) <<http://www.oecd.org/industry/ind/44088872.pdf>>.

⁶³⁹ Frontier Economics, 'The Impact of Counterfeiting on Governments and Consumers' (Commissioned Report, Business Action to Stop Counterfeiting and Piracy, May 2009) 7 <<http://www.icc.se/policy/statements/2009/BASCAP.pdf>>.

⁶⁴⁰ OECD 2008 report delineated four categories of impacts of counterfeiting, namely counterfeit and pirated goods moving through international trade, value of domestically produced and consumed counterfeit and pirated products, volume of pirated digital products being distributed via the Internet, and broader economy-wide effects. See OECD 2008, above n 633, 114.

⁶⁴¹ Frontier Economics, 'Estimating the Global Economic and Social Impacts of Counterfeiting and Piracy' (Commission Report, Business Action to Stop Counterfeiting and Piracy of the International Chamber of Commerce, February 2011) 46 <<http://www.iccwbo.org/Advocacy-Codes-and-Rules/BASCAP/BASCAP-Research/Economic-impact/Global-Impacts-Study/>>.

⁶⁴² Ibid 9.

⁶⁴³ OECD 2008, above n 633, 142.

Another type of economic loss resulting from counterfeiting refers to the diminished flow of royalties and the erosion of brand value. Since counterfeiting is the unauthorized use of a trademark (or other IPRs under the OECD definition of counterfeiting), at least in theory it is true that counterfeiting infringes on the exclusive right to use a trademark, and thereby diminishes the flow of royalties to the right holder. Nevertheless, the extent to which counterfeiting affects the flow of royalties is hard to quantify due to the lack of empirical studies in this respect. The OECD report in 2008 has acknowledged this fact.⁶⁴⁴

In cases where deception occurs with the production of counterfeit goods of substandard quality, it is claimed that the brand value of original manufacturers may be eroded. Consumers who are misled into believing that they are buying the original product, when they are actually buying a counterfeit product that does not meet quality standards and specifications, may blame the manufacturer of the original products for failing their expectations, thus creating a loss of brand reputation and goodwill.⁶⁴⁵

However, the magnitude of such costs should not be overstated for a number of reasons. First, the assumption that every sale of a counterfeit product equals a lost sale of the original product is increasingly brought into question. Not every consumer of counterfeit goods would have purchased an original if the counterfeit goods were not available. In cases of non-deceptive counterfeiting, for example, consumers who bought counterfeit products with the knowledge that they are counterfeit products are unlikely to buy the original if there were no counterfeits.⁶⁴⁶ This is especially true for the low-income consumers who cannot afford the high-priced original products.

⁶⁴⁴ Ibid 146.

⁶⁴⁵ Ibid 145.

⁶⁴⁶ See Daniel C.K. Chow, 'Counterfeiting as an externality imposed by multinational companies on developing countries' (2011) 51 *Virginia Journal of International Law* 785, 797 (criticizing the methods of calculating economic loss suffered by multinational companies because of counterfeiting, and pointing out that most counterfeit products are priced significantly lower than the original and consumers can easily tell a counterfeit product from the original based on the price and the location of purchase).

Moreover, the value of counterfeit products is calculated by using the retail price of the original product. For example, in a report on software piracy, the value of pirated software is calculated using the blended average price of software in an economy if it had been sold in retail stores, using volume licenses, and as bundled with hardware.⁶⁴⁷ However, this calculation ignores the important fact that counterfeit products are very often priced significantly lower than original products.⁶⁴⁸ While it is difficult to ascertain the unit price of counterfeit products, using the retail price of original products for calculation does not reflect the real situation of counterfeiting.

In addition, given the different definitions of counterfeiting, there is not a uniform standard of what constitutes counterfeit products. While the TRIPs agreement defines counterfeit goods as the same goods bearing a counterfeited trademark without authorization, as discussed in the previous chapter, counterfeiting may include the unauthorized production of any product under IPR protection under the OECD definition. Both definitions can be adopted under different methodologies. Moreover, some multinational companies only see those goods directly shipped by the rights owners as genuine, meaning that original goods from the 'grey market' and parallel imports are regarded as counterfeits.⁶⁴⁹ Hence, by adopting a broad definition of counterfeit goods, multinational companies claim huge amounts of financial loss from counterfeiting.

⁶⁴⁷ BSA and IDC, 'Seventh Annual BSA and IDC Global Software 09 Piracy Study' (Study Report, Business Software Alliance, May 2010) 10 <<http://globalstudy.bsa.org/2009/studies/globalpiracystudy2009.pdf>>. In the same vein, the Annual Enforcement Report 2004 issued by the UK Intellectual Property Office refers to a seizure of 40 000 videos and DVDs valued at £2 000 000, 80 500 music CDs and cassettes valued at £1 800 000, and 5 000 pieces of computer software valued at £450 000. The value of counterfeit products is based on clearly unrealistic estimates that counterfeit videos and DVDs were priced at an average of £50, counterfeit CDs at £22.36 and counterfeit software at £90, even exceeding the cost of the original items. See Felix Salmon, *All Counterfeiting Statistics Are Bullshit* (9 June 2005) <<http://www.felixsalmon.com/2005/06/all-counterfeiting-statistics-are-bullshit/>>.

⁶⁴⁸ See Daniel C.K. Chow, above n 646, 797. See also Michael Blakeney, *Intellectual Property Enforcement: A Commentary on the Anti-Counterfeiting Trade Agreement (ACTA)* (Edward Elgar, 2012), 4 (noting that counterfeit products are usually priced significantly lower than the original, and therefore it is questionable that the valuation of seized counterfeit products is calculated as if they are genuine, and are treated as if they represent lost sales).

⁶⁴⁹ Daniel C.K. Chow, above n, 646, 795.

Despite the questionable method of calculation, those numbers of economic losses have been repeatedly used in anti-counterfeiting initiatives. The most frequently cited is the 'general assumption' of ICC that the overall cost of counterfeiting in the world has reached five to seven per cent of world trade.⁶⁵⁰ Although the OECD has acknowledged that there is no substantial aggregated data to support the high percentages, the figures continue to be used to quantify the scope of counterfeiting.⁶⁵¹ Based on this unverifiable estimate, for example, the US Customs Service and Border Protection claims that counterfeiting costs the US economy US\$200 billion annually.⁶⁵²

2 *Losses of Investment, Employment and Taxes*

In combination, the claimed economic loss of sales volume, royalties and brand value is then translated into lost trade revenues and reduction of profitability for the original brands. It is then argued that the economic loss will diminish the incentives for further investment in the development of new products and processes, including foreign investment that brings in technology transfer. For anti-counterfeiting activists, counterfeiting is a form of imitation and copying that rides free on other's intellectual property and deprives the right owners of more profitability, thus undermining the incentive mechanism provided by an IPR system.

However, the OECD concedes that there is little empirical work to support this view.⁶⁵³ Considering that IPR protection does not necessarily stimulate innovation

⁶⁵⁰ Carl Bialik, *Efforts to Quantify Sales of Pirated Goods Lead to Fuzzy Figures* (19 October 2007) Wall Street Journal <<http://online.wsj.com/news/articles/SB119274946863264117>>.

⁶⁵¹ Hema Vithlani, 'The Economic Impact of Counterfeiting' (Report, Organization of Economic Development and Co-operation, 1998) 23 <<http://www.oecd.org/industry/ind/2090589.pdf>>.

⁶⁵² Peter Lowe, the assistant director of the Counterfeiting Intelligence Bureau, which is part of the International Chamber of Commerce, reckoned that the numbers probably came from an estimate that counterfeiting accounted for between five per cent and seven per cent of world trade; the source of the five to seven per cent number itself, however, he said, was 'lost in the mists of time'. See Felix Salmon, *All Counterfeiting Statistics Are Bullshit* (9 June 2005) <<http://www.felixsalmon.com/2005/06/all-counterfeiting-statistics-are-bullshit/>>.

⁶⁵³ OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 140, 146 <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

or increase technology transfer, especially in developing countries without absorptive capacity, the effect of counterfeiting (without such protection) on those two aspects is not likely to be significant.

In relation to the loss of sales and profits, counterfeiting may result in losses of jobs and tax income, according to anti-counterfeiting claims. It is believed that lower profits for right owners result in reduced sales taxes and value-added taxes, while foregone investment is translated into loss of jobs. For example, the CEBR report on the impact of counterfeiting on the EU economies suggests that counterfeiting in four sectors accounts for the reduction of EU gross domestic product by €8 billion per annum and a reduction in employment by 17 120 jobs.⁶⁵⁴ More recently, the International Data Corporation (IDC) calculates that the commercial value of unlicensed PC software put into the market of the 42 countries under study amounted to US\$45 billion in 2009, resulting in total losses of revenue, employment and taxes from related sectors in excess of US\$110 billion.⁶⁵⁵

Most of the empirical work that estimates tax losses assumes that counterfeiters do not pay any taxes, or pay far lower taxes than would be paid by right holders.⁶⁵⁶ This assumption is also questionable. In some regions of China, counterfeiting businesses are registered companies that pay taxes to the local government and

⁶⁵⁴ The four sectors are clothing and footwear, perfume and toiletries, toys and sports goods, and pharmaceuticals. See CEBR, 'The Impact of Counterfeiting on Four Key Sectors in the European Union' (Report, Center for Economics and Business Research, June 2000) 14 <www.gacg.org/Content/Upload/Documents/eucebrFinal.doc>. The OECD report of 1998 also pointed out that the numbers of job losses are derived by taking the loss of sales of a sector or a company due to counterfeiting, and calculating the number of additional people that could have been employed with that revenue. See Hema Vithlani, 'The Economic Impact of Counterfeiting' (Report, Organization of Economic Development and Cooperation, 1998) 24 <<http://www.oecd.org/industry/ind/2090589.pdf>>.

⁶⁵⁵ BSA, 'Piracy Impact Study: The Benefits of Reducing Software Piracy' (Report, Business Software Alliance, 2010) 2 <<http://portal.bsa.org/piracyimpact2010/studies/piracyimpactstudy2010.pdf>>. To determine the net new jobs created by lowering piracy, IDC multiplies the net benefits in each category of spending (software, services and distribution) by the ratio of spending on software and software-related services and distribution per employee. IDC calculates social and personal income taxes by taking total income and social taxes within a country, and determining the portion attributable to IT activities based on the percentage of total wages paid to IT employees, compared to total wages paid to the entire country's workforce.

⁶⁵⁶ OECD 2008, above n 653, 152.

provide jobs to local residents. As Daniel Chow observes, 'many of the vendors and landlords involved in the wholesale markets and distribution centres do pay taxes to local governments and constitute an important source of government revenues.'⁶⁵⁷ In addition, the claim of the losses of investment, employment and taxes is calculated on the basis of lost sales and profits, which by themselves are based on dubious assumptions and unverifiable statistics as discussed in the previous sections. Therefore, the impact of counterfeiting on investment, employment and taxes should be assessed with care.

3 *Public Health Risks and Link with Organized Crimes and Terrorism*

As already mentioned in the previous chapter, counterfeiting is often associated with public health and safety, and with organized crime and terrorism, in order to illustrate the seriousness of the problem. Anti-counterfeiting industries not only bring the quality and safety issues into the definition of counterfeiting, but also link the damages caused by such quality issues with the impact of counterfeiting, as this may justify their anti-counterfeiting enforcement. A few pharmaceutical manufacturers, such as Pfizer, GlaxoSmithKline, and VFA, have constantly reported the negative effects of counterfeiting on public health and safety.⁶⁵⁸

The IACC report of 2005 associates counterfeiting with substandard products that 'have already caused injuries and deaths and continue to present a grave threat to the public health and safety.'⁶⁵⁹ It also highlights the link between counterfeiting and organized crime: proceeds from counterfeiting are used to finance organized crime, and organized criminal groups are heavily involved in trademark

⁶⁵⁷ Daniel C.K. Chow, 'Counterfeiting in the People's Republic of China' (2000) 78(1) *Washington University Law Review* 1, 45.

⁶⁵⁸ OECD 2008, above n 653, 149.

⁶⁵⁹ International Anti-Counterfeiting Coalition, 'The Negative Consequences of International Intellectual Property Theft: Economic Harm, Threats to the Public Health and Safety, and Links to Organized Crime and Terrorist Organizations' (White Paper International Anti-Counterfeiting Coalition, January 2005) 7
<<http://counterfeiting.unicri.it/docs/International%20AntiCounterfeiting%20Coalition.White%20Paper.pdf>>.

counterfeiting and copyright piracy.⁶⁶⁰ Nevertheless, even though counterfeiting may have financial connection with other criminal entities, the connection is by no means a consequence of counterfeiting, and should not be dealt with in the framework of intellectual property law.

Meanwhile, the IPI report underscores the significance of counterfeit goods as ‘a public health problem with particular consequences in the area of injury, mortality and morbidity’.⁶⁶¹ However, the relationship between counterfeiting and public health is rather weak. According to the same IPI report, only 17.5 per cent of reports, stories or comments collected indicate that the injury or harm is associated with a counterfeit good.⁶⁶² That means, while inferior quality may result in safety concerns, it is not a necessary consequence of counterfeiting.

Admittedly, counterfeit products with inferior quality, safety and efficacy may pose risks to public health and safety, especially in the sectors of pharmaceuticals, baby formula, foodstuffs and beverages, automobile and aerospace spare parts. But it has to be noted that in the strict sense, substandard products are not an intellectual property issue, and more importantly, only a very small fraction of counterfeit products are those that may be likely to raise public health concern.

First, quality and safety are separate issues from counterfeiting. Counterfeit products do not necessarily have inferior quality or impose safety risks. Likewise, original products are not always high-quality and safe products. As Reto Hilty puts it, ‘[d]efficient car brakes, for instance, are always a problem for consumers, regardless of whether patent protection (still) exists – or ever existed – for the original brakes

⁶⁶⁰ Ibid 15. See also Michael Roudaut, 'From Sweatshops to Organized Crime: The New Face of Counterfeiting' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 75.

⁶⁶¹ Michele Forzley, 'Counterfeit Goods and the Public's Health and Safety' (Study, International Intellectual Property Institute, July 2003) 14 <http://iipi.org/wp-content/uploads/2010/12/Counterfeit_Goods_Web_Version.pdf>.

⁶⁶² Ibid 8.

or not.’⁶⁶³ What distinguishes counterfeit from original products is whether there is authorization from a certain IPR owner, instead of whether the product quality meets the required standards and specifications. Therefore, the issue of inferior quality should be dealt with separately from the assessment of the impact of counterfeiting.

Second, even though some counterfeit products may not be of as good a quality as the original products, the concerns about safety are still overstated because for the majority of counterfeit products, quality is not directly associated with safety. In fact, the most frequently counterfeited products are clothing and shoes, which rarely have public health and safety harms even in cases of inferior quality. The top five most counterfeited product sectors identified by the OECD according to customs seizure statistics pertain to apparel, clothing, software, recorded music, footwear and the like.⁶⁶⁴ The quality of these products has little potential harm to consumer’s health and safety.

While inferior automobile and aerospace products may pose higher safety risks than other products, the seized counterfeit goods in these sectors by the US Customs account for less than one per cent of the total number of seizures in the year 2012, compared to 29 per cent for wearing apparel and accessories.⁶⁶⁵ According to the EU customs seizure statistics, counterfeit products of foodstuffs and beverages, medical products, vehicles including accessories and parts, and electronic products

⁶⁶³ Reto M. Hilty, 'Economic, Legal and Social Impacts of Counterfeiting' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 9-23, 23.

⁶⁶⁴ To be specific, the top five IP-infringing products seized by customs authorities are textiles and textile articles (incl. apparel and clothing); machinery and electrical equipment (incl. TVs, electronic equipment, software, CDs and DVDs); misc. manufactured articles (incl. furniture, toys, games and sports equipment); and optical and photo equipment; precision instruments; clocks and watches; musical instruments; metals and metal products (including hand tools and cutlery); and footwear, headgear, umbrellas, walking sticks, riding crops; artificial flowers. See OECD 2008, above n 653, 69.

⁶⁶⁵ US Customs and Border Protection Office of International Trade, 'Intellectual Property Rights Fiscal Year 2012 Seizure Statistics' (Report, 2012) 18
<http://www.cbp.gov/sites/default/files/documents/FY2012%20IPR%20Seizure%20Statistics_0.pdf>.

altogether account for only 0.1 per cent of total cases.⁶⁶⁶ Hence, using the detrimental effects of a very small percentage of counterfeit products to describe the overall impact of counterfeiting is obviously a specious exaggeration.

4 Negative Effects Should Not Be Overstated

The above analysis of the anti-counterfeiting claims on the negative effects of counterfeiting suggests that while counterfeiting may infringe on IPRs, the negative effects should not be overstated.

First, most of the anti-counterfeiting organisations are lobbying groups, which have incentives to exaggerate the negative effects of counterfeiting in order to raise political support for increased IPR protection and enforcement.⁶⁶⁷ For example, in 2004 the Business and Industry Advisory Committee (BIAC) called on the OECD to expand and update its study on the impact of counterfeiting, noting that a particular emphasis should be placed on the 'harmful effects of global counterfeiting and piracy problems'.⁶⁶⁸ It seems that providing a complete picture of counterfeiting is not a concern for anti-counterfeiting studies, whose sole purpose is to send the single message that counterfeiting harms.

Publishing the negative effects of counterfeiting is one of the strategies of intellectual property industries to lobby for stronger IPR protection and enforcement.⁶⁶⁹ As Kenneth Port points out, the luxury status goods manufacturers complain of the deleterious effect of counterfeiting to the US government, while at

⁶⁶⁶ Taxation and Customs Union, 'Report on EU customs enforcement of intellectual property rights: Results at the EU border 2012' (Report, 2013) 25-27 <http://ec.europa.eu/taxation_customs/resources/documents/customs/customs_controls/counterfeit_piracy/statistics/2013_ipr_statistics_en.pdf>.

⁶⁶⁷ Hema Vithlani, 'The Economic Impact of Counterfeiting' (Report, Organization of Economic Development and Cooperation, 1998) 27 <<http://www.oecd.org/industry/ind/2090589.pdf>>.

⁶⁶⁸ Business and Industry Advisory Committee, 'BIAC Calls on OECD to Launch Anti-Counterfeiting/Piracy Initiative' (Statement, 14 October 2004) 1 <<http://www.biac.org/statements/tech/ipr/FIN04-10BIACanti-counterfeiting.pdf>>.

⁶⁶⁹ Stuart Macdonald and Tim Turpin, 'Fair Copy? A Look at the Anti-Counterfeiting Lobby' (Paper presented at the Creative Industries and Intellectual Property Conference, London, 22-23 May 2008) 16-24 <<http://www.dime-eu.org/files/active/0/MacdonaldTurpinPAPER.pdf>>.

the same time boasting of their economic success to their investors.⁶⁷⁰ This paradoxical attitude suggests that, for one thing, counterfeiting is not really a serious problem to these companies, and, for another, they still attempt to convince the government to provide stronger IPR protection and enforcement.

Second, the lack of empirically justified data in terms of the scope and magnitude of counterfeiting has been commonly recognized as a thorny issue in quantifying the impact of counterfeiting.⁶⁷¹ The clandestine nature of counterfeiting makes it difficult to detect all counterfeiting for a complete measurement. Moreover, the methodology used to estimate the value of counterfeiting and the resulting losses is highly controversial, given the dubious assumptions mentioned above. A review of the existing literature on counterfeiting concludes that large numbers of studies that seek to quantify the extent of counterfeiting and piracy at the aggregate levels have serious shortcomings, both concerning the data employed and the adopted methodologies.⁶⁷² Therefore, the aggregate estimates of the incidence of counterfeiting offer little guidance about intellectual property enforcement policies.

In addition, counterfeiting should be distinguished from product quality and safety issues and other criminal activities. Counterfeiting violates trademark rights or, when a broad definition is adopted, infringes other IPRs. Substandard products are products that do not meet the quality standards and specifications, which is not a concern for intellectual property law. Even though some types of counterfeit goods do not meet quality standards, it does not mean that the overall impact of counterfeiting is negative. The linkage of counterfeiting with organized crime and terrorism suffers the same flaw: mixing together two originally separate issues.

⁶⁷⁰ Kenneth L. Port, 'A Case Against the ACTA' (2012) 33(3) *Cardozo Law Review* 1131, 1152.

⁶⁷¹ GAO, 'Intellectual Property: Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods' (Report to Congressional Committees No GAO-10-423, United States Government Accountability Office, April 2010) 14-15
<<http://www.gao.gov/assets/310/303057.pdf>> (noting that there is generally a lack of empirical data on the scope of counterfeiting).

⁶⁷² Carsten Fink, Keith E. Maskus and Yi Qian, 'The Economic Effects of Counterfeiting and Piracy: A Literature Review' (Paper presented at the WIPO Advisory Committee on Enforcement Sixth Session, Geneva, 1-2 December 2010) [108]
<http://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_6/wipo_ace_6_7.pdf>.

Hence, the presence of these types of negative externalities which may result from substandard quality and organized crime, as Carsten Fink, Keith E. Maskus and Yi Qian put it, should 'give rise to self-standing public enforcement action, independent of private rights enforcement.'⁶⁷³

C Positive Effects of Counterfeiting

As the above analysis suggests, the arguments which detail the negative effects of counterfeiting are built on unreliable, if any, empirical data and questionable methodology. Even though counterfeiting has some negative effects, they only represent one side of the coin. The other side is that counterfeiting has potential benefits. Counterfeiting in intellectual property law involves substantial product imitation. Imitation promotes development in a number of ways that innovation may not be able to do, given that innovation may be restricted under too strong IPR protection. As a form of imitation, therefore, counterfeiting can have effects similar to those that imitation can have.

This section examines the positive effects of counterfeiting. In addition to explaining the benefits of counterfeiting based on the value of imitation, it also draws on existing empirical scholarship on the positive effects of counterfeiting. It will show that counterfeiting not only has advertising and profitability-enhancing effects for the original producer, but may also increase consumer welfare, support local economies by providing more jobs and paying more taxes, and ultimately help build up the innovative capacity of a developing economy. These benefits are more pronounced in developing countries with uneven societies.

1 Benefits for the Original Producer

By imitating a brand or the product under the brand, counterfeiting can benefit the original producer by providing free advertising for the original products and by exerting pressure to drive product updating and innovation.

⁶⁷³ Ibid [41].

To begin with, counterfeit products in many cases have advertising effects for the original brands and increase the demand for the original products in the long run. In her recent empirical research on counterfeiting in the Chinese footwear industry, Yi Qian found that for the original brands being counterfeited, the entry of counterfeit products has positive effects on advertising for high-end product brands, although having negative substitution effects for low-end product sales.⁶⁷⁴ She adds that this positive advertising effect comes mainly from increased brand awareness and affinity due to the presence of counterfeit products, and is most pronounced for high-fashion products (such as women's high-leg boots) and for high-end products of brands that were not yet well-known at the time of entry by the counterfeiters.⁶⁷⁵

Because of these advertising effects, counterfeit products encourage loyalty, generate awareness and strengthen the brands' values, as consumers who are not able to afford the genuine product at the time will probably run to the genuine products as soon as their economic condition changes.⁶⁷⁶ In this sense, counterfeiting has become a good indicator of a brand's strength, as counterfeiting is usually targeted at the most profitable, top-selling products in great demand on the market. Brands which are not counterfeited are usually considered too weak to generate consumer demand and are consequently not produced.⁶⁷⁷ A good example is the lack of counterfeit versions of Samsung's new Galaxy Gear smart watch in Shenzhen's Huaqiangbei commercial district – a market for counterfeit electronic

⁶⁷⁴ Yi Qian, 'Counterfeiters: Foes or Friends?' (Working Paper No 16785, National Bureau of Economic Research February 2011) 24.

⁶⁷⁵ Ibid 5.

⁶⁷⁶ Stuart Whitwell, *Brand piracy: faking it can be good* (May 2006) Intangible Business <<http://www.intangiblebusiness.com/news/marketing/2006/05/brand-piracy-faking-it-can-be-good>>. Stuart Whitwell summarizes the benefits of counterfeiting for genuine brands as including increased awareness, access to new markets, closing off the competition and an affirmation of the brand's values.

⁶⁷⁷ Ibid.

goods in China – which is ‘a serious warning signal that the demand for Samsung's smart watch is ice-cold.’⁶⁷⁸

Meanwhile, counterfeiting may lead to short-term pricing pressure on original producers, but in the long run it has a stable positive effect on the original prices. Yi Qian and Hui Xie studied the effects of counterfeit entry and sales on authentic product prices using a dataset on the Chinese shoe industry. They found that the authentic prices fell immediately upon the entry of counterfeiters, because new entry imposes competitive pressure in the short term.⁶⁷⁹ Nevertheless, authentic prices rose substantially on average two years after counterfeit entry because ‘generic entry was able to steal away the price-sensitive consumer segment, leaving behind a more inelastic demand for the branded companies to re-optimize towards a higher price’.⁶⁸⁰ As a result of the increase of both authentic sales and prices, it was found that the market shares for the higher-quality products increased after counterfeit entry.⁶⁸¹ The figures presented in the beginning of this chapter detailing the increase in annual revenue for many luxury brands are the best evidence to support this argument.

Studies also indicate that, in the copyright industry, unauthorized reproduction of software and recorded music can benefit the original producer by stimulating demand for genuine products, raising consumers’ valuation of the genuine and allowing the original producer to charge a higher price, resulting in greater profits.⁶⁸² Despite dissents in this matter, this thesis finds that the positive effects of

⁶⁷⁸ Johan Nylander and Justus Krüger, *China's Pirates Turn Their Backs on Wearable Tech* (16 January 2014) CNN <<http://edition.cnn.com/2014/01/15/business/china-smartwatches-counterfeits/>>.

⁶⁷⁹ Yi Qian and Hui Xie, 'Investigating the Dynamic Effects of Counterfeits with a Random Changepoint Simultaneous Equation Model' (Working Paper No 16692, National Bureau of Economic Research, January 2011) 23 <<http://www.nber.org/papers/w16692>>.

⁶⁸⁰ Ibid.

⁶⁸¹ Yi Qian, 'Counterfeiters: Foes or Friends?' (Working Paper No 16785, National Bureau of Economic Research February 2011) 24.

⁶⁸² Lisa N. Takeyama, 'The Welfare Implications of Unauthorized Reproduction of Intellectual Property in the Presence of Demand Network Externalities' (1994) 42(2) *Journal of Industrial Economics* 155, 165; Kai-Lung Hui and Ivan Png, 'Piracy and the Legitimate Demand for Recorded Music' (2003) 2(1) *Contributions to Economic Analysis and Policy* Article 11.

copying are supported by the results of a recent study authorized by the Dutch Ministry of Economic Affairs, which states that losses of 125 million USD in relation to unpaid file-sharing correspond to 250 million USD in income gains.⁶⁸³

In addition, the presence of counterfeit products brings competition for the original producer, thus stimulating product innovation and upgrade. In an environment of weak enforcement of IPRs, which is quite common in developing countries, counterfeiting often drives the authentic firms to upgrade their products through further innovation in order to differentiate their products.⁶⁸⁴ To prevent counterfeiting, firms may invest in new business and technical solutions that can improve the product's quality and attributes so that it is difficult to imitate. Even in cases where counterfeiting may negatively affect the original producer's sales, prices, and reputation, it eventually stimulates some of the original producers to offer a higher quality product at a higher price, maintaining the differentiation from imitative products.

Kal Raustiala and Christopher Sprigman find that, in the fields of design and fashion, food, and sports industries, the role of imitation in spurring product innovation is even more evident because imitation makes a new product into a trend, while too much imitation destroys the trend.⁶⁸⁵ Consequently, new products have to be invented to replace the obsolete products. Hence, trends and fads form and die because of imitation and copying in these industries, and every time a new trend comes, it comes with innovation.⁶⁸⁶

⁶⁸³ Annelies Huygen et al, 'Ups and Downs: Economic and Cultural Effects of File Sharing on Music, Film and Games' (TNO Report No 34782, Ministries of Education, Culture and Science, Economic Affairs and Justice, 18 February 2009) <http://www.ivir.nl/publicaties/vaneijk/Ups_And_Downs_authorized_translation.pdf>.

⁶⁸⁴ Yi Qian, 'Impacts of Entry by Counterfeiters' (2008) 123(4) *Quarterly Journal of Economics* 1577, 1607.

⁶⁸⁵ Kal Raustiala and Christopher Sprigman, *The Knock-off Economy: How Imitation Sparks Innovation* (Oxford University Press, 2012), 168.

⁶⁸⁶ Ibid.

2 *Benefits for Consumer Welfare*

Counterfeiting may also increase consumer welfare by providing lower priced substitutes for expensive original products. According to economic theory, a consumer surplus occurs when the consumer is willing to pay more for a given product than the current market price, which is more likely to occur in competitive markets. Counterfeiting brings competition for original producers, providing imitative products at much lower prices and thus enhancing consumer surplus.

As Steven Globerman argues, '[t]he most obvious benefit to domestic consumers is an increase in consumer surplus associated with lower priced imports that are acceptable substitutes for "original" goods.'⁶⁸⁷ Especially in the case of willing purchase of counterfeit products, consumers are better off as a result of counterfeiting, and therefore stronger intellectual property enforcement may result in welfare loss.⁶⁸⁸ Moreover, as mentioned earlier, the positive effects of counterfeiting for original producers in the long term bring high profitability in the market for the original brands, which in turn will induce entry of additional firms and greater competition between brands, thus leading to a fall in price and an increase in consumer surplus.⁶⁸⁹

Reto Hilty distinguishes identical use from imitating use of the subject matter under IPR protection. 'Identical use' means exact replication without any change whatsoever, while 'imitating use' means inspired by the protected subject matter but with some changes. He notes that counterfeiting refers only to identical use, which almost inevitably causes a market failure and undeniably constitutes an

⁶⁸⁷ Steven Globerman, 'Addressing International Product Piracy' (1988) 19(3) *Journal of International Business Studies* 497, 499.

⁶⁸⁸ Carsten Fink, 'Enforcing Intellectual Property Rights: An Economic Perspective' (Commissioned Study, International Centre for Trade and Sustainable Development, July 2008) 10-11 <<http://ictsd.org/downloads/2008/07/carsten-fink-enforcing-intellectual-property-rights.pdf>>.

⁶⁸⁹ Ibid.

infringement of IPRs.⁶⁹⁰ But for imitating use, distinction has to be made as to whether there is IPR infringement. This cautious attitude derives from a focus on public interests, as he points out that imitating products may have positive effects on sharpening competition and thereby enhancing consumer welfare.⁶⁹¹

There is some concern that the inferior quality associated with counterfeiting will reduce consumer welfare by posing health and safety risks. As discussed before, it is true that some counterfeit products do not meet the required quality standards, but it must be remembered that quality and safety concerns are not concerns unique to counterfeit products. Any product, whether original or counterfeit, may have quality and safety problems. Therefore, the impact of quality issue on consumer welfare should be distinguished from the impact of counterfeit products.

In addition, the previous section also showed that the majority of counterfeit products are from sectors such as apparel, clothing, software, recorded music, footwear and the like, the top five most counterfeited product sectors identified by the OECD according to customs seizure statistics.⁶⁹² Product quality in these sectors, whether original or counterfeit, is not directly associated with public health and safety. Only a very small portion of counterfeit products may affect consumer safety, such as pharmaceuticals, automobile and aerospace products.

Finally, studies show that the positive effects of counterfeiting on consumer welfare may be more remarkable in unequal societies. Stefania Scandizzo finds that the magnitude of profit-reducing effect of counterfeiting decreases with the degree of

⁶⁹⁰ Reto M. Hilty, 'Economic, Legal and Social Impacts of Counterfeiting' in Christophe Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012) 9-23, 16.

⁶⁹¹ Ibid 17.

⁶⁹² To be specific, the top five IP-infringing products seized by customs authorities are textiles and textile articles (including apparel and clothing); machinery and electrical equipment (including TVs, electronic equipment, software, CDs and DVDs); miscellaneous manufactured articles (including furniture, toys, games and sports equipment); and optical and photo equipment; precision instruments; clocks and watches; musical instruments; metals and metal products (including hand tools and cutlery); and footwear, headgear, umbrellas, walking sticks, riding crops; artificial flowers. See OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008),
69<<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

income inequality, and the effect of the introduction of counterfeit goods on welfare instead increases with inequality.⁶⁹³ This is consistent with the findings of a study conducted by the IMF, which suggests that:

The effect of imitation (counterfeiting) on firms' profits and consumer welfare depends on the distribution of income within the country. In particular, the greater the level of income inequality, the larger the increase in consumer welfare due to the imitation and the smaller the effect on profits of the state-of-the-art firm.⁶⁹⁴

In the meantime, Keith Maskus, Sean Dougherty, and Andrew Mertha assert that counterfeiting faces little opposition in rural and inland regions owing to low incomes and limited technological capabilities, and that there is little reluctance on the part of poor consumers to buy counterfeit goods.⁶⁹⁵ It is understandable that financially under-resourced people prefer cheaper substitutes, rather than the expensive original products under IPR protection, and counterfeit products are such substitutes.

In past decades, economic development has been accompanied by a widening gap between rich and poor populations.⁶⁹⁶ In particular, developing countries are mostly characterized by enlarged inequality of income distribution after decades of

⁶⁹³ Stefania Scandizzo, 'Counterfeit Goods and Income Inequality' (IMF Working Paper No WP/01/13, International Monetary Fund, January 2001) 17
<<http://www.imf.org/external/pubs/ft/wp/2001/wp0113.pdf>>.

⁶⁹⁴ Ibid.

⁶⁹⁵ Keith E. Maskus, Sean M. Dougherty and Andrew Mertha, 'Intellectual Property Rights and Economic Development in China' in Keith E. Maskus and Carsten Fink (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 295-331. See also Yi Qian and Derek Rucker, 'Income Inequality and Counterfeiting' (Working Paper Northwestern University, 2010) (finding a positive relationship between income inequality and the consumers' demand for counterfeit goods).

⁶⁹⁶ In a 2001 Report, the UNDP documented that the gap between rich and poor countries indeed widened during the same period when development succeeded beyond expectation: the total income of the richest 10 per cent of the US population (around 25 million people) is even greater than that of the poorest 43 per cent of the world's people (around two billion people). See UNDP, 'Human Development Report 2001: Making New Technologies Work for Human Development' (Annual Report, United Nations Development Programme, 2001) 19 <<http://hdr.undp.org/en/reports/global/hdr2001/>>.

implementation of the problematic development programs.⁶⁹⁷ For these countries, counterfeit goods contribute much to national welfare, with state-of-the-art firms losing less than counterfeiting would (and does) cost them in more developed markets with a higher degree of income equality.⁶⁹⁸

3 *Benefits for Local Economy*

At the economy wide level, counterfeiting can play a role in supporting the local economy where it takes place. In stark contrast to the anti-counterfeiting claims on the negative effects, Kristi Heim observes that counterfeiting business in China fuels the local economy by supporting entrepreneurial start-ups, providing employment for local residents and low skilled workers, and boosting the transactions in other sectors, such as leasing, delivery, and transportation.⁶⁹⁹ In addition, some counterfeiting businesses do pay substantial local taxes, so that the local government becomes dependent on them for generating income and employment.⁷⁰⁰ To the extent that counterfeiting may drive increased profits of genuine businesses, government will likely collect more tax revenue from corporate incomes.

These perceptions have been further verified by Daniel Chow's description of the Yiwu Small Commodities Market in Zhejiang Province of China. In 1982, the local government of a small city in the south-east of China spent US\$10 million establishing the Yiwu Small Commodities Market, which is the world's biggest wholesale market of this kind. More than a decade later, the total revenue of this

⁶⁹⁷ Many of the early projects focused on economic development failed 'because they were inappropriate for the locality and the programs were not necessarily tailored to the specific needs of a particular population or culture.' See Sandra Blanco, 'The E-Book on International Finance and Development: Part One: Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the IMF: IV. The 1960s and 1970s: The World Bank Attacks Poverty; Developing Countries Attack the IMF' (1999) 9 *Transnational Law and Contemporary Problems* 109, 112.

⁶⁹⁸ Stefania Scandizzo, above n 693, 17.

⁶⁹⁹ Kristi Heim, *Inside China's teeming world of fake goods* (13 February 2006) Seattle Times <http://seattletimes.com/html/business/technology/2002782434_chinapiracy12.html>.

⁷⁰⁰ C. L. Hung, 'The Business of Product Counterfeiting in China and the Post-WTO Membership Environment' (2003) 10(1) *Asia Pacific Business Review* 58, 69.

Market reached US\$2 billion in 1996. This number reached about US\$11 billion as of 2013.⁷⁰¹ In 2006, Daniel Chow pointed out that there were about 200 000 people visiting the market each day and two tons of goods were purchased, but it was estimated that about 80 to 90 per cent of goods in this Market were counterfeit products.⁷⁰² While the situation may change as local IPR enforcement strengthens, imitative products with or without bearing counterfeited trademarks will still exist. Nevertheless, the Market has not only become the single largest tax payer of that city, but also supports the operation of hotels, restaurants, transportation companies, and warehouse and storage facilities, and even makes the city a international tourist destination.

In recognition of the benefits of weak enforcement of IPR laws, Xiang Feng points out that the competitive edge of Chinese companies and enterprises work within 'a business-friendly environment comprised of a less regulated market and less regularly enforced laws, in particular intellectual property law,' which allows easier and better imitation and innovation as well as counterfeiting.⁷⁰³ Hence, in cases of developing economies with less innovative capacity and less willingness to protect IPRs, stronger IPR enforcement may cause loss of tax revenue, unemployment, and considerable costs of reconstructing the affected local economy and initiating re-employment.

4 *Benefits for Innovative Capacity Building*

As a form of imitation, counterfeiting plays a role similar to that of product imitation, in disseminating information and knowledge, promoting learning and

⁷⁰¹ It is reported that, according to the local Administration of Industry and Commerce, the turnover of the Small Commodities Market in 2013 was ¥68.3 billion, about US\$11 billion. See 施洪灿 [Shi Hongcan], '2013 年义乌小商品城年交易额净增过百亿 [Yiwu Small Commodities Market's 2013 Turnover Increases by ¥10 Billion]', 每日商报 [Business Daily] (义乌周刊 [Yiwu Weekly]), 13 January 2014, 13.

⁷⁰² Daniel C.K. Chow, 'Counterfeiting and China's Economic Development' (Paper presented at the Hearing: China's Enforcement of Intellectual Property Rights and the Dangers of the Movement of Counterfeited and Pirated Goods into the United States Washington D.C., 7-8 June 2006) <http://www.uscc.gov/sites/default/files/06_06_7_8_chow_daniel.pdf>.

⁷⁰³ Xiang Feng, 'The End of Intellectual Property: Challenges beyond the "China Model"' (2012) 2(1) *International Critical Thought* 99, 104.

assimilation of advanced technologies, and ultimately contributes to the building up of innovative capacity in a developing country. When assessing the threshold level of development that enables a country to capture the benefits of IPR protection, Dru Brenner-Beck proposes three preconditions: per capita gross national product above subsistence level, sufficient technical sophistication and sufficient investment capital. Many of these necessary preconditions, as he stresses, can be fostered by the very 'pirate' activities that developed countries decry.⁷⁰⁴

Daniel Chow analyses the counterfeiting problems in China and finds that China copies foreign technologies because, for one thing, such copying is essential for absorbing advanced technologies and thereby enhancing China's competitive advantage, and for another, copying is far less expensive than acquiring technology through research and development.⁷⁰⁵ In addition, copying helps to acquire those technologies that cannot be acquired through direct foreign investment and licensing. Given the huge cost of licensing fees, the economic situation in many developing countries does not allow them to purchase new technologies. Moreover, many multinational companies are not willing to assign their most advanced or 'core' technologies to third parties.⁷⁰⁶

Before innovation capacity is built up, there must be a long period of learning through imitation and copying. As discussed in more detail in Chapters Three and Four, for centuries before the Paris Convention, imitation and copying of technologies and knowledge from foreign countries had been completely free and legal, and sometimes even encouraged by the government of the then developing countries. If applying today's standard of IPR protection, most of such imitation would fall into the category of counterfeiting. However, because of the absence of international IPR protection at the time, those countries were able to benefit from protectionist IPR policies that not merely allowed but encouraged imitation and copying, or counterfeiting by today's standard.

⁷⁰⁴ Dru Brenner-Beck, 'Do As I Say, Not As I Did' (1992) 11(1) *Pacific Basin Law Journal* 84, 84.

⁷⁰⁵ Daniel C.K. Chow, 'Why China Does Not Take Commercial Piracy Seriously' (2006) 32 *Ohio Northern University Law Review* 203, 207.

⁷⁰⁶ *Ibid* 209.

So, even if the imitation of foreign products is regarded as counterfeiting, it is still an important way of allowing domestic industries to learn and improve their capabilities to produce innovation, which is thought to be critical to economic growth, technological advance and development in general. This lesson has been verified by the history of European countries, the US, Japan and South Korea, among other developed countries today. However, now that these countries have achieved the 'developed' level, they are starting to deny the now developing countries the opportunities to use the same catching-up strategy. Through the increase of international IPR protection, the same sort of imitation and copying that developed countries had engaged in for centuries now becomes *illegal*.

In support of this view, the words of Peter Drahos and John Braithwaite describing the impact of the change of international IPR regime on imitation and copying are worth quoting in length:

The visionaries and entrepreneurs who work the international corridors of power on behalf of this project (information feudalism) want ever stronger and more rigorously policed international standards of intellectual property. They push a simple message that the creation of more and more intellectual property rights will bring more investment and innovation. Like many simple messages, this obscures much. Copying and imitation are central to our process of learning and the acquisition of skills. Copying and imitation never leave us, and without it a lot of socially valuable information would never be transmitted or learned. The creator of innovation is also always the borrower of ideas and information from others. Intellectual property rights put a price on information, thereby raising the cost of borrowing. Raising the costs of borrowing through the imposition of very high standards of intellectual property will progressively choke innovation, not increase it.⁷⁰⁷

D *Causes of Counterfeiting*

This section analyses the cause of counterfeiting based on existing scholarship on the explanations of counterfeiting. There are a number of theories put forward to

⁷⁰⁷ Peter Drahos and John Braithwaite, *Information Feudalism* (Earthscan Publications, 2002), 2.

explain the occurrence of counterfeiting. Among them, the most widely offered is the economic explanation that counterfeiters are attracted by the high profitability of counterfeiting business enabled by the low costs of reproduction of intellectual works. Economic explanation focuses on the non-rivalrous characteristic of IPR products that makes the reproduction cost marginally low. Without input in initial research and development, it is argued that counterfeiting usually leads to high profits and therefore becomes one of the most lucrative of businesses in part because such businesses avoid input in initial research and development. The motivation for counterfeiting is also attributed to the lack of respect for IPRs in some cultures and insufficient awareness of the importance of protecting IPRs. In addition, institutional deficiency in terms of light penalties that have weak deterrent effects, or legislation that fails to balance the various interests at stake related to intellectual property, may encourage the growth of counterfeiting activities.

The causes of counterfeiting are complicated, and a combination of various economic, cultural and legal factors, rather than any single factor alone, can best explain the occurrence and the growth of counterfeiting in the contemporary era. These explanations will provide important insights into understanding counterfeiting as a result of the imbalance between IPR protection and development.

1 *The Economic Explanation*

In an economic sense, one engages in the counterfeiting business simply because it is profitable. As Bryan Liang puts it, '[T]he primary reason for the explosion of the counterfeit market is simple: money.'⁷⁰⁸ How counterfeiting makes money can be explained from two perspectives: supply and demand. Supply drivers refer to factors that provide motivation to produce counterfeit products, while the demand for counterfeit products affects the profitability of the counterfeiting business as well.

⁷⁰⁸ Bryan A. Liang, 'Fade to Black: Importation and Counterfeit Drugs' (2006) 32 *American Journal of Law and Medicine* 279.

(a) Supply Drivers

Under the TRIPs definition, counterfeiting includes imitation of a registered trademark as well as product imitation. Under the OECD broad definition, counterfeiting refers to the unauthorized production and distribution of any product under IPR protection. Under both definitions, counterfeiting can be lucrative due to a number of factors on the supply side.

First of all, the non-rivalrous characteristic of intellectual works determines that IPR products can be reproduced at low costs. Intellectual property is a form of public good and is characterized by non-excludability in production and non-rivalry in consumption.⁷⁰⁹ That means, IPR products may be expensive to create but they are inexpensive to copy and imitate, which makes intellectual property an industry with low variable costs and high fixed costs.⁷¹⁰ Nevertheless, counterfeiters imitate the production of certain products created by others without assuming the costs of initial research and development, which are normally high. Thus, counterfeiters can make a profit simply by selling at a price barely greater than the cost of imitation and copying.⁷¹¹

Second, it is IPR protection that further safeguards the profitability of reproducing IPR products. IPRs enable the innovator to charge an exclusively high price above the minimal marginal costs of producing IPR products. This in turn creates a high pricing ratio, which attracts counterfeiting.⁷¹² According to Kevin Outterson and

⁷⁰⁹ Inge Kaul, Isabelle Grunberg and Marc A. Stern, 'Defining Global Public Goods' in Inge Kaul, Isabelle Grunberg and Marc A. Stern (eds), *Global Public Goods: International Co-operation in the 21st Century* (Oxford University Press, 1999) 2-19, 3.

⁷¹⁰ David Besanko and Ronald Ray Braeutigam, *Microeconomics: An Integrated Approach* (Wiley, 2002), 287.

⁷¹¹ Glenn R. Butters, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1116.

⁷¹² Kevin Outterson and Ryan Smith, 'Counterfeit Drugs: The Good, The Bad and The Ugly' (2006) 16 *Albany Law Journal of Science and Technology* 525, 537, citing Tomas J. Philipson and Anupam B. Jena, 'Dividing the Benefits from Medical Breakthroughs: The Case of HIV/AIDS Drugs' (2006) First Quarter 2006 *Milken Institute Review* 46, 51 <http://www.milkeninstitute.org/publications/review/2006_3/46_55mr29.pdf>; Ellen 't Hoen, 'Pills and Pocketbooks: Equity Pricing of Essential Medicines in Developing Countries' (Paper presented at the WHO/WTO Workshop on Differential Pricing and Financing of

Ryan Smith, the protection of pharmaceutical patents enables the price of name-brand drugs to be almost 60 times their marginal cost, and high pricing ratios attract counterfeiting.⁷¹³ They note that:

Industry estimates suggest that the average variable cost of patented drugs accounts for an average of 15% of the final price, yielding an average pricing ratio of more than 6:1. Some pricing ratios are much higher: generic ciprofloxacin is sold in some places at less than 0.4% of the price of the most expensive sources in the U.S., a pricing ratio of 264:1. Others have found pricing ratios of 200:1 in global markets for vaccines and contraceptives.⁷¹⁴

If not for the IPR protection, the high ratio of prices to marginal costs of certain products would not be possible. Hence, Kevin Outterson points out that 'counterfeiting will remain an issue so long as the actual product has a high value relative to the cost of manufacturing a plausible placebo.'⁷¹⁵

Another factor that makes counterfeiting profitable is the corporate branding and outsourcing activities. Daniel Chow contends that the premium created by trademark protection and branding by multinational companies generates financial incentives for counterfeiting.⁷¹⁶ He goes on to argue that the globalization and foreign direct investment (FDI) in the form of setting up subsidiaries in developing countries, brings foreign technologies into these countries without the sophisticated legal protection of IPRs, which leads to counterfeiting and piracy.⁷¹⁷

This view is supported by Simon Mackenzie who argues that counterfeiting is a side-product of corporate production and merchandising of IPR protected goods. First,

Essential Drugs, Norway, April 2001)

<http://www.wto.org/english/tratop_e/trips_e/hosbjor_presentations_e/15thoen_e.pdf>.

⁷¹³ Kevin Outterson and Ryan Smith, above n 712, 537.

⁷¹⁴ Ibid 538.

⁷¹⁵ Kevin Outterson, 'Resolving dysfunctional pharmaceutical arbitrage and counterfeit drugs through the proposed Pharmaceutical R&D Treaty' (Submission Paper WHO Commission on Intellectual Property Rights, Innovation and Public Health 15 November 2004) <http://www.who.int/intellectualproperty/submissions/en/pharma_arbitrage.pdf>.

⁷¹⁶ Daniel C.K. Chow, 'Counterfeiting as an Externality Imposed by Multinational Companies on Developing Countries' (2011) 51 *Virginia Journal of International Law* 785, 814.

⁷¹⁷ Ibid 818.

branding, advertising and other corporate activities drive the market for goods that have a fashion value over and above their use value; second, outsourcing of corporate production activities to developing countries presents considerable opportunities for producers in those countries to copy and distribute the goods in an unauthorized way.⁷¹⁸ Hence, counterfeiting is seen as one of the negative externalities of IPR protection and multinational companies' profit-seeking activities. As Xiang Feng argues:

Through outsourcing, the gap[s] in technology, management and marketing knowhow is [are] much narrowed, so that cheap and even quality imitation and generic production become industrially and commercially viable...a large number of infringers and counterfeiters in China are manufacturers and service providers outsourced from the United States, Europe and Japan, or their suppliers and subsidiaries.⁷¹⁹

(b) Demand Drivers

On the demand side, consumers are willing to purchase cheaper counterfeit products if there is no additional harm associated with their quality and safety.⁷²⁰ Because of the low reproduction costs, counterfeit products are often priced much lower than original products. Low prices of counterfeit products will entice image-conscious consumers, unwilling to pay full prices for original products, to knowingly

⁷¹⁸ Simon Mackenzie, 'Counterfeiting as Corporate Externality: Intellectual Property Crime and Global Insecurity' (2010) 54(1) *Crime, Law and Social Change* 21, 22. See also Gene M. Grossman and Carl Shapiro, 'Foreign Counterfeit of Status Goods' (1989) 103(1) *Quarterly Journal of Economics* 79. (discussing that consumers are willing to pay for counterfeit products with similar quality because they value the prestige associated with status goods).

⁷¹⁹ Xiang Feng, 'The End of Intellectual Property: Challenges beyond the "China Model"' (2012) 2(1) *International Critical Thought* 99, 100.

⁷²⁰ As discussed in the previous Chapter, even though some counterfeit products may not hold as good quality as original products, the concerns about safety are still overstated because most counterfeit products are present in sectors that do not pose much safety threat. For example, the top five most counterfeited product sectors identified by the OECD according to customs seizure statistics pertain to apparel, clothing, software, recorded music, footwear and the like. See OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 69
<<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

purchase the counterfeits.⁷²¹ In addition, scholars find that perceived similarities in terms of physical product attributes, such as quality and durability between original and counterfeit products, can also drive the demand for counterfeit products.⁷²²

There are circumstances where consumers are willing to buy counterfeit products not simply because they are cheaper, but because they cannot afford the original products that are too expensive due to the protection of IPRs. IPR protection artificially raises the price of original products and thus restricts their accessibility for low-income consumers, especially in developing countries. Many developing countries have insufficient capabilities to produce intellectual property, while imports from developed countries are too expensive. In the meantime, it has been found that the popularity of western culture in these countries creates a huge demand for western products, such as music and movies, and high-tech products, for example, cellular phones, computers and software.⁷²³ Thus for these countries, product imitation, in a practical sense, meets the demands of large populations with low levels of income, who are unable to afford the original products under IPR protection.

Hence, by providing substitutes counterfeiting increases access to new ideas and products that are locked up by IPR protection. In many low income countries, IPR products are unaffordable and therefore inaccessible to the average population. This demand for imitative products as substitutes for unaffordable original products is a fundamental reason for the occurrence of counterfeiting in developing countries.

⁷²¹ Ibid 46.

⁷²² Elfriede Penz and Barbara Stöttinger, 'Corporate Image and Product Similarity: Assessing Major Demand Drivers for Counterfeits in a Multi-Country Study' (2008) 25(4) *Psychology and Marketing* 352, 369.

⁷²³ For example, 'many East Asians are attracted to the characters, themes, and stories in American movies; your people in East Asia are often better versed in Hollywood gossip than their counterparts in the US. ...Gadget-crazy consumers are attracted by progressively sleeker designs, phones which play popular tunes or videogames, and new technologies providing wireless Internet access.' See Rama John Ruppenthal, 'TRIPs Through the Far East: High Tech Product Piracy and the Need for Alternative Regional Solutions' (2001) 20 *Wisconsin International Law Journal* 143, 145.

2 *The Cultural Explanation*

The cultural approach to explaining counterfeiting examines the cultural reasons for the lack of awareness of protecting IPRs and the ineffective enforcement of such rights. Having been defined as free riding on the fruits of other's intellectual works, the inclination towards counterfeiting has been attributed to a lack of respect for IPRs and more broadly, the absence of cultural esteem for the principles of private property in some cultures other than western culture. Such a view presumes that western culture is distinguished from other cultures because it is based on the rule of law, democracy, independent judiciary, powerful interest groups, and a rights-conscious populace, which is supportive of the protection for intellectual property rights.⁷²⁴

In particular, the Chinese Confucian culture is often criticized for its unfamiliarity with the idea of private property, and for the tolerant attitude and even enthusiasm towards imitation and copying. Under the influence of such a traditional culture, it is argued that China and some other East Asian countries influenced by the Chinese culture are unaware of the importance of protecting IPRs, which leads to the ineffective enforcement of such rights and the omnipresence of counterfeiting in these countries.⁷²⁵

This cultural explanation, however, is based on the misunderstanding that Chinese culture is an imitation culture. As will be shown, Chinese culture allows imitation but at the same time it encourages creation in the process of imitation; it advocates originality and shows contempt for plagiarism. It is thus questionable to ascribe the issue of counterfeiting in China to the cultural values of that country.

⁷²⁴ As William Alford asserts on the ineffective transplantation of intellectual property laws in China, 'laws premised on the values and institutions of an economically advanced capitalist democracy will not generate identical results when transplanted to a different setting. Rules that presume an independent judiciary, a professionalized bar, powerful interest groups and a rights-conscious populace fall chiefly on deaf ears in contemporary China.' See William P. Alford, 'Pressuring the Pirate', *Los Angeles Times*, 12 January 1992, M5, cited in Glenn R. Butters, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1107.

⁷²⁵ Rama John Ruppenthal, above n 723, 148.

(a) Alford's Analysis of Chinese Culture

In his seminal book *To Steal a Book Is an Elegant Offense*, William Alford provides a historic-cultural analysis of the reason why there were no indigenous counterparts to contemporary ideas of intellectual property law in imperial China.⁷²⁶ To explain the reason, Alford points to the political culture in traditional Chinese society, Confucianism, which features a relationships-based civilization and interaction with the past.⁷²⁷ He finds that the Chinese traditional society was built on a paradigmatic set of personal relationships, especially between ruler and subject, father and son, and husband and wife.⁷²⁸ The maintenance of these relationships was fundamental to sustaining imperial power and social harmony. These relationships were regulated by the Confucian concept of *li* (禮), a code of conduct derived from the most profound insights and experience of the Ancients,⁷²⁹ which in itself is an embodiment of the past. According to Alford, interaction with the past is manifested in most elements of Chinese civilization, ranging from the legitimacy of state power (using the Mandate of Heaven and *li* that originated from the past to justify the relationship between ruler and subject), the civil service examination system (based on an assessment of knowledge of the past and the ability to use that knowledge to solve problems in the present), the legal system and government structure (nearly unchanged from dynasty to dynasty), to literature and the arts.⁷³⁰

⁷²⁶ Alford argues that virtually all examples of efforts by the state to provide protection for what we now term intellectual property in China prior to the 20th century seem to have been defined by the state's interests in preserving imperial power and fostering social harmony, rather than being concerned with the creation of private property interests or the promotion of authorship or inventiveness. While in common law and civil law worlds, there was a similar tendency to link state interest with the protection of what we now term intellectual property, the 17th and 18th centuries witnessed the development of an approach to intellectual property in Europe. But there was no legal system of IPR protection formed in a sustained manner in imperial China. See William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 17-18.

⁷²⁷ Ibid 19.

⁷²⁸ Ibid 20.

⁷²⁹ Ibid 21.

⁷³⁰ Ibid 21-29. The past also lends to the ruler the power to decide what ideas to be disseminated and what ideas to be controlled for the interest of the populace. See ibid 23.

Alford argues that the Chinese political culture is ‘fundamentally incompatible with one of strong intellectual property rights in which individuals have the authority to determine how expressions of their ideas may be used and ready access to private legal remedies to vindicate such rights.’⁷³¹ The particular importance in Chinese culture of past practices and ancient traditions, as Alford asserts, made unauthorised imitation of intellectual works tolerated in imperial China. Intellectual endeavour is the medium through which it is possible to interact with the past and transmit it, as suggested in one passage of the *Confucius Analects*: ‘I transmit rather than create; I believe in and love the Ancients.’⁷³²

To illustrate this point, Alford presents a number of examples in Chinese literature and arts. Poetry interacts with the past through allusion and reference to the Classics; painting and calligraphy interact with the past through imitation and copying of previous works.⁷³³ Alford believes that such interaction with the past enables the replication of particular concrete manifestations of intellectual endeavour by persons other than the first creator.⁷³⁴ Hence, underlying the power of the past, as Alford argues, there is ‘a general attitude of tolerance, or indeed receptivity’ towards imitation and copying in the Confucian version of Chinese culture.⁷³⁵

(b) The Explanation of Counterfeiting Based on a Misunderstanding of Chinese Culture

Alford’s approach to explaining the absence of a counterpart IPR system in imperial China is widely cited by scholars who attempt to explain the lax enforcement of IPR laws and the phenomenon of counterfeiting and piracy in China. They generally presume that the traditional culture will have consistent influence on contemporary society. For example, Glenn Butters asserts that Chinese society is not, and

⁷³¹ Ibid 119.

⁷³² Ibid 25.

⁷³³ Ibid 26-29.

⁷³⁴ Ibid 28.

⁷³⁵ Ibid 25, 29.

essentially has not ever been, devoted to or guided by the concept of law.⁷³⁶ Rather, it relies on a notion of personal relations associated with the concept of *li*, which traditionally 'expressed the rules of conduct involved in the basic Five Relations between father and child, husband and wife, elder and younger brother, ruler and subject, and friend and friend.'⁷³⁷ Based on this cultural explanation, Butterson argues that the effects of IPR protection are undermined by

a basic Chinese distrust of the formal law upon which enforcement might be predicated, a contempt for the promotion of individual rights of copyright owners at the expense of ongoing personal relationships and "harmony" in the community, and a continuing desire to be able to adjust one's enforcement behaviour as regards the rule of law on an ad hoc basis.⁷³⁸

Some scholars go still further and mistakenly interpret Chinese culture as an 'imitation culture' without much originality. Rama Ruppenthal asserts that in the Chinese tradition, imitation and copying are accepted not as plagiarism but as both the means and the end of an accepted learning process, which contradicts with the premise of western culture that copying is just a means to further one's ability so that he may produce better creative works of his own.⁷³⁹ This acceptance of imitation, he argues, combined with the fact that original works traditionally became part of the public domain, accounts for the failure of effectively protecting intellectual property rights and the occurrence of counterfeiting in East Asian countries.⁷⁴⁰

Tim Philips refers to the Chinese tradition of 'working outside the system' as the reason for the ineffective enforcement of IPR laws, noting that '[w]hen that was

⁷³⁶ Glenn R. Butterson, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1108.

⁷³⁷ Ibid 1109.

⁷³⁸ Ibid 1114. Butterson contends that 'the Chinese do not necessarily care to be bound by the fetters of law as they appear, ...They prefer instead to remain flexible, free to adjust their views from time to time as befits unfolding circumstances in light of the needs of their ongoing personal relationships.' See *ibid* 1113.

⁷³⁹ Rama John Ruppenthal, 'TRIPs Through the Far East: High Tech Product Piracy and the Need for Alternative Regional Solutions' (2001) 20 *Wisconsin International Law Journal* 143, 149.

⁷⁴⁰ Ibid.

added to a Communist culture where the legal system or police had no experience of intellectual property, suddenly there was a whole set of exciting opportunities to become wealthy by making knock-offs.⁷⁴¹ He also quotes the words of Edouard Schmitt zur Hohe, an intellectual property agent who has many years' anti-counterfeiting experience in China, that 'If you are a good artist in China, you are good at copying a Song Dynasty painting. There's not so much emphasis on creativity in traditional Chinese culture, but a lot on being able to copy well.'⁷⁴²

However, it is a serious misunderstanding to characterize Chinese culture as merely an imitation culture. Alford does not deny the originality in Chinese literary works, as he says 'to speak of the relative omnipresence of the past ... is not to suggest that classical Chinese poetry was lacking in originality, any more than it is to dismiss transmission as only a mechanical process.'⁷⁴³ Furthermore, Ken Shao points out that originality is a significant part of Chinese culture. He contends that Confucius himself is not merely an editor, compiler, abridger or expurgator, but an author, as demonstrated in the case of Confucius compiling the books *Zhou Yi* (周易) and *Chun-qiu* (春秋); meanwhile, Confucian scholars while learning Confucius also emphasized individual personality and advocated independent thinking.⁷⁴⁴

More importantly, Ken Shao opposes the cultural explanation and argues that the piracy problem in modern China cannot be ascribed to Chinese traditional values.

⁷⁴¹ Tim Philips says that 'Many Chinese were already accustomed to doing whatever it takes to get by, to working outside the system in order to get on, and the authorities were used to letting small infractions pass.' See Tim Philips, *Knock-off: The Deadly Trade in Counterfeit Goods* (Kogan Page, 2005), 58. This echoes the 'flexibility' of the Chinese in maintaining personal relationships, as mentioned by Glenn Butters. See Glenn R. Butters, above n 736, 1113.

⁷⁴² Ibid.

⁷⁴³ William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 26.

⁷⁴⁴ For example, Mencius (372-289 BC), who criticised the learning method treating Confucius as a still model for imitation. Neo-Confucian thinkers Cheng Yi (1032-1107) said, 'The student must first of all be able to doubt.' This was echoed by many others, including the most successful Confucian philosopher, Zhu Xi (1120-1200), who taught that 'great doubts lead to great progress.' Yuan Hong-dao preached that 'real poem comes from your nature and soul ... [T]he supremeness means those poems which are difficult to be produced by ordinary mind.' See Ken Shao, 'An Alien of Copyright? A Reconsideration of the Chinese Historical Episodes of Copyright' (2005) 4 *Intellectual Property Quarterly* 400, 415.

He does so by criticizing Alford's arguments, pointing out that copyright conception and protection did emerge in China as a response to the boom in commercial publishing.⁷⁴⁵ Ken Shao rebuts the view that Chinese culture is alien to the idea of copyright by illustrating the significance of individual creativity in the process of learning and imitating previous works, as well as the anti-plagiarism sentiment for the advance of an author's reputation.⁷⁴⁶ In addition, Shao sees the effect of the past on imitation and replication as an implication that past knowledge is important in the progress of cumulative creativity and the freedom of using an intellectual commonality that individuals shall enjoy without the obstacles of copyright law.⁷⁴⁷

(c) Reconsidering the Cultural Explanation

Although with a focus on copyright, Ken Shao's idea that creativity co-exists with imitation and copying in Chinese culture is also informative as to the cultural explanation for counterfeiting. Culture may influence the way that one who lives within it behaves and thinks, but the assessment of this influence should be based on an accurate understanding of the culture.

In addition to the misunderstanding of Confucianism, the influence of a collective and socialist culture on counterfeiting should not be overstated. Bryan Husted identifies a few cultural elements that may be associated with the software piracy rate in a country, including power distance (the acceptance of less powerful

⁷⁴⁵ Ken Shao points out that 'the publishing control was notably aimed not at suppression but the improvement of social welfare such as people's livelihoods, scholarly learning, national security and social morality.' See *ibid* 412. For example, the disarrayed printing of calendars affected the foundation of the empire, i.e. agriculture, for it depended essentially on an accurate calendar; In most cases publishing control aimed to reduce the apparent fallacies of the texts resulting from the low quality commercial printing, given that erroneous printing of calendars affected agriculture and erroneous books had potential harms 'not only to beginners but to many candidates for degrees who have been disqualified because of the mistaken texts they have used' (citing a decree issued in 1532 by the Office of the Provincial of Fujian). See *ibid* 408. He also argues that 'commercial publishing or publishing involved in investment stimulated the advent of copyright due to the very nature of intangible goods which may affect authors' reputations and the economic interests of authors and publishers.' See *ibid* 424.

⁷⁴⁶ By the third to fifth centuries, at the very latest, anti-plagiarism had become a commonly acknowledged sentiment in society. See *ibid* 419.

⁷⁴⁷ *Ibid* 413.

members to unequal power distribution) that affects the obedience to authority, collectivism (strong relationship of an individual to aggregates or groups), masculinity (a focus on material success), great uncertainty avoidance and Confucian dynamism.⁷⁴⁸ He finds that only the cultural dimension of collectivism is related to software piracy.⁷⁴⁹ In view of this finding, the fact that China by and large has abandoned socialism to embrace capitalism in the process of modernization for the past decades should mean that the resistance to private IPRs has declined accordingly.⁷⁵⁰ Nevertheless, there seems no indication that counterfeiting has declined as a result of the increased awareness of the importance of IPR protection.

Hence, the notion that counterfeiting can simply be ascribed to the lack of cultural respect for intellectual property deserves reconsideration. In fact, the Chinese government today has fully realized the strategic importance of IPRs, in particular owning IPRs. China issued the *Outline of the National Intellectual Property Strategy* in 2008 and amended the patent law in 2009, for the first time proactively initiating legal reform of IPR laws.⁷⁵¹ If the magnitude of counterfeiting still grows as suggested by the OECD estimate,⁷⁵² that suggests counterfeiting cannot be explained purely in the cultural context.

3 *The Institutional Explanation*

Since counterfeiting is defined as a form of IPR infringement – trademark or other types of IPRs – the occurrence of counterfeiting is sometimes explained as a result of the deficiency in the legal institution of intellectual property. Some scholars have focused on the ineffectiveness of deterrent measures provided by intellectual property laws and regulations and the weak enforcement of such laws. Others

⁷⁴⁸ Bryan W. Husted, 'The Impact of National Culture on Software Piracy' (2000) 26(3) *Journal of Business Ethics* 197, 207. For a cultural analysis of piracy, see also W. R. Swinyard, H. Rinne and A. Keng Kau, 'The Morality of Software Piracy: A Cross-Cultural Analysis' (1990) 9 *Journal of Business Ethics* 655.

⁷⁴⁹ See Bryan W. Husted, above n 748, 207.

⁷⁵⁰ Xiang Feng, 'The End of Intellectual Property: Challenges beyond the "China Model"' (2012) 2(1) *International Critical Thought* 99, 102.

⁷⁵¹ Chu Zhang and Xingxiang Xu, *China Patent Legal System and Practice* (LexisNexis, 2010), 12.

⁷⁵² See above n 637-42 and accompanying text.

argue that when intellectual property laws fail to balance the various interests at stake, for example between right holders and users, counterfeiting may come to be an alternative for balancing such rights by enabling access to knowledge and diffusion of knowledge at low prices.

(a) Light Penalty and Weak Enforcement

Light penalties and weak enforcement are regarded as key institutional factors facilitating counterfeiting. Weak enforcement of laws and regulations against counterfeiting reduces the risk of detection, while light penalties mean that the cost for counterfeiters of getting caught is low, or can be absorbed as a cost of doing business.⁷⁵³

Some scholars argue that current intellectual property laws provide light penalties for counterfeiting, which cannot effectively deter the recurrence of counterfeiting.⁷⁵⁴ The OECD also notes that a strong legal and regulatory framework combating counterfeiting can deter illicit activity, while a weak framework would effectively be viewed as permissive.⁷⁵⁵ It thus calls for the strengthening of enforcement and the introduction of severe penalties, especially criminal sanctions against counterfeiting in national and international regimes.⁷⁵⁶ For example, following Article 61 of the TRIPs agreement, which obliges member countries to provide criminal procedures and penalties in the case of wilful counterfeiting at commercial scale, the *Anti-Counterfeiting Trade Agreement* (ACTA) further

⁷⁵³ OECD, *The Economic Impact of Counterfeiting and Piracy* (June 2008), 53 <<http://www.oecd.org/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm>>.

⁷⁵⁴ Bryan A. Liang, 'Fade to Black: Importation and Counterfeit Drugs' (2006) 32 *American Journal of Law and Medicine* 279, 286 (pointing out that penalties against counterfeiting are relatively low to the extent that they have little deterring effect). Daniel C.K. Chow, 'Counterfeiting in the People's Republic of China' (2000) 78(1) *Washington University Law Review* 1, 35.

⁷⁵⁵ OECD 2008, above n 753, 52.

⁷⁵⁶ Lauren D. Amendolara, 'Knocking Out Knock-Offs: Effectuating the Criminalization of Trafficking in Counterfeit Goods' (2005) 15 *Fordham Intellectual Property Media & Entertainment Law Journal* 789, 823 (urging the strengthening of legislation and enforcement against counterfeiting in the US).

increases the level of criminal enforcement against counterfeiting by adopting a wider understanding of 'commercial scale'.⁷⁵⁷

There are a number of reasons for the provision of light penalties and the ineffective enforcement of intellectual property laws. As discussed before, there are concerns that some non-western cultures have traditionally been alien to the idea of protecting IPRs. For example, Lawrence Brahm contends that:

Just because western legal terminology is being used in the drafting of China's modern legislation, it does not necessarily mean that western legal concepts have actually been transferred in the process. Despite the fact that much written legislation exists, many concepts remain both socially and culturally alien to the Chinese.⁷⁵⁸

In addition, Daniel Chow points out a number of problems within the current IPR system of China that hinder effective enforcement, including local protectionism, bureaucratic rivalries, and lack of sufficient criminal prosecution.⁷⁵⁹ Meanwhile, ineffective enforcement may also result from the lack of political will on the part of governments in some developing countries to enforce intellectual property laws, given the benefits of counterfeiting in these countries. A key factor that affects the lack of political will on the part of the Chinese government, as Daniel Chow argues, is the fact that counterfeiting results in significant economic benefits for China and in some cases has been integrated into local economies, and thus a nationwide

⁷⁵⁷ Henning Grosse Ruse-Khan, 'From TRIPS to ACTA: Towards a New 'Gold Standard' in Criminal IP Enforcement?' (Research Paper No 10-06, Max Planck Institute for Intellectual Property, Competition and Tax Law 19 April 2010) <<http://ssrn.com/abstract=1592104>> (noting that ACTA defines the qualification 'commercial scale' to include, inter alia, all wilful copyright infringements that are quantitatively 'significant' or, qualitatively, for a commercial advantage or financial gain, which diminishes much of the current ability to tailor criminal IP enforcement to the domestic environment).

⁷⁵⁸ Laurence J. Brahm, *Intellectual Property Law in the People's Republic of China: a specially commissioned report* (Longman, 1988), vii.

⁷⁵⁹ Daniel C.K. Chow, 'Counterfeiting in the People's Republic of China' (2000) 78(1) *Washington University Law Review* 1, 26.

crackdown on counterfeiting will not only limit these benefits, but it will also result in significant economic and social costs.⁷⁶⁰

(b) The Imbalance of Various Interests at Stake

Another approach to explaining counterfeiting from the institutional perspective underscores the imbalance of various interests at stake within the IPR system. This explanation premises the inherent contradiction underlying the system of IPR protection. On the one hand, intellectual property safeguards incentives by safeguarding profits and thus promotes creativity. On the other hand, intellectual property may create significant inefficiencies by restricting others from using, building upon and developing the original intellectual works, in addition to administration and enforcement costs.⁷⁶¹ Hence, there must be a well-apportioned mixture of access and protection, which is all the more critical in the context of less developed countries.⁷⁶²

Based on this recognition, Andrea Wechsler proposes that piracy and counterfeiting are an unavoidable consequence of the existing imbalance in international IPR regimes. She contends that IPR systems in developing countries do not strike the right balance between dissemination, research and development incentives, and the share of social benefit appropriated by the inventor, the result of which is a high degree of piracy and counterfeiting.⁷⁶³ Meanwhile, she argues that the piracy phenomenon allows for greater access to intellectual property for consumers, such

⁷⁶⁰ Daniel C.K. Chow, 'Why China Does Not Take Commercial Piracy Seriously' (2006) 32 *Ohio Northern University Law Review* 203, 213. In addition, Daniel Chow notes that multinational companies and their governments are reluctant to take drastic measures to confront the Chinese government on this issue; they rely instead on a strategy of non-confrontation, lobbying, and persuasion. The combination of these factors results in a lack of political will on the part of China's leaders to engage in an effective crackdown on commercial piracy.

⁷⁶¹ Glenn R. Butters, 'Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement' (1996) 38 *Arizona Law Review* 1081, 1116.

⁷⁶² *Ibid* 1117.

⁷⁶³ Andrea Wechsler, 'Spotlight on China: Piracy, Enforcement, and the Balance Dilemma in Intellectual Property Law' (Research Paper Series No 09-04, Max Planck Institute for Intellectual Property, Competition and Tax Law, 6 March 2009) 22 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354487>.

as knowledge and medicines, in countries where ‘diffusion and exclusion of intellectual property are out of balance since the marginal costs of dissemination are too high for the country’s economic welfare.’⁷⁶⁴ Therefore, if the current IPR regime inefficiently allocates the resources of knowledge and ideas, then piracy could be an alternative method of allocation by making consumers better off as compared with the initial allocation.⁷⁶⁵ Nevertheless, Andrea Wechsler believes that a balanced IPR system should be decided by policy makers, rather than by the pirates and counterfeiters who are created by market-based forces.⁷⁶⁶ She concludes that an effective solution to piracy and counterfeiting problems requires the correction of the imbalances in intellectual property laws.⁷⁶⁷

Andrea Wechsler’s explanation of counterfeiting is based on the analysis of the imbalance between rights holders and users within an individual national IPR system. Thus it is not clear whether the imbalance in the global IPR regime between the interests of developed countries and developing countries also accounts for the occurrence of counterfeiting. Indeed, Andrea Wechsler points out that the current global IPR regime does not adequately balance the interests of affected parties so as to realize sustainable development and economic welfare goals.⁷⁶⁸ She also notes that the correction of the imbalances in IPR laws requires ‘a delicate balancing of the interests of developed countries as IP holders and of developing countries as IP users which reaches well beyond the diffusion-exclusion dichotomy.’⁷⁶⁹ However, the interaction among various interested parties related to IPR within a country is somewhat different from the dynamics of international IPR norm setting. Hence, this conclusion on global IPR policy change may not be easily derived from the analysis of the piracy phenomenon in particular developing countries.

⁷⁶⁴ Ibid 23.

⁷⁶⁵ Ibid 24.

⁷⁶⁶ Ibid.

⁷⁶⁷ Ibid 23.

⁷⁶⁸ Ibid 13.

⁷⁶⁹ Ibid 23.

E A New Explanation: IPR Protection Is Not Adapted to Development Level

This chapter has argued that counterfeiting can produce positive effects because counterfeiting is a form of imitation and imitation can facilitate development. A following question is, how does imitation become counterfeiting? If imitation is beneficial, why and what makes it illegal?

This section will investigate the trajectory from imitation to counterfeiting in light of the relationship between IPR protection and development. It will first draw on some lessons from the previous discussion on the existing explanations of counterfeiting. Then, it will propose a new explanation, highlighting the influence of the economic shift in developed countries from importers to exporters of intellectual property, and the subsequent change of the power relationship due to the increase in international IPR protection.

With the development of innovative capacities, developed countries become the producers and exporters of intellectual property. Along with this shift of position, they also start seeking stronger IPR protection in foreign countries that are destinations for their intellectual property. It must be remembered that, before they succeeded in strengthening the international standards of IPR protection, these developed countries had engaged in imitation of foreign products and copying foreign technologies for centuries in order to acquire the ability to produce intellectual property. Now that they do produce intellectual property, they have become advocates of strong IPR protection and prevent developing countries from imitation.

In this process, the relationship between imitation and development and between IPR protection and development becomes all the more clear. First, early intellectual property policies in early stages of development allowed imitation of foreign products and technologies. Second, imitation facilitated economic and technological development when developed countries were developing. Third, the increase of

development level in developed countries required an increase in IPR protection. Fourth, strong IPR protection in the now developing countries restricts the imitation activities in these countries. Fifth, under strong IPR protection, imitation cannot facilitate the economic and technological development objective in developing countries. If there is a sixth statement, it would be that those imitation activities are prohibited under the category of counterfeiting.

This section proposes a new approach to explaining counterfeiting, from the perspective of the relationship between IPR protection and development and between innovation and imitation. It argues that counterfeiting is a result of the imbalance between high standards of IPR protection and low levels of development. Low development levels require imitation, while high standards of IPR protection prohibit imitation. The result is that a great portion of imitation becomes illegal as counterfeiting.

1 Lessons from Existing Explanations of Counterfeiting

The aforementioned explanations of counterfeiting provide important insights into the economic motivation behind imitation, and the economic, cultural, and institutional factors that enable or support imitation. Some of the findings are useful for explaining counterfeiting from the perspective of development. In light of the above analysis, several points are worth repeating.

First, the economic incentive for counterfeiting comes from the low marginal costs of reproduction of intellectual property due to its non-rivalrous characteristic, and the high pricing ratio as a result of the protection of IPRs and the branding and outsourcing activities of multinational companies which are also IPR owners. This finding suggests that IPR protection is itself accountable for the occurrence of counterfeiting, because it makes the prices of original products under such protection too high to be affordable for the average low-income population in developing countries. High pricing is a result of strong IPR protection, while low income is because of the low level of economic development. This provides an important insight into the new explanation that will be discussed later.

Second, the provision of light penalties and ineffective enforcement against counterfeiting reflects the lack of willingness to protect IPRs and to enforce intellectual property laws in some developing countries. The absence of such willingness can be explained by the political and economic consideration that counterfeiting has certain benefits for developing economies, and that the elimination of counterfeiting entirely would result in great economic and social costs, such as loss of tax revenues from counterfeiting businesses and unemployment because of the crackdown on counterfeiting factories. In other words, counterfeiting is tolerated in some developing countries because it can have positive effects on their economies. This new explanation is based on the same recognition of the benefits of counterfeiting.

Third, the presence of counterfeiting may signal the imbalance in the current IPR systems in countries where counterfeiting takes place: the imbalance that arises because too much IPR protection restricts the diffusion of, and access to, knowledge and ideas. In this context, counterfeiting becomes an alternative to redress the imbalance by enabling more diffusion and access to knowledge at low prices. This approach to explaining counterfeiting suggests that counterfeit products provide access to new ideas and knowledge that are denied under strong IPR protection. The discussion on balancing various interests at stake also casts light on the new explanation of counterfeiting from the perspective of the relationship between IPR protection and development.

2 A New Explanation of Counterfeiting

The new explanation not only looks to the reason for imitation but also explains how imitation becomes illegal as counterfeiting. With the liberalization and globalization of international trade, the flow of IPR products among countries has increased dramatically. Given the disparity in innovative capacities among countries, intellectual property is mainly produced in developed countries with high levels of development in the economic, technological and cultural fields, while most developing countries at low levels of development are users of intellectual

property.⁷⁷⁰ Therefore, there is basically a tension between the interests of developed countries and developing countries as to whether and to what extent intellectual property should be protected.

Over the past decades, especially since the 1980s, developed countries have engaged in pushing for stronger IPR protection globally and imposing high standards of protection on developing countries. In cases where some developing countries resist such protection or only provide limited protection, developed countries with stronger economic and political power may use or threaten to use trade sanctions to force these developing countries to surrender.⁷⁷¹ The conclusion of the TRIPs agreement, which obliges member countries to provide the minimum standards of IPR protection, marks the success in increasing international IPR protection. This success has been consolidated by the signing of a series of TRIPs-plus bilateral trade agreements between developed countries and developing countries, and culminates in the 'golden standards' embedded in the ACTA and the ongoing negotiation of the *Trans-Pacific Partnership Agreement* (TPP).⁷⁷²

⁷⁷⁰ It has to be noted that here the 'high' standards of IPR protection and the 'low' level of development are used in a qualitative sense and relative to each other. There is no absolute or statistical standard to measure either the level of IPR protection or development. The development level can be roughly measured by the inequality-adjusted HDI introduced by the UNDP Report 2010. See UNDP, 'Human Development Report 2010 - 20th Anniversary Edition: The Real Wealth of Nations: Pathways to Human Development' (Annual Report, United Nations Development Programme, November 2010) 87-89
<http://hdr.undp.org/sites/default/files/reports/270/hdr_2010_en_complete_reprint.pdf>.

⁷⁷¹ For example, Andrew Mertha describes in great detail the external pressure from the US, which has taken on several forms, including threats to impose trade sanctions, to revoke China's most-favoured nation status, and to block China's accession to international government organization bodies. See Andrew Mertha, *The Politics of Piracy: Intellectual Property in Contemporary China* (Cornell University Press, 2005), 6. In particular, the Generalized System of Preferences (GSP) and the Special 301 under the Trade Act of 1984 allowed the US to link trade issues with intellectual property, creating a carrot and stick approach to the globalization of the standards of intellectual property. The US has used the carrot and stick strategy on countries from Caribbean Basin States to Southeast Asian countries. See Peter Drahos and John Braithwaite, *Information Feudalism* (Earthscan Publications, 2002), 83-84, 86-88.

⁷⁷² The bilateral trade agreements include the Free Trade Agreements between the US and many less developed countries, such as Jordan (2001), Australia (2004), Chile (2004), Morocco (2006), Peru (2007), and Panama (2011), among others. The TPP and the ACTA are agreements at the plurilateral level. Peter Yu situates ACTA 'in the context of a trend of using bilateral, plurilateral and regional trade and investment agreements to circumvent

Within this context, the new approach to explaining counterfeiting underscores the implications of low development levels in developing countries. First of all, low levels of development mean that in developing countries there is poverty to be reduced, basic needs to be met, fundamental human rights to be fulfilled, environmental resources to be protected and sustained for future generations, and distributional inequality to be narrowed down. To meet these development needs requires varieties of products and services available at affordable prices, such as lifestyle commodities, educational materials, medicines and entertainment products. Nevertheless, their low financial capacity, for example low income levels and low GDP per capita, means that the average person in developing countries may not be able to afford the expensive original products protected under foreign IPRs.

Meanwhile, low levels of development also denote insufficient capacity for innovation, which includes the economic, technological and cultural capability to produce independent innovation that can be protected as IPRs, and the necessary infrastructure to support the research and development of innovations. Without such innovative capacity, increased protection of IPRs in these countries only means the protection of foreign interests in securing the profits from intellectual property, at the expense of local public interests in access to such innovation at reasonable costs.⁷⁷³ In another words, such protection raises the costs of access to, and diffusion of, intellectual property by keeping a high pricing ratio and high prices of

the multilateral norm-setting process.' See Peter K.Yu, 'ACTA and Its Complex Politics' (2011) 3 *WIPO Journal* 1, 2. See also Susan K. Sell, 'TRIPs Was Never Enough: Vertical Forum Shifting, FTAS, ACTA and TPP' (2011) 18 *Journal of Intellectual Property Law* 447 (arguing that developed countries have constantly shifted the forum of protecting intellectual property, from multilateral treaties to regional and bilateral trade and investment agreements, in order to effectuate their interests in stronger protection of intellectual property rights). 'Golden standards' in the ACTA are the words used by Henning Ruse-Khan to refer to the new highest standards achieved by the provisions of the ACTA, which extends the scope of criminal enforcement against counterfeiting. See Henning Grosse Ruse-Khan, 'From TRIPS to ACTA: Towards a New 'Gold Standard' in Criminal IP Enforcement?' (Research Paper No 10-06, Max Planck Institute for Intellectual Property, Competition and Tax Law 19 April 2010) <<http://ssrn.com/abstract=1592104>>.

⁷⁷³ This also explains the lack of political willingness to enforce intellectual property laws and combat counterfeiting in developing countries.

original products under IPR protection, and prohibits alternative access and diffusion through imitation and copying in developing countries.

The new explanation then presumes the value of imitation to development, which is especially notable in the early stages of development, or low levels of development. The combination of low financial capacity and insufficient innovative capacity determines that the demand for a variety of products and services, to meet basic needs and realize human rights of the citizens in developing countries, will encourage the production of cheap local substitutes, which are generally imitative products. While developing countries can get access to intellectual property through purchase and license, once again the economic situation in many developing countries restricts them from doing so, given the huge cost of licensing fees. Meanwhile, the spill-over effects of technology transfer and foreign direct investment are empirically limited, and depend on the existence of basic infrastructure that facilitates the assimilation of such spill-overs.⁷⁷⁴ Therefore, product and technology imitation still play an important part in helping developing countries to build up innovative capacity.

It has to be noted that although many developing countries do not have sufficient *innovative capacity*, they may have sufficient levels of *imitative capacity*. Imitative capacity refers to the ability, and infrastructure, to absorb the imported foreign

⁷⁷⁴ See, e.g., Rod Falvey, Neil Foster and Olga Memedovic, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (Working Paper United Nations Industrial Development Organization, 2006) <http://www.unido.org/fileadmin/import/60030_05_IPR_rights_in_technology_transfer.pdf> (finding that stronger IPR protection has little impact on innovation and technology transfer in those developing countries without sufficient innovative capacity and may impose additional costs). See Keith E. Maskus, 'The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer' in Carsten Fink and Keith E. Maskus (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 41-73 (suggesting that strengthening IPR protection is not sufficient to effectively induce foreign direct investment and technology transfer; complementary regulations concerning market liberalization and deregulation, technology development policies, and competition regimes should also be in place). Keith E. Maskus and Jerome H. Reichman, 'The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods' (2003) 7(2) *Journal of International Economic Law* 279, 288 (noting that the international market for technology transfer is inherently subject to failure, owing to the distortion of understanding intellectual property in developed countries).

technologies and ideas, which are protected under IPRs, so that they can imitate the production of original products at considerably lower costs. It may be either that the imitators simply imitate the original products without using the original trademark, or that the imitators take and use the trademark of a famous brand on their imitative products and sell them as the original. In both cases, however, such imitative products will be prohibited under the current intellectual property laws that adhere to the minimum standards of IPR protection under the TRIPs agreement. As a result, imitation that originally meets the demand of millions of low-income consumers and facilitates the development process of many developing countries, is made illegal under such high standards of IPR protection, with some falling within the category of counterfeiting.

It is thus understandable that counterfeiting is more likely to happen in countries with insufficient innovative capacity, but with sufficient levels of imitative and manufacturing capacity. These countries can produce local imitation substitutes by reverse engineering or simply copying foreign IPR products. Hence, the importation of advanced foreign technologies into developing countries that have insufficient innovative capacity, but have a sufficient degree of imitative capacity, and at the same time have a large domestic demand for cheaper products, will almost certainly lead to imitation and counterfeiting. Nevertheless, counterfeit products may be acceptable in any low-income country. As Simon Mackenzie points out, a significant uptake of the purchase of counterfeit products happens in the countries of production and other developing countries that strongly demand, but can hardly pay the high prices of, original products.⁷⁷⁵

⁷⁷⁵ As a result of the process of outsourcing of legitimate production, brand imitations and other counterfeit goods are produced in poor countries in order to feed demand in rich ones, but the flow and consumption of counterfeit products in developed countries is 'to nowhere near the extent to which they have appeared in developing countries'. See Simon Mackenzie, 'Counterfeiting as Corporate Externality: Intellectual Property Crime and Global Insecurity' (2010) 54(1) *Crime, Law and Social Change* 21, 27.

3 *The Imbalance between IPR Protection and Development*

The existence of high and tolerated levels of counterfeiting reflects the imbalance between high standards of intellectual property and low levels of development in developing countries. On the one hand, developing countries that are WTO members are obliged to conform to the requirements of the TRIPs agreement. The minimum standards of IPR protection under the TRIPs agreement, however, are still too high relative to the existing development levels of many developing countries,⁷⁷⁶ as it raises the costs of IPR protection to such an extent that it exceeds the benefits.⁷⁷⁷ In particular, strong IPR protection restricts access to new ideas and knowledge locked up by such rights, and prohibits imitation of anything that may fall within the scope of IPRs.

On the other hand, the process of development from a low level to a high level requires access to knowledge at affordable cost, and imitation is probably the best way to ensure such access. A common development objective of many developing countries is to improve the living standards for their citizens and enhance their competitiveness in the global market. Innovation is a key to do this, but the reality is that developing countries lack the ability to produce independent innovation. Alternatively, they rely on imitation and assimilation of foreign advanced technologies and other forms of new knowledge, most if not all of which are nevertheless protected by IPRs.

The imbalance of intellectual property law with development level can be illustrated at two levels. At the international level, the one-size-fits-all approach under the TRIPs agreement minimum standards of IPR protection disregards the developmental disparity among member countries, which actually have diversified interests in the development of their economy, culture, social welfare, and environmental sustainability. Although scholars argue that there are flexibilities

⁷⁷⁶ Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Peterson Institute, 2000), 1 (maintaining that the TRIPs minimum standard protection is de facto high relative to the development level of many developing countries).

⁷⁷⁷ See the discussion on the costs of strong IPR protection in developing countries, as provided in Chapter III of this thesis.

included in the TRIPs agreement, it is also argued that these flexibilities are used in developing countries to a very limited extent in practice.⁷⁷⁸ Many developing countries, especially the least developed countries, have significantly low capabilities of research and production, but they have a larger proportion of their population living in poverty or unhealthy conditions without sufficient access to education. Hence, a relatively uniform standard of IPR protection would not benefit these countries in the same way as it would benefit developed countries. To redress the loss from the restriction on access to new knowledge and products, counterfeiting as imitation and copying acts against the de facto strong IPR laws in less developed countries.

At the national level, the concept of development as the objective of IPR protection should not only focus on economic growth, but also on cultural, environmental, and equal development. While more FDI and technology transfer may occur because of stronger IPR protection, this pure economic orientation of the IPR system may result in widened inequality within countries. Inequality causes loss to human development, thus diminishing the positive effects of IPR protection on development. Therefore, national IPR policies should be re-oriented to promote equal and equitable development of all aspects of human society, not only for the purpose of reducing counterfeiting, but also for the purpose of promoting knowledge diffusion and affordable access to IPR products.

This imbalance between IPR protection and development level suggests that, to the extent that the development process requires imitation, counterfeiting is a result of implementing high standards of IPR protection in countries with low levels of development. If international IPR protection was removed, developing countries that still need importation and imitation of foreign technologies would be free to do

⁷⁷⁸ Sisule Musungu and Cecilia Oh, 'The Use of Flexibilities in TRIPS by Developing Countries: Can They Promote Access to Medicines?' (Study No 4C, World Health Organization, Commission on Intellectual Property Rights, Innovation and Public Health, August 2005) <<http://www.who.int/intellectualproperty/studies/TRIPSFLEXI.pdf?ua=1>>. Perhaps that is why even nowadays scholars are still making suggestions to developing countries about how to use the flexibilities included in the TRIPs agreement. See Legislative assistance, *Advice on Flexibilities under the TRIPS Agreement* WIPO <http://www.wipo.int/ip-development/en/legislative_assistance/advice_trips.html>.

so. With the presence of international IPR protection, however, the cost of development in terms of restricted access to knowledge in developing countries will increase dramatically. To avoid that cost, they turn to imitation and copying of foreign products and technologies. But such imitation and copying become another form of cost, as they are identified as counterfeiting or other infringements of foreign-owned IPRs, even though some of them are actually for the benefit of development.

F *Conclusion*

Counterfeiting, by its very nature, is an act of imitation. As discussed before, imitation and copying facilitate the diffusion of knowledge and enable the widest dissemination of intellectual works. In this way they ensure that the public can actually benefit from new innovations. In the same way, counterfeiting that involves product imitation can also benefit the economy and improve social welfare. Since counterfeiting involves imitation, the question of 'why counterfeit' can be asked in this way: why imitate? To put it simply, it is because imitation can benefit the development process of developing economies.

Product imitation is not necessarily illegal and may produce benefits to innovation and economic development. Thus, intellectual property policy makers, especially those in countries where counterfeiting mostly takes place, should take into account the fact that prohibiting product imitation as part of counterfeiting may hinder the building up of innovation capacity through imitation.

Meanwhile, the high standards of IPR protection are mostly introduced under foreign pressure, regardless of the actual development needs for imitation and copying in developing countries. Without sufficient ability to produce intellectual property, developing countries are less willing to protect IPRs, because such protection only means the protection of foreign intellectual property and increases the costs of domestic imitation. As a result of the imbalance between standards of IPR protection and development levels, the imitating activities in developing countries become illegal and are being prohibited, with some being defined as

counterfeiting. Hence, it is important for developing countries to design their IPR policy in accordance with their respective development levels.

Equally important is the need to redress the balance between developed countries as IPR holders, and developing countries as rights users, in the international IPR regime, by allowing more flexibility for developing countries to enact IPR laws that are adapted to their respective development levels. If both international and national IPR laws take the development orientation, it can be expected that developing countries will gain the political will to prevent counterfeiting once they have developed sufficient levels of ability to produce intellectual property on their own.

PART THREE CASE STUDY OF CHINA

In Part Two, this thesis analysed the meaning of counterfeiting and re-evaluated the impact of counterfeiting on developing economies. Some of the most important findings are that counterfeiting involves product imitation, including imitation that is needed by developing countries to promote knowledge diffusion and build up innovative capacity. Because of the high standards of IPR protection mandated by the TRIPs agreement and TRIPs-plus obligations, however, counterfeiting is prohibited under ever-strengthening IPR laws. This creates a paradox that developing countries need imitation, but have to prohibit imitation. This can be seen as an imbalance between IPR protection and development level.

These findings have profound implications for many developing countries where counterfeiting is taking place. One such country is China. China is often claimed to be the world's single largest supplier of counterfeit products. In the meantime, China is also a good example of a developing country that benefits from counterfeiting. To illustrate the implications of the previous discussion on counterfeiting, this Part will examine the situation of counterfeiting in China and demonstrate how counterfeiting should be treated under Chinese intellectual property laws.

This Part provides a case study of counterfeiting in the Chinese context, which includes two chapters. Chapter VII reviews the background of IPR law making in China and introduces the current legal framework of IPR legislation and administration. It also analyses the development situation in terms of China's innovative capacity and developmental inequality. Chapter VIII investigates how China defines the concept of counterfeiting and the impact of counterfeiting on the Chinese economy and society. A particular focus is placed on how imitation interacts with innovation to promote China's development objectives.

VII INTELLECTUAL PROPERTY LAW AND DEVELOPMENT IN CHINA

A Introduction

In 2014, the 26th annual gathering of Asia-Pacific Economic Cooperation (APEC) leaders was held in Beijing, China. The two largest economies in this region – the US and China – were expected to engage in a new round of negotiations for a bilateral trade agreement. The US President addressed the summit with these words:

We continually have to work to strengthen the bilateral trade and investment between our two nations. ...Now, deepening our economic ties is why I also hope to make progress with President Xi towards an ambitious, high-standard, bilateral investment treaty that opens up China's economy to American investors... We look to China to become an innovative economy that values the protection of intellectual property rights, and rejects cyber-theft of trade secrets for commercial gain.⁷⁷⁹

Since the TRIPs agreement, IPR protection has become inextricably intertwined with trade issues. Bilateral trade agreements, as discussed before in Chapter III, contain TRIPs-plus provisions that require IPR protection beyond the standards provided in the TRIPs agreement. Meanwhile, bilateral agreements are usually used to target specific countries, mostly developing countries, where the law and practice of IPR protection does not satisfy some developed countries, especially the US, which is the biggest user of bilateral agreements.

China's approach to IPRs is a particular concern in this regards. As the world's workshop, China has a vast domestic market of 1.3 billion people and is among the top destinations for shared services and outsourcing for multinational companies.⁷⁸⁰

⁷⁷⁹ Office of the Press Secretary, *Remarks by President Obama at APEC CEO Summit* (10 November 2014) The White House <<http://www.whitehouse.gov/the-press-office/2014/11/10/remarks-president-obama-apec-ceo-summit>>.

⁷⁸⁰ A recent report records that

In 2012, 144,636 service outsourcing contracts were signed with a total contract amount of USD 61.28 billion, a year-on year increase of 37 percent and triple the amount compared to

With so many important interests at stake, developed countries are anxious to bring high standards of IPR protection into China. For this purpose, they are employing the 'carrot and stick' strategy and shifting the norm-setting forum from multilateral to bilateral and regional levels. However, as this chapter will suggest, China is still a developing country with limited innovative capacity. According to the UNDP Human Development Report 2013, China sits in the Medium Human Development group with HDI valued at 0.699; but the inequality-adjusted HDI is valued at 0.543, accounting for an overall loss of 22.4 per cent from inequality.⁷⁸¹ Thus stronger IPR protection that benefits the US may not be equally beneficial for China. In this context, this chapter will show that the establishment of a Chinese intellectual property system in the 1980s was partly a result of this co-ordinated effort.

After a brief historical review of intellectual property law in imperial China in Section B, this chapter will provide a political economic analysis of intellectual property law making in the 1980s in Section C, highlighting the two most important factors at play – foreign pressure and development demands. This analysis will suggest that, despite the foreign influence, China's decision to introduce IPR protection also reflects the demands for economic and technological development. Just as many other developing countries have acceded to the TRIPs agreement, China joined the WTO and the TRIPs agreement because the WTO membership will bring about preferential treatments in access to foreign markets. To build up domestic innovative capacity is also an important concern, but this thesis argues that, compared to the immediate benefits in trade aspects, this is only a secondary and long-term objective of providing IPR protection in China.

In addition, Section D introduces the legal framework for IPR protection in China, covering patent, copyright, trademark, new plant varieties, domain names and

2009. Included in this, the value of international service outsourcing contracts was USD 43.85 billion, which is a 34.4 percent year-on-year increase or three times more than in 2009. KPMG, 'Inside the Dragon 2013: Outsourcing Destinations in China' (Report, September 2013) 10 <http://www.kpmgglobalfrontiers.com/_files/Inside_the_Dragon_2013.pdf>.
⁷⁸¹ UNDP, 'Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World' (Annual Report, United Nations Development Programme, 2013) 153 <<http://hdr.undp.org/en/2013-report>>.

other laws related to IPR protection and enforcement. An analysis of China's IPR administration and enforcement will be presented in Section E, suggesting that the fragmented structure of IPR authorities accounts for the ineffective enforcement of IPR laws in China, which has encouraged domestic imitation to some degree.

Section F examines the development situation in terms of innovative capacity and inequality in China. An analysis of a few variables, including the number of domestic and foreign patent applications and patents in force and the distribution of patents across regions, will indicate that China remains a largely imitative country with limited capability to produce independent innovation, and with significant disparity across industries and regions. It is then argued that China will probably benefit from a balanced, development-oriented IPR policy, rather than simply focusing on enhancing the standards of IPR protection.

B *A Pre-modern History without Formal IPR Laws*

As all Chinese children know, China is a country with thousands of years of civilization and the birthplace of the famous Four Great Inventions (compass, gunpowder, papermaking, and printing). But, for two thousand years in imperial China, there was no formal legislation enacted to protect that which western countries term intellectual property. Together with a lack of awareness and cultural esteem for protecting IPRs, the absence of formal IPR laws in traditional China is argued to be one of the factors that account for the rampant counterfeiting and other infringements of foreign intellectual property. William Alford is among the first and the most influential to put forward this view.

In his seminal book *To Steal a Book Is an Elegant Offense*, Alford contends that in imperial China there was no counterpart to western intellectual property laws. He attributes the absence of intellectual property to the Chinese political culture that is characterized by state control over the flow of ideas, and the significant influence of the past on the Chinese perception of property and authorship. He asserts that this political culture is 'fundamentally incompatible with one of strong intellectual property rights in which individuals have the authority to determine how

expressions of their ideas may be used, and [have] ready access to private legal remedies to vindicate such rights.⁷⁸²

Nevertheless, there is historical evidence suggesting that since the Song Dynasty (960-1279), there have been state orders prohibiting the unauthorized printing of books that certain publishers had exclusive rights to print. For example, a state ordinance was issued in 1238 which recognized the exclusive right of a private publisher to print the book *The Geography of Fangyu* (方輿胜览) authored by Mu Zhu (祝穆).⁷⁸³ The term ‘录白’ used in the title of the ordinance means that the ordinance was orally approved by the King and then published by the local authorities at Quzhou and Wuzhou counties in today’s Zhejiang Province. According to the ordinance, the publisher could make a complaint against anyone else who printed the book and all such pirated books should be destroyed.⁷⁸⁴ Another ordinance of the same kind was issued in 1248 for the book *Annotations of Mao’s Poetry* (丛桂毛诗集解) on the request of the author’s nephew, who argued that the unauthorized printing of the book altered the content so much that it damaged its integrity, and that the right to print the book should be exclusively owned by the original publisher, Luo’s publishing house.⁷⁸⁵ According to the ordinance, anyone who violated this ordinance should be subject to criminal penalties and all pirated books should be destroyed.⁷⁸⁶

⁷⁸² William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 119.

⁷⁸³ 周林, 李明山 [Zhou Lin and Li Mingshan] (eds), *中国版权史研究文献* [Materials for China Copyright History Research] (中国方正出版社 [China Fang Zheng Press], 1999), 3. In fact, through the one hundred years from 954 to 1067 after the printing block of Nine Classics was completed, permission for the printing of Nine Classics was exclusive to the state publishing houses, and government decrees had been issued to prohibit printing of the Nine Classics by private publishers. See 朱明远 [Zhu Mingyuan], ‘略论版权观念在中国的形成’ [The Development of Copyright Concept in China] in Copyright Society of China (ed), *版权研究文选* [Copyright Research Articles Collection] (商务出版社 [The Commercial Press], 1995) 123.

⁷⁸⁴ 周林, 李明山 [Zhou Lin and Li Mingshan], above n 783, 3.

⁷⁸⁵ Ibid 4.

⁷⁸⁶ Ibid.

However, Alford believes that these orders are no more than efforts to control the dissemination of ideas, without recognition and protection for author's rights.⁷⁸⁷

Alford goes on to argue that virtually all examples of imperial China's efforts to provide protection for intellectual property prior to the 20th century are defined by the state's interests in preserving imperial power and fostering social harmony, rather than being concerned with the creation of private property interests or the promotion of authorship or inventiveness.⁷⁸⁸

Alford's argument has been well cited in subsequent scholarship, but it also draws criticism. Chengsi Zheng argues that 'the protected subject matter was not confined to publishers but extended to the author,' especially in the ordinance of 1248, and therefore it can be seen as copyright protection in the modern sense,⁷⁸⁹ given that the *Statute of Anne* is considered to be the first copyright law in the modern sense just because it conferred copyrights to authors instead of publishers.⁷⁹⁰

⁷⁸⁷ This argument may be based on the recognition that 'considering the proliferation of undesirable printed materials, in 1009, the imperial government ordered private printers to submit the works they would publish to local officials for pre-publication review and registration.' See William P. Alford, 'Don't Stop Thinking About... Yesterday: Why There was No Indigenous Counterpart to Intellectual Property Law in Imperial China' (1993) 7 *Journal of Chinese Law* 3.

⁷⁸⁸ William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 17-18.

⁷⁸⁹ Chengsi Zheng and Michael Pendleton, *Copyright Law in China* (CCH International, 1991), 14. Many other scholars hold the same position as Zheng. See e.g. 朱明远 [Zhu Mingyuan], '略论版权观念在中国的形成 [The Development of Copyright Concept in China]' in Copyright Society of China (ed), *版权研究文选 [Copyright Research Articles Collection]* (商务出版社 [The Commercial Press], 1995) 123; 马晓莉 [Ma Xiaoli], *近代著作权立法的困境与抉择 [Dilemma and Choice of Copyright Legislation in Modern China]* (华中科技大学出版社 [Huazhong University of Science and Technology Press], 2011), 198; 吴汉东 [Wu Handong], '关于中国著作权法观念的历史思考 [Historical Review on Copyright Law Concepts in China]' (1995) 3 *法商研究 [Law and Commerce Research]* 44; 曹之 [CaoZhi], '中国古代著作权考略 [Exploring the Copyright History in Ancient China]' (1998) 1998 *图书与情报 [Books and Information]* 37.

⁷⁹⁰ Pamela Sameulson, 'Copyright and Freedom of Expression in Historical Perspective' (2002) 10 *Journal of Intellectual Property Law* 319, 324 (noting that the Statute of Anne is a principle development that ushered in the modern era of copyright as it granted rights to authors, not to publishers).

More recently, Ken Shao further argues that 'copyright conception and protection did emerge in China as a response to the boom in commercial publishing.'⁷⁹¹ He observes that 'the publishing control was notably aimed not at suppression but the improvement of social welfare such as people's livelihoods, scholarly learning, national security and social morality.'⁷⁹² He also argues that 'commercial publishing or publishing involved in investment stimulated the advent of copyright due to the very nature of intangible goods which may affect an author's reputation and the economic interests of authors and publishers.'⁷⁹³

Notwithstanding the debate over whether there was a counterpart concept of intellectual property in imperial China, it is commonly accepted that there were no systematic, formal intellectual property laws formed in China in a sustained manner prior to the 20th century. Notably, the early practice of IPR protection in Europe was also linked with state interest, for example, the grant of publishing privileges in exchange for control over the publication of dangerous materials.⁷⁹⁴ However, as Alford observes, since the 17th and 18th centuries there had developed an approach in Europe that focused on the promotion of the private ownership of intellectual works, which introduced the modern system of intellectual property.⁷⁹⁵ By contrast, there was no legal system of IPR protection formed in a sustained manner until the late Qing Dynasty.

⁷⁹¹ Ken Shao, 'An Alien of Copyright? A Reconsideration of the Chinese Historical Episodes of Copyright' (2005) 4 *Intellectual Property Quarterly* 400.

⁷⁹² See *ibid* 412. For example, the disarrayed printing of calendars affected the foundation of the empire, i.e. agriculture, for it depended essentially on an accurate calendar. In most cases publishing control aimed to reduce the apparent fallacies of the texts resulting from the low quality commercial printing, given that erroneous printing of calendars affected agriculture and erroneous books had potential harms 'not only to beginners but to many candidates for degrees who have been disqualified because of the mistaken texts they have used' (citing a decree issued in 1532 by the Office of the Provincial of Fujian). See *ibid* 408.

⁷⁹³ See *ibid* 424.

⁷⁹⁴ See, e.g. Pamela Sameulson, 'Copyright and Freedom of Expression in Historical Perspective' (2002) 10 *Journal of Intellectual Property Law* 319, 323 (noting that in pre-modern phase English kings and queens were quite willing to grant to the Stationers' Guild control over the publication of books in the realm in exchange for the guild's promise to refrain from printing such dangerous materials).

⁷⁹⁵ William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 17-18.

C *IPR Law Making in Modern China*

The first Chinese intellectual property law was enacted in the late Qing Dynasty, but not fully implemented because of the demise of the dynasty. Similarly, intellectual property laws promulgated by the Republic of China, and administered by the National Party, did not operate effectively due to warfare and were then abolished by the now People's Republic of China. The current Chinese intellectual property laws are built on legislations enacted since the 1980s.

This section discusses the political economy of intellectual property law making in the 1980s under the influence of domestic and foreign pressure. It will suggest that in contrast to the spontaneous evolution in Europe, intellectual property was imposed on China by external forces, but it is the economic demand, or the purpose of realizing the development objective, that allows foreign pressure to have an impact.⁷⁹⁶

1 *Law Making before the 1980s*

Since the late 19th century, the concept of intellectual property has found its way into the minds of several Chinese scholars. Among others, Fu Yan (严复, a translator), Qichao Liang (梁启超, a politician), Quan Lian (廉泉, a founder of Wenming Publishing House) appealed to the then Chinese government, requesting to establish a copyright system and protect the moral and economic interests of authors, translators, and publishers.⁷⁹⁷ In 1898, the Qing government enacted the *Award Constitution for Revitalizing Technology* (《振兴工艺给奖章程》) to award inventors of new scientific and technological inventions. This was the only example of intellectual property legislation at the time.

⁷⁹⁶ Natalie P Stoianoff, 'The Influence of the WTO over China's Intellectual Property Regime' (2012) 34 *Sydney Law Review* 65, 89 (discussing the influence of foreign countries and the entry of the WTO on China's intellectual property law, and noting that China's self-interest in becoming an 'innovation nation' made it possible for foreign pressure to have an impact).

⁷⁹⁷ 李明山 [Li Mingshan], *中国近代版权史* [*The Modern History of Copyright in China*] (河南大学出版社 [He'nan University Press], 2003), 20, 28, 42.

After the close of the Opium Wars (from 1839 to 1842 and from 1856 to 1860), western powers entered the Chinese market and sought to protect their intellectual property in China. Given widespread unauthorized reproduction of foreign products at the time,⁷⁹⁸ China was compelled to sign the *Renewed Treaty of Commerce and Navigation* with Britain in 1902 and the US and Japan in 1903, which provided trademark and copyright protection for their IPR products. Soon after that, the Qing government enacted the *Interim Constitution for Trademark Registration 1904* (《商标注册试办章程》) and the *Copyright Law of Qing Dynasty 1910* (《大清著作权律》).

Because of the demise of the Qing Dynasty in 1911, however, this legislation was not effectively implemented. The same is true for the IPR laws enacted by the Peiyang Government (1912-1928) and the government of the Republic of China (1928-1948), as the constant warfare during this time destroyed the environment for effective implementation of those laws.⁷⁹⁹

After the founding of the People's Republic of China, the central government abolished all the IPR laws in the Republic of China and issued *Provisional Regulations on the Protection of Inventions Rights and Patent Rights* (《保护发明权和专利权暂行条例》) in August 1950, which provided for awards to inventors in the form of certificates of invention or ownership of the invention in question, depending on whether the invention was completed in the course of employment. In 1963, the *Regulations to Award Inventions* (《发明奖励条例》) and the *Regulations to Encourage Improvements in Technology* (《技术改进奖励条例》) were promulgated, which asserted that all inventions are the property of the State

⁷⁹⁸ William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization* (Stanford University Press, 1995), 43.

⁷⁹⁹ 张楚 [Zhang Chu] et al, *知识产权法 [Intellectual Property Law]* (高等教育出版社 [Higher Education Press], 2007), 8.

and no person or unit may claim exclusive rights over them, and which also curtailed financial rewards for inventors.⁸⁰⁰

In terms of trademark, the *Provisional Regulations on Trademark Registration* (《商标注册暂行条例》) of 1950 set up a new registration system, but this law was replaced with the *Regulations Governing the Control of Trademark* (《商标管理条例》) issued solely for quality control purpose, with no mention of conferring rights.⁸⁰¹ While there was no formal copyright law at the time, authors had the right to stop unauthorized alteration of their works and were entitled to a certain amount of fixed payments, although this payment was reduced significantly in the period of the Cultural Revolution (1966-1976).⁸⁰² Eventually, following the death of Chairman Mao and the arrest of the Gang of Four, the late 1970s witnessed the turning point for the Chinese intellectual property law reforms.⁸⁰³

2 Law Making in the 1980s

Since the implementation of the 'reform and opening up' policy in 1978,⁸⁰⁴ China shifted its development focus from political stability to economic growth. This change in policy priority led to the enactment of a series of civil laws, which were considered as paramount rules in regulating economic activities in the emerging market economy. Among these laws, intellectual property law has been particularly controversial because of the monopolistic nature of such rights, given that state ownership and collective ownership remained the norm at the time.

⁸⁰⁰ Andrew Mertha, *The Politics of Piracy: Intellectual Property in Contemporary China* (Cornell University Press, 2005), 81.

⁸⁰¹ Rainer Frietsch and Jue Wang, 'Intellectual Property Rights and Innovation Activities in China: Evidence from Patents and Publications' (Discussion Papers No 13/2007, Fraunhofer Institute for System and Innovation Research, September 2007) 2
<<https://isi.fraunhofer.de/isi-de/publ/.../intellectual-property-rights-china.pdf>>.

⁸⁰² Ibid 3.

⁸⁰³ Andrea Wechsler, 'Intellectual Property Law in the P.R. China: A Powerful Economic Tool for Innovation and Development' (Competition and Tax Law Research Paper Series No. 09-02, Max Planck Institute for Intellectual Property, 12 November 2008) 32
<http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354546>.

⁸⁰⁴ For a detailed explanation of the 'reform and opening up policy' and its historical context, see Clem Tisdell, 'Economic Reform and Openness in China: China's Development Policies in the Last 30 Years' (2009) 39(2) *Economic Analysis and Policy* 271.

The development of Chinese patent law illustrates the tortuous course of establishing an IPR system in the early days. Following the reform and open policy, China realized the importance of science and technology to productivity and economic development, and proposed to establish a patent system. Two meetings were held in October 1980 to discuss the implication of establishing a formal patent system: one was at the State Council and the other at the State Science and Technology Commission (founded in 1958 and re-named as the Ministry of Science and Technology of China in 1998) and the newly founded National Patent Bureau, the predecessor of the State Intellectual Property Office of China.⁸⁰⁵

At the same time, some scholars and government officials objected to the introduction of a patent system in China. They argued that because China remained a technology importer, a patent system would mainly protect foreign inventions and consequently increase the cost of access to foreign technologies. Moreover, concerns were raised that the patent system that protects monopolistic rights would run counter to socialist norms in China. Another view held that without a patent system China could still achieve technological progress through imitation, for example by purchasing equipment and reverse engineering the technologies embedded in foreign products. More radically, some asserted that in socialist countries like China inventions should belong to the whole people, rather than being individually owned.⁸⁰⁶

While commenting on these pessimistic views, Chengsi Zheng, a notable IP scholar and member of the Drafting Committee of China's first copyright law, contended that patent law would benefit China in a number of ways. First, he argued that imitation is not a preferred long-term strategy, especially in the field of electronics and chemistry, because it is difficult to acquire the embedded technology simply by

⁸⁰⁵ Andrew Mertha, *The Politics of Piracy: Intellectual Property in Contemporary China* (Cornell University Press, 2005), 84.

⁸⁰⁶ 郑成思 [Zheng Chengsi], '试论我国建立专利制度的必要性 [The Necessity of Establishing Patent System in China]', *郑成思文选 [Selected Collection of Zheng Chengsi's Articles]* (法律出版社 [Law Press], 2003) 228-233, 230-232. See also Andrew Mertha, above n 805, 84-86 (noting that a few agencies, such as the Ministry of Chemical Industry and the Ministry of Electronics Industry, opposed to a shift away from the Soviet model with its inventor's certificates).

reverse engineering. Second, given the high cost of buyout of foreign technologies, obtaining licenses allows the same use of the patented technologies at a lower price. Third, the impact of a patent system on China's economy would depend on what kind of patent system was adopted. It is possible to minimize the negative effects of a patent system by providing limitations and exceptions to patent rights, such as compulsory licenses and exceptions to infringement. Fourth, a patent system is an economic method of managing intellectual products, which would provide incentives for innovation and encourage company leaders to pay more attention to research and development. Fifth, even without a patent system, China still had to protect foreign technologies through bilateral agreements if it wanted to establish co-operation with foreign countries. For the abovementioned reasons, Chengsi Zheng argued that a patent system would contribute to technological development in the long run, and it is likely that one day China would become the exporter of improved inventions based on foreign technologies.⁸⁰⁷

In addition, Heng Wu, the first director of the National Patent Bureau, responded to the objections by stating that China's economic development and construction relied on science and technology which in turn required institutional designs, namely a patent system, to encourage the production of new technologies.⁸⁰⁸ Hence, the prevailing opinions at the two meetings were that 'the patent system was a technical system with legal overtones which could be utilized by a socialist state, and that establishing a patent system in China would benefit the country.'⁸⁰⁹ At the close of the two meetings, therefore, it was decided to continue the proposal on drafting a patent law for China.

The final decision to establish a patent system represents a compromise among dissenting views, but such a decision was built on the belief that the primary objective of patent law (and other IPR laws) was to promote China's economic and technological development by protecting the interests of inventors. In other words,

⁸⁰⁷ 郑成思 [Zheng Chengsi], above n 806, 231.

⁸⁰⁸ Andrew Mertha, above n 805, 84.

⁸⁰⁹ Guo, He, 'Patents' in Rohan Kariyawasam (ed), *Chinese Intellectual Property and Technology Laws* (Edward Elgar, 2011) 25-45, 25.

it is clear that the protection of inventor's interests was just the means to achieve the development objective.

This development orientation and the instrumental status of IPR protection are manifest in the first article of each intellectual property law. For example, Article 1 of the *Patent Law 2008* stipulates that

This law is enacted for the purpose of protecting the lawful rights and interests of patentees, encouraging invention-creation, promoting the application of invention-creation, enhancing innovation capability, promoting the advancement of science and technology and the economic and social development.⁸¹⁰

Similarly, Article 1 of the *Copyright Law 2010* states that '[t]his law is enacted ...for the purpose of ...promoting the progress and flourishing of socialist culture and sciences.'⁸¹¹ Article 1 of the *Trademark Law 2013* states that '[t]his law is enacted for the purpose[s] of ...protecting the interests of consumers, producers and operators and promoting the development of the socialist market economy.'⁸¹²

From these provisions, it can be seen that China expected IPR protection could increase foreign investment and technology transfer and thereby facilitate the development of technological capabilities. Although it was not certain at the time to what extent the IPR system would encourage innovation in developing countries like China, and how long it would take to see the effect, it was believed that it would be faster to realize the development goal with the help of imported foreign technologies, rather than to rely completely on independent improvement in innovative capacity.

⁸¹⁰ 《中华人民共和国专利法》 [*Patent Law of the People's Republic of China*] 2008 (Standing Committee of the National People's Congress, People's Republic of China) art 1.

⁸¹¹ 《中华人民共和国著作权法》 [*Copyright Law of the People's Republic of China*] 2010 (Standing Committee of the National People's Congress) art 1.

⁸¹² 《中华人民共和国商标法》 [*Trademark Law of the People's Republic of China*] 2013 (Standing Committee of the National People's Congress, People's Republic of China) art 1.

3 *Law Making under Foreign Pressure*

China experienced significant institutional changes in the 1980s particularly as a result of the implementation of the 'reform and opening up' policy in 1978. The economic openness to the outside world ushered China into an era characterized by trade globalization and international co-operation. Consequently, maintaining trade co-operation relations with foreign countries became a priority in China's diplomatic agenda.

However, IPR protection in China had been in stagnation due to long-term political struggles and the Cultural Revolution in the first decades after the foundation of the new country. This ignited a series of complaints regarding Chinese IPR protection from developed countries who wanted to expand their multinational businesses into the Chinese market. Among them, the US has been the most aggressive in pressing China in formulating laws providing protection for US intellectual property.

Scholars argue that foreign pressure in various forms has been a primary driver for China to enact and reform intellectual property laws. Andrew Mertha describes in great detail the external pressure that the US has imposed on the Chinese government. This pressure has taken on several forms, including threats to impose trade sanctions, to revoke China's most-favored nation status, and to block China's accession to international government organization bodies.⁸¹³

The US-China negotiations formally commenced early in 1979 when the *Bilateral Trade Agreement* was signed, which obliged China to provide patent, copyright and trademark protection for US intellectual property. Consequently, to fulfill its commitment China joined the World Intellectual Property Organization (WIPO) in 1980, enacted *Trademark Law* in 1982 and *Patent Law* in 1984, and joined the *Paris Convention* in 1985.

⁸¹³ Andrew Mertha, *The Politics of Piracy: Intellectual Property in Contemporary China* (Cornell University Press, 2005), 6.

Given the absence of a copyright law and the alleged rampant piracy of US copyright works, however, the US initiated negotiations with the Chinese government, which led to the conclusion of a *Memorandum of Understanding* (MOU) between the two parties in 1989. In the same year China joined the *Madrid Agreement Concerning the International Registration of Marks* (Madrid Agreement) and China enacted its first *Copyright Law* in 1990.

But all these efforts did not sufficiently appease the US, as China was designated as the 'Priority Foreign Country' in 1991 according to the Special 301 provisions under the US *1988 Omnibus Trade and Competitiveness Act*,⁸¹⁴ with the Most-Favored Nation status revoked. China was also given a deadline to comply with the US demands or otherwise face trade sanctions in the form of a 100 per cent tariff increase.

Negotiations started again with the focus on copyright protection for computer software and patent protection for pharmaceutical and chemical products, which

⁸¹⁴ Special 301 refers to Section 182 of the Trade Act of 1974 as amended by the Omnibus Trade and Competitiveness Act of 1988 and the Uruguay Round Agreements Act (enacted in 1994).

Under Special 301 provisions, USTR must identify those countries that deny adequate and effective protection for IPR or deny fair and equitable market access for persons that rely on IPR protection.

Countries that have the most onerous or egregious acts, policies, or practices and whose acts, policies, or practices have the greatest adverse impact (actual or potential) on the relevant U.S. products must be designated as "Priority Foreign Countries." Priority Foreign Countries are potentially subject to an investigation under the Section 301 provisions of the Trade Act of 1974. USTR may not designate a country as a Priority Foreign Country if it is entering into good faith negotiations or making significant progress in bilateral or multilateral negotiations to provide adequate and effective protection of IPR.

USTR has created a "Priority Watch List" and "Watch List" under Special 301 provisions. Placement of a trading partner on the Priority Watch List or Watch List indicates that particular problems exist in that country with respect to IPR protection, enforcement, or market access for persons relying on intellectual property. Additionally, under Section 306, USTR monitors a country's compliance with bilateral intellectual property agreements that are the basis for resolving an investigation under Section 301. USTR may apply sanctions if a country fails to satisfactorily implement an agreement.

See USTR, Background on Special 301

<https://www.ustr.gov/sites/default/files/asset_upload_file694_11120.pdf>.

See also A. Lynne Puckett and William Reynolds, 'Rules, Sanctions and Enforcement under Section 301: At Odds with the WTO?' (1996) 90(4) *American Journal of International Law* 675; Qingjiang Kong, *WTO, Internationalization and the Intellectual Property Rights Regime in China* (Marshall Cavendish, 2005), 3.

led to the signing of another MOU between the US and China in 1992.⁸¹⁵ As a result, China revised its patent law and joined the Berne Convention, the *Universal Copyright Convention* and the *Patent Convention Treaty* in 1992. The next year China amended its trademark law, joined the *Universal Copyright Convention*, the *Convention for Recorded Products*, and the *Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of Their Phonograms (Geneva Convention)*. Meanwhile, nationwide copyright enforcement activities and investigation of audio and video products piracy were launched as a response to US requests. Nevertheless, the US was still unsatisfied, claiming that the 1992 MOU was not sufficiently fulfilled as software piracy remained rampant.⁸¹⁶

A new round of negotiations and threats of trade sanctions followed until, one day before the deadline for retaliation, the US and China reached an agreement in 1995 in the form of '*Exchanges of Letters*' and '*Action Plans*' that aimed to increase IPR enforcement in administrative, customs, and criminal aspects.⁸¹⁷ The US-China tensions did not relax until another round of threats to use trade sanctions resulted in negotiations and agreement in 1996, leading to a series of large-scale enforcement campaigns launched in China. Hence, it is not surprising when Peter Yu claims that '[l]egal transplants from abroad and coercive trade pressure from the US were the primary means by which the new intellectual property regime was established in China.'⁸¹⁸

⁸¹⁵ Andrew Mertha, above n 813, 44-45.

⁸¹⁶ Ibid 46.

⁸¹⁷ Ibid 51.

⁸¹⁸ Peter K. Yu, 'Intellectual Property, Economic Development, and the China Puzzle' (Occasional Papers in Intellectual Property Law, Drake University Law School, September 2007) <<http://www.law.drake.edu/academics/ip/docs/ipResearch-op1.pdf>> (discussing the establishment of the intellectual property regime in China in the 1980s and 1990s as a result of external pressure). See also Yu, Peter K., 'Building the Ladder: Three Decades of Development of the Chinese Patent System' (2013) 5(1) World Intellectual Property Organization Journal 1 (discussing the development of Chinese patent system in the last three decades with constraints from foreign countries and international community for most of the time).

In addition, the accession to WTO in 2001 has brought China's intellectual property law further into compliance with international standards.⁸¹⁹ During the five years around 2000, China enacted new laws to protect domain names, new plant varieties and trade secrets, amended its patent law, trademark law, and copyright law, and promulgated their implementing regulations respectively. By 2002, China had already established a complete set of IPR legislation compliant with the minimum standards of the TRIPs agreement, and joined a majority of leading international treaties on intellectual property.

Even today, external pressure remains vigorous. China has been on the top of the Priority Watching List consecutively from 2005 to 2014.⁸²⁰ Moreover, the US resorted to WTO dispute settlement mechanisms in 2007 to press China to further increase copyright protection and the criminal and customs enforcement of IPRs.⁸²¹ Again, China has launched another series of legal reforms of intellectual property laws since 2008. China issued the *Outline of National Intellectual Property Strategy* in June 2008, amended its patent law in December 2008 and its implementation rules in 2010, adopted the new Implementation of the *Regulations on Customs Protection of Intellectual Property Rights* in 2009, revised its copyright law in 2010 and its implementation rules in 2013, and amended its trademark law in 2013.

Some scholars point out that for the first time China proactively initiated the amendment of intellectual property law to meet the needs of continuing reform

⁸¹⁹ Chengsi Zheng, 'The TRIPs Agreement and Intellectual Property Protection in China' (1999) 9 *Duke Journal of Comparative and International Law* 219, 222 (noting that after the establishment of the WTO, China has also taken steps to keep Chinese intellectual property law in pace with the TRIPs Agreement, including amending existing intellectual property laws and deciding intellectual property cases according to internationally recognized standards).

⁸²⁰ China has been on the priority watch list in 1989 and 1990, priority foreign country in 1991 and 1996, potential priority country in 1994, on watch list in 1992 and 1995, subject to monitoring under Section 306 of the Trade Act of 1974 from 1996 to 2004, and elevated to the Priority Watching List from 2005 to 2014. See *The USTR Special 301 Reports, 1989 to 2014*, Keionline <<http://www.keionline.org/ustr/special301>>.

⁸²¹ WTO, 'China — Measures Affecting the Protection and Enforcement of Intellectual Property Rights' (DISPUTE SETTLEMENT, DS362, 26 May 2010) <http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds362_e.htm>.

and fast economic development.⁸²² Nevertheless, the connection between the timing of the US-China dispute at the WTO and the timing of China's amendment of its own laws suggests that foreign pressure still plays a role in driving China's intellectual property law reform.

D *Legal Framework of IPR Protection*

China is a civil law country with the majority of its legislation promulgated by legislative authorities, complemented by regulations issued by administrative authorities and interpretive provisions issued by judiciary authorities. In order to provide a clear picture of how IPR laws operate in China, this section briefly introduces the Chinese legislative structure. Within this structure, most intellectual property laws are classified as basic laws or administrative regulations. The section then discusses the legal framework of IPR protection in China.

1 *Legislative Structure*

The legislative hierarchy in China is generally comprised of five levels. The first and top level is the Constitution, which is the highest and supreme source of law and can only be enacted and amended by the National People's Congress (NPC). At the next level down are basic laws which are effective nationwide and can be enacted by the NPC and its Standing Committee. Patent law, copyright law, and trademark law are basic IPR laws enacted by the Standing Committee of the NPC. At the third level, the State Council, including its ministries and commissions, is empowered to issue administrative regulations, such as rules for the implementation of basic IPR laws and regulations on the protection of new plant varieties. The fourth level consists of local regulations issued by Local People's Congresses at provincial and municipal levels with respect to the implementation of higher levels of laws and regulations, which are effective only in respective localities. Fifth and finally, local government and its agencies may also issue more specific regulations, rules and measures as to individual matters occurring in the process of implementing higher

⁸²² Chu Zhang and Xingxiang Xu, *China Patent Legal System and Practice* (LexisNexis, 2010), 12.

levels of laws and regulations, for example, measures as to the local enforcement of IPR laws.⁸²³

In addition to statutes, judicial interpretation is an important legal source of IPR protection and enforcement in litigation. The Supreme People's Court, the top judiciary authority, has the power to issue interpretative provisions and opinions on how to apply the basic IPR laws and administrative regulations in the trial of cases.⁸²⁴ Meanwhile, the Supreme People's Procuratorate, the top supervision authority, may also issue interpretive opinions on matters related to the criminal enforcement of IPRs.⁸²⁵ Both the interpretations from the Supreme People's Court and the Supreme People's Procuratorate are defined as judicial interpretations, which means interpretations as to the application of law in case trials.

It has to be noted that judicial interpretations can only be applied in the trial of cases, and do not apply to other circumstances with equal force as statutes. For example, in a reply to the query of Jilin Provincial Administration of Industry and Commerce, the State Administration of Industry and Commerce (SAIC), the

⁸²³ See *Outline of the Legal and Regulatory Framework for Intellectual Property in the People's Republic of China*, (2011) WIPO
<<http://www.wipo.int/wipolex/en/outline/cn.html>>.

⁸²⁴ There are a large number of interpretations issued by the Supreme People's Court in the form of provisions, opinions, and replies to the queries made by lower levels of courts. For example, *Judicial Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Dispute Cases* on 28 December 2009; *Provisions of The Supreme People's Court of 22 June 2009 on Hearing Divisions of IP Administrative Lawsuits Involving the Grant and Confirmation of Patents and Trademarks*; *Interpretation of the Supreme People's Court of Several Issues Concerning the Application of the Law to the Trial of Civil Dispute Cases Involving Well-Known Trademarks* on 1 May 2009; *Interpretation of the Supreme People's Court Concerning Several Issues on Hearing cases in Internet Copyright Dispute* on 22 November 2000.

⁸²⁵ For example, the Supreme People's Procuratorate and the Supreme People's Court have jointly issued interpretations on the matter of applying laws in criminal cases of intellectual property. See *Reply of the Supreme People's Court and the Supreme People's Procuratorate about Relevant Issues of Handling Criminal Cases of Infringing upon Copyright concerning Audio-visual Fixation* on 18 October 2005 and 《最高人民法院、最高人民检察院关于办理侵犯知识产权刑事案件具体应用法律若干问题的解释》 [Interpretation by the Supreme People's Court and the Supreme People's Procuratorate on Several Issues of Concrete Application of Laws in Handling Criminal Cases of Infringing Intellectual Property] 2004 (People's Republic of China).

competent authority for trademark registration and administration, denied the legal force of judicial interpretations to administrative actions.⁸²⁶

Following the law making process described above in Part C, China now provides a full set of IPR protection for scientific, literary, artistic and other intellectual works. In short, there is patent protection for invention and industrial design, copyright protection for literary and artistic works and computer programs, trademark protection for trademark and geographical indication, and sui generis protection for new plant varieties and domain names.

2 *Patent, Copyright and Trademark Laws*

The current legal framework of patent protection in China is provided by the *Patent Law 2009* and the *Rules for the Implementation of the Patent Law 2010*. The *Patent Law* provides general protection for patent rights, which can be granted for eligible subjects, and the general rules for patent application, requirements, examination, approval and invalidation of patent rights. It also defines the duration of patent rights and exceptions for patent infringement. By contrast, tasks for the implementing rules are to specify the patentability, the requirement for approving and invalidating a patent, and the remedies for patent infringement.

According to the current patent system, China provides patent protection for three types of subjects: invention, utility model and design. ‘Invention’ means new technical solutions for products or processes, which requires novelty, applicability and a high level of inventiveness relative to existing technologies. ‘Utility model’ refers to new technical solutions for the shape and structure of a product. The grant of a utility model patent requires inventiveness and practical use, but with less inventiveness compared to an invention patent. In addition, any new designs with respect to a product’s shape, pattern, or color that produces aesthetic appeal and is fit for industrial application can be patentable. The requirement for a design patent

⁸²⁶ See China, 国家工商行政管理总局关于行政机关可否直接适用司法解释问题的批复 [SAIC's Reply as to Whether Administrative Authority Can Directly Apply Judicial Interpretations], No [2004]14, 29 January 2004.

is relatively low, as it only needs to be substantially different from existing designs, but not necessarily inventive. Another difference between these three patents lies in the duration of protection – twenty years for an invention patent and ten years for utility model and design patents, calculated from the filing date.⁸²⁷

Chinese copyright laws are comprised of the *Copyright Law* 1990 as amended once in 2001 and again in 2010, and the *Regulation for the Implementation of the Copyright Law* promulgated by the State Council in 2002, amended twice in 2011 and 2013 respectively. Copyright laws in China provide protection for both moral rights and economic rights of authors and related rights owners, such as publishers, performers, broadcasters and recorders. Copyright confers the exclusive control over the copying and reproduction of literary, artistic, scientific and technological works in the form of words, media products, architecture, graphs, and computer software. The term of protection for moral rights is unlimited, while economic rights expire after fifty years for corporate owners, and lifetime plus fifty years for natural person owners after the production of the works in question. In addition, the State Council promulgated the *Regulation on the Protection of the Right to Network Dissemination of Information* in 2006 as amended in 2013, which secures the owner's control over the distribution of copyrighted works in digital forms and on the Internet.

The Chinese *Trademark Law* was initially enacted in 1982 and has been amended three times, in 1993, 2001 and 2013. The *Regulations for the Implementation of the Trademark Law* as promulgated in 2002 is yet to be amended accordingly in order to adapt to the new *Trademark Law 2013*. According to Chinese trademark laws, any mark that can distinguish one's goods from another source of goods, including words, graphs, letters, numbers, three dimensioned signs, combinations of colors and sounds, may be registered as a trademark. Trademark protection lasts for ten years after the approval of registration, and can be renewed for another ten years for an unlimited number of times.

⁸²⁷ See 《中华人民共和国专利法》 [Patent Law of the People's Republic of China] 2008 (Standing Committee of the National People's Congress, People's Republic of China) arts 2, 22, 23.

Infringement of IPR rights will be subject to civil or criminal liabilities depending on the circumstances. For example, as will be detailed later, knowingly selling counterfeited trademark goods, or selling the counterfeited or forged trademarks with a large sales volume, is subject to criminal penalties.

3 *Plant Variety, Domain Name and Other IPR Laws*

Another important piece of IPR legislation enacted separately is the *Regulation of the People's Republic of China on Protection of New Varieties of Plants*, which first came out in 1997 and was recently amended in 2013. Plant variety rights allow the owners to prevent the production, selling, or repeated use of the propagating material embedded in the variety for commercial purposes. The term of protection for new plant variety rights is 20 years from the date of grant for vines, forest trees, fruit trees and ornamental plants, and 15 years for other plants.

Legislation with respect to domain names include the *Interim Administrative Measures on Domain Name Registration 1997* issued by the Leading Team Office of Information Work under the State Council, and the *China Internet Domain Name Regulations 2004* issued by the Ministry of Information Industry and CNNIC's regulation on *Domain Name Dispute Resolution Policy 2002*. As to customs enforcement of IPRs, the General Administration of Customs of China promulgated the *Implementation of the Regulations on Customs Protection of Intellectual Property Rights* in 2004, which was then repealed and replaced with the new *Regulations on Customs Protection of Intellectual Property Rights* in 2009. Meanwhile, there are other complementary laws that relate to IPR protection, such as the *General Principles of Civil Law 1986*, *Tort Law 2009*, *Intangible Cultural Heritage Law 2011*, *Criminal Law 2009*, *Scientific and Technology Progress Law 2007*, and *Advertisement Law 1994*, among others.

In addition to these traditional IPRs, China also protects trade secrets, enterprise names, and the good reputation of well-known merchandise in *Anti-Unfair Competition Law 1993* and the *Several Provisions on Prohibiting Infringements upon Trade Secrets 1998*. For example, according to *Anti-Unfair Competition Law 1993*,

the following behaviors are regarded as unfair: the act of counterfeiting a registered trademark; the unauthorized use of a unique name, package, or decoration which is identical or similar to another's famous products; the unauthorized use of the name of another enterprise or person so as to cause confusion; and forging or counterfeiting marks that symbolize authentication, product quality guarantee, or indicate the origin of products.⁸²⁸

However, the *Anti-Unfair Competition Law* has not been amended since its enactment in 1993, despite the dramatic changes in the economic and social landscape and the constant amendments of other laws. Thus, in the recent annual meeting of the NPC commencing on 3 March 2014, one NPC representative proposed to amend the *Anti-Unfair Competition Law* on the grounds that the old law turns out to be obsolete as Internet technologies bring about new models of business operation and new methods of unfair competition.⁸²⁹

E *Fragmented Administration of Intellectual Property*

Given the various types of IPRs protected in China, there are a number of Government bodies to deal with them, including the patent office, trademark office, copyright office, plant variety office at the national level, with a consolidated institution above all the discrete authorities, and the State Intellectual Property

⁸²⁸ Article 5 of the Anti-Unfair Competition Law provides that

A business operator shall not harm his competitors in market transactions by resorting to any of the following unfair means:

- (1) counterfeiting a registered trademark of another person;
- (2) using for a commodity without authorization a unique name, package, or decoration of another's famous commodity, or using a name, package or decoration similar to that of another's famous commodity, thereby confusing the commodity with that famous commodity and leading the purchasers to mistake the former for the latter;
- (3) using without authorization the name of another enterprise or person, thereby leading people to mistake their commodities for those of the said enterprise or person; or
- (4) forging or counterfeiting authentication marks, famous-and-excellent-product marks or other product quality marks on their commodities, forging the origin of their products or making false and misleading indications as to the quality of their commodities.

⁸²⁹ 王贵山, 陈瑜艳, 张国亮 [Wang Guishan, Chen Yuyan and Zhang Guoliang], *Anti-Unfair Competition Law Needs Amendment Immediately* [[两会]应尽快修订《反不正当竞争法》] (6 March 2014) China Intellectual Property Rights [中国知识产权网] <http://www.cnipr.com/sy/201403/t20140306_180081.htm>.

Office of China (SIPO). At a lower level, there are over a hundred provincial, municipal and county-level offices across the country.

The bureaucratic apparatus responsible for the administration and enforcement of IPRs in China is often described as 'fragmented authoritarianism'.⁸³⁰ Fragmented authoritarianism means that authorities below the very peak of the Chinese political system are fragmented and disjointed; it is structurally based and has been enhanced by reform policies regarding procedures, especially under the reforms beginning in the late 1970s.⁸³¹ Andrew Mertha contends that no set of Chinese bureaucracies illustrates the basic dynamics of the 'fragmented authoritarianism' framework better than those in the service of implementing intellectual property policy.⁸³²

1 *Administrative IPR Authorities*

The SIPO is set up as the overarching authority that manages and co-ordinates IPR protection and enforcement activities among the discrete patent, copyright, and trademark bureaucracies nationwide. It is intended to lead the national and provincial IPR authorities in implementing the *Outline of China National IP Strategy 2008*. In the meantime, as the successor to the National Patent Bureau, SIPO is also the home of the patent office, now known as the Patent Affairs Administration Department, responsible for the examination of patent applications, implementation of patent policies and administrative enforcement of valid patent rights. The Patent Review Board, once affiliated with SIPO until 2003, is now a legally, but not politically, independent organization responsible for the re-examination and invalidation of patent rights.⁸³³

⁸³⁰ Kenneth G. Lieberthal, 'Introduction: The 'Fragmented Authoritarianism' Model and Its Limitations' in Kenneth G. Lieberthal and David M. Lampton (eds), *Bureaucracy, Politics, and Decision Making in Post-Mao China* (University of California Press, 1992) 1-30, 8.

⁸³¹ Ibid.

⁸³² Andrew Mertha, *The Politics of Piracy: Intellectual Property in Contemporary China* (Cornell University Press, 2005), 27.

⁸³³ Ibid 113.

The authorities for other subfields of IPRs are either independent government departments, or are affiliated with independent government departments. SIPO hosts both the patent office and the review board, and comparable to SIPO, under the auspices of SAIC, there are the Trademark Office, responsible for the registration of trademarks and geographical indications, and the Trademark Review and Adjudication Board, responsible for reviewing disputes as to the validation and ownership of trademark rights and geographical indication rights.

The administration and enforcement of copyright, as well as some of the copyright policymaking activities, are the responsibility of the National Copyright Administration (NCA), which is also known as the State Administration of Press, Publication, Radio, Film and Television. The authority for administrative protection and enforcement of plant variety rights is shared by two Science and Technology Development Centers at the Ministry of Agriculture and the State Forestry Administration, which are also named Plant Variety Protection Offices. In addition, the China Internet Network Information Centre is empowered to manage the registration of domain names and relevant disputes as to the validity and ownership of domain names. To reinforce the protection of IPRs at borders, the General Administration of Customs (GAC) is empowered to provide IPR enforcement with respect to imported and exported IPR products.

In some national actions against IPR infringement, more than one IPR authority will be involved. The General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and the China Food and Drug Administration (FDA) may participate in IPR enforcement if the infringing products pertain to substandard quality, food and medicines. Public Security personnel may also be involved if the infringing activities are suspected to connect with crimes. For example, the annual IPR enforcement initiative launched by the State Council, named the *'Special Action to Combat Infringement of Intellectual Property and the Production and Selling of Counterfeit and Substandard Commodities'*, has engaged 29 government departments, including all the authorities mentioned above, in taking actions to

prevent and crack down on illegal activities that infringe IPRs and harm public health.⁸³⁴

2 *Fragmentation of IPR Authorities*

The fragmentation is first reflected in the structure of IPR authorities at the national level. While SIPO is the national IPR authority with the mandate to co-ordinate IPR enforcement nationwide, all the other IPR authorities at the national level have the same ranking with SIPO, or even higher. All of them are directly under the State Council, except the Ministry of Agriculture, which is one of the constituent organizations of the State Council but still reports to the State Council. Therefore, SIPO has no stronger political power than other IPR authorities.

As a result, it is not surprising that SIPO cannot effectively co-ordinate enforcement activities among all these parallel authorities. As Andrew Mertha puts it, SIPO is ‘an organization largely adrift and often disconnected from the actual institutional and political arena in which non-patent-related IPR protection and enforcement in China takes place.’⁸³⁵ In fact, SIPO has gradually become a patent-specific organization. Since the predecessor of SIPO was the China Patent Bureau founded in 1980, the fact that SIPO was focusing specifically on patent likened SIPO to ‘the Patent Bureau with a different name’.⁸³⁶ Hence, it eventually relies on the State Council to establish effective collaboration mechanisms of IPR enforcement nationwide.

At the local level, the fragmentation of IPR authorities is more pronounced. SAIC adopts a vertical administration system, which goes through down to the county level. Local AICs are set up in China’s twenty-three provinces, five autonomous regions, the four municipalities under the central government – including Beijing,

⁸³⁴ See State Council, 国务院办公厅关于成立全国打击侵犯知识产权和制售假冒伪劣商品专项行动领导小组的通知 [The Publishing Notice of the State Council Office about Establishing the Leading Team for the Special Action of Combatting Infringement of Intellectual Property Rights and Manufacture and Sale of Counterfeit and Substandard Products] (26 October 2010) Central People’s Government of People’s Republic of China <http://www.gov.cn/zwggk/2010-11/05/content_1739082.htm>.

⁸³⁵ Andrew Mertha, above n 832, 28.

⁸³⁶ Ibid 113.

Chongqing, Shanghai, and Tianjin – and at the municipal, prefecture, county and rural levels.⁸³⁷ Local AICs report to the local government at the same level, and to the AICs one level higher. The same is true for the Customs and for the quality and food supervision authority AQSIQ and FDA, with local divisions responsible for local IPR enforcement, and reporting to local government at the same level, and to the respective authorities at one level higher. Under the patent and copyright systems, local IPOs and copyright offices are limited at provincial level. Local patent offices at the county level, if any, are usually affiliated with the local government as part of the science and technology department.⁸³⁸

Given this functional and geographical fragmentation of IPR authorities, it can be imagined that the co-ordination among and across different systems and levels of authorities will be a complicated process and will directly affect the efficiency of the administrative enforcement of IPRs. As Martin Dimitrov shows in his study on IPR enforcement in China, partly because of the fragmentation of authorities responsible for copyright and trademark enforcement, the extremely high volume of required enforcement for copyright and trademark violations is unfortunately of a low quality.⁸³⁹

Of course, fragmentation of IPR authorities is not the only reason for ineffective IPR enforcement in China. A deeper reason is, as Daniel Chow argues, the lack of political will on the part of the Chinese government to enforce IPR laws.⁸⁴⁰ And this

⁸³⁷ Loke Khoo Tan, *Pirates in the Middle Kingdom: The Art of Trademark War* (Sweet and Maxwell Asia, 2004), 56.

⁸³⁸ To penetrate into local levels, SIPO has select cities as pilot and trial places where it sets up intellectual property administration departments. So far there have been 41 pilot cities and 186 trial cities. Most of them, however, are municipal or prefecture cities. Only two of all pilot cities and less than a half of trial cities are at the county level. See 陈建明 [Chen Jianming], *Pilot Cities: Intellectual Property Regional Promotes Economic Development* [示范城市:用知识产权推动区域经济发展] (23 November 2013) State Intellectual Property Office <http://www.sipo.gov.cn/mtjj/2013/201311/t20131122_882937.html>.

⁸³⁹ Martin Dimitrov, *Piracy and the State: The Politics of Intellectual Property Rights in China* (Cambridge University Press, 2010).

⁸⁴⁰ Daniel C.K. Chow, 'Why China Does Not Take Commercial Piracy Seriously' (2006) 32 *Ohio Northern University Law Review* 203, 213.

lack of political will is decided by the IPR importer status and the development level of Chinese innovative capacity, which will be discussed in the next section.

F *Intellectual Property and Development in China*

As discussed before, intellectual property is not a notion indigenous to the Chinese. Therefore in the early days there was considerable doubt and uncertainty as to whether IPR protection could really promote China's development. The analysis in this section will suggest that China remains a developing country with insufficient innovative capacity, and therefore will still rely on imitation and learning for quite a long time in order to gradually acquire the capability to produce independent innovation. It also points out that China has developed and will continue to develop its intellectual property laws under a development-oriented approach, despite the confrontation with developed countries.

1 *Insufficient Innovative Capacity*

Notwithstanding its rapid economic growth, China remains an imitative economy with insufficient innovative capacity, and a large importer of foreign intellectual property. Statistics show that at present 71 per cent of large and medium-sized enterprises in China have never set up research and development departments, and two in three of them never conduct research and development activities.⁸⁴¹ Only 0.03 per cent of Chinese firms own independent intellectual property; 99 per cent of them never apply for a patent; firms with registered trademarks account for 40 per cent; and more importantly, about 80 per cent of key technologies and equipment being used by Chinese firms still rely on importation.⁸⁴² Even with imported technologies, however, Chinese firms are unable to successfully assimilate

⁸⁴¹ 王义高, 欧阳京 [Wang Yigang and Ouyang Jing], '山寨,还是被山寨——中国技术创新路径之探 [Shanzhai or Be Shanzhai-ed: Exploring the Road for Technological Innovation in China]' (2010) 12 *中国发明与专利* [China Invention and Patent] 61, 62.

⁸⁴² Specifically, 80 per cent of engineering and mechanical technologies, 70 per cent of CNC machine tools, integrated circuit chips-manufacturing equipment, 60 to 90 per cent of communication, semiconductor, pharmaceutical and IT technologies, and 100 per cent of optics cable manufacturing equipment rely on importation. See *ibid* 63.

and improve on them, partly because technological infrastructure is not capable to support doing so, which leads to more reliance on importation.⁸⁴³

Professor Luis Suarez-Villa points out that patent statistics are a reliable indicator of a country's inventive performance.⁸⁴⁴ The following discussion will analyze China's innovative capacity using the statistics on patent applications and grants in China from the year 1985 to 2013. This data originates from the State Intellectual Property Office (SIPO) of China and indicates variables such as the ownership and distribution of patent applications and valid patents (or patents in force) across the country. Although patent statistics are not the only indicator of a country's innovative capacity, which covers economic, educational and entrepreneurial variables as discussed in Chapter II, they are among the most reliable and the most easily available data.

Although the number of invention patent applications in China rose to 526 000 in 2011, ranking it first in the world,⁸⁴⁵ the majority of them are from foreign firms or their subsidiaries in China. The number of domestic patents for invention that remain in force never exceeded the number of valid foreign patents until the year 2011.⁸⁴⁶ However, despite that China receives a large volume of patent applications every year, the quality of the patents obtained by Chinese residents are not as good as the numbers suggest. As discussed before, invention patents are awarded to only those technologies that involve substantial inventiveness or improvement upon prior arts and absolute novelty, which represents a high quality of innovation and is an indicator of a country's innovation capabilities. In contrast, utility model and design patents indicate less inventiveness and incremental improvement on existing

⁸⁴³ Ibid 62.

⁸⁴⁴ See generally Luis Suarez-Villa, 'Invention, Inventive Learning, and Innovative Capacity' (1990) 35(4) *Behavioral Science* 290. Luis Suarez-Villa, 'The Dynamics of Regional Invention and Innovation: Innovative Capacity and Regional Change in the Twentieth Century' (1993) 25(2) *Geographical Analysis* 147.

⁸⁴⁵ 国家知识产权局规划发展司 [Planning and Development Office at State Intellectual Property Office], '专利统计简报 [Bulletin of Patent Statistics]' (Bulletin No [2012]19, 国家知识产权局 [State Intellectual Property Office], 23 October 2012) 4 <http://www.sipo.gov.cn/ghfzs/zltjjb/201210/t20121031_766389.html>.

⁸⁴⁶ State Intellectual Property Office, 'Annual Report 2011' (Annual Reports, 31 July 2012) <<http://english.sipo.gov.cn/laws/annualreports/2011/>>.

technologies. The statistics show clearly that for every year, domestic applications are mainly applications for utility model and design patents.

Chart 1 compares the percentage of invention patent applications out of all applications for three types of patents in China, and the percentage of invention patent grants out of all patent grants from 1985 to 2011 between foreign and domestic firms and individuals. As it shows, foreign applications for invention patent account for more than 80 per cent of the total applications since the beginning of China's patent system in 1985. The grants of invention patents to foreigners, although extremely low in the first five years, have increased dramatically and stay as high as about 70 to 80 per cent of all patent grants to foreigners since 2001.

On the contrary, only about 20 per cent of all domestic applications are for invention patents; and the percentage of patent grants for invention stays more or less at just 10 per cent, a percentage that seems particularly low compared to the foreign counterpart, though with a slight increase in recent years. That means, at least 80 per cent of domestic patents are for utility models and designs, which require less inventiveness and thus represent comparatively low levels of domestic innovative capacity in China.

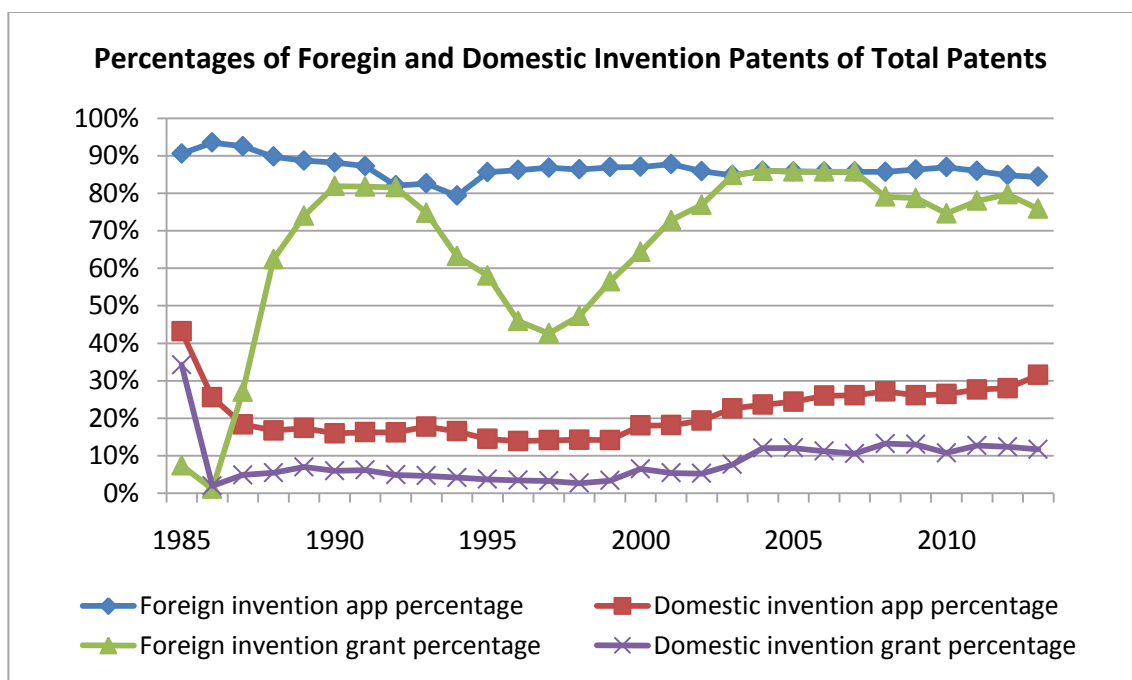


Chart 1, Comparison of Foreign and Domestic Invention Patents Percentage in China (1985-2013)⁸⁴⁷

Moreover, the ratio of patent grants out of applications can be another indicator of the quality of innovations, as low quality of innovation applications will be rejected during the patent examination process. Among the small number of patent applications for invention lodged by Chinese nationals, only about 20 per cent of them are eventually approved and a patent granted. As Chart 2 shows, foreign patent applications generally have more chance of obtaining a patent than their domestic counterparts.

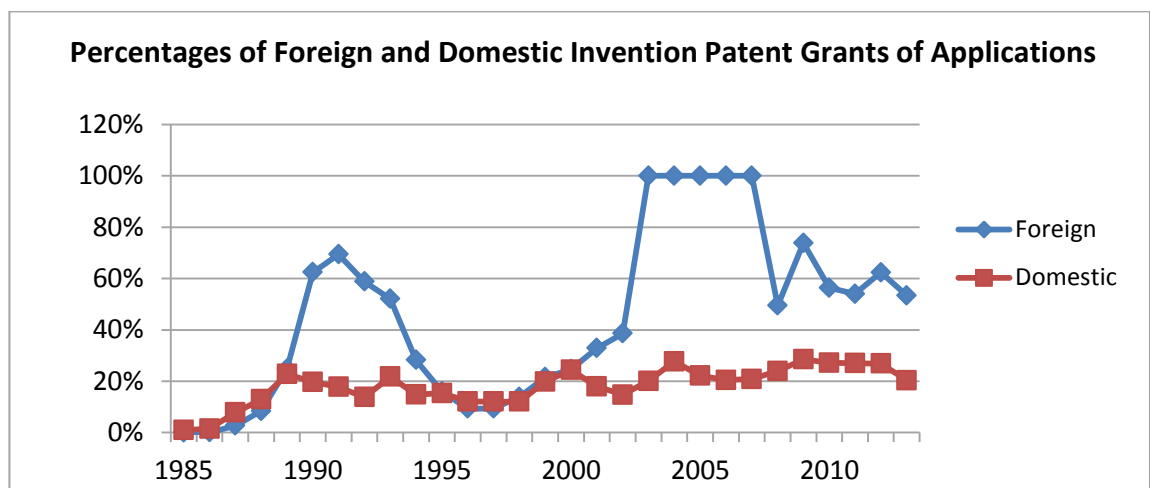


Chart 2, Comparison of Foreign and Domestic Invention Patent Grants in China (1985-2013)⁸⁴⁸

⁸⁴⁷ This chart was created by the author. The percentage of applications for invention patents is calculated by dividing the number of invention patent applications by the total of applications for all three types of patents in China in each respective year. Likewise, the percentage of patent grants for invention comes from the number of invention patent grants divided by the total number of patent grants for all three types of patents in each respective year. These calculations are based on data on the number of domestic and foreign patent applications and grants in China (Appendices A-D), collected from State Intellectual Property Office of China, 'Annual Report of Patent Statistics' (1985-2013) <<http://www.sipo.gov.cn/tjxx/>>.

⁸⁴⁸ This chart is created by the author. The percentage of invention patent grants is calculated by dividing the number of invention patent grants by the number of patent applications for invention in the same year. The calculation uses data on the number of invention patent grants and the number of invention patent applications from both China and abroad in the period from 1985 to 2013 (Appendices A-D), collected from State

Moreover, after patents are granted, the extent to which patents are exploited and commercialized also reflects the quality of an innovation. Unfortunately, a very small percentage of Chinese domestic innovations will be eventually exploited. According to a chief researcher from the Chinese Academy of Science and Technology, only five per cent of all patents received by the Academy have been commercialized, meaning that 95 per cent are not exploited but 'locked in the filing cabinet'.⁸⁴⁹ In contrast, roughly 55 per cent the European patents are found being used internally by the applicant and 13.38 per cent licensed out.⁸⁵⁰ Scholars contend that lack of human capital and financial input, insufficient basic technologies, and inadequate information about markets may account for this low ratio of exploitation and commercialization of patents.⁸⁵¹

From this evidence it can be seen that the overall innovative capability of Chinese domestic industries does not compare well with foreign innovators. With such a large foreign ownership of invention patents, Constantine Vaitsos argues that patents are used as a vehicle for achieving monopoly privileges which militate against conditions conducive to foreign investment, hinder the flow of technology to developing countries, and restrict their technological advance through imitation and adaptation.⁸⁵² While this argument may not be applying in every developing country, in the case of China it is still too early to say that IPR protection in China benefits domestic industries more than foreigners. If the purpose of IPR protection in China is to promote economic growth and technological development, as Xiang

Intellectual Property Office of China, 'Annual Report of Patent Statistics' (1985-2013) <<http://www.sipo.gov.cn/tjxx/>>. It has to be admitted that this number does not account for the delay between patent application and grant in China, which varies from half a year to two years depending on individual cases.

⁸⁴⁹ 王义高, 欧阳京 [Wang Yigang and Ouyang Jing], '山寨, 还是被山寨——中国技术创新路径之探[Shanzhai or Be Shanzhai-ed: Exploring the Road for Technological Innovation in China]' (2010) 12 *中国发明与专利* [China Invention and Patent] 61, 64.

⁸⁵⁰ Alfonso Gambardella, Paola Giuri and Myriam Mariani, 'The Value of European Patents: Evidence from A Survey of European Inventors' (Final Report The PatVal EU Project, January 2005) 39 <http://ec.europa.eu/invest-in-research/pdf/download_en/patval_mainreportandannexes.pdf>.

⁸⁵¹ See 王义高, 欧阳京 [Wang Yigang and Ouyang Jing], above n 849, 64.

⁸⁵² Constantine Vaitsos, 'Patents Revisited: Their Functions in Developing Countries' (1972) 9(1) *Journal of Development Studies* 71, 73.

Feng claims, this is achieved probably because intellectual property laws have not been so effectively enforced, and infringement in the form of unauthorized imitation and copying is pervasive.⁸⁵³

2 *Development Inequality*

Another factor that affects the development level of China is inequality. With the wave of economic development policies which were implemented in many non-Western countries since the 1950s, China abandoned the egalitarian policies advanced by Mao Zedong, the first generation of the Communist Party's leadership, and replaced it with Deng Xiaoping's development approach that 'allowed some people to get rich first' in the late 1970s.⁸⁵⁴ The new model of development policy, guided by the 'trickle down' theory, was committed to implementing 'whatever policies and institutional changes were necessary to stimulate productivity and economic growth in a labour-intensive, export-promoting, market-driven development process, even if by doing so inequalities increased.'⁸⁵⁵

As discussed in Chapter II, the development process has been accompanied by a widening gap between the rich and the poor, especially under the economic growth-oriented approach to development. China is a typical example of rapid economic growth and widened developmental inequality.

Developmental inequality in China is clearly reflected in its growing unequal income distribution. Available evidence indicates that by 2007 the ratio of the average household income of urbanites (not including migrants from rural areas) to rural

⁸⁵³ Xiang Feng, 'The End of Intellectual Property: Challenges beyond the "China Model"' (2012) 2(1) *International Critical Thought* 99, 104.

⁸⁵⁴ Xiaoping Deng, Chairman of the China Central Military Committee from 1983 to 1989, first mentioned this policy on 23 October 1985 at the meeting with the US entrepreneur delegation, and reiterated the position the next year when meeting the Prime Minister of New Zealand on 28 March 1986. Deng believed that the goal of common prosperity will be eventually realized by letting some people get rich first. See 中国共产党新闻 [News of the Communist Party of China], 邓小平: 让一部分人先富起来 [Xiaoping Deng: Let Some People Get Rich First] 人民网 [The People] <<http://cpc.people.com.cn/GB/34136/2569304.html>>.

⁸⁵⁵ Martin K. Whyte, 'China's Post-Socialist Inequality' (2012) 111(746) *Current History* 229, 231.

households widened to about 4:1, among the most extreme on earth, and comparable to nations such as Zimbabwe and South Africa.⁸⁵⁶ In fact, the real rural-urban income disparity is more appalling if some hidden income is included in calculations. In the empirical research on 'grey income' in China, Xiaolu Wang points out that because more than a half of the CNY 9.3 trillion grey income goes into the hands of urban households, the average per capita income of the highest earning top 10 per cent of families in 2008 was 65 times more than that of the lowest earning bottom 10 per cent of families, in contrast to 23 times in the official data.⁸⁵⁷ In 2010, China's Gini-coefficient⁸⁵⁸, a measurement of the distribution of income or consumption expenditure, reached an astonishingly high level of 0.61.⁸⁵⁹ A recent report conducted by China Family Panel Studies (CFPS) reveals that in 2012 the five per cent of families earning the lowest income accounted for only 0.1 per cent of the total household income of all families, while the number for the five per cent of families with highest income was 23.4 per cent, a difference of 234 times more than the former.⁸⁶⁰

Moreover, inequality in technological development can be illustrated by the disparity of patent propensity across regions. The number of valid patents is a primary indicator of technological and innovative capacity. An analysis of the data on the number of valid patents by the year 2013 (Chart 3) shows that a significant disparity in innovative capacity exists between eastern and western regions of China. The five provinces and municipalities with the largest number of patents in force, including Jiangsu, Guangdong, Zhejiang, Beijing, and Shandong, are all located

⁸⁵⁶ Ibid 232.

⁸⁵⁷ Xiaolu Wang, 'Analysing Chinese Grey Income' (Equity Research Report, Credit Suisse, 6 August 2010) <http://www.institutionalinvestorchina.com/arfy/uploads/soft/100925/1_1732139941.pdf>.

⁸⁵⁸ According to the World Bank, the Gini coefficient, or Gini index, ranges from 0 to 1, with a Gini coefficient of 0 representing perfect equality while a coefficient of 1 implying perfect inequality. It is commonly believed that a coefficient of 0.40 is a warning level of inequality.

⁸⁵⁹ Shen Hu, *China's Gini Index at 0.61, University Report Says* CaixinOnline <<http://english.caixin.com/2012-12-10/100470648.html>>. See also Damian Tobin, *Inequality in China: Rural poverty persists as urban wealth balloons* (29 June 2011) BBC News Business <<http://www.bbc.co.uk/news/business-13945072>>.

⁸⁶⁰ 谢宇 [Xie Yu] et al, *中国民生发展报告 2013 [China Family Panel Studies 2013]* (北京大学出版社 [Peking University Press], 2013), 41.

in the eastern and southern coastal areas, while the bottom five provinces are in the western and remote areas. In particular, as of 2013 the number of invention patents in force in Tibet and Xinjiang are a little more than 100, over a thousand times lower than the same number in all five eastern provinces. Such a significant east-west disparity implies that stringent IPR protection (and imitation-restricting policy) that works well in stimulating innovations in the east, is very likely to hinder the development of fundamental innovative capacity in the west.

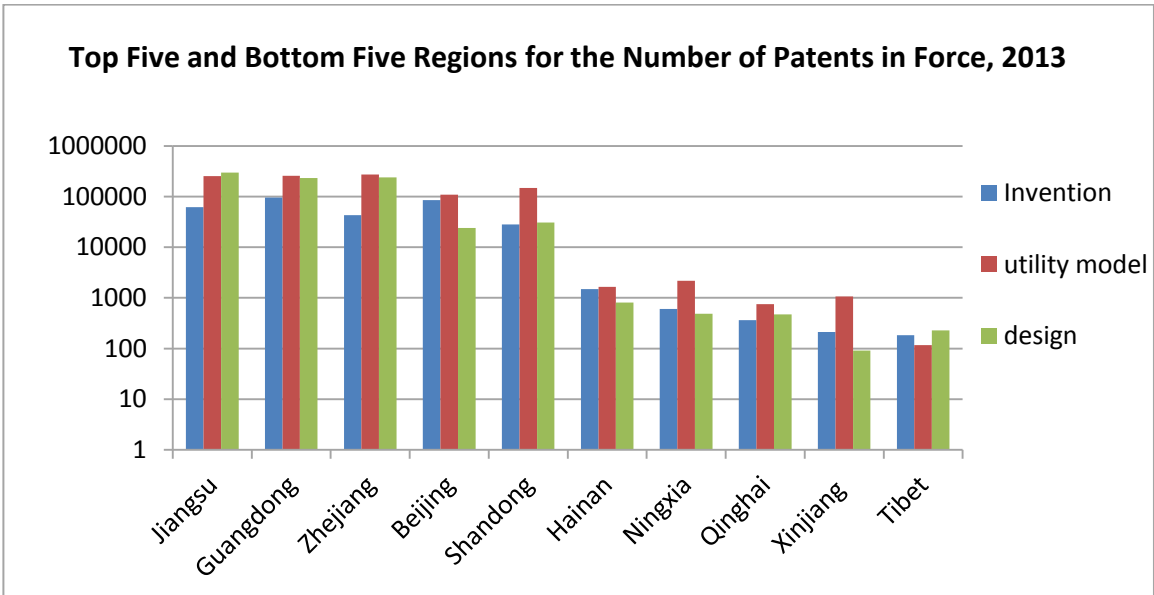


Chart 3, China's Top Five and Bottom Five Regions for the Number of Patents in Force in 2013⁸⁶¹

In addition, developmental inequality exists across economic sectors. According to a report of the SIPO, while Chinese patents account for a comparative dominance of more than 50 per cent in 29 out of 35 technological fields as categorized by the WIPO, China remains well behind other countries in the fields of optics, transportation, video technology, pharmaceuticals, semiconductors, and engines.⁸⁶²

⁸⁶¹ This chart was created by the author. This analysis compares the number of domestic patents of all three types that are in force as of 2013 originating from ten provinces of China, five with the highest total number of patents in force and five with lowest number, based on data in Appendix E, collected from the State Intellectual Property Office of China, 'Annual Report of Patent Statistics' (1985-2013) <<http://www.sipo.gov.cn/tjxx/>>.

⁸⁶² 国家知识产权局规划发展司 [Planning and Development Office at State Intellectual Property Office], '专利统计简报 [Bulletin of Patent Statistics]' (Bulletin No [2012]19, 国家

In recognition of the uneven development across sectors in China, Peter Yu notes that 'China is likely to prefer stronger protection of intellectual property rights in entertainment, software, semiconductors, and selected areas of biotechnology to increased protection in areas concerning pharmaceuticals, chemicals, fertilizers, seeds, and foodstuffs.'⁸⁶³

The divergence in the economic development across regions and industries undermines the social welfare that economic growth and development is supposed to improve. Despite the rapid economic growth and the continuing urbanization of the past three decades, there is still half of the total population (49.5 per cent or 665.33 million people) as of 2011 living in the rural areas,⁸⁶⁴ and 15 per cent still live below the UN poverty threshold of US\$1 a day.⁸⁶⁵ Development inequality has led to millions of rural migrants seeking better opportunities in cities.

According to the China National Statistics Bureau, as of 2011, there were over 252 million rural labour migrants working in non-rural sectors such as manufacturing, construction, and services.⁸⁶⁶ This number has kept increasing since the mid-1980s when the loosening of the household registration policy allowed free, inter-provincial migration. A survey of the new-generation labour migrants shows that the primary motivation for rural labour migration is economic consideration, such as seeking better opportunities and improving the family's financial condition.⁸⁶⁷

知识产权局 [State Intellectual Property Office], 23 October 2012) 4

<http://www.sipo.gov.cn/ghfzs/zltjjb/201210/t20121031_766389.html>.

⁸⁶³ Peter K. Yu, 'International Enclosure, The Regime Complex, and Intellectual Property Schizophrenia' (2007) 2007 *Michigan State Law Review* 1, 25.

⁸⁶⁴ World Bank, 'World dataBank: Development Indicators - Rural Population' (2012) <http://databank.worldbank.org/ddp/home.do?Step=2&id=4&DisplayAggregation=N&SdmxSupported=Y&CNO=2&SET_BRANDING=YES>.

⁸⁶⁵ Andrea Wechsler, 'Spotlight on China: Piracy, Enforcement, and the Balance Dilemma in Intellectual Property Law' (Research Paper Series No 09-04, Max Planck Institute for Intellectual Property, Competition and Tax Law, 6 March 2009) 35 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354487>.

⁸⁶⁶ National Bureau Statistics of China, '2011 年我国农民工调查监测报告 [Survey Report on China's Rural Labour Migrants 2011]' (Report, 27 April 2012) <http://www.stats.gov.cn/tjsj/zxfb/201305/t20130527_12978.html>.

⁸⁶⁷ Xiaochu Hu, *China's Young Rural-to-Urban Migrants: In Search of Fortune, Happiness, and Independence* (January 2012) Migration Policy Institute <<http://www.migrationinformation.org/Feature/display.cfm?id=874>>.

Although these rural migrant workers do much of the work for urban construction, manufacturing, services and so on, they suffer constant discrimination in wages and benefits. Moreover, virtually all of those rural migrants retain their agricultural household and therefore are not entitled to full urban citizenship and the benefits enjoyed by urbanites.

Meanwhile, inequality creates many challenges for effective IPR protection and enforcement. The lack of innovate capacity in the rural regions of China requires knowledge access and diffusion but at substantially low costs. As discussed in Chapter VI, the existence of a large poor population in China means there is huge demand for cheap products and services, which provides incentives for counterfeiting and reduces the political will for IPR protection because it leads to higher prices of products. In their research on China's intellectual property law, Keith Maskus, Sean Dougherty, and Andrew Mertha identify five structural sources of weak IPR enforcement in China, among which income disparity presents the greatest structural problem for long-term legal reform in this respect.⁸⁶⁸

In recognition of the developmental inequality, the UNDP is adopting an inequality-adjusted human development index (IHDI) to measure the development level of its member countries. Accordingly, countries are asked to integrate policies tackling inequality into their development agenda, following a comprehensive plan for maintaining sustainable human development.

3 *The Development Orientation of Chinese IPR Policy*

The reasons for the developmental disparity are manifold and complex. Among others, there is the scarcity of natural and educational resources, a lack of foreign investment, and the inefficiency of technology transfer and assimilation. A report

⁸⁶⁸ The other four sources are limited public awareness of the need to respect intellectual property rights, infringer enterprises being the local employer and taxpayer, low salaries for public officials, and a considerable scarcity of legal and technical expertise for administrative and judicial work. See Keith E. Maskus, Sean M. Dougherty and Andrew Mertha, 'Intellectual Property Rights and Economic Development in China' in Keith E. Maskus and Carsten Fink (eds), *Intellectual Property and Development: Lessons from Recent Economic Research* (World Bank and Oxford University Press, 2005) 295-331.

from the World Bank finds that differences in terms of human capital, access to off-farm employment and labour incomes are factors which have been identified as causing inequality in China, and all of them are attributable in large part to differences in educational attainment.⁸⁶⁹ The importance of education to development and to facilitating the role of IPR protection has been discussed in Chapter IV.

This seems to suggest that improving educational attainment may be an effective solution to narrow down the development inequality and increase the political will for IPR protection. However, improving education not only means increasing investment in educational infrastructure, but also requires increasing the free knowledge base on which the ability to innovate can be built up. It is therefore problematic that strong IPRs lock up new ideas and knowledge and raise the costs of access.

Consequently, from the perspective of the country as a whole, it is understandable that China does not have much enthusiasm to protect and enforce strong IPRs. At the policy level, China concedes to protect foreign IPRs because it believes such protection would bring more technology transfer, which is a prerequisite for assimilation and learning of foreign technologies. However, in practice it is not easy for individual firms to refrain from imitation, given the benefits of imitation for China's development. It has not taken long for China to realize that, although IPR protection raises the costs of imitation, imitation may be more easily promoted through relaxed enforcement of IPR laws.

There are a number of reasons for China not having the political will to protect or enforce strong IPRs. First, there is the direct cost of importing foreign technologies in the form of royalty payments. Without sufficient innovative capacity, China remains a major importer of intellectual property. The annual net payment for use

⁸⁶⁹ World Bank, 'From poor areas to poor people: China's Evolving Poverty Reduction Agenda: An assessment of poverty and inequality in China' (Report, Poverty Reduction and Economic Management Department, East Asia and Pacific Region, March 2009) 160-67 <http://siteresources.worldbank.org/CHINAEXTN/Resources/318949-1239096143906/China_PA_Report_March_2009_eng.pdf>.

of intellectual property approached US\$14 billion as of 2011, which is the largest among the similarly large developing countries, such as Brazil and India with US2.7 billion and US2.5 billion in payments respectively.⁸⁷⁰

Second, it takes time for Chinese firms to assimilate and internalize imported foreign technologies and transform them into domestic innovative capacity. Despite the increase in foreign investment and technology transfer, China still does not have the sufficient innovative capacity to benefit from strong IPR protection. As discussed earlier, the quality of those patent applications and the quality of the patents granted to domestic residents are quite low compared to foreign-owned patents. In addition, many patents granted to Chinese firms and individuals fail to be exploited and commercialized into marketable products, because of the low quality and the lack of applicability; rather they are maintained or abandoned shortly after they are granted.⁸⁷¹

Third, the pursuit of economic growth through strong IPR protection and enforcement imposes social costs, such as loss of consumer welfare due to the high prices of IPR products, unemployment because of a crack down of infringing businesses, distributional inequality resulted from policies purely focused on economic growth, and environmental pollution that may be caused by blind construction of plants and factories and discharge of exhaust and waste at the expense of destroying forests and rivers. The costs of strong IPR protection on developing economies have been discussed in detail in Chapters 3 and 4.

For these reasons, over-strong IPR protection and enforcement is more likely to bring greater costs than benefits for China. If changes in the standards of IPR enforcement in China are to come at all, as it is argued, they are most likely to come

⁸⁷⁰ World Bank, *Charges for the Use of Intellectual Property (Payments)* World Bank <http://data.worldbank.org/indicator/BM.GSR.ROYL.CD/countries?order=wbapi_data_value_2011+wbapi_data_value+wbapi_data_value-last&sort=desc>.

⁸⁷¹ Yahong Li, *Imitation to Innovation in China: The Role of Patent in Biotechnology and Pharmaceutical Industries* (Edward Elgar, 2010), 5.

from within China when the development situation improves.⁸⁷² For the time being, this thesis suggests that a better choice would be a development-oriented IPR policy that balances the protection of innovation against the encouragement of imitation, and balances the protection of foreign IPRs against the various development needs of China. In fact, since beginning to adopt IPR protection, China has clearly demonstrated its orientation towards development while simultaneously protecting IPR, as shown earlier in this Chapter.

As discussed earlier, one of the key reasons aside from foreign pressure that China agreed to introduce IPR protection in the first place was because it believed that such protection would bring about favourable treatments in international trade and, at a secondary level, increase foreign investment and technology transfer so that the Chinese firms could get access to, imitate and learn from foreign technologies. In other words, China hoped that foreign direct investment and technology transfer would increase the domestic stock of knowledge, a base for learning, imitation and assimilation by domestic firms. Hence, imitation would be the intermediary that realizes the benefits of IPR protection in China – enhancing innovative capacity and promoting economic and technological development of China.

In February 2006, the State Council issued the *Outline of the National Plan for Medium- and Long-term Development of Science and Technology* from 2006 to 2020, which expressly encourages adaptation and localization of imported foreign technologies.⁸⁷³ For the same purpose, it also provided supporting policies concerning subsidy, tax reduction, commercial loans, government procurement, human resources and education.⁸⁷⁴ In addition, it is compulsory for firms who

⁸⁷² Leroy J. Pelicci Jr., 'China and the Anti-Counterfeiting Trade Agreement - ACTA Faith, or ACT Futility?: An Exposition of Intellectual Property Enforcement in the Age of Shanzhai (山寨)' (2012) 1(1) *Penn State Journal of Law and International Affairs* 121, 152.

⁸⁷³ See State Council, 《国家中长期科学和技术发展规划纲要（2006—2020 年）》 [*Outline of the National Plan for Medium- and Long-Term Development of Science and Technology (2006/2020)*] (9 February 2006) Central People's Government of People's Republic of China <http://www.gov.cn/jrzq/2006-02/09/content_183787.htm>.

⁸⁷⁴ State Council, 实施《国家中长期科学和技术发展规划纲要（2006—2020 年）》的若干配套政策 [*The Complementary Policies to Implement the Outline of the National Plan for Medium- and Long-Term Development of Science and Technology (2006/2020)*] (7 February

import foreign equipment in key areas of technology to make up a plan for 'importation, digestion, assimilation, and re-innovation' and have it approved by competent authorities.⁸⁷⁵ In the case of importing significant key equipment, the importing firms must invite manufacturing firms, universities and research institutes to join the research and development process for independent innovation, based on the digestion and assimilation of relevant foreign technologies.⁸⁷⁶ Meanwhile, there are restrictions on importing key technologies that domestic firms are capable of developing, and it is prohibited to import obsolete equipment or technologies, or those which may lead to severe environmental pollution.⁸⁷⁷

G Conclusion

Stronger IPR protection does not always generate better economic and social outcomes. While it is difficult to decide the optimal form of IPR protection, it can be argued that the standards of such protection should adapt to the development level of a country. The discussion in this chapter indicates an imbalance between IPR protection standards and development level. China has adopted high standards of IPR protection under international pressure. But China remains an importer of foreign technologies and other forms of knowledge, and does not have the sufficient innovative capacity to benefit from strong IPR protection. Since imitation remains a critical element in promoting China's development, it is not surprising that China does not have a strong will to enforce strong IPR laws effectively. The fragmented structure of IPR authorities may account for the low quality of IPR enforcement in China. But a deeper reason is that a low level of development determines the need for imitation.

Given insufficient innovative capacity and the need for imitation to build up this capacity, China has little incentive to prohibit imitation in a way that developed countries may advocate. Developed countries have consistently forced China to

2006) Central People's Government of People's Republic of China
 <<http://www.most.gov.cn/kjzc/gjkjzc/gjkjzczh/201308/P020130823574945461062.pdf>>.

⁸⁷⁵ Ibid.

⁸⁷⁶ Ibid.

⁸⁷⁷ Ibid.

further increase the standards of IPR protection and enforcement. The external pressure may generate short-term positive results, but in the long run it will only prove to be ineffective. The real motivation for improving the standards of IPR protection can only come from within the country.

As a developing country, China still relies substantially on imitation and learning from foreign technologies and knowledge to improve its technological and entrepreneurial capabilities. The enhancement of these capabilities will mean an increase in independent innovation in domestic society and will eventually enable China to benefit from strong IPR protection. The next chapter begins to look at how these principles might apply in the specific context of counterfeit goods.

VIII COUNTERFEITING IN THE CHINESE CONTEXT

A Introduction

As discussed in Chapter V, the term counterfeiting has been defined in different ways by different authorities, and thus the general meaning of counterfeiting is distinguished from the TRIPs definition. The general meaning of counterfeiting is the meaning used in criminal law, which refers to the counterfeiting or forgery of currency, banknotes, signatures and other items issued by the state. Under the US criminal law, however, counterfeiting also applies to the trafficking of goods bearing identical trademarks without authorization. By contrast, the TRIPs definition of counterfeiting refers to the unauthorized use of identical trademarks on the same goods, which does not inevitably lead to criminal penalties. Nevertheless, under the TRIPs definition, trademark counterfeiting also involves product imitation that may or may not infringe other IPRs. Chapter VI re-evaluated the impact of counterfeiting as a form of imitation, and suggested that counterfeiting can have significant positive effects on developing economies.

This chapter explores the definition and regulation of counterfeiting in the Chinese context, and demonstrates how imitation benefits the Chinese economy. It has to be noted at the outset that, due to language differences, there is not an exactly equivalent Chinese term to counterfeiting. However, there are equivalent Chinese terms to the relevant terms used to explain counterfeiting, such as imitation, fake and forging. Section B will conduct a linguistic analysis based on a comparison of those Chinese and English terms relevant to counterfeiting.⁸⁷⁸ This provides the foundation for the doctrinal analysis in Section C, which will examine the use of those relevant terms in Chinese intellectual property laws, including trademark laws, patent laws, copyright laws and new plant variety laws.

⁸⁷⁸ Note: Chinese characters have been used to show subtle differences between the English and Chinese understandings of the key terms counterfeit, imitate, forge and copy. For a summary of these terms, see Appendix F: A table of explanations of Chinese terms used in this thesis.

Section C will suggest that the Chinese IPR laws use two terms as related to counterfeiting. One is 假冒 (jiamao), which literally means passing off a fake as genuine, but is defined as an umbrella concept that generally includes three subtypes of activities that may infringe any type of IPRs. The other is 伪造 (weizao), which has the same meaning as forging and represents one subtype of 假冒. To be specific, it means forging the representations of certain IPRs, including IPR certificates, application documents, authorisation number of the grant or other documentation or marks that indicate the existence or ownership of an IPR, or selling such forged representations. Another subtype of 假冒 is the false representation that a valid IPR exists when it actually does not, and the related act of selling goods bearing such forged or false representations. The third subtype of 假冒 is the unauthorized use of identical trademarks on the same goods, which is the same as the TRIPs definition of trademark counterfeiting.

Compared to the meaning of counterfeiting as mentioned before, it seems that Chinese IPR laws define 假冒 as including not only the general meaning of counterfeiting, but also incorporating the TRIPs definition. Nevertheless, the chapter finds that 假冒 does not include the meaning of copyright piracy as defined by the TRIPs agreement, and that Chinese copyright laws do not use the term 'piracy' ('盗版') in formal legislation, although the term is sometimes used in administrative actions against copyright infringement.

Section D summarizes the Chinese approach to counterfeiting and contends that this approach has an emphasis on the protection of state and public interests. The umbrella concept 假冒 not only includes trademark counterfeiting under the TRIPs definition, but two types of 假冒 are comprised of forging IPR representations and the false representation of the existence of IPRs. While the prohibition on unauthorized use of identical trademarks on the same goods represents protection against infringement of trademark rights, the forging of IPR representations and false representation of IPRs are punished because they cause consumer deception and undermine the state authority in granting IPRs. The prohibition of these two types of activities is intended to protect the state and public interests.

Section E proceeds to examine the positive effects of counterfeiting and imitation on the Chinese economy by exploring the widespread phenomenon of 山寨 (shanzhai) across China. 山寨, which literally means ‘bandit stronghold in mountains’, is a term used to mean product imitation and copying in the Chinese context, which may or may not amount to IPR infringement. Consistent with the discussion in Chapters IV and VI, this chapter finds that product imitation and copying are benefiting China by increasing consumer welfare, supporting local economies and facilitating the development of the innovative capacity of Chinese firms.

In conclusion, this chapter argues that the Chinese approach to counterfeiting implies the support of certain activities involving imitation that is conducive to building up innovative capacity, and may facilitate China’s development objectives. Based on the recognition of the benefits of imitation, Chinese IPR laws are likely to leave as much space as possible for imitation, while at the same time adhering to the TRIPs agreement and other international obligations. This also suggests that the incentive for strict enforcement of IPRs will only come from within China itself when the country has acquired sufficient innovative capacity to produce independent innovation.

B *Counterfeiting in Chinese Language*

As noted above, there is no exact equivalent Chinese term for the English word counterfeiting. Nevertheless, a few relevant terms have a similar meaning with those used to explain counterfeiting, such as imitation, fake and forge. In this section, a comparative analysis of these terms will show that, in the Chinese language, there are four relevant terms: 模仿 (mofang, which means imitate or imitation); 伪造 (weizao, a verb which means forge); 假冒 (jiamao, which literally means fake as a verb or noun); and 仿冒 (fangmao, which means imitation with the intent to deceive). The latter three terms are especially close in meaning to the term counterfeiting.

1 模仿 *Means Imitation*

The English term imitation has a Chinese counterpart which is 模仿 (mofang). ‘模仿’ as a noun means imitation or emulation; or as a verb means to imitate and simulate. When split, the former character ‘模’ in the phrase literally means a model, an example, while the latter ‘仿’ means to imitate or simulate. In combination, the two-word phrase refers to imitation or the act of imitating or simulating a model. In English, a synonym of imitation is copy, while in Chinese, 复制 (fuzhi), which means to copy or reproduce from the original, is a synonym of 模仿. This denotes that there must be an original if there is a copy or imitation. Hence, the following discussion will use the two terms ‘模仿’ and ‘imitation’ interchangeably, and ‘imitation’ will be used as the English substitute for the Chinese term ‘模仿’ when it is necessary.

Imitation is used in the Chinese context with no indication of whether or not such imitation is lawful or unlawful. It depends on the context within which the term is used to determine whether it has a positive or negative, legal or illegal connotation. For example, at the National Science and Technology Summit in 2006, China admitted to itself that it was an imitation (模仿)-orientated economy and set the goal of advancing into an innovation-oriented country by 2020.⁸⁷⁹ In this case, imitation (模仿) has a positive connotation, referring to imitation that can benefit the economic development and improve the innovative capacity of China. At the same time, imitation (模仿) can be an infringement or violation of the law, for example, fraudulent imitation of currency with the intent to deceive or defraud.

2 伪造 *Means Forge*

Forge, which means to produce a fraudulent copy or imitation, corresponds to the term 伪造 (weizao) in the Chinese language. The phrase ‘伪造’ contains two

⁸⁷⁹ State Council, 《国家中长期科学和技术发展规划纲要（2006—2020年）》 [Outline of the National Plan for Medium- and Long-Term Development of Science and Technology (2006/2020)] (9 February 2006) Central People's Government of People's Republic of China <http://www.gov.cn/jrzq/2006-02/09/content_183787.htm>.

characters: ‘伪’ means to pretend or describes something that is not genuine, while ‘造’ means to produce, make, or create (something). In combination, ‘伪造’ has the same meaning as forge – to produce something that is fake, not genuine and pretend to be something else.

In English, the word ‘forge’ is a synonym of ‘counterfeit’ in the general sense, which means fraudulent imitation with the intent to deceive, defraud, or pass off as original. The two terms can be used to describe the fraudulent imitation of a wide range of subjects, including currency, financial instruments, and documents, among other things, which is punishable in criminal law.

Just as in English law the words forging or counterfeiting are also criminal law terms, the term ‘伪造’ in Chinese *Criminal Law 2011* is used in the same way to mean the forging of identification cards, currency, merchandise, financial instruments, credit cards, government documents and seals, and so forth that constitutes criminal offences.⁸⁸⁰ As will be discussed in the next section, the term is also used to refer to one type of violation of intellectual property law in China – forging IPR representations. To avoid confusion with the TRIPs definition of trademark counterfeiting, the following discussion will use ‘forge’ or ‘forging’ when it refers to ‘伪造’, especially when it comes to the translation of the term in Chinese IPR laws.

3 假冒 Means Passing off Fake as Genuine

Another relevant Chinese term is ‘假冒’ (jiamao), which literally means passing off a fake as genuine. This term is comprised of two Chinese characters. The former character ‘假’ means fake, an adjective referring to something that is not what it is claimed to be; the latter ‘冒’ means pass off as something else. As a phrase, ‘假冒’ has a meaning similar to ‘fake’ – claiming something to be what it is not.

⁸⁸⁰ See, e.g., 《中华人民共和国刑法》 [Criminal Law of the People's Republic of China] 2011 (National People's Congress, People's Republic of China) art 151, 174, 177, 196, 280.

As discussed in Chapter V, the determination of whether a product is genuine or fake depends on what it is claimed to be. In a legal sense, if a product is claimed to be produced by a certain manufacturer authorized by the owner of a registered trademark, for example by using the trademark on the packaging of the product, then it will be fake or 假冒 if the product is actually produced by unauthorized manufacturers.

Since the term fake has a meaning similar to counterfeiting in the general sense, then 假冒 can be understood as the Chinese term with the general meaning of counterfeiting. As will be showed in the next section, 假冒 is frequently used in this general sense in Chinese IPR laws, as well as including the TRIPs definition of trademark counterfeiting. Hence, the following discussion will use the Chinese term 假冒 as it is, instead of any English translation, in order to avoid confusion.

Nevertheless, because the published English translations of Chinese IPR laws use ‘假冒’ to mean ‘counterfeit’ on some occasions and ‘forge’ on others, the following discussion will indicate the original Chinese term where such translation is used.

Another term 伪劣 (weilie, which literally means being fake and substandard) is usually used together with 假冒, in the form of ‘假冒伪劣’. For example, the annual initiative on IPR enforcement launched by the State Council is titled <<打击侵犯知识产权和制售假冒伪劣商品专项行动>> [Special Action to Combat Infringement of Intellectual Property and the Production and Selling of ‘假冒伪劣’

Commodities].⁸⁸¹ If a product is 伪劣, it must be fake, not genuine, and at the same time substandard and inferior in quality. The former character of the phrase ‘伪劣’ means fake or forgery, while the latter means inferior, spurious, and sham. Just

⁸⁸¹ The Special Action has engaged 29 government departments to take actions to prevent and crack down on illegal activities that infringe intellectual property rights and harm public health, including SIPO (authority for patent, integrated circuit, and geographical indications, etc.), SAIC (trademark authority), and the Ministry of Agriculture and Forestry (for plant variety). See State Council, 国务院办公厅关于成立全国打击侵犯知识产权和制售假冒伪劣商品专项行动领导小组的通知 [The Publishing Notice of the State Council Office about Establishing the Leading Team for the Special Action of Combating Infringement of Intellectual Property Rights and Manufacture and Sale of Counterfeit and Substandard Products] (26 October 2010) Central People's Government of People's Republic of China <http://www.gov.cn/zwggk/2010-11/05/content_1739082.htm>.

because the two terms appear at the same time does not mean that ‘假冒 products’ must be substandard or of inferior quality which, as discussed in Chapter V, is a separate issue and should not be confused with IPR infringement.

4 *仿冒 Means Passing off Imitation as Original*

Another relevant phrase is ‘仿冒’ (fangmao). The former character ‘仿’, the same one used in ‘模仿’ (mofang, imitation), means the act of imitation and copying, while ‘冒’, the same character used in ‘假冒’ (jiamao, passing off a fake as genuine), means passing off as something else. Since the concept ‘original’ is the contrasting concept to ‘imitation’, this phrase ‘仿冒’ means imitation with the intent to pass off as original.

The subtle difference between 仿冒 (fangmao) and 假冒 (jiamao) is comparable to the distinction between counterfeit and fake. Counterfeit means imitation with the intent to deceive, which literally equates to 仿冒, while fake is equivalent to 假冒. In English, counterfeit is used in the legal context, but fake is a term used only in popular language. By contrast, it is 假冒 (jiamao), not 仿冒 (fangmao), that is used in Chinese laws.

In addition, there is some difference between 仿冒 (fangmao), 假冒 (jiamao) and 伪造 (weizao, forging). Like the term forge, 伪造 can only be used as a verb, which refers to the act of producing a fraudulent copy, whereas the other two terms comprise respectively two independent but connected acts. The phrase 假冒 includes the act of making a fake (the meaning of the former word in the phrase) and the act of passing off as genuine (the meaning of the latter word), while 仿冒 requires imitation (the former word in the phrase) first and then passing off (the meaning of the latter word) as original. To the extent that ‘假’ (fake) can be understood as producing a fraudulent copy or imitation, 伪造 (forging) can be seen as the first independent act of 假冒 (jiamao). This relation will be more evident in the following analysis of the relevant provisions in Chinese IPR laws.

C Counterfeiting in Chinese IPR Laws

This section provides a doctrinal analysis of how counterfeiting is understood in Chinese IPR laws. It is worth repeating that in Chinese language there is no exact equivalent for the English term counterfeit. Instead of looking for a counterpart to the term counterfeiting, this section analyzes the use of the above-mentioned relevant terms in Chinese IPR laws. For this purpose, provisions that refer to those terms related to counterfeiting will be selected for analysis from trademark laws, patent laws, copyright laws and new plant variety laws.

In recognizing the language difference, the following doctrinal analysis finds that only two terms are used in Chinese IPR laws as related to the understanding of counterfeiting (Appendix F). First, the Chinese IPR laws use ‘假冒’ (jiamao), which literally means to pass off a fake as genuine, as a broad concept that covers both the general meaning of counterfeiting and the TRIPs definition of trademark counterfeiting. Meanwhile, the term ‘forging’ (‘伪造’) is also used in Chinese IPR laws to represent one subtype of 假冒.

This analysis requires the English translation of some Chinese laws. For this purpose, this section refers to the WIPO Lex database which publishes most of the Chinese IPR laws in both Chinese and English.⁸⁸² WIPO Lex is an online electronic database established by WIPO in collaboration with WTO and UN.⁸⁸³ In addition to the original national language, the English version of each given text of the main national IPR laws is published, with some of them provided by the member countries and other translations provided by WIPO.⁸⁸⁴

⁸⁸² For the texts of Chinese intellectual property laws in both Chinese and English, see *China (203 texts)*, World Intellectual Property Organization <<http://www.wipo.int/wipolex/en/profile.jsp?code=CN>>.

⁸⁸³ WIPO member states are obliged to notify the International Bureau of WIPO under Article 15(2) of the Paris Convention and Article 24(2) of the Berne Convention, and the TRIPs council under the requirement of Article 63.2 of the TRIPs agreement, of national laws and regulations pertaining to the protection of intellectual property rights. See *About WIPO Lex*, World Intellectual Property Organization <<http://www.wipo.int/wipolex/en/>>.

⁸⁸⁴ Ibid.

Unfortunately, the English translations of some provisions of the Chinese IPR laws use the term ‘counterfeit’ and ‘forge’ so confusingly that relying solely on these translations will lead to a misunderstanding of counterfeiting in Chinese IPR laws. For example, sometimes the two terms ‘伪造’ and ‘假冒’ are both translated into ‘counterfeit’, but at other times the term ‘假冒’ is translated as ‘passing off’ while ‘forge’ is used for ‘伪造’. Hence, the understanding of the two terms should rely on the original Chinese texts rather than their English translations. Therefore, the following analysis refers to the WIPO Lex translation of Chinese laws except in relation to the use of these two terms. For these two terms, the previous linguistic analysis has explained their respective meanings. Since Chinese IPR laws define ‘假冒’ (jiamao) in a completely different manner from the way that counterfeiting is defined in the TRIPs agreement, the following discussion will use the original Chinese characters for ‘假冒’ while using ‘forge’ or ‘forging’ for ‘伪造’.

1 *The Umbrella Concept of 假冒*

As discussed in Chapter V, the general meaning of counterfeiting is different from the TRIPs definition of counterfeiting. Counterfeiting in the general sense means forging or false imitation with the intent to deceive, according to the Oxford Dictionary of English and Black’s Law Dictionary.⁸⁸⁵ Counterfeiting in criminal law refers to the general meaning, which applies to currency, financial instruments, certificates and signatures, among others. In contrast, counterfeiting in intellectual property law refers to unauthorized use of a trademark that is identical with or indistinguishable from a registered trademark on the same goods, as defined in Footnote 14 of Article 51 of the TRIPs agreement. Counterfeiting in intellectual

⁸⁸⁵ According to the Oxford Dictionary of English, the term counterfeit as an adjective means ‘made in exact imitation of something valuable with the intention to deceive or defraud; pretended; sham;’ as a noun, it means ‘a fraudulent imitation of something else;’ and as a verb, it means ‘imitate fraudulently.’ See Angus Stevenson (ed), *Oxford Dictionary of English* (Oxford University Press, 3 ed, 2010), 1892. According to the Black’s Law Dictionary, counterfeit means ‘the unlawful forgery, copying, or imitation of something, ...or the unauthorized possession of such an item, with the intent to deceive or defraud by claiming or passing the item as genuine.’ See Bryan A. Garner (ed), *Black’s Law Dictionary* (Thomson/West, 8 ed, 2004), 376.

property law is associated with imitation of products as well as trademark, and it may or may not be subject to criminal penalties, depending on whether such counterfeiting is willful and on a commercial scale.

As the following discussion will suggest, both the general meaning of counterfeiting and the meaning as provided in the TRIPs agreement are used in Chinese IPR laws. The doctrinal analysis will show that the two terms ‘假冒’ (jiamao) and ‘forging’ (‘伪造’) are frequently used not only in trademark laws but also in other Chinese IPR laws, and that ‘假冒’ is defined as an inclusive concept, under which ‘forging’ (‘伪造’) is one subtype of infringing activities, which means forging the representations of certain IPRs or selling such forged representations. In addition, 假冒 also includes the false representation that an intellectual property right exists when it actually does not, and selling goods bearing such forged or false representations. These two types of 假冒 can be applicable to any type of IPRs. Another subtype of 假冒 refers to the unauthorized use of a trademark that is identical to a registered trademark on the same goods for which the trademark is registered, which is the TRIPs definition of counterfeiting.

Intellectual property rights need a certain mark, sign or signs to indicate the existence and validity of such rights. For example, the letter c in a circle represents the existence of copyright; the initials TM or the letter R in a circle indicates the existence of a registered trademark; the display of a patent number or a copy of a patent certificate on goods or their packaging means that such goods are produced under a patent right. These signs indicating the existence of IPRs are called IPR representations.

In the Chinese context, the representation of any type of IPRs could be the subject of 假冒, in the same sense that currency or stamps can be forged or counterfeited. IPR representations could be copied without authorization, forged, altered, replaced with another, or continue to be used after the expiration of the IPRs in question. Chinese IPR laws define 假冒 to include forging IPR representations and the false representation that some IPRs exist. In this sense, the Chinese term 假冒

may be applicable to any type of IPR. Therefore, the rest of this section will analyze the use of the term in China's main IPR laws, including trademark laws, patent laws, copyright laws and new plant variety laws.

2 假冒 in Trademark Law

The Chinese trademark laws do not explicitly provide a definition of '假冒' (jiamao). But the legal boundaries of 假冒 can be established by analyzing the provisions that use this term. As will be shown, 假冒 in trademark law includes the unauthorized use of identical trademarks on the same goods, and forging trademark representations and selling such forged representations, as well as selling goods bearing a trademark that is produced by forging another's trademark representations or that is identical with, or indistinguishable from, another's registered trademark.

Before China joined the WTO and the TRIPs agreement, the term 假冒 was used differently from the way it is now used in the current trademark laws. To clarify the meaning of 假冒 in trademark laws, it is important to analyse the trademark laws before China's entry to the WTO, and the amendments in 2001 and 2013 relating to the use and the meaning of the term.

(a) Trademark Law in 1993

Before China joined the WTO and the TRIPs agreement in 2001, the *Trademark Law 1993* was in force. Under this law, the term 假冒 (jiamao) was used three times, once in Article 38 and twice in Article 40. Article 38 provided four types of trademark infringement: (1) unauthorized use of identical or similar trademarks on the same or related goods; (2) knowingly selling goods bearing '假冒 trademarks'; (3) forging or making without authorization the representation of another person's registered trademark, or selling the forged or such made representations (hereafter referred to as forging trademark representations or selling such forged trademark representations); and (4) any other act that causes damages to the exclusive right of

a registered trademark.⁸⁸⁶ Article 40 provided for criminal liability for (1) the act of ‘假冒 another’s registered trademark’, (2) forging trademark representations or selling such forged trademark representations, and (3) knowingly selling goods bearing ‘假冒 trademarks’.⁸⁸⁷

While the *Trademark Law of 1993* used the term ‘假冒’ (jiamao), it did not provide a definition of it. It thus depends on the interpretation of these and other relevant

⁸⁸⁶ 《中华人民共和国商标法》 [Trademark Law of People’s Republic China] 1993 (National People’s Congress, People’s Republic of China) art 38, at <<http://www.wipo.int/wipolex/en/details.jsp?id=845>>.

第三十八条 有下列行为之一的，均属侵犯注册商标专用权：

- (1) 未经注册商标所有人的许可，在同一种商品或者类似商品上使用与其注册商标相同或者近似的商标的；
- (2) 销售明知是假冒注册商标的商品的；
- (3) 伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识的；
- (4) 给他人的注册商标专用权造成其他损害的。

Article 38 Any of the following acts shall be an infringement of the exclusive right to use a registered trademark:

- (1) to use a trademark that is identical with or similar to a registered trademark in respect of the same or similar goods without the authorization of the proprietor of the registered trademark;
- (2) to sell goods that he knows bear a counterfeited (假冒) registered trademark;
- (3) to counterfeit (伪造), or to make, without authorization, representations of a registered trademark of another person, or to sell such representations of a registered trademark as were counterfeited (伪造), or made without authorization;
- (4) to cause, in other respects, prejudice to the exclusive right of another person to use a registered trademark.

⁸⁸⁷ 《中华人民共和国商标法》 [Trademark Law of People’s Republic China] 1993 (National People’s Congress, People’s Republic of China) art 40, available at <<http://www.wipo.int/wipolex/en/details.jsp?id=845>>.

第四十条 假冒他人注册商标，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

销售明知是假冒注册商标的商品，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

Article 40: Where any party passes off (假冒) a registered trademark of another person, and the case is so serious as to constitute a crime, he shall be prosecuted, according to law, for his criminal liabilities in addition to his compensation for the damages suffered by the infringer. Where any party counterfeits (伪造), or makes, without authorization, representations of a registered trademark of another person, or sells such representations of a registered trademark as were counterfeited (伪造), or made without authorization, and the case is so serious as to constitute a crime, he shall be prosecuted, according to law, for his criminal liabilities in addition to his compensation for the damages suffered by the infringer. Where any party sells goods that he knows bear a counterfeited (假冒) registered trademark, and the case is so serious as to constitute a crime, he shall be prosecuted, according to law, for his criminal liabilities in addition to his compensation for the damages suffered by the infringer.

provisions to determine what the term means when it is used in ‘假冒 a registered trademark’ and ‘假冒 trademarks’. According to these provisions, the act of knowingly selling goods bearing ‘假冒 trademarks’ and the act of forging trademark representations or selling such forged representations were not only trademark infringements, but also infringements that may lead to criminal penalties. In addition, the act of ‘假冒 another’s registered trademark’, although subject to criminal liabilities, was not listed as a type of trademark infringement. This is either to say that ‘假冒 another’s registered trademark’ refers to the unauthorized use of another’s registered trademark as provided in Article 38 (1), or that ‘假冒 another’s registered trademark’ is not an infringement of the trademark right, but simply a violation of trademark law, in the same sense that forging currency is violating criminal law.

The criminal law provisions concerning 假冒 cast light on the meaning of the term. Article 127 of the *Criminal Law 1979* stipulates that for any enterprise that ‘假冒 another’s registered trademark’ and thereby violates trademark laws, the person who is directly responsible for such enterprise would be subject to criminal liabilities.⁸⁸⁸ To clarify what may constitute ‘假冒 trademarks’ in criminal law, the Standing Committee of the NPC enacted a supplementary regulation in 1993, which stated that

In order to punish and prevent the crime of 假冒 a registered trademark, the following supplementary provisions shall be made and added to the Criminal Law:

Article 1: A person who uses without authorization a trademark that is identical with a registered trademark on the same goods for which the trademark is registered, and who gains a relatively large amount of income from such infringing act, or in other serious circumstances, shall be sentenced to fixed-term imprisonment of no more than three years or criminal detention...

⁸⁸⁸ The original text reads: ‘第一百二十七条 违反商标管理法规，工商企业假冒其他企业已经注册的商标的，对直接责任人员，处三年以下有期徒刑、拘役或者罚金。’ See

A person who knowingly sells goods bearing 假冒 trademarks and who gains a relatively large amount of income from such infringing act, or in other serious circumstances, shall be sentenced to fixed-term imprisonment of no more than three years or criminal detention...

Article 2: A person who forges or produces without authorization the representation of a registered trademark, or sells the forged or such produced trademark representations, and who gains a relatively large amount of income from such infringing act, or in other serious circumstances, shall be punished according to the provision in the first paragraph of Article 1.⁸⁸⁹

The purpose of these supplementary provisions was to explain the act of ‘假冒 a registered trademark’ and specify how the criminal penalties may apply. These provisions concerned not only the unauthorized use of identical trademarks on the same goods, but also the act of forging trademark presentations or selling such forged representations. Thus, it could be inferred that the concept 假冒 included the three infringing acts: (1) ‘假冒 a registered trademark’, which means the unauthorized use of identical trademarks on the same goods; (2) selling goods bearing ‘假冒 trademarks’; and (3) forging trademark representations or selling such forged representations.

In addition, this supplementary regulation mentioned goods bearing ‘假冒 trademarks’ after the provision on the unauthorized use of identical trademarks on the same goods. This seems to suggest that a ‘假冒 trademark’ means a trademark that is identical with a registered trademark and used on the same goods for which

⁸⁸⁹ The English translation is provided by the author for the following original Chinese text:

为了惩治假冒注册商标的犯罪行为，对刑法作如下补充规定：

第一条 未经注册商标所有人许可，在同一种商品上使用与其注册商标相同的商标，违法所得数额较大或者有其他严重情节的，处三年以下有期徒刑或者拘役，可以并处或者单处罚金；违法所得数额巨大的，处三年以上七年以下有期徒刑，并处罚金。

销售明知是假冒注册商标的商品，违法所得数额较大的，处三年以下有期徒刑或者拘役，可以并处或者单处罚金；违法所得数额巨大的，处三年以上七年以下有期徒刑，并处罚金。

第二条 伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识，违法所得数额较大或者有其他严重情节的，依照第一条第一款的规定处罚。

See 《全国人民代表大会常务委员会关于惩治假冒注册商标犯罪的补充规定》 [Supplementary Provisions of the Standing Committee of the National People's Congress concerning the Punishment for Crimes of Counterfeiting Registered Trademarks] 1993 (People's Republic of China) art 1-2.

the trademark is registered. However, in Article 40 of *Trademark Law 1993*, the act of knowingly selling goods bearing ‘假冒 trademarks’ was mentioned after both the provision on forging trademark representations, and the provision on ‘假冒 of another’s registered trademark’. Considering the abovementioned inference that the concept 假冒 includes all three infringing acts, it is safe to say that a ‘假冒 trademark’ also includes the trademark produced through forging the representations of a registered trademark, in addition to identical trademarks.

This supplementary regulation was then integrated into the 1997 amendment of criminal law, which remains effective today. Under the current *Criminal Law 2011*, Chapter 3, section 7 provides criminal penalties for crimes relating to IPR infringement. In particular, 假冒 associated with trademarks was provided in three articles. Article 213 prohibits the unauthorized use of identical trademarks on the same goods. Article 214 provides for criminal penalties for the act of selling goods bearing ‘假冒 trademarks’ with a relatively large sales volume. Article 215 concerns the act of forging trademark representations, including selling such forged representations.⁸⁹⁰

⁸⁹⁰ 《中华人民共和国刑法》[*Criminal Law of the People's Republic of China*] 2011 (National People's Congress, People's Republic of China) art 213-215.

第二百一十三条 未经注册商标所有人许可，在同一种商品上使用与其注册商标相同的商标，情节严重的，处三年以下有期徒刑或者拘役，并处或者单处罚金；情节特别严重的，处三年以上七年以下有期徒刑，并处罚金。

第二百一十四条 销售明知是假冒注册商标的商品，销售金额数额较大的，处三年以下有期徒刑或者拘役，并处或者单处罚金；销售金额数额巨大的，处三年以上七年以下有期徒刑，并处罚金。

第二百一十五条 伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识，情节严重的，处三年以下有期徒刑、拘役或者管制，并处或者单处罚金；情节特别严重的，处三年以上七年以下有期徒刑，并处罚金。

Article 213: Using an identical trademark on the same merchandise without permission of its registered owner shall, if the case is of a serious nature, be punished with imprisonment or criminal detention of less than three years, with a fine, or a separately imposed fine; for cases of a more serious nature, with imprisonment of over three years and less than seven years, and with a fine.

Article 214: Knowingly selling merchandise under a faked (假冒) trademark with a relatively large sales volume shall be punished with imprisonment or criminal detention of less than three years, with a fine or a separately imposed fine; in cases involving a large sales volume, with imprisonment of more than three years but less than seven years, and with a fine.

Article 215: Forging (伪造) or manufacturing without authority or selling or manufacturing without authority other's registered trademarks or identifications shall, for cases of a

(b) Amendment in 2001

In 2001, the trademark law was amended again for two reasons: first, to prepare for China's adherence to the TRIPs agreement and entry into the WTO; and second, to keep consistency with the 1997 criminal law amendment as to the provisions on 假冒 (jiamao).

The 2001 amendment modified both the provision on trademark infringement and the provision on criminal liabilities in *Trademark Law 1993*. To be specific, the provision using the term '假冒' in Article 38 (2) of *Trademark Law 1993* – knowingly selling goods bearing '假冒 trademarks' – was replaced with the provision concerning the act of 'selling goods that infringe on the exclusive right to use a registered trademark' in Article 52 (2) of *Trademark Law 2001*.⁸⁹¹ From then on, the term '假冒' was removed from the provision on trademark infringement. However,

serious nature, be punished with imprisonment or criminal detention, or restriction for less than three years, with a fine or a separately imposed fine; for cases of an especially serious nature, with imprisonment of over three years and less than seven years, and with a fine.

This translation is available at CLEA <

http://www.wipo.int/wipolex/en/text.jsp?file_id=181340>. Although there is some variation in term of translation, the Chinese text is the same as the prescription of Article 67 of *Trademark Law 2013*.

⁸⁹¹ 《中华人民共和国商标法》 [*Trademark Law of People's Republic China*] 2001

(National People's Congress, People's Republic of China) art 52, available at <

<http://www.wipo.int/wipolex/en/details.jsp?id=5003>>.

第五十二条 有下列行为之一的，均属侵犯注册商标专用权：

（一）未经商标注册人的许可，在同一种商品或者类似商品上使用与其注册商标相同或者近似的商标的；

（二）销售侵犯注册商标专用权的商品的；

（三）伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识的；

（四）未经商标注册人同意，更换其注册商标并将该更换商标的商品又投入市场的；

（五）给他人的注册商标专用权造成其他损害的。

Article 52 Any of the following acts shall constitute an infringement on the exclusive rights to the use of a registered trademark:

(1) using a trademark that is identical with or similar to the registered trademark on the same or similar goods without permission of the owner of the registered trademark;

(2) selling goods that infringe on the exclusive right to the use of a registered trademark;

(3) counterfeiting (伪造), or making without authorization, representations of another person's registered trademark, or selling such representations;

(4) altering a registered trademark without permission of its owner and selling goods bearing such an altered trademark on the market; and

(5) impairing in other manners another person's exclusive right to the use of its registered trademark.

the act of knowingly selling goods bearing ‘假冒 trademarks’ remained one of the infringing acts that may lead to criminal penalties in the new amendment.

Article 59 of the *Trademark Law 2001* provided three types of acts that may lead to criminal penalties: (1) unauthorized use of identical trademarks on the same goods; (2) forging trademark representations or selling such forged representations; and (3) knowingly selling goods bearing ‘假冒 trademarks’. Two of the three infringing acts – knowingly selling goods bearing ‘假冒 trademarks’ and forging trademark representations or selling such forged representations – succeeded from the former provision in Article 40 (2) and (3) of *Trademark Law 1993*. Nevertheless, the 2001 amendment deleted the provision in Article 40 (1) concerning the act of ‘假冒 another’s registered trademark’, and replaced it with the provision concerning the act of unauthorized use of identical trademarks on the same goods, as another type of infringing act that may be subject to criminal liabilities.⁸⁹²

Under the 2001 amendment, the term ‘假冒’ was used only in Article 59 (3). This amendment distinguished the act of selling infringing goods from the act of knowingly selling goods bearing ‘假冒 trademarks’. On the one hand, the act of selling goods infringing on trademark rights was an ordinary trademark infringement, for which only civil liabilities may apply. On the other hand, the act of

⁸⁹² 《中华人民共和国商标法》 [Trademark Law of People’s Republic China] 2001 (National People’s Congress, People’s Republic of China) art 59, available at < <http://www.wipo.int/wipolex/en/details.jsp?id=5003>>.

第五十九条 未经商标注册人许可，在同一种商品上使用与其注册商标相同的商标，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

销售明知是假冒注册商标的商品，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

Article 59: Where a person, without permission of the owner of a registered trademark, uses a trademark that is identical with the owner's on the same kind of goods, which constitutes a crime, he shall, in addition to compensating losses suffered by the infringed, be investigated for criminal responsibility in accordance with law.

Anyone who counterfeits (伪造) or makes without permission the representations of another person's registered trademark or sells such representations which constitutes a crime, shall, in addition to compensating the losses suffered by the infringed, be investigated for criminal responsibility in accordance with law.

Anyone who knowingly sells goods bearing counterfeit (假冒) registered trademarks, which constitutes a crime, shall, in addition to compensating the losses suffered by the infringed, be investigated for criminal responsibility in accordance with law.

knowingly selling goods bearing ‘假冒 trademarks’ could be punished by criminal penalties.

In addition, this amendment incorporated the TRIPs definition of trademark counterfeiting – unauthorized use of identical trademarks on the same goods – into Chinese trademark laws. By replacing ‘假冒 another’s registered trademark’ with ‘unauthorized use of identical trademarks on the same goods’, the concept 假冒 in Chinese trademark laws contained the meaning of counterfeiting provided in the TRIPs agreement. It also reflected China’s attempt to comply with the TRIPs requirements on IPR protection.

(c) Amendment in 2013

The most recent amendment to trademark law, enacted in 2013, retained most of the provisions on 假冒 (jiamao) in the previous trademark law. In particular, Article 67 of *Trademark Law 2013* retained all the provisions in Article 59 of the former trademark law concerning the criminal liability for three types of acts. In three separate paragraphs it refers to (1) the unauthorized use of identical trademarks on the same goods, (2) forging trademark representation or selling such forged representations, as well as (3) the act of knowingly selling goods bearing ‘假冒 trademarks’.⁸⁹³

⁸⁹³ 《中华人民共和国商标法》[*Trademark Law of the People's Republic of China*] 2013 (Standing Committee of the National People's Congress, People's Republic of China) art 67.

第六十七条 未经商标注册人许可，在同一种商品上使用与其注册商标相同的商标，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

销售明知是假冒注册商标的商品，构成犯罪的，除赔偿被侵权人的损失外，依法追究刑事责任。

Article 67: Where a person, without permission of the owner of a registered trademark, uses a trademark that is identical with the owner's on the same kind of goods, which constitutes a crime, he shall, in addition to compensating losses suffered by the infringed, be investigated for criminal responsibility in accordance with the law.

Anyone who counterfeits (伪造) or makes without permission the representations of another person's registered trademark or sells such representations which constitutes a crime, shall, in addition to compensating the losses suffered by the infringed, be investigated for criminal responsibility in accordance with the law.

Nevertheless, the provisions on trademark infringement were modified by adding a few more types of infringement. Among others, the former provision in Article 38 (1) of *Trademark Law 1993*, and the same provision in Article 52 (1) of *Trademark Law 2001* concerning the unauthorized use of identical or similar trademarks on the same or related goods, was divided into two types. One is the unauthorized use of identical trademarks on the same goods, and the other is the unauthorized use of similar trademarks on the same goods, or unauthorized use of identical or similar trademarks on related goods which is likely to cause confusion.⁸⁹⁴ By this division, the unauthorized use of identical trademarks on the same goods is separately listed as one type of trademark infringement, which at the same time may attract criminal penalties according to Article 67 (1).

Anyone who knowingly sells goods bearing counterfeit (假冒) registered trademarks, which constitutes a crime, shall, in addition to compensating the losses suffered by the infringed, be investigated for criminal responsibility in accordance with the law.

⁸⁹⁴ Ibid., art 57.

第五十七条 有下列行为之一的，均属侵犯注册商标专用权：

- （一）未经商标注册人的许可，在同一种商品上使用与其注册商标相同的商标的；
- （二）未经商标注册人的许可，在同一种商品上使用与其注册商标近似的商标，或者在类似商品上使用与其注册商标相同或者近似的商标，容易导致混淆的；
- （三）销售侵犯注册商标专用权的商品的；
- （四）伪造、擅自制造他人注册商标标识或者销售伪造、擅自制造的注册商标标识的；
- （五）未经商标注册人同意，更换其注册商标并将该更换商标的商品又投入市场的；
- （六）故意为侵犯他人商标专用权行为提供便利条件，帮助他人实施侵犯商标专用权行为的；
- （七）给他人的注册商标专用权造成其他损害的。

Article 57: Any of the following acts shall constitute an infringement on the exclusive rights to the use of a registered trademark.

- (1) Using a trademark which is identical to the registered trademark on the same goods without authorization of the owner of the registered trademark;
- (2) Using a trademark that is similar to the registered trademark on the same goods, or using a trademark which is identical or similar to the registered trademark on similar goods, without authorization of the owner of the registered trademark, which is likely to lead to confusion;
- (3) Selling goods that infringe on the exclusive right to the use of a registered trademark;
- (4) Counterfeiting (伪造), or making without authorization, the representations of another person's registered trademark, or selling the counterfeited (伪造) or such made representations;
- (5) Replacing a registered trademark without the consent of the owner and selling the goods bearing such a replaced trademark in the market;
- (6) Knowingly providing assistance for the infringement of the exclusive rights to the use of a registered trademark;
- (7) Damaging in any other manner another person's exclusive right to the use of its registered trademark.

In addition, the act of selling goods that infringe on trademark rights, and the act of forging trademark representations or selling such forged representations, are also listed as trademark infringements. However, only the latter is criminalized, and then only in serious circumstances. The act of selling infringing goods, as mentioned before, is only an ordinary trademark infringement that should be distinguished from the act of selling goods bearing ‘假冒 trademarks’ that may be criminalized.

The 2013 amendment has brought the Chinese trademark laws into closer alignment with the provisions on counterfeiting in the TRIPs agreement. The TRIPs agreement defines ‘counterfeited trademark goods’ as goods bearing without authorization a mark which is identical to, or indistinguishable from, the trademark registered in respect of such goods. Meanwhile, Article 61 of the TRIPs agreement obliges member countries to provide criminal penalties in the case of willful trademark counterfeiting on a commercial scale. Accordingly, the Chinese trademark laws prohibit unauthorized use of identical trademarks on the same goods as one type of trademark infringement, and provide criminal liabilities for such acts in serious circumstances.

(d) The Scope of Trademark 假冒

While the Chinese trademark laws do not explicitly define the term 假冒 (jiamao), the above analysis of the provisions that mention the term suggests that 假冒 in Chinese trademark laws is a broad concept that includes not only the meaning of trademark counterfeiting as defined in the TRIPs agreement, but also the act of forging trademark representations or selling such forged representations. It also covers the act of selling goods bearing a ‘假冒 trademark’, including a trademark that is identical to (or indistinguishable from) a registered trademark, and a trademark that is produced through fraudulently copying or forging the representations of a registered trademark.

This understanding is further confirmed by the State Administration of Industry and Commerce (SAIC), the state trademark administration and enforcement body. SAIC issues the *Annual Report of China Trademark Strategy and Development*

(Trademark Annual Report) to evaluate the effectiveness of trademark protection and enforcement on an annual basis and provides for statistics of trademark enforcement nationwide. According to the *2012 Trademark Annual Report*, trademark related 假冒 activities include all the three types of behaviors prescribed in Article 67 of *Trademark Law 2013*: (1) unauthorized use of identical trademarks on the same goods; (2) forging trademark representations, including selling the forged representations; and (3) knowingly selling goods bearing a ‘假冒 trademark’.⁸⁹⁵ SAIC’s use of the term 假冒 as an inclusive concept is derived from its interpretation of the provisions in Article 67 and echoes the aforementioned supplementary provisions of 1993.

As to the unauthorized use of identical trademarks on the same goods, there are judicial interpretations on what is ‘identical’ and ‘the same goods’. A trademark in any of the following circumstances can be regarded as identical with a registered trademark: (1) a trademark that alters the font of characters, changes a capital letter into a small one or the other way round, or changes the orientation of characters from portrait to landscape or the other way round, which results in minor difference from the registered trademark; (2) a trademark that alters the margins between characters, letters, numbers, and other elements of the registered trademark, which nevertheless does not affect the distinctiveness of the registered trademark; (3) a trademark that alters the colour of the registered trademark; or (4) a trademark that is so indistinguishable from the registered trademark as to mislead the public.⁸⁹⁶ Meanwhile, ‘the same goods’ means goods that have the same

⁸⁹⁵ ‘2012 中国商标战略年度发展报告 [2012 Annual Development Report on China's Trademark Strategy]’, (Annual Report, State Administration of Industry and Commerce, 25 March 2013) 188
<<http://www.saic.gov.cn/zwgk/ndbg/201305/P020130503549386295068.pdf>>. It has to be noted that although the 2012 Trademark Annual Report was created according to the *2001 Trademark Law*, the provision of ‘trademark 假冒’ in Article 59 of the *2001 Trademark Law* is the same as that in Article 67 of the *2013 Trademark Law*.

⁸⁹⁶ The original text reads

六、关于刑法第二百一十三条规定的“与其注册商标相同的商标”的认定问题具有下列情形之一，可以认定为“与其注册商标相同的商标”：（一）改变注册商标的字体、字母大小写或者文字横竖排列，与注册商标之间仅有细微差别的；（二）改变注册商标的文字、字母、数字等之间的间距，不影响体现注册商标显著特征的；（三）改

heading in reference to the classification of goods in the Nice Classification,⁸⁹⁷ or goods that have a different heading but relate to the same commodities that share the same or identical characters in aspects such as function, utility, raw materials, consumers, and commercial channels.⁸⁹⁸

In addition to the TRIPs definition of counterfeiting, the concept 假冒 also includes the act of forging trademark representations or selling such forged representations, and the act of selling goods bearing a ‘假冒 trademark’. Trademark representation is the tangible form of a trademark that is attached to a product entering into distribution.⁸⁹⁹ Forging trademark representations means to produce a tangible copy of a trademark.

From the analysis of the changes to the trademark law provisions before and after the 2001 amendment, it becomes clear that a ‘假冒 trademark’ in the Chinese trademark laws not only refers to a mark which is identical with a registered

变注册商标颜色的；（四）其他与注册商标在视觉上基本无差别、足以对公众产生误导的商标。

See 《最高人民法院、最高人民检察院、公安部、司法部关于办理侵犯知识产权刑事案件适用法律若干问题的意见》 [Opinion of the Supreme People's Court, the Supreme People's Procuratorate, the Ministry of Public Security, and the Ministry of Justice on Several Issues concerning the Application of Laws in Handling Criminal Cases of Infringement of Intellectual Property Rights] 2011 (People's Republic of China) art 6.

⁸⁹⁷ The Nice Classification (NCL), established by the Nice Agreement (1957), is an international classification of goods and services applied for the registration of marks.

⁸⁹⁸ The original text reads

五、关于刑法第二百一十三条规定的“同一种商品”的认定问题

名称相同的商品以及名称不同但指同一事物的商品，可以认定为“同一种商品”。“名称”是指国家工商行政管理总局商标局在商标注册工作中对商品使用的名称，通常即《商标注册用商品和服务国际分类》中规定的商品名称。“名称不同但指同一事物的商品”是指在功能、用途、主要原料、消费对象、销售渠道等方面相同或者基本相同，相关公众一般认为是同一种事物的商品。

认定“同一种商品”，应当在权利人注册商标核定使用的商品和行为人实际生产销售的商品之间进行比较。

See 《最高人民法院、最高人民检察院、公安部、司法部关于办理侵犯知识产权刑事案件适用法律若干问题的意见》 [Opinion of the Supreme People's Court, the Supreme People's Procuratorate, the Ministry of Public Security, and the Ministry of Justice on Several Issues concerning the Application of Laws in Handling Criminal Cases of Infringement of Intellectual Property Rights] 2011 (People's Republic of China) art 5.

⁸⁹⁹ The original text reads: ‘第十五条…本办法所称“商标标识”是指与商品配套一同进入流通领域的带有商标的有形载体，包括注册商标标识和未注册商标标识。’ See 《商标印制管理办法》 [Measures of Trademark Printing Regulation] 2004 (State Administration of Industry and Commerce of People's Republic of China) art 15[2].

trademark – counterfeited trademark under the TRIPs definition – but also includes a mark produced by forging the representation of a registered trademark or a fraudulent copy of a registered trademark.

3 假冒 in Patent Law

The inclusion of forging trademark representations is not the only difference between 假冒 (jiamao), the Chinese approach to counterfeiting, and counterfeiting as defined in the TRIPs agreement. A more important difference is that 假冒 in China is also used to refer to the false representation of other IPRs. This section examines the use of the term in Chinese patent laws. It will show that 假冒 in patent laws generally refers to forging patent documents, the false representation that a patent or patent application exists when it actually does not, and selling goods that are falsely represented as patent goods.

According to SIPO, patent representation refers to the textual, numerical or graphic forms that indicate the existence and the type of a valid patent right.⁹⁰⁰ Inappropriate use of patent representations may constitute 假冒 of patents and will be subject to liabilities provided in Article 63 of the *Patent Law*.⁹⁰¹ Article 63 of the *Patent Law* provides that anyone who ‘假冒 a patent’ shall assume civil, administrative or criminal liabilities, depending on the circumstances.⁹⁰² The

⁹⁰⁰ 《专利标识标注办法》 [Measures of Marking Patent Representation] 2012 (State Intellectual Property Office of People's Republic of China) art 5. The original text reads

第五条 标注专利标识的，应当标明下述内容：

（一）采用中文标明专利权的类别，例如中国发明专利、中国实用新型专利、中国外观设计专利；

（二）国家知识产权局授予专利权的专利号。

除上述内容之外，可以附加其他文字、图形标记，但附加的文字、图形标记及其标注方式不得误导公众。

⁹⁰¹ Ibid art 8. The original text reads

第八条 专利标识的标注不符合本办法第五条、第六条或者第七条规定的，由管理专利工作的部门责令改正。

专利标识标注不当，构成假冒专利行为的，由管理专利工作的部门依照专利法第六十三条的规定进行处罚。

⁹⁰² 《中华人民共和国专利法》 [Patent Law of the People's Republic of China] 2008 (Standing Committee of the National People's Congress, People's Republic of China).

criminal penalties for ‘假冒 another’s patent’ could be up to three years sentence, according to Article 216 of the *Criminal Law*.⁹⁰³

To clarify the scope of 假冒 in this provision, Article 84 of the *Rules for the Implementation of the Patent Law* (the Implementing Rules) explains that any of the following acts constitutes 假冒 of patents: (1) marking the representation of a patent on goods or the packaging of goods for which a patent has not been granted, or the granted patent has been declared invalid or has expired; or marking without authorization the patent number of another’s patent; (2) selling goods bearing such a patent representation or another’s patent number as mentioned above; (3) claiming in the specifications or other documents that a patent exists for a technology or design for which a patent has not been granted, or for which the patent application has not been approved, or using without authorization another’s patent number, so as to mislead the public into believing that a patent exists for such technology or design; (4) forging or altering a patent certificate, document or application letter. This list is not exhaustive, as Article 84 stipulates that 假冒 of patents includes any other act that misleads the public into believing that a patent exists for a technology or design for which a patent has not been granted.⁹⁰⁴

第六十三条 假冒专利的，除依法承担民事责任外，由管理专利工作的部门责令改正并予公告，没收违法所得，可以并处违法所得四倍以下的罚款；没有违法所得的，可以处二十万元以下的罚款；构成犯罪的，依法追究刑事责任。

Article 63: A person who counterfeits (假冒) the patent of another person shall, in addition to bearing civil liabilities in accordance with the law, be ordered by the administration department for patent-related work to put it right, and the department shall make the matter known to the public, confiscate his unlawful gains and, in addition, impose on him a fine of not more than four times the unlawful gain; if there are no unlawful gains, a fine of not more than RMB 200,000 may be imposed on him; and if a crime is constituted, criminal responsibility shall be pursued in accordance with the law.

⁹⁰³ 《中华人民共和国刑法》[*Criminal Law of the People's Republic of China*] 2011

(National People's Congress, People's Republic of China) art 216.

第二百一十六条 假冒他人专利，情节严重的，处三年以下有期徒刑或者拘役，并处或者单处罚金。

Article 216: Whoever counterfeits (假冒) other people's patents, and when the circumstances are serious, is to be sentenced to not more than three years of fixed-term imprisonment, criminal detention, and may in addition or exclusively be sentenced to a fine.

⁹⁰⁴ 《中华人民共和国专利法实施细则》[*Rules for the Implementation of the Patent Law of the People's Republic of China*] 2010 (State Council, People's Republic of China) art 84.

第八十四条 下列行为属于专利法第六十三条规定的假冒专利的行为：

From these provisions, it is clear that 假冒 in patent laws can include the false representation that a patent right is granted when it actually is not, or the false representation that a patent application has been filed for certain products when it has actually not. The related act of selling goods bearing such a false representation

(一) 在未被授予专利权的产品或者其包装上标注专利标识, 专利权被宣告无效后或者终止后继续在产品或者其包装上标注专利标识, 或者未经许可在产品或者产品包装上标注他人的专利号;

(二) 销售第(一)项所述产品;

(三) 在产品说明书等材料中将未被授予专利权的技术或者设计称为专利技术或者专利设计, 将专利申请称为专利, 或者未经许可使用他人的专利号, 使公众将所涉及的技术或者设计误认为是专利技术或者专利设计;

(四) 伪造或者变造专利证书、专利文件或者专利申请文件;

(五) 其他使公众混淆, 将未被授予专利权的技术或者设计误认为是专利技术或者专利设计的行为。

专利权终止前依法在专利产品、依照专利方法直接获得的产品或者其包装上标注专利标识, 在专利权终止后许诺销售、销售该产品的, 不属于假冒专利行为。

销售不知道是假冒专利的产品, 并且能够证明该产品合法来源的, 由管理专利工作的部门责令停止销售, 但免除罚款的处罚。

Rule 84: Any of the following constitutes acts of patent passing-off (假冒) as referred to in Article 63 of the Patent Law:

(1) indicating the patent notice on a non-patented product or the package thereof, continuing to indicate the patent notice on a product or package after the announcement of invalidating the patent or the expiration of the patent right, or indicating the patent number of others, without authorisation, on a product or package thereof;

(2) selling the products specified in paragraph one of this Rule;

(3) indicating in the product instructions or other materials, a non-patented technology or design as a patented technology or design, indicating a patent application as a patent, or using another's patent number to mislead the public into perceiving the relevant technology or design as the patented technology or patented design;

(4) counterfeiting (伪造) or transforming any patent certificate, patent document or patent application document of another person;

(5) other acts that mislead the public into perceiving the non-patented technology or design patent as a patented technology or design, or perceiving the technology or design involved as the patented technology or design of others.

Making a patent notice on a patented product or product obtained directly by the patented process or the package thereof before the expiration of the patent right, and offering to sell or selling the product after the expiration of the patent right shall not be deemed as patent passing-off (假冒).

If the party selling the product without knowledge of the counterfeit (假冒) nature of the products can prove that they are obtained from a legitimate source, he or it should be ordered by the patent administrative authority to stop selling such product but is exempted from penalties.

From the English versions of this article and Article 63 of the Patent Law 2008, it can be seen that the English translation of the term 假冒 is quite confusing. At some times it is referred to as 'pass off' and at others as 'counterfeit', leading to inconsistency and confusion, especially when the term 伪造 is also translated into 'counterfeit'. As the previous linguistic analysis suggests, in Chinese 伪造 is a verb meaning to forge or produce a fraudulent copy; it can be understood as the first act involved in 假冒 which comprises of two acts. The other is to pass off as genuine. Hence, 假冒 contains both the meaning of forging or counterfeiting and the meaning of passing off as genuine.

is also prohibited. Meanwhile, 假冒 includes the act of forging patent related documents and any other acts that are likely to cause confusion as to the existence of a patent. This definition of 假冒 is followed in patent enforcement. The annual report on patent enforcement in 2012 issued by SIPO refers to the five types of cases concerning 假冒 of patents, in compliance with the provision of Article 84 of the Implementing Rules.⁹⁰⁵

4 假冒 in Copyright Law

In addition to trademark and patent, the term ‘假冒’ (jiamao) is also used in copyright law to refer to forging the representation of another’s copyright. Article 48 of the *Copyright Law 2010* provides for liabilities for a full list of infringing acts, one of which is making and selling works bearing a ‘假冒 signature’ of another.⁹⁰⁶

⁹⁰⁵ See SIPO, '2012 专利统计年报: 各地区查处假冒专利执法统计表 (一) [2011 Annual Report of Patent Statistics: Patent Enforcement of Punishment of Counterfeit Patents (1)]' (Annual Report, No [2012]18, State Intellectual Property Office of the People's Republic of China, 2012) <<http://www.sipo.gov.cn/ghfzs/zltjjb/jianbao/year2011/h/h5.html>>. These types of patent cases are:

- ① affixing patent indication on a product or on the package of a product which has not been granted a patent, continuing to affix patent indication on a product or on the package of a product, after the related patent right has been declared invalid or is terminated, or affixing the patent number of another person on a product or on the package of a product without authorization.
- ② sale of the product as prescribed in subparagraph ①.
- ③ indicating a technology or design to which no patent right has been granted as patented technology or patented design, indicating a patent application as patent or using the patent number of another person without authorization, in such materials as specification of product etc., which could mislead the public to regard the related technology or design as patented technology or patented design.
- ④ counterfeiting or transforming any patent certificate, patent document or patent application document.
- ⑤ any other act which might cause confusion on the part of the public, misleading them to regard a technology or design to which no patent right has been granted as patented technology or patented design.

⁹⁰⁶ 《中华人民共和国著作权法》[*Copyright Law of the People's Republic of China*] 2010 (Standing Committee of the National People's Congress) art 48[8].

第四十八条 有下列侵权行为的，应当根据情况，承担停止侵害、消除影响、赔礼道歉、赔偿损失等民事责任；同时损害公共利益的，可以由著作权行政管理部门责令停止侵权行为，没收违法所得，没收、销毁侵权复制品，并可处以罚款；情节严重的，著作权行政管理部门还可以没收主要用于制作侵权复制品的材料、工具、设备等；构成犯罪的，依法追究刑事责任：

（一）未经著作权人许可，复制、发行、表演、放映、广播、汇编、通过信息网络向公众传播其作品的，本法另有规定的除外；

（二）出版他人享有专有出版权的图书的；

Nevertheless, according to Article 217 of the *Criminal Law 2011*, criminal penalties only apply to using a ‘假冒 signature’ on works of art, not including other copyrighted works such as literary works.⁹⁰⁷ But unauthorized reproduction of other copyrighted works can be criminalized.

(三) 未经表演者许可, 复制、发行录有其表演的录音录像制品, 或者通过信息网络向公众传播其表演的, 本法另有规定的除外;

(四) 未经录音录像制作者许可, 复制、发行、通过信息网络向公众传播其制作的录音录像制品的, 本法另有规定的除外;

(五) 未经许可, 播放或者复制广播、电视的, 本法另有规定的除外;

(六) 未经著作权人或者与著作权有关的权利人许可, 故意避开或者破坏权利人为其作品、录音录像制品等采取的保护著作权或者与著作权有关的权利的技术措施的, 法律、行政法规另有规定的除外;

(七) 未经著作权人或者与著作权有关的权利人许可, 故意删除或者改变作品、录音录像制品等的权利管理电子信息的, 法律、行政法规另有规定的除外;

(八) 制作、出售假冒他人署名的作品的。

Article 48: Anyone who commits any of the following acts of infringement shall, depending on the circumstances, be required to bear civil liabilities such as ceasing the infringement, eliminating the bad effects of the act, making an apology or paying compensation for damages; where public rights and interests are impaired, the administrative department for copyright may order the person to discontinue the infringement, confiscate his unlawful gains, confiscate or destroy the copies produced through infringement, and may also impose a fine; where the circumstances are serious, the said department may, in addition, confiscate the material, tools and instruments mainly used to produce copies through infringement; and where a crime is constituted, criminal liabilities shall be investigated in accordance with the law:

(1) reproducing, distributing, performing, presenting, broadcasting, compiling a work or making it available to the public through information network, without permission of the copyright owner, except where otherwise provided for in this Law;

(2) publishing a book the exclusive right of publication in which is enjoyed by another person;

(3) reproducing or distributing a sound recording or video recording of a performance, or making a performance available to the public through information network, without permission of the performer, except where otherwise provided for in this Law;

(4) reproducing or distributing a product of sound recording or video recording or making it available to the public through information network, without permission of the producer, except where otherwise provided for in this Law;

(5) rebroadcasting a radio or television program or reproducing such a program without permission, except where otherwise provided for in this Law;

(6) intentionally circumventing or sabotaging the technological measures adopted by a copyright owner or an owner of the rights related to the copyright to protect the copyright or the rights related to the copyright in the work or the products sound recording or video recording, without permission of the owner, except where otherwise provided for in laws or administrative regulations;

(7) intentionally removing or altering any electronic rights management information attached to a copy of a work, a product of sound recording or video recording, etc. without permission of the copyright owner or the owner of the rights related to the copyright, except where otherwise provided for in this Law; or

(8) producing or selling a work the authorship of which is counterfeited (假冒).

⁹⁰⁷ 《中华人民共和国刑法》[*Criminal Law of the People's Republic of China*] 2011 (National People's Congress, People's Republic of China) art 217-218.

As a form of copyright infringement, making and selling works that bear a ‘假冒 signature’ of another means forging the signature of another who is an author of certain copyrighted works, and using such forged signature on works that are actually not created by that person, in order to pass off these works as those created by that person, for commercial purposes.

The right to sign on a certain work is a moral right under the Chinese copyright laws. One’s signature on certain work is also a form of representation that this person created the work in question. In the case of artistic works, such as a painting, the creator is usually the copyright owner. Thus, forging the creator’s signature can be understood as forging the representation of another’s copyright. Since a work is protected by copyright automatically once it is completed, there is no state authority involved in the production of copyright, although it is protected and enforceable by law. Hence, 假冒 in copyright laws only refers to forging copyright representations, namely forging another’s signature.

第二百一十七条 以营利为目的，有下列侵犯著作权情形之一，违法所得数额较大或者有其他严重情节的，处三年以下有期徒刑或者拘役，并处或者单处罚金；违法所得数额巨大或者有其他特别严重情节的，处三年以上七年以下有期徒刑，并处罚金：

（一）未经著作权人许可，复制发行其文字作品、音乐、电影、电视、录像作品、计算机软件及其他作品的；

（二）出版他人享有专有出版权的图书的；

（三）未经录音录像制作者许可，复制发行其制作的录音录像的；

（四）制作、出售假冒他人署名的美术作品的。

第二百一十八条 以营利为目的，销售明知是本法第二百一十七条规定的侵权复制品，违法所得数额巨大的，处三年以下有期徒刑或者拘役，并处或者单处罚金。

Article 217: Whoever, for the purpose of reaping profits, has committed one of the following acts of copyright infringement and gains a fairly large amount of illicit income, or when there are other serious circumstances, is to be sentenced to not more than three years of fixed-term imprisonment, criminal detention, and may in addition or exclusively be sentenced to a fine; when the amount of the illicit income is huge or when there are other particularly serious circumstances, he is to be sentenced to not less than three years and not more than seven years of fixed-term imprisonment and a fine:

(1) copy and distribute written, musical, movie, televised, and video works; computer software; and other works without the permission of their copyright holders;

(2) publish books whose copyrights are exclusively owned by others;

(3) duplicate and distribute audio-visual works without the permission of their producers;

(4) produce and sell artistic works bearing fake (假冒) signatures of others.

Article 218: Whoever, for the purpose of reaping profits, knowingly sells the duplicate works described in Article 217 of this Law, and gains a huge amount of illicit income, is to be sentenced to not more than three years of fixed-term imprisonment, criminal detention, and may in addition or exclusively be sentenced to a fine.

A ‘假冒 signature’ means such a forged signature that is intended to be used to pass it off as genuine. As discussed before, a signature can be one of the subjects of forging and counterfeiting in the general sense, and forging is the component act of 假冒. Hence, the act of ‘假冒 one’s signature’ means forging, counterfeiting, or producing a fraudulent copy of one’s signature and passing it off as genuine. This means that, in this case of signatures, Chinese copyright laws use the term ‘假冒’ with the general meaning of counterfeiting.

It is worth noting that Chinese copyright laws do not use the term ‘piracy’ (‘盗版’) in formal legislation. The TRIPs agreement defines ‘pirated copyright goods’ as unauthorized copies of copyrighted works. Consistent with this TRIPs provision, Article 48 of the *Copyright Law 2011* prohibits unauthorized copying of copyrighted works in various forms, which are subject to civil, administrative or criminal liabilities depending on the circumstances. Nevertheless, in practice the term ‘piracy’ (‘盗版’) is used only informally to refer to copyright infringement generally. For example, the NCA in collaboration with other relevant departments launched the 打击网络侵权盗版专项治理“剑网行动” [‘Sword Network’ Special Action against Internet Infringement and Piracy], a campaign against copyright piracy which lasted for four months from 20 June to 20 October 2013.⁹⁰⁸

5 假冒 in New Plant Variety Laws

Comparable to 假冒 (jiamao) of patents, new plant varieties can also be the target of 假冒. This section analyses relevant provisions in Chinese new plant variety laws. It will suggest that 假冒 of new plant variety rights may include the act of forging the representation of another’s new plant variety right, the false representation that a new plant variety right exists when it actually does not, selling plant varieties

⁹⁰⁸ 关于印发《2013 年打击网络侵权盗版专项治理“剑网行动”实施方案》的通知 [The Publishing Notice of the Planning for the ‘Sword Network’ Special Action against Internet Infringement and Piracy] (19 June 2013) National Copyright Administration, Internet and Information Office at State Council, Ministry of Industry and Information Technology, and Ministry of Public Security <<http://www.ncac.gov.cn/chinacopyright/contents/483/151663.html>>.

bearing such a forged or false representation, and the act of passing off one new plant variety right as another.

Article 40 of the *Regulations on the Protection of New Varieties of Plants 2013* stipulates that anyone who ‘假冒’ a plant variety as one that has been granted a new plant variety right’ may be subject to civil, administrative and criminal liabilities.⁹⁰⁹ To clarify the meaning of ‘假冒’, the implementation rules of the *Regulations on the Protection of New Varieties of Plants* further specify the acts that constitute 假冒 relating to new plant varieties.

The Ministry of Agriculture, as one authority for the administrative enforcement of new plant variety rights, is empowered to provide the agriculture provisions of the implementation rules for the new *Regulations on the Protection of New Varieties of Plants 2013*. According to the agricultural section of the implementation rules, 假冒 related to agricultural new plant varieties refers to several types of behaviors that are likely to mislead others into believing that a new plant variety right or an application for such right exists for a plant variety that actually does not have one.

⁹⁰⁹ 《中华人民共和国植物新品种保护条例》[*Regulations of the People's Republic of China on the Protection of New Varieties of Plants*] 2013 (State Council, People's Republic of China) art 40.

第四十条 假冒授权品种的，由县级以上人民政府农业、林业行政部门依据各自的职权责令停止假冒行为，没收违法所得和植物品种繁殖材料；货值金额 5 万元以上的，处货值金额 1 倍以上 5 倍以下的罚款；没有货值金额或者货值金额 5 万元以下的，根据情节轻重，处 25 万元以下的罚款；情节严重，构成犯罪的，依法追究刑事责任。

Article 40: Where any new plant variety is counterfeited (假冒), the administrative departments of agriculture and forestry of the People's Governments at county level or above shall order the party concerned to stop the counterfeiting (假冒) act, and confiscate the unlawful earnings and the propagating material of the plant variety; in circumstances where the unlawful earnings are more than 50 000 Yuan, punish him with a fine at least double but not exceeding five times more than the unlawful earnings; in circumstances where there are no unlawful earnings or the unlawful earnings are less than 50 000 Yuan, punish him with a fine less than 250 000 Yuan, depending on the circumstances; where the circumstances of the case are so serious as to constitute a crime, the party concerned shall be subjected to criminal liability investigation in accordance with the law.

Note that since the English version for the new Regulations of 2013 is not yet available at the CLEA database, the English version of this article is the author's translation in reference to the English version of the same article of the previous *Regulations on the Protection of New Plant Varieties 1997*.

These include: (1) printing or using the forged representation of a new plant variety, including a certificate of grant, application number, reference number assigned to a new plant variety right, or any other marks indicating the existence of a new plant variety right or the application for such a right; (2) printing or using the application number for an application for a new plant variety or any other marks that represent the application which has been rejected, deemed to be withdrawn, or has been withdrawn; (3) printing or using the certificate, reference number, or any other representations of a new plant variety right, for which the relevant new plant variety right has expired or has been invalidated; (4) producing or selling plant varieties bearing a false representation relating to any of the above three acts; and (5) producing or selling plant varieties that use without authorization the name of a plant variety for which an application for new plant variety right has been filed or a new plant variety right has been granted.⁹¹⁰

Notably, the State Forestry Administration also provides implementation rules for the forestry section, which explains the meaning of 假冒 new plant variety rights. Nevertheless, the current forestry provisions of the implementation rules are issued for the previous *Regulations on the Protection of New Varieties of Plants 1997*. But its definition of ‘假冒’ basically follows a similar approach with that provided in the agricultural provisions of the implementation rules.⁹¹¹ That is, 假冒 as related to

⁹¹⁰ 《中华人民共和国植物新品种保护条例实施细则（农业部分）》[*Implementing Rules of, for the Regulations of the People's Republic of China on the Protection of New Varieties of Plants (Agriculture Part)*] 2014 (Ministry of Agriculture, People's Republic of China) art 57.

第五十七条 《条例》第四十条、第四十一条所称的假冒授权品种行为是指下列情形之一：

- （一）印制或者使用伪造的品种权证书、品种权申请号、品种权号或者其他品种权申请标记、品种权标记；
- （二）印制或者使用已经被驳回、视为撤回或者撤回的品种权申请的申请号或者其他品种权申请标记；
- （三）印制或者使用已经被终止或者被宣告无效的品种权的品种权证书、品种权号或者其他品种权标记；
- （四）生产或者销售本条第（一）项、第（二）项和第（三）项所标记的品种；
- （五）生产或销售冒充品种权申请或者授权品种名称的品种；
- （六）其他足以使他人将非品种权申请或者非授权品种误认为品种权申请或者授权品种的行为。

⁹¹¹ 《中华人民共和国植物新品种保护条例实施细则（林业部分）》[*Implementing Rules for the Regulations of the People's Republic of China on the Protection of New*

new plant variety rights refers to forging the representations of another's new plant variety right, the false representation as to the existence of new plant variety rights or the application for such rights, and the act of passing off one new plant variety right as another.

D *Comparison of 假冒 and Counterfeiting*

To summarize the above analysis, this section provides a comparative analysis of 假冒 (jiamao) in Chinese IPR laws and counterfeiting in its English context. As an umbrella concept, 假冒 refers to the forging of IPR representations, the false representation as to the existence of an IPR, or selling goods bearing such forged or false representations. This section will suggest that these acts are deceptive as to either the existence or the ownership of IPRs, with potential consequences of causing confusion to the public and undermining the state authority of granting IPRs. Therefore, the prohibition of these acts reflects the protection of state and public interests.

In the case of trademark, to comply with the TRIPs agreement, 假冒 also includes the act of unauthorized use of a trademark that is identical to a registered trademark on the same goods for which the trademark is registered. But the prohibition of trademark counterfeiting is intended to protect private IPRs. Hence,

Varieties of Plants (Forestry Part)] 1999 (State Forestry Administration, People's Republic of China) art 64.

第六十四条 《条例》所称的假冒授权品种，是指：

- （一）使用伪造的品种权证书、品种权号的；
- （二）使用已经被终止或者被宣告无效品种权的品种权证书、品种权号的；
- （三）以非授权品种冒充授权品种的；
- （四）以此种授权品种冒充他种授权品种的；
- （五）其他足以使他人将非授权品种误认为授权品种的。

Article 64: Acts concerning counterfeited (假冒) variety rights referred to in the Regulations shall mean any of the following:

- (i) using counterfeited (伪造) certificates for, or counterfeited numbers of, the variety rights;
- (ii) using certificates for, or numbers of, the variety rights that have been terminated or invalidated;
- (iii) passing off (冒充) a plant variety without the grant of a new plant variety right as one to which such right has been granted;
- (iv) passing off (冒充) one new plant variety right as another;
- (v) other acts that are liable to mislead others to assimilate an unprotected variety to a protected one.

this section asserts that 假冒 in the Chinese IPR laws has a broader scope of applicability and more emphasis on the protection of public interests than counterfeiting as provided in the TRIPs agreement, which is limited to trademark violation.

1 假冒 *Includes Counterfeiting in General Sense and in TRIPs*

As discussed in Chapter V, before the TRIPs agreement, the term counterfeiting was used in its general sense, not used to refer to the unauthorized use of identical trademarks. By its origin, the term counterfeiting means to forge, or imitate with the intent to deceive or defraud. In this general sense, many things other than coins can be counterfeited, such as banknotes, certificates, handwritings, seals and any other meaningful signs. Trademark is such a meaningful sign that indicates the origin and source of certain goods, and therefore could be counterfeited. Likewise, the representations that indicate the existence of other IPRs are also meaningful signs that can be counterfeited. For example, a patent number or a miniature copy of the certificate of grant for a new plant variety right printed on goods or their packaging, represents the existence of a valid patent right or a new plant variety right granted for such goods.

In fact, the TRIPs agreement deals with the false representation of IPRs separately from trademark counterfeiting. While the TRIPs agreement does not directly regulate this matter, it provides that the Paris Convention can be invoked under the agreement. As discussed before in Chapter V, Article 10bis of the Paris Convention deals with unfair competition, one form of which refers to the use of indications or allegations in the course of trade that are liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity of the goods.⁹¹² By invoking this provision, false IPR

⁹¹² *Paris Convention for the Protection of Industrial Property*, (signed and entered into force March 20, 1883) art 10bis ('*Paris Convention*').

(1) The countries of the Union are bound to assure the nationals of such countries effective protection against unfair competition.

(2) Any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.

representation may be deemed as unfair competition under the TRIPs agreement, while the term counterfeiting is reserved for trademark infringement.

Compared to the TRIPs definition of counterfeiting, Chinese IPR laws use 假冒 (jiamao) to incorporate both the meaning of trademark counterfeiting defined in the TRIPs agreement and the meaning of counterfeiting in its general sense. In China, a ‘假冒 trademark’ can be a mark that is identical to or indistinguishable from a registered trademark, or a mark made through forging the representation of a registered trademark. In addition, patents, new plant varieties, signatures of copyright owners, as well as the representations of any other IPRs could also be the subject of 假冒.

It has to be noted that while 假冒 contains the meaning of counterfeiting in its general sense and is not limited to trademark infringement, it is an intellectual property term that only refers to violation of intellectual property laws. Thus, it should be distinguished from criminal activities such as currency forgery. Even in Chinese criminal law, the term 假冒 is only used to describe crimes related to IPR infringement and violation. The general meaning of counterfeiting used in the case of currency forgery is referred to as 伪造 (weizao, forging) in Chinese criminal law, although the same meaning is also used in intellectual property laws.

2 *假冒 Has an Emphasis on the Protection of Public Interests*

As opposed to the TRIPs definition of ‘counterfeited trademark goods’ with a view to protect private interests in trademark, the Chinese approach to counterfeiting reflects more concern for public interests. The definition of trademark counterfeiting under the TRIPs agreement does not require deception as the

(3) The following in particular shall be prohibited:

1. all acts of such a nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities, of a competitor;
2. false allegations in the course of trade of such a nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor;
3. indications or allegations the use of which in the course of trade are liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity, of the goods.

necessary element to constitute counterfeiting, but instead focuses on the lack of authorization, which determines that counterfeiting is a type of trademark infringement.

Consequently, the prohibition of counterfeiting under the TRIPs definition means to protect the exclusive right to use a registered trademark. Nevertheless, as discussed in Chapter V, trademark counterfeiting in fact involves product imitation, because a counterfeited trademark has to be used on the same goods that can only be made through imitation. But product imitation can have significant positive effects on consumer welfare and innovation, especially in cases of non-deceptive imitation. In fact, many cases of counterfeiting are non-deceptive, partly because the TRIPs definition does not refer to deception as a legal requirement of counterfeiting. Studies show that in many cases consumers can tell a counterfeit from the genuine from the price, the location of purchase, and the form of the goods itself and may purchase with the knowledge that it is counterfeit.⁹¹³ Hence, enforcement aiming to eliminate counterfeiting as unauthorized use of an identical trademark on the same goods may result in the removal of cheaper priced imitation products, which means a welfare loss to consumers.⁹¹⁴ This is especially true in the case of the willing purchase of counterfeit products, where counterfeiting increases consumer welfare. Thus, it is safe to say that the TRIPs provision on counterfeiting is meant to provide a means of remedy for the protection of trademark rights.

In contrast, under the Chinese definition of 假冒 (jiamao), unauthorized use of identical trademarks on the same goods is only one form of 假冒 in one subfield of IPRs. In other words, a large proportion of activities of 假冒 under the definition cover the act of forging IPR representations, the false representation as to the existence of IPRs, and the related act of selling goods bearing such false

⁹¹³ Jason Rutter and Jo Bryce, 'The Consumption of Counterfeit Goods: 'Here be Pirates?'' (2008) 42(6) *Sociology* 1146, 1154.

⁹¹⁴ Carsten Fink, 'Enforcing Intellectual Property Rights: An Economic Perspective' (Commissioned Study, International Centre for Trade and Sustainable Development, July 2008) 10-11 <<http://ictsd.org/downloads/2008/07/carsten-fink-enforcing-intellectual-property-rights.pdf>>.

representations. The prohibition of these acts is intended to protect consumers from deception and maintain the state authority of granting IPRs.

It is far more difficult to detect and recognize whether a valid IPR exists or not simply from the price of goods or the location of purchase, especially when the false representation as to the existence of IPRs is concerned. Forging the certificate of grant for a new plant variety right, for example, indicates that such right is granted by the competent authority when it actually is not. By presenting the forged certificate of grant, one may gain more competitive advantage in marketing the relevant plant varieties than without the certificate, given the value of state-granted rights. Because no valid IPR exists, there would be no ground to file a suit for infringement determination. Hence, the victim of such false representation of IPRs is the public at large, because false representation of IPRs may impair the normal economic order through unfair competition, and cause loss of trust in the integrity and authority of the state in granting IPRs.

Forging the representations of another's IPRs infringes the IPRs in question, but forging the representation of an IPR that does not exist will undermine the authority of IPR granting bodies, and is more likely to cause deception than in the case of unauthorized use of trademarks. For example, forging a patent number and affixing it on a product or the packaging for which no patent actually exists, does not require the existence of a valid patent right. And it is nearly impossible for every consumer to check with the patent authority whether such patent right exists or not.

Hence, forging IPR representations and false representation as to the existence of IPRs harm the public more than IPR owners. They may not infringe on IPRs, because they do not necessarily require the existence of a valid intellectual property right. Accordingly, the prohibition of such activities reflects the protection of public interests. In this sense, the Chinese approach to 假冒 implies an emphasis on the protection of public interests. Enforcement against these fraudulent behaviors will have net positive effects on social welfare: preventing the deception and confusion

of the public, maintaining the authority and reliability of state-granted IPRs, as well as protecting private interests in intellectual property.

3 Implications of the Chinese Approach to 假冒

The definition of counterfeiting determines the scope of anti-counterfeiting enforcement. Likewise, the definition of 假冒 (jiamao) determines the scope of enforcement against 假冒 in China. Under the Chinese approach to 假冒, unauthorized use of identical trademarks on the same goods is prohibited as an infringement of trademark rights, while forging or false representation of IPRs is punished because it may cause consumer deception and undermine the state authority in granting intellectual property rights. While the Chinese definition of 假冒 goes beyond the TRIPs definition of counterfeiting, it does not enlarge the scope of illegal imitation, given that false representation of intellectual property rights is also prohibited under the TRIPs agreement.

In line with the priority of protecting public interests in the definition of 假冒, the public enforcement against 假冒 in China mostly aims at those fraudulent imitation activities that cause consumer deception as to whether a certain product is under IPR protection and harm the state authority in granting IPRs. IPR infringement, including the unauthorized use of identical trademarks on the same goods, can be dealt with mainly through private enforcement, although administrative enforcement is also available on request.

The focus on public interests in the Chinese approach to 假冒 also reflects the development orientation of China's intellectual property policy. As discussed in Chapter V, the term counterfeiting is sometimes defined to include the imitation of products under the protection of any type of IPR. There is pressure from developed countries for enhanced criminal enforcement against counterfeiting. However, the effect of the broad definition and the criminal enforcement of counterfeiting would be catastrophic for imitators and imitating economies. As an imitating economy, China realizes the importance of imitation to its economic and technological

development and therefore adopts a conservative but TRIPs-compliant approach to defining illegal imitation.

E *山寨 and Product Imitation in China*

This section analyses the unique imitation phenomenon across China known as 山寨 (shanzhai), with a view to show the benefits of imitation for the Chinese economy. It first analyses the term 山寨 and the controversy over its legitimacy. It will suggest that 山寨 is a form of product imitation that exists at the edge of IPR infringement. More importantly, a large number of Chinese companies that started off producing ‘山寨 products’ have successfully transformed into legitimate businesses with substantial innovative capabilities, with some even owning IPRs for their independent innovations.

Then this section refers to two cases that illustrate the benefits of imitation. Considering the tremendous benefits from product imitation and adaptation in China, this section points out that 山寨 may still exist in the foreseeable future because it helps to build up China’s innovative capacity, and that the incentive for strict enforcement of intellectual property rights can only come from within China when sufficient innovative capacity is achieved.

1 *At the Edge of Infringement*

The term 山寨 (shanzhai), which literally means ‘bandit stronghold in mountains’ that stays outside government control, was first used in Cantonese to describe family-owned workshops located in mountainous areas and producing cheap, speedy, vulgar duplications of genuine products. Based on imitation and copying, 山寨 has now become a subculture that not only applies to consumer products, such

as mobile phones, cameras, automobiles, movies, but also applies to broad cultural products including celebrity lookalikes, parties and New Year galas.⁹¹⁵

The essential characteristic of the phenomenon of 山寨 is imitation. But it is not an exact copy of the original. Rather, the value of ‘山寨 products’ lies in the similarity to, and simultaneously the difference from, the original. Imitations of celebrities, a building that looks like but is significantly different from the Sydney Opera House or a handmade Lamborghini car are examples of ‘山寨 products’ that are similar but different from the original. The similarity makes 山寨 attractive, while the difference makes it especially attractive, and in combination 山寨 becomes unique and creative, and sometimes bears artistic value.

In its cultural sense, 山寨 is said to be a form of folk art involving creative copying.⁹¹⁶ Some even refer to 山寨 as a form of Chinese originality and creativity that is virtually developing into a fashionable culture of its own.⁹¹⁷ While there is not a commonly agreed definition of 山寨, it is evident that 山寨 has come to be a broad concept characterized by extraordinary product features, imitation and copies, high-speed and popularity.⁹¹⁸

Consequently, 山寨 (shanzhai) is distinguished from 假冒 (jiamao) as defined in Chinese IPR laws. 假冒 means forging or false representations of IPRs or the unauthorized use of identical trademarks on the same goods. In contrast, 山寨 is primarily product imitation that resembles the genuine products in terms of form, design, and function. Moreover, the false representation of IPRs can cause

⁹¹⁵ Philipp Boeing, 'Shanzhai – Dimensions of a Chinese Phenomenon' (2009) 2009(001) *China Business and Research* 1, 1.

⁹¹⁶ In May 2010, an exhibition was held in Berlin, Germany, on ‘山寨 products’, where 山寨 is regarded as the art of copying, and questions were raised as to ‘what is original’ and ‘what is copy’ in art. See Thomas Voelkner, *Shanzhai - A Berlin Exhibition on the Art of Copying* (21 May 2010) Deutsche Welle <<http://www.dw.de/shanzhai-a-berlin-exhibition-on-the-art-of-copying/a-5588068>>.

⁹¹⁷ Jin Liu, Johannes Meuer and Maaïke Siegerist, *Shanzhai: the fashion of imitation* (21 August 2009) Erasmus Research Institute of Management, Erasmus University Rotterdam <<http://www.irim.eur.nl/research/centres/china-business/featuring/detail/2028-shanzhai-the-fashion-of-imitation/>>.

⁹¹⁸ Philipp Boeing, above n 915, 1.

consumer deception, whereas the extraordinary feature of ‘山寨 products’ – similar but different, and sometimes even improved on the original products – enables consumers to easily distinguish 山寨 from the original.⁹¹⁹ In a sense, it is more like non-deceptive counterfeit products, but 山寨 does not necessarily infringe trademark rights.

As a form of product imitation, 山寨 does not necessarily violate IPR laws or infringe on IPRs. Some scholars argue that 山寨 should not be simply regarded as the unauthorized copy of IPR products, because ‘山寨 products’ usually embrace innovative functions or locally appealing designs that deserve legal respect and protection, provided there is no intention of infringement.⁹²⁰ In this vein, Binjie Liu, director of the China National Copyright Bureau, points out that 山寨 reflects the creativity of folk culture and having gained so much popularity and demand in the market, it must have a good reason to exist.⁹²¹ Its popularity is confirmed by the results of an online survey conducted by China Central Television in 2008, which indicated that 50 per cent of Internet users were supportive of the 山寨 phenomenon.⁹²²

However, in acknowledgement that creativity deserves protection and respect, others argue that the act of 山寨 is free riding on another’s intellectual property

⁹¹⁹ 熊英, 施璟 [Xiong Ying and Shi Jing], ‘山寨行为性质及其涉及的知识产权领域研究 [Shanzhai Activities and Related Intellectual Property Issues]’ (2010) 27(5) *重庆工商大学学报 [Journal of Chongqing Technology and Business University (Social Science Edition)]* 73, 74.

⁹²⁰ Yong Qin, a professor from Central University of Finance and Economics, along with another professor from Beijing University, holds this view. See 马秀山 [Ma Xiushan], ‘专利法创新与山寨文化 [Innovation in Patent Law and Shanzhai Subculture]’ (2009)(2) *中国发明与专利 [China Invention and Patent]* 57, 57. See also Jin Liu, Johannes Meuer and Maaike Siegerist, *Shanzhai: the fashion of imitation* (21 August 2009) Erasmus Research Institute of Management, Erasmus University Rotterdam <<http://www.erim.eur.nl/research/centres/china-business/featuring/detail/2028-shanzhai-the-fashion-of-imitation/>> (noting that the term 山寨 is increasingly associated with Chinese creativity, innovation, ingenuity, and originality).

⁹²¹ 雷志龙 [Lei Zhilong], 柳斌杰署长: 山寨并非盗版 要加以引导和保护 [Binjie Liu: *Shanzhai Is Not Piracy and Needs to Be Channeled and Protected*] (6 March 2009) 人民网 [People] <<http://book.people.com.cn/GB/69360/8918188.html>>.

⁹²² Hongmei Li, ‘Reflecting on ‘Shanzhai’ Complex in China’s Grassroots Culture’, *China Daily*, 7 January 2009 <http://www.chinadaily.com.cn/opinion/2009-01/07/content_7375167.htm>.

and will diminish the incentives for innovation.⁹²³ Lipu Tian, director of SIPO, criticizes the 山寨 phenomenon as the result of the cultural tradition of free sharing of knowledge, noting that ‘山寨 firms’, which refers to firms producing ‘山寨 products’, should redirect their efforts to innovation rather than free riding on another’s intellectual property.⁹²⁴

It is true that the act of 山寨 may infringe IPRs when the trademark used for ‘山寨 products’ is so closely similar as to be identical to or substantially indistinguishable from a registered trademark, or when the design of such products falls within the scope of a design patent. But this is not always the case, as ‘山寨 products’ may use a different trademark or a similar but distinguishable trademark. Therefore, it is not appropriate to regard all ‘山寨 products’ as examples of IPR infringement; rather, the determination of whether the act of 山寨 is infringement of IPRs depends on the individual circumstances.

2 *Benefits as a Form of Imitation*

The benefits of product imitation have been discussed earlier in Chapter IV. As far as 山寨 (shanzhai) is concerned, empirical studies demonstrate that this kind of imitation can have significant benefits to China’s economic development and social welfare.

One argument is that 山寨 provides a valuable platform for start-up firms to acquire innovative ability through imitation and knowledge internalization, and prepares them for transforming into legitimate firms capable of producing independent innovations.⁹²⁵ Scholars find that a common pattern for ‘山寨 companies’ is that

⁹²³ 马秀山 [Ma Xiushan], above n 920, 57.

⁹²⁴ 郑其 [Zheng Qi], 田力普: “山寨的根子, 就在传统文化里” [Lipu Tian: *The Root of Shanzhai is in Traditional Culture*] (23 November 2010) 人民网 [People] <<http://ip.people.com.cn/GB/13288348.html>>.

⁹²⁵ 陈曦, 周靖凯 [Chen Xi and Zhou Jingkai], ‘山寨企业转型自主创新品牌——基于山寨手机产业发展研究的演进跃迁路径模型构建’ [Shanzhai Enterprises Transform into Independent Innovative Brands: Based on the Evolutionary and Transition Path Model of

they can move up the value chain and differentiate themselves from other copiers once they have developed their core competitiveness.⁹²⁶ Hence, 山寨 has become a way that 'one type of Chinese company achieves success without following conventional wisdom and develops competitive advantage through innovation.'⁹²⁷

There are many examples to support this argument. BYD, a local battery and automotive manufacturer in Shenzhen, Guangdong Province of China, started off by imitating Toyota, and has now grown into one of China's most successful automotive manufacturers as well as a global leader in automotive battery technology and dual-mode drive-train systems; Tianyu, a mobile handset manufacturer, emerged from an infamous imitator of mobiles to become a major domestic player and move aggressively into overseas markets.⁹²⁸

In addition, the low cost of '山寨 products' makes them accessible and affordable to a large low-income population in China, especially in the rural areas. Economic analysis of the '山寨 mobile phone' industry suggests that 山寨 increases consumer surplus by providing cheaper products with comparable quality.⁹²⁹ It is not exaggerating to claim that without '山寨 mobile phones', China would not have over 700 million mobile phone users today.⁹³⁰

Given such benefits of 山寨, product imitation and copying are allowed to the greatest possible extent in China, provided that they are not an infringement of existing IPRs, are without the intention to deceive or defraud, and do not cause deception or confusion as to the origin and identity of certain products or services.

the Shanzhai Mobile Phone Industry]' (2012) 26(11) *华东经济管理* [East China Economic Management] 68, 71.

⁹²⁶ Edward Tse, Kevin Ma and Yu Huang, *Shan Zhai: A Chinese Phenomenon* (1 July 2009) Booz & Company
<http://www.booz.com/media/file/Shan_Zhai_AChinese_Phenomenon.pdf>.

⁹²⁷ Ibid.

⁹²⁸ Ibid.

⁹²⁹ 陈曦, 周靖凯 [Chen Xi and Zhou Jingkai], above n 925, 71.

⁹³⁰ Helen Zhang, 'In the Spirit of Shan Zhai', *China Daily*, 4 January 2010
<http://www.chinadaily.com.cn/cndy/2010-01/04/content_9258336.htm>.

Product imitation is even encouraged if such imitation comes with creativity. The following analysis of two cases of 山寨 and counterfeiting will confirm this.

3 *Huaqiangbei Market: A Case Study*

Huaqiangbei (华强北) is an area in the city of Shenzhen, Guangdong Province. The area is characterized by Huaqiangbei's streets lined with electronics shops, clothing shops, hotels and restaurants representing all the provincial cuisines of China. In particular, it is the home of 27 special markets for electronic products, with approximately 30 000 individual distributors and about 500 000 visitors every day. At the same time, Huaqiangbei is also well-known as an origin of '山寨 (shanzhai) mobile phones' and many other electronic products.

In 2009, a researcher Tao Dong conducted a survey on the manufacturers of '山寨 mobile phones' resident in this place. He concluded that most of them are active innovators and can innovate with flexibility in instant response to market demand, despite the possibility of trademark infringement.⁹³¹ Dong examined the whole production chain of '山寨 mobile phones', from design, software development, model making, accessories supply, assembly, printing and packaging, marketing and distribution, delivery, to after-sale customer service, finding that most of the production activities are legitimate, except a few which may violate trademark law by imitating others registered trademarks.⁹³² When asked why they do not create their own brands, the 山寨 mobile phones' producers responded that 'it does not matter' because owning a trademark alone cannot make mobile phones legal.⁹³³

It was reported that '山寨 mobile phone' manufacturers have little incentive to obtain a legal license from authorities because it is so expensive and time consuming that by the time they got a license they would be out of business.⁹³⁴ In

⁹³¹ 董涛 [Dong Tao], '“山寨手机”中知识产权问题研究——来自深圳手机市场的调研 [Intellectual Property Issues Related to Shanzhai Mobile Phones: A Survey on Shenzhen Mobile Phone Market]' (2009)(4) *经济体制改革 [Reform of Economic System]* 47, 50.

⁹³² Ibid 48.

⁹³³ Ibid.

⁹³⁴ Ibid.

China, mobile phones are produced and sold under a licensing system managed by the telecommunication authority. To get the license, however, takes a lot of money and time. Consequently, some ‘山寨 mobile phone’ producers would rather run the risk of violating the law to use another registered trademark for mobile phones and make a proper profit.

Lacking a legal license for producing mobiles, however, does not mean that such mobiles are of inferior quality. It has become a trend that many Chinese factories begin by manufacturing products for foreign countries that outsource the production of products, and then either make duplications of those products or upgrade their features and sell them. An example is Meizu’s video player, an iPod clone that is the result of imitating the manufacturing of Apple’s products.⁹³⁵ Since many ‘山寨 mobile phones’ producers are at the same time manufacturers of legitimate phones under outsourcing contracts, they are able to produce phones with the same and sometimes better quality. Thus, there is little need to worry about the quality control for mobile phones manufactured without a legal license.

By providing cheaper imitative products with comparable quality, Huaqiangbei Market contributes to local economic development and social welfare. As one of the largest markets for electronic products, the annual turnover of the Market reaches more than CNY 37 billion. It pays taxes, provides employment, and stimulates complementary businesses such as hotels, restaurants, transportation, warehouses, and so forth.

Huaqiangbei is not the only example illustrating that 山寨 and product imitation contribute to economic development and technological knowledge accumulation and improvement. The existence of the aforementioned Yiwu Small Commodities Market in Zhejiang province, and many other ‘山寨 enterprises’ across the country all support the argument that China has benefited considerably from imitation and copying in recent decades.

⁹³⁵ Chris V. Thangham, *China's iClone an iPhone Imitation* (11 August 2007) Digital Journal <<http://digitaljournal.com/article/216056>>.

4 *Alibaba: Another Case Study*

As the above discussion suggests, 山寨 (shanzhai) represents product imitation that exists at the edge of IPR infringement in China. Product imitation is also an inevitable activity involved in counterfeiting, whether under the TRIPs agreement or under the broad definition provided by the OECD and other anti-counterfeiting institutions. This subsection presents another case study where product imitation supports the Chinese economy but is alleged to constitute counterfeiting – Alibaba.

In the spring of 1999, a former English teacher named Jacky Ma started an Internet business from nothing and founded the Alibaba Group, providing an Internet-based business-to-business platform, which was to become the world's largest e-commerce firm. Four years later, he created the online retail platform Taobao (淘宝), which literally means 'digging treasure'. In little more than a decade, Taobao has become the biggest online market in China for imitative products.

However, until 2012 Taobao was listed by the Office of the US Trade Representative (USTR) as one of the online 'notorious markets' for the widespread availability of counterfeit products.⁹³⁶ IPR owners such as Coach and Louis Vuitton have constantly urged Taobao to take action to identify and remove relevant counterfeit products, which is defined by Coach China as 'any usage of Coach's IPR without Coach's authorization'.⁹³⁷ Similar physical markets that are asserted as notorious markets for counterfeit and pirated products in China include Silk Alley in Beijing, the Garment Wholesale Center in Guangzhou, Buynow PC Malls throughout China,

⁹³⁶ The USTR Notorious Markets List identifies selected markets, including those on the Internet, that are reportedly engaged in substantial piracy and counterfeiting. In 2012, the USTR recognized 'Taobao has undertaken notable efforts over the past year to work with right holders directly or through their industry associations to clean up its site,' and therefore removed it from the notorious market list. See 'Out-of-Cycle Review of Notorious Markets', (Report, Office of the U.S. Trade Representative, 13 December 2012) 2 <<http://www.ustr.gov/sites/default/files/121312%20Notorious%20Markets%20List.pdf>>.

⁹³⁷ Junqian Xu and Wenting Zhou, *Taobao to Tackle Counterfeits* (4 December 2013) China Daily <http://www.chinadaily.com.cn/china/2013-12/04/content_17151690.htm>.

and Luohu Commercial Center in Shenzhen, Guangdong province.⁹³⁸ These markets remain popular shopping destinations even today for consumers from China and abroad.

At the same time, Taobao has now become China's most popular business-to-consumer and consumer-to-consumer trading site with more than 20 million registered users. Together with another online retail platform Tmall (天猫) introduced in 2008 to sell quality, brand name goods, Taobao processed ¥1.1 trillion (US\$170 billion) in transactions in 2012, more goods than passed through Amazon and eBay combined for the same period.⁹³⁹ On the single day of Double Eleven in 2013, the Chinese Bachelor's Day, Alibaba established a new record, with total sales amounting to ¥35 billion (US\$5.71 billion).⁹⁴⁰ This number increased to ¥50 billion in 2014, another win following the initial public offering of Alibaba that raised US\$25 billion in September 2014.

Because of this success, Alibaba has become one of the biggest tax payers in China. It accounted for more than ¥7 billion (US\$1.14 billion) in taxes in 2013, averaging around ¥20 million (US\$3.22 million) per day. In addition, Alibaba contributes to China's national economic growth by encouraging a shift to consumption and increasing the overall productivity of the retail industries.⁹⁴¹

The case of Alibaba provides strong evidence of the positive effects of counterfeiting on China's developing economy. In addition to providing jobs and paying taxes, product imitation, if not prohibited by intellectual property law, can also be the foundation for start-up firms to climb up the value chain and develop

⁹³⁸ '2013 Out-of-Cycle Review of Notorious Markets', (Report, United States Trade Representative, 12 February 2014) 13-15 <http://www.ustr.gov/sites/default/files/FINAL-PUBLISHED%202013_Notorious_Markets_List-02122014.pdf>.

⁹³⁹ *Alibaba: The World's Greatest Bazaar*, (23 March 2013) The Economist <<http://www.economist.com/news/briefing/21573980-alibaba-trailblazing-chinese-internet-giant-will-soon-go-public-worlds-greatest-bazaar>>.

⁹⁴⁰ Incitez China, *Taobao Total Sales Reached USD 5.7 Billion on One Single Day* (14 November 2013) China Internet Watch <<http://www.chinainternetwatch.com/4691/taobao-bachelors-day/>>. As a Chinese business practice, big promotions are usually provided on every festival day or days. This is all the more welcomed by consumers who prefer cheaper and discounted commodities.

⁹⁴¹ See above n 939.

into major contributors towards the national economy and social welfare. Given the benefits of product imitation involved in counterfeiting, Chinese law-makers have been careful to maintain a dialectical attitude towards counterfeiting and IPR protection.

F *Conclusion*

While China has received considerable foreign investment and technology transfer since joining the WTO, it has failed to transform into an innovation producer due to its poor absorptive capacity. In this context, it is understandable that China still relies on imitation and adaptation to develop the necessary technological and innovative capacity. Hence, in the developing economy of China, more attention needs to be placed on the development interest in protecting imitation, in addition to protecting intellectual property.

Based on the language analysis of relevant Chinese terms, this chapter showed that Chinese IPR laws use the term 假冒 as an umbrella concept, which not only contains the meaning of counterfeiting provided under the TRIPs agreement, but also includes two types of fraudulent imitation, forging IPR representations and false representation of IPRs, that have drawn the most public concerns about deception. Hence, enforcement against 假冒 in China reflects a significant emphasis on the protection of public interests.

Given the limited public resources in China, choices of priority have to be made between various objectives. Public enforcement against unauthorized use of trademark and other IPR infringement means using public resources to protect private interests in intellectual property. Protecting intellectual property is important, but compared to the protection of the public interest in knowledge diffusion and developing innovative capacity, it is not the top priority for contemporary China. As Andrea Wechlser argues, since counterfeiting in China does contribute to economic welfare and significantly benefits Chinese consumers with little purchasing power, China has little incentive to protect the intellectual property

rights of developed countries, but rather more incentive to allow counterfeiting to stimulate their economy.⁹⁴²

High standards of IPR protection and enforcement that developed countries have pushed for in recent decades, the main focus of which has been protecting private interests and corporate profits, and which disregards whether such standards of protection and enforcement is balanced with the actual development level of various aspects of China, does not always have a positive effect on the Chinese economy and society. Considering the tremendous benefits that product imitation has for the Chinese economy, it is in China's interest to allow a certain degree of imitation, instead of stringent enforcement of IPR laws.

It has to be noted that lax enforcement against imitation will not last too long. When developing countries gradually obtain the ability to produce independent innovations that exceed foreign IPRs both in quantity and quality, there will be more domestic demand for stronger IPR protection. Consequently, internal willingness to prevent imitation and eliminate counterfeiting will naturally increase within these countries.

⁹⁴² Andrea Wechsler, 'Spotlight on China: Piracy, Enforcement, and the Balance Dilemma in Intellectual Property Law' (Research Paper Series No 09-04, Max Planck Institute for Intellectual Property, Competition and Tax Law, 6 March 2009) 37 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354487>.

IX CONCLUSION AND POLICY IMPLICATIONS

A Introduction

Counterfeiting is taking place almost in every product sector and every economy. Most counterfeit products originate in developing countries or countries with significant developmental inequality. On the US Notorious Markets List, for example, China, India, Argentina, Thailand and Indonesia are the most often listed countries with online and physical markets that are reportedly engaged in piracy and counterfeiting.⁹⁴³ The impact of counterfeiting on these developing economies, however, has not been fully appreciated.

This thesis revisits the issue of counterfeiting in light of the dynamic relationship between IPR protection and development, from the perspective of developing countries. It investigates the meaning and the impact of counterfeiting, particularly the positive effects that have long been neglected in the political economic discourse of anti-counterfeiting enforcement. This chapter will conclude the discussion in the thesis and point out the policy implications of the analysis in the previous chapters.

It is worth repeating that this thesis recognizes that counterfeiting may infringe on certain IPRs and that counterfeit products in certain sectors with inferior quality, such as pharmaceuticals, chemicals, automobile and aerospace spare parts, are more likely to cause health and safety problems. But the thesis also reminds us that counterfeiting in these sectors accounts for a very small percentage of the total cases of counterfeiting seized by European and US customs. Moreover, as the thesis has demonstrated and emphasized, counterfeiting is not inextricably intertwined with substandard products of inferior quality. Rather, product quality issues are

⁹⁴³ See United States Trade Representative, '2013 Out-of-Cycle Review of Notorious Markets' (Annual Report, 12 February 2014) <http://www.ustr.gov/sites/default/files/FINAL-PUBLISHED%202013_Notorious_Markets_List-02122014.pdf>.

subject to self-standing enforcement in other areas of law, not in intellectual property law.

B *Summary of the Thesis*

The international IPR regime is produced as a result of the clash, confrontation, negotiation and compromise between countries with different interests in IPR protection and product imitation. Given their economic and political strength, developed countries have been able to impose high standards of IPR protection on developing countries, which favours the interests of the developed countries as producers and exporters. For this purpose, the forum of negotiation has been constantly shifted between different regimes; from the traditional institution WIPO, and GATT/WTO, a multilateral trade negotiation regime backed up by a dispute settlement mechanism, to bilateral, plurilateral and regional trade agreements.

Those who prefer strong IPR protection usually argue that such protection will bring about short-term increases in FDI and technology transfer, and encourage global innovation and domestic innovation in developing countries in the long term. However, this view is misconceived. The cost of adopting such strong protection is that imitation activities that once benefited developed countries when they were developing, are prevented from benefiting the now developing countries. As Constantine Vaitsos has forcefully argued, the intellectual property system has predominantly negative effects on developing countries, restricting their technological advance through imitation and adaptation.⁹⁴⁴ Rafik Bawa puts it another way,

While the ideological conception of attaching property rights to products of the mind may be novel to developing countries, it is novel primarily because the conception

⁹⁴⁴ Constantine Vaitsos, 'Patents Revisited: Their Functions in Developing Countries' (1972) 9(1) *Journal of Development Studies* 71 (arguing that as virtually all patents are owned by large foreign corporations, patent is used as a vehicle for achieving monopoly privileges which hinder the flow of technology to developing countries).

runs counter to their development objective rather than because of any inherent moral objection to the concept in and of itself.⁹⁴⁵

There is a body of scholarship that provides valuable insights into the role of IPR protection in promoting economic, social and technological development. It is now commonly accepted that strong IPR protection does not always stimulate innovation and promote development. Rather, as the Nobel Prize winner Joseph Stiglitz argues, 'poorly designed intellectual property regimes can reduce access to technology and medicine, lead to a less efficient economy, and may even slow the pace of innovation.'⁹⁴⁶ One important measure of whether IPR protection is appropriately designed depends on the balancing of such protection against the demands of development.

In developing economies, the lack of both innovative capacity and economic strength determines that these economies still rely substantially on imitation and assimilation of foreign advanced technologies and other forms of knowledge. The role of imitation, in particular product imitation, is well documented in economic and historical scholarship. Imitation can facilitate knowledge diffusion, spurs competition and thereby stimulates innovation. Imitation is a necessary and crucial process by which a country, an industry or a firm builds up its innovative capacity.

This view of the value of imitation is supported by the history of the early stages of development in developed countries, which adopted protectionist policies, including IPR policy, to encourage importation, imitation and improvement of foreign technologies and products, so as to advance their national interests in increasing their innovative capacity. In this thesis, the histories of several developed countries, including Britain, the US, Japan and South Korea, have been examined and the results confirm the above argument.

⁹⁴⁵ Rafik Bawa, 'The North - South Debate over the Protection of Intellectual Property' (1997) 6 *Dalhousie Journal of Legal Studies* 77, 111.

⁹⁴⁶ 'Declaration of Joseph E. Stiglitz', *Association for Molecular Patenting v. United States Patent and Trademark Association* [2010] 702 F. Supp. 2d 181, United States District Court for the Southern District of New York, 20 January 2010, 4 [9] (Stiglitz, Joseph E.).

Ironically, having acquired sufficient innovative capacity through imitation of foreign intellectual works, those developed countries started pushing for strong IPR protection, thereby denying the opportunity for the now developing countries to imitate. Under this rigid approach to international IPR protection, which has been firmly established by the conclusion of the TRIPs and TRIPs-plus agreements, the imitation of foreign products and technologies may now be defined as counterfeiting or some other form of infringement of IPRs.

As discussed in previous chapters, some anti-counterfeiting studies contend that counterfeit products are of inferior quality and may cause damage to public health and safety, and that counterfeiting is associated with organized crime and terrorism. However, it is widely accepted that these perceptions of counterfeiting are built on the unrealizable statistics derived from questionable methodologies. They also reflect only half of the picture. The other half is about the positive effects of counterfeiting and has been examined in this thesis.

Under the TRIPs agreement, counterfeiting refers to the unauthorized use of a trademark that is identical to, or indistinguishable from, a registered trademark on the same goods for which the trademark is registered. This definition does not require imitation to constitute counterfeiting, however, the thesis shows that in practical terms using an identical trademark on the same goods almost always involves product imitation as well as trademark imitation. Full product imitation, including imitation of trademarks, is necessary to develop innovative capacity since it is only by making and selling full counterfeits (including trademarks) that the counterfeiting company can generate sufficient sales to survive. Product imitation without trademark imitation will not be a successful strategy.

This thesis demonstrates that counterfeiting as a form of imitation has positive effects on developing countries in the same way that imitation has benefited the early stages of development in developed countries. Counterfeit products increase consumer welfare by providing imitative products at far lower prices. The presence of counterfeit products also drives original producers to innovate and update their products in order to distinguish them from counterfeits. More importantly,

counterfeiting often involves product imitation, which is an important source of knowledge accumulation needed for follow-on innovation. At least in the short term, the counterfeiting business provides employment to the local residents of the place where the business operates, and pays taxes to local government, which benefits the wider public. Some established and successful Chinese examples of this phenomenon include the Yiwu Small Commodities Market, Huaqianbei Market, and the Taobao online shopping site, reinforcing the view that counterfeiting as a form of imitation can have benefits to developing economies.

In particular, most counterfeited products originate in sectors that are not directly associated with risks to consumer health and safety, such as in apparel, footwear, accessories and other luxury industries. In addition, counterfeit products in these sectors can be easily distinguished from the original, either by the price, the location of purchase, or the form of the goods themselves. Reported cases of purchasing counterfeit products with the knowledge that they are counterfeit also take place in the books and electronic devices sectors. Provided they do not cause deception or additional harm to health, the benefits of non-deceptive counterfeiting for consumer welfare and local economies is clearly evident. Therefore, the thesis argues that at least where counterfeiting is non-deceptive, the harm from such activities is minimal and the benefits to companies in developing countries are significant. Given these benefits, it is not surprising that the governments of some developing countries that are sources of counterfeit products lack the willingness to crack down on such businesses.

C Policy Implications

In light of the analysis in this thesis, it is time to call for the recognition of the positive effects of counterfeiting, and the re-setting of the anti-counterfeiting agenda that is currently designed to eliminate counterfeiting. To do so, it is important to tailor the standards of IPR protection in a country to suit its level of development. For countries like China and other developing countries, national anti-counterfeiting laws should be narrowly targeted and ensure that product

imitation is not impacted. In addition, these countries should oppose any further extension of counterfeiting style remedies to acts beyond counterfeiting as currently defined in the TRIPs agreement. At international level, the standards of IPR protection and anti-counterfeiting enforcement should be flexible enough to consider the disparity of interests between developed and developing countries in protecting innovation and allowing imitation.

1 *To Accommodate the Development Needs*

One important policy implication of this thesis is that the standards of IPR protection and anti-counterfeiting enforcement in developing countries should be adaptive to their development levels, in order to best serve the development objective and build up innovative capacity. This is particularly illustrated in the case study of China.

China has realized the strategic importance of intellectual property and independent innovation to development, as reflected by the formulation of the *Outline of the National Intellectual Property Strategy* in 2008. It is also clear to the Chinese government that to maximize the benefits from IPR protection requires *owning* intellectual property. Hence, one of China's development objectives is to build up domestic innovative capacity. For this purpose, the Chinese government encourages imitation and adaptation of imported technologies by providing financial grants and tax reduction.

While the innovation capacity of Chinese industries is improving, China remains largely an imitative economy. The majority of invention patents are owned by foreigners. Given the large foreign ownership of Chinese intellectual property, one of the results of IPR protection in China is that domestic enterprises have to pay colossal royalties to foreign proprietors.⁹⁴⁷ In the meantime, a significant portion of Chinese innovations cannot be successfully exploited and commercialized due to the low value of such innovations.

⁹⁴⁷ *Changes in China's IPR System*, (15 October 2000) Hong Kong Trade and Development Council <<http://info.hktdc.com/alert/cba-e0010b.htm>>.

Despite the rapid economic growth in recent decades, China has become a particularly uneven society, with the Gini coefficient hitting 0.61 in 2010. The thesis has shown that the number of invention patents in each of the top 5 provinces is over a thousand times higher than that in the 5 provinces with the least patents. Inequality reduces the benefits gained from economic growth and development. This thesis also argued that counterfeit products will benefit large sections of the population, especially non-deceptive and non-harmful counterfeit products in sectors such as clothes, footwear, mobile phones and small commodities, as well as pirated books, software and entertainment products.

Counterfeiting and associated imitation activities provide significant benefits to developing countries like China. In particular, private firms that produce imitation foreign products, known as 山寨 (shanzhai), are found to be very innovative and they innovate flexibly in response to market demand. But these firms face a high risk of IPR infringement under the currently high standards of protection. It is thus understandable that China does not have a strong incentive to put its already limited resources into the public enforcement of IPRs. As to China's rapid economic growth and the competitive edge Chinese enterprises have achieved in the last few decades, Xiang Feng attributes this to 'a business-friendly environment comprised of a less regulated market and less regularly enforced laws, in particular intellectual property law,' which has more easily allowed a degree of counterfeiting.⁹⁴⁸

This is not to say that the Chinese intellectual property laws fail to prohibit counterfeiting in the form of unauthorized use of identical trademarks on the same goods. Rather, China has adopted narrowly targeted anti-counterfeiting laws and does not extend remedies available for counterfeiting, such as border measures and criminal penalties, to other IP infringements more generally. Due to language differences, the Chinese intellectual property laws use the term 假冒 (jiamao) as an umbrella concept that not only includes trademark counterfeiting, but also refers to the forging or false representation of any type of IPRs. Consequently, anti-假冒 in

⁹⁴⁸ Xiang Feng, 'The End of Intellectual Property: Challenges beyond the "China Model"' (2012) 2(1) *International Critical Thought* 99, 104.

China is not identical to anti-counterfeiting, because the prohibition on false representation and forging of IPR representations is intended to protect the state interest in granting IPRs, maintain the economic order based on the trust in state authority of granting such rights, and prevent consumers from being misled or deceived.

Under the Chinese approach to 假冒 (jiamao), exact copying of trademarks or imitation that falls within the scope of other IPRs are distinguished from adaptive imitation of products, such as 山寨 (shanzhai), which may not necessarily infringe on an intellectual property right and thus can give rise to legitimate business. This allows China to build up innovative capacity through imitation and adaptation, to the extent that it still complies with its international obligation to protect IPRs under the TRIPs agreement and other international treaties.

2 Potential National Policy Change

From the Chinese experience, it seems evident that it is important to use the flexibilities embedded in current international IPR regimes, especially in the TRIPs agreement, to accommodate the development needs of developing countries. To build up innovative capacity requires learning and imitation, and therefore intellectual property laws that allow more imitation would better suit the needs of developing countries.

However, from a development perspective, international IPR laws have narrowed the available options for regulating knowledge goods for the purposes of domestic capacity building based on the enhancement of human development.⁹⁴⁹ The time has passed when countries could employ protectionist strategies for development. This was a time when there was no compulsory international obligation to protect foreign intellectual property. It was a time when IPR systems still allowed domestic firms to imitate foreign products so as to achieve the ability to produce

⁹⁴⁹ Denis Borges Barbosa, Margaret Chon and Andrés Moncayo von Hase, 'Slouching Towards Development in International Intellectual Property' (2007) 2007(1) *Michigan State Law Review* 71, 75.

independent innovation. It was a time when a country enjoyed the full autonomy and sovereignty to design their IPR policies in accordance with their specific circumstances of development.

Today, developing countries are facing the compulsory requirement of protecting IPRs at no less than the minimum standards provided in the TRIPs agreement and sometimes TRIPs-plus requirements. For example, it is argued that the ongoing negotiations of the *Trans-Pacific Partnership Agreement* (TPP) contain provisions that will reduce or eliminate the balance between monopoly protection and public health by curtailing existing legal flexibilities, and limiting government discretion to negotiate medicine prices.⁹⁵⁰ As Graeme Dinwoodie puts it, '[t]he international environment has become defined by compliance rather than latitude, making the substantive standards more real.'⁹⁵¹

Thus, optimal reform of national intellectual property policies in individual developing countries remains open to discussion. Daniel Gervais provides some insights into this matter. He argues that the TRIPs implementation in developing countries should be 'a combination of a careful analysis of the proper intellectual property policy of a country or region, and use of the flexibility left in TRIPs'.⁹⁵² To be specific, Daniel Gervais points out that:

Developing countries which want to maximize the benefits of TRIPs and minimizing negative effects and associated welfare costs, should apply outcomes of priority-setting exercises to idea-management strategies, and help provide their domestic

⁹⁵⁰ Manica Balasegaram, *TPP: Still a Terrible Deal for Poor People's Health* (14 July 2014) Huffington Post <http://www.huffingtonpost.com/dr-manica-balasegaram/tpp-still-a-terrible-deal_b_5584810.html>. (noting that the ability to manufacture and/or purchase low-cost generic medicines requires maintaining a balance in a country's patent system between monopoly protection and public health; yet, the TPP will reduce or eliminate that balance by curtailing existing legal flexibilities, and limiting government discretion to negotiate medicine prices.)

⁹⁵¹ Graeme B. Dinwoodie, 'Foreign and International Influences on National Copyright Policy: A Surprisingly Rich Picture' in Fiona Macmillan (ed), *New Directions in Copyright Law* (2007) vol 6, 160-169, 163.

⁹⁵² Daniel J. Gervais, 'TRIPS and Development' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2007) 3-59, 50.

enterprises with idea management tools.⁹⁵³ A strategy should include ways to develop the ability of the local economy to network private and public sector stakeholders, thereby increasing its ability to integrate and internalize innovative processes.⁹⁵⁴

An equally important aspect is education, both in the country and abroad, which is the cornerstone of a viable, long-term knowledge strategy and economic growth in the information society.⁹⁵⁵ In the early stages of technological development, public research and development institutions, such as universities and public laboratories, play a particularly critical role by assimilating and diffusing foreign technologies at a time when dependence on such technologies is strongest.⁹⁵⁶

It is also important for developing countries to integrate intellectual property norms into a broader innovation and knowledge optimization strategy, taking into consideration corresponding policies, use of systems such as compulsory licenses, as well as training of government and private sector players.⁹⁵⁷ For example, training and retraining of scientists, engineers, and technically qualified personnel; training for policy makers, judges, high officials and other persons involved in economic development projects should similarly be organized.⁹⁵⁸

In addition, reforming intellectual property laws alone is not enough to maximize the benefits of IPR protection. This thesis has shown that many scholars point out the importance of developing complementary laws and infrastructure to assist with IPR protection. Hence, complementary laws and regulations (including anti-trust and competition laws, contract laws and product quality control regulations, for example), a high-quality human capital based on complete and efficient educational

⁹⁵³ Ibid 53-54.

⁹⁵⁴ Ibid 54.

⁹⁵⁵ Ibid 55.

⁹⁵⁶ Basma Abdelgafar, *The Illusive Trade-off: Intellectual Property Rights, Innovation Systems, and Egypt's Pharmaceutical Industry (Studies in Comparative Political Economy and Public Policy)* (University of Toronto Press, 2006), 68-69, cited in Daniel J. Gervais, 'TRIPS and Development' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2007) 3-59, 55.

⁹⁵⁷ Daniel J. Gervais, above n 952, 50.

⁹⁵⁸ Ibid 55-56.

infrastructure, and an open and competitive market, among other forms of infrastructure, must also be in place in order to reduce the short-term costs of IPR protection.

3 *Balances in International Policy Making*

At the international level, this thesis suggests that initiatives and agreements negotiated for the purpose of eliminating counterfeiting globally should be based on a more balanced consideration of both the negative and positive effects of counterfeiting. In addition, given the disparity of developmental levels, the developmental needs of the developing member countries within each international regime deserve more attention and respect in the course of formulating an international IPR enforcement agenda.

As discussed in this thesis, the current standards of IPR protection embraced in international IPR regimes seems to largely tilt towards favoring the interests of developed countries as producers and exporters of intellectual property, at the expense of developing countries. Given the need for, and importance of imitation in developing countries, a high standard of IPR protection that restricts product imitation will slow down the process of developing innovative capacity through imitation and learning in developing countries. Hence, redressing the imbalance between developed countries and developing countries in international IPR regimes, not only in terms of counterfeiting, will have far-reaching implications for creating a favorable environment within which developing countries could tailor their intellectual property policies to accommodate their development needs.

Graeme Dinwoodie recognizes three types of balance in international IPR regimes: the balance between exclusion and dissemination which is intrinsic to intellectual property law; the balance between universal standards and national autonomy; and the balance between intellectual property obligations and non-intellectual property commitments.⁹⁵⁹ Within an intellectual property regime, there is 'the foundational

⁹⁵⁹ Graeme B. Dinwoodie, 'WIPO Copyright Treaty: A Transition to the Future of International Copyright Lawmaking' (2006) 57(4) *Case Western Reserve Law Review* 751,

balance in intellectual property between rights to exclude, and access to a robust public domain.⁹⁶⁰ Too much IPR protection may stifle follow-on innovation, while too little protection will diminish the incentives for innovation. As Daniel Gervais notes,

‘Balance means achieving an optimal degree of protection, which appropriately protects and rewards creativity and ingenuity, thus providing a good incentive to continue, while not deterring others’ creativity and inventiveness. That optimal point is hard to define, and in fact will likely vary from country to country based on socio-economic, industrial and even cultural factors.’⁹⁶¹

Balance between developed countries and developing countries refers to the other two types of balance. As Graeme Dinwoodie points out, the international IPR system must deal not only with the dilemmas of exclusion and access confronted on the national level, but also with broader questions of balance that pervade international relations generally.⁹⁶² That is the balance between universal rules and national autonomy. Emphasizing autonomy of nation states in international IPR laws ensures that states could tailor national laws to their own social, cultural and economic demands.⁹⁶³

It is also suggested that international IPR regimes should take into account the calculus between intellectual property obligations and non-intellectual property commitments. In return for accepting restrictions on their national autonomy to maintain unduly low levels of IPR protection, developing countries may be provided

757. See also Graeme B. Dinwoodie, 'The International Intellectual Property System: Treaties, Norms, National Courts, and Private Ordering' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2007) 61-114, 72-75.

⁹⁶⁰ Denis Borges Barbosa, Margaret Chon and Andrés Moncayo von Hase, 'Slouching Towards Development in International Intellectual Property' (2007) 2007(1) *Michigan State Law Review* 71, 75.

⁹⁶¹ Daniel J. Gervais, 'TRIPS and Development' in Daniel J. Gervais (ed), *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS-Plus Era* (Oxford University Press, 2007) 3-59, 50.

⁹⁶² Graeme B. Dinwoodie, 'The International Intellectual Property System', above n 959, 73.

⁹⁶³ *Ibid* 74.

with benefits in other forms, for example, market access.⁹⁶⁴ Such non-intellectual property commitments will be helpful to reduce the objection of developing countries to strong IPR enforcement. Therefore, it can be imagined that developing countries may be more willing to accept strong IPR protection and enforcement if there are more non-intellectual property commitments, not limited to trade aspects but covering other issues that urgently need to be resolved in developing countries, such as access to knowledge and medicines.

D Conclusion

Counterfeiting involves product imitation, and imitation and copying are important vehicles for knowledge diffusion and learning. Luis Suarez-Villa points out that knowledge diffusion and education are forces critical to developing innovative capacity. He notes that:

Broad access to education is possibly the most important support of scientific creativity. The massification of education is an essential prerequisite for the development of large-scale inventive capabilities.⁹⁶⁵ ...The diffusion of scientific knowledge is essential for generating the kinds of intangibles needed to support invention, such as the enhancement of technical imagination, the ability to come up with new ideas, and the understanding of the potential links between different concepts or technologies. These intangibles can lead to new skills and ideas, which in turn lead to further creativity among those who become involved in finding new discoveries. The diffusion of scientific and technological knowledge can therefore become a major way to reproduce creativity through the skills it generates. ...A cumulative, long-term build-up of inventive knowledge is essential for the emergence of techno-capitalism. By increasing diffusion while improving access to education, a society can build up a formidable cumulative advantage in reproducing inventive creativity.⁹⁶⁶

⁹⁶⁴ Graeme B. Dinwoodie, 'WIPO Copyright Treaty', above n 959, 757.

⁹⁶⁵ Luis Suarez-Villa, *Invention and the Rise of Technocapitalism* (Rowman and Littlefield, 2000), 12.

⁹⁶⁶ *Ibid* 17.

Developing countries should act collaboratively in advancing their common interests in establishing an international co-operative framework that aims to promote access to knowledge and technology diffusion and absorption. In this regard, the role of NGOs and civil society cannot be neglected, as they can be vocal actors in resisting the efforts to further increase the standards of international IPR protection. It is thus recommended that further research be conducted in this field to ascertain how a coalition framework among various actors can be achieved. If all these actors work together, we can be optimistic that in the near future we will see international IPR protection and anti-counterfeiting enforcement move towards a more balanced and development-oriented direction.

APPENDICES

Appendix A: 1985-2013 Domestic Patent Applications Received in China

Year	Invention	Utility Model	Design	Total
1985	4065	5077	269	9411
1986	3494	9580	606	13680
1987	3975	16605	1083	21663
1988	4780	22190	1612	28582
1989	4749	20553	2065	27367
1990	5832	27488	3265	36585
1991	7372	33157	4866	45395
1992	10022	44198	7568	61788
1993	12084	47252	8817	68153
1994	11191	45188	11428	67807
1995	10071	43495	15969	69535
1996	11535	49387	22104	83026
1997	12713	49902	27456	90071
1998	13726	51220	31287	96233
1999	15598	57215	37157	109970
2000	25346	68461	46532	140339
2001	30038	79275	56460	165773
2002	39806	92166	73572	205544
2003	56769	107842	86627	251238
2004	65786	111578	101579	278943
2005	93485	138085	151587	383157
2006	122318	159997	188027	470342
2007	153060	179999	253439	586498

2008	194579	223945	298620	717144
2009	229096	308861	339654	877611
2010	293066	407238	409124	1109428
2011	415829	581303	507538	1504670
2012	535313	734437	642401	1912151
2013	704936	885226	644398	2234560

Appendix B: 1985-2013 Foreign Patent Applications Received in China

Year	Invention	Utility Model	Design	Total
1985	4493	97	371	4961
1986	4515	93	221	4829
1987	4084	101	229	4414
1988	4872	210	347	5429
1989	4910	174	454	5538
1990	4305	127	452	4884
1991	4051	125	469	4645
1992	4387	171	789	5347
1993	7534	247	1342	9123
1994	7876	323	1729	9928
1995	11565	246	1699	13510
1996	16982	217	2510	19709
1997	20953	227	2957	24137
1998	22234	177	3345	25756
1999	21096	277	2896	24269
2000	26401	354	3588	30343
2001	33166	447	4187	37800
2002	40426	973	5688	47087
2003	48549	1273	7427	57249

2004	64347	1247	9270	74864
2005	79842	1481	11784	93107
2006	88172	1369	13295	102836
2007	92101	1325	13993	107419
2008	95259	1641	14284	111184
2009	85477	1910	11688	99075
2010	98111	2598	12149	112858
2011	110583	4164	13930	128677
2012	117464	5853	15181	138498
2013	120200	7136	15165	142501

Appendix C: 1985-2013 Domestic Patents Granted in China

Year	Invention	Utility Model	Design	Total
1985	38	56	17	111
1986	52	2478	141	2671
1987	311	5677	413	6401
1988	617	10114	562	11293
1989	1083	13373	1024	15480
1990	1149	16744	1411	19304
1991	1311	17200	2667	21178
1992	1386	23950	2975	28311
1993	2634	46403	7845	56882
1994	1659	32611	5507	39777
1995	1546	30267	10068	41881
1996	1395	27011	11931	40337
1997	1532	27185	17672	46389
1998	1655	33717	26006	61378
1999	3097	56094	32910	92112

2000	6177	54407	34652	95236
2001	5395	54018	39865	99278
2002	5868	57092	49143	112103
2003	11404	68291	69893	149588
2004	18241	70019	63068	151328
2005	20705	78137	72777	171619
2006	25077	106312	92471	223860
2007	31945	148391	121296	301632
2008	46590	175169	130647	352406
2009	65391	202113	234282	501786
2010	79767	342256	318597	740620
2011	112347	405086	366428	883861
2012	143847	566750	452629	1163226
2013	143535	686208	398670	1228413

Appendix D: 1985-2013 Foreign Patents Granted in China

Year	Invention	Utility Model	Design	Total
1985	2	4	21	27
1986	4	52	297	353
1987	111	91	208	410
1988	408	77	169	654
1989	1220	135	294	1649
1990	2689	208	387	3284
1991	2811	127	500	3438
1992	2580	110	474	3164
1993	3922	236	1087	5245
1994	2224	208	1088	3520
1995	1847	204	1132	3183

1996	1581	160	1702	3443
1997	1962	153	2488	4603
1998	3078	185	3248	6511
1999	4540	274	3241	8044
2000	6506	336	3267	10109
2001	10901	341	3731	14973
2002	15605	392	4299	20296
2003	48549	1273	7427	57249
2004	64347	1247	9270	74864
2005	79842	1481	11784	93107
2006	88172	1369	13295	102836
2007	92101	1325	13993	107419
2008	47116	1506	10954	59576
2009	63098	1689	15419	80206
2010	55343	2216	16646	74205
2011	59766	3024	13862	76652
2012	73258	4425	14229	91912
2013	64153	6637	13797	84587

Appendix E: 2013 Domestic Patents in Force in China

Regions		2013			
		Invention	Utility Model	Design	Total
Total		586493	1917122	1132314	3635929
江苏	Jiangsu	62112	255399	299268	616779
广东	Guangdong	95475	258149	232968	586592
浙江	Zhejiang	43275	271502	237904	552681
北京	Beijing	85434	109706	24103	219243

山东	Shandong	27996	148414	30573	206983
深圳	Shenzhen	62293	85996	53044	201333
上海	Shanghai	48370	109588	36538	194496
宁波	Ningbo	7961	67620	80529	156110
安徽	Anhui	11566	81319	26819	119704
四川	Sichuan	16677	61260	41594	119531
杭州	Hangzhou	20499	61856	37019	119374
福建	Fujian	10429	62506	34311	107246
台湾	Taiwan	39177	50299	9042	98518
广州	Guangzhou	15554	38278	31241	85073
河南	Henan	11249	58187	14984	84420
成都	Chengdu	11681	40498	30637	82816
湖北	Hubei	15235	54192	12965	82392
湖南	Hunan	14195	44376	16959	75530
辽宁	Liaoning	16092	49623	8419	74134
天津	Tianjin	12301	46746	9493	68540
重庆	Chongqing	8609	39419	18180	66208
南京	Nanjing	17218	29149	12010	58377
黑龙江	Heilongjiang	8495	30798	16023	55316
陕西	Shaanxi	14394	34665	6251	55310
河北	Hebei	7404	37393	9984	54781
武汉	Wuhan	12233	31189	5326	48748
西安	Xi'an	12431	27517	3721	43669
青岛	Qingdao	6254	26538	7699	40491
济南	Jinan	7033	26275	3592	36900
哈尔滨	Harbin	6785	14847	6910	28542

厦门	Xiamen	3364	17027	7491	27882
江西	Jiangxi	3354	15159	7524	26037
山西	Shanxi	5250	16202	3585	25037
沈阳	Shenyang	6330	14349	3793	24472
大连	Dalian	5600	15908	1865	23373
广西	Guangxi	3692	13157	5189	22038
吉林	Jilin	5676	12876	3374	21926
云南	Yunnan	5160	12233	4444	21837
贵州	Guizhou	3262	11812	6761	21835
长春	Changchun	4182	8189	1916	14287
新疆	Xinjiang	1756	9191	2647	13594
甘肃	Gansu	2714	7998	1747	12459
香港	Hong Kong	2338	3545	5942	11825
内蒙古	Inner Mongolia	2114	6623	2684	11421
海南	Hainan	1498	1645	805	3948
宁夏	Ningxia	603	2188	486	3277
青海	Qinghai	364	754	470	1588
新疆兵团	Xinjiang Bingtuan	213	1066	91	1370
西藏	Tibet	184	116	227	527
澳门	Macao	43	82	51	176

Appendix F: Table of Explanations of Chinese characters/terms used in this thesis

Chinese term	Pinyin	Literal English explanation	Whether used in Chinese IPR laws	The way used in the thesis	Frequency of use
模仿	Mofang	Imitate, or imitation	NO	Use 'imitation' as substitute	Frequently used
仿冒	Fangmao	Pass off an imitation as original	NO	As it is in Chinese	Only used for language analysis in Chapter VIII
假冒	Jiamao	Pass off a fake as genuine	YES	As it is in Chinese	Most frequently used
伪造	Weizao	Forge or make a fraudulent copy	YES	Use 'forge' as substitute	Frequently used
伪劣	Weilie	Being fake and substandard	NO	As it is in Chinese	Only used for language analysis in Chapter VIII
盗版	Daoban	Piracy, copying without permission	NO	Use 'piracy' as substitute	Occasionally used
山寨	Shanzhai	bandit stronghold in mountains	NO	As it is in Chinese	Frequently used
Note	The use of all the above Chinese terms in this thesis, primarily in Chapter VIII, is to explain and distinguish the concept of 假冒 in Chinese IPR laws from the meaning of counterfeiting defined under the TRIPs agreement. For that purpose, the term 假冒 is most frequently used as it is in Chinese, but it may also be referred to as 'the Chinese approach to counterfeiting'.				

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