

The Implementation of Exhaustion Policies

Lessons from National Experiences

By Shubha Ghosh
University of Wisconsin Law School

ICTSD
International Centre for Trade and Sustainable Development

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LIST OF ABBREVIATIONS AND ACRONYMS

EU	European Union
IP	Intellectual property
IPRs	Intellectual property rights
MFN	Most favoured nation
TFEU	Treaty on the Functioning of the European Union
TRIPS	Trade Related Aspects of Intellectual Property Rights
US	United States
USC	United States Code
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

FOREWORD

The TRIPS Agreement includes the concept of the exhaustion of intellectual property rights (IPRs), a concept which plays an important role in determining the way that intellectual property rules affect the movement of goods and services in international trade. The doctrine addresses the point at which the IPR holder's control over the good or service ceases. This termination of control is critical to the functioning of any market economy because it permits the free transfer of goods and services. From the standpoint of the international trading system, the focus of the exhaustion question is whether it operates on a national, regional or international basis. A country may choose to recognize that exhaustion of an IPR occurs when a good or service is first sold or marketed outside its own borders. That is, the first sale or marketing under a "parallel" patent, trademark or copyright abroad exhausts the IPR holder's rights within that country.

In one of ICTSD's pioneering work in this field (Resource Book on TRIPS and Development, 2005) it was stressed that there is considerable debate concerning the advantages and disadvantages of granting IPR holders the power to segregate markets from various perspectives – economic, social, political and cultural. From the standpoint of those favoring open markets and competition, it may appear fundamentally inconsistent to permit intellectual property to serve as a mechanism to inhibit trade. Yet IPR holders argue that there are positive dimensions to market segregation, and corollary price discrimination.

During the TRIPS negotiations, there was fairly extensive discussion of the exhaustion issue, but governments did not come close to agreeing upon a single set of exhaustion rules for the new WTO. They instead agreed that each WTO Member would be entitled to adopt its own exhaustion policy and rules. This agreement was embodied in Article 6, precluding anything in that agreement from being used to address the exhaustion of rights in dispute settlement, subject to the TRIPS provisions on national and MFN treatment.

In ICTSD's tradition, we felt that more work was needed to better grasp the intricacies of the exhaustion doctrine in intellectual property law and the way it has been implemented in practice. To that aim we invited Professor Shuba Gosh (Vilas Research Fellow & Professor of Law, The University of Wisconsin Law School) to explore further the issue by drawing lessons from recent experience, particularly in the United States (US), on how exhaustion of IPRs apply in different circumstances and particularly in the case of patents, copyright and trademarks and which could be the lessons that could be extracted for countries that are in the process of introducing these concepts in their respective national contexts.

In the paper, Professor Ghosh emphasizes that the exhaustion doctrine serves to limit the rights of the intellectual property owner after a specific exercise of some or all of the rights. In theory, the exhaustion doctrine takes many forms. In practice, he observes differences across copyright, patent, and trademark, as well as across jurisdictions and industries. An IPR is typically exhausted by the "first sale" (US doctrine) or "placing on the market" of the good or service embodying it. The basic idea is that once the right holder has been able to obtain an economic return from the first sale or placing on the market, the purchaser or transferee of the good or service is entitled to use and dispose of it without further restriction.

In this comprehensive review of the exhaustion doctrine, the author, beyond addressing recent United States Supreme Court decisions (Kirtsaeng v. John Wiley & Sons and Bowman v. Monsanto) looks at the experience of some European countries and that of Brazil, China and India. As Professor Ghosh points out, courts in the US and other jurisdictions continue to struggle with the complexities of the exhaustion doctrine as applied to digital works. Meanwhile, trade negotiations are increasingly

including requirements for limitations on the exhaustion doctrine under national law of trading partners.

In the context of the intense scrutiny of the exhaustion doctrine by national governments and their policymakers, this paper provides a comparative policy analysis from the perspective of major jurisdictions. At the heart of the paper is a normative analysis of the exhaustion doctrine that centers on the overlapping concerns of economic development and the protection of users in global markets affected by IPRs.

This issue paper identifies four facets of the exhaustion doctrine that countries might choose in the design of their corresponding policy option. The first is the determination of whether some form of exhaustion should be recognized. The paper concludes that some form of exhaustion is desirable to permit freer markets.

The second facet is the triggering event for exhaustion. Based on historical practice, exhaustion has consistently been activated by the sale of an article embodying the copyright, patent or trademark.

The third facet is the implications of exhaustion. In the most common case, exhaustion allows a purchaser to redistribute the article through a transfer which typically involves a sale, but may also entail a rental.

Finally, the fourth facet of particular significance to international trade involves the geographic scope of the doctrine, specifically whether exhaustion is limited to acts within the nation state or to acts that can occur anywhere.

The report assesses the successes and failures of the exhaustion doctrine as applied by various countries. Much of the discussion focuses on legal developments in the United States. This emphasis reflects the long history of judicial opinions and legislation dealing with the exhaustion doctrine in the United States. This lengthy experience provides varied lessons on possible approaches to formulating an exhaustion doctrine. The long history shows that the United States approach to intellectual property laws is not uniform.

The comparative study concludes with the following policy recommendations: a) the exhaustion doctrine should be industry-specific; b) the recent adoption, under certain circumstances, by the US of the principle of international exhaustion creates possibilities for entrepreneurs in developing countries to create gray markets; c) the exhaustion doctrine itself has limitations and needs to be supplemented by other measures that more robustly and directly protect users' interests in specifically delineated areas.

I sincerely hope that you find that this issue paper contributes towards improving our understanding of this complex issue, in addition to contributing to efforts particularly of developing countries to adopt informed policy decisions when seeking to design IP regimes that are supportive of their development and public policy objectives.

Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

The exhaustion doctrine in intellectual property law serves to limit the rights of the intellectual property owner after a specific exercise of some or all of the rights. The most typical example is the first sale doctrine, which prevents the intellectual property owner from controlling distribution of a specific protected article after its first sale by the owner. In theory, the exhaustion doctrine can take many forms. In practice, we observe differences across copyright, patent, and trademark, as well as across jurisdictions and industries.

Countries are rethinking the exhaustion doctrine. In reforming their respective intellectual property laws, Brazil, China and India have focused on the need for an exhaustion doctrine and its appropriate scope. Two major United States Supreme Court decisions during the 2012-2013 term (Kirtsaeng v. John Wiley & Sons and Bowman v. Monsanto) addressed the exhaustion doctrine respectively in copyright and patent. The copyright case involved the issue of international exhaustion in the market for textbooks; the patent case, the issue of reuse of patented seeds. Courts in the United States and other jurisdictions are struggling with the complexities of the exhaustion doctrine as applied to digital works. Meanwhile, trade negotiations initiated by the United States increasingly are including requirements for limitations on the exhaustion doctrine under national law of trading partners.

In the context of the intense scrutiny of the exhaustion doctrine by nation states and their policymakers, this paper provides a policy analysis of the exhaustion doctrine from a comparative perspective. The paper is in part descriptive, collecting and summarizing the varied national approaches to the exhaustion doctrine. At the heart of the paper is a normative analysis of the exhaustion doctrine that centers on the overlapping concerns of economic development and the protection of users in global markets affected by intellectual property rights. The ambition is for this report to provide guidance for nation states as they engage in the contemporary debates over the exhaustion doctrine in their policy making.

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) defers to the member states in formulating its exhaustion doctrine. This paper identifies four bases for policy, or policy levers, for the exhaustion doctrine. The first is the determination of whether some form of exhaustion should be recognized. The report concludes that some form of exhaustion is desirable to permit markets to be free of the control of intellectual property owners. The second is the triggering event for exhaustion. Based on historical practice, exhaustion has consistently been triggered by the sale of an article embodying the copyright, patent or trademark. The third lever is the implication of exhaustion. In the most common case, exhaustion allows a purchaser to redistribute the article through a transfer which typically involves a sale, but may also entail a rental. More controversially, exhaustion may allow the purchaser to reuse the protected article, limiting the rights of the intellectual property owner beyond the right to distribute. Finally, the fourth lever involves the geographic scope of exhaustion, specifically whether exhaustion is limited to acts within the nation state or to acts that can occur anywhere. A nation state must choose among each of these four dimensions in designing its exhaustion doctrine.

The report presents an assessment of the successes and failures of the exhaustion doctrine as applied by various countries. Much of the discussions focuses on legal developments in the United States. This emphasis reflects the long history of judicial opinions and legislation dealing with the exhaustion doctrine in the United States. This lengthy experience provides varied lessons on possible approaches to formulating an exhaustion doctrine. The long history shows that the United States approach to intellectual property laws is not monolithic, offering ready solutions to be exported to other nations. Instead, we see through a study of exhaustion in United States intellectual property law, the tension in the policies and the varied interests that inform the exhaustion doctrine.

Following from the analysis and comparative study, three policy recommendations serve as the conclusion for the report.

First, the exhaustion doctrine should be industry-specific given the diverse types of markets and consumer interests affected by intellectual property rights. For example, the exhaustion doctrine would appropriately be different for pharmaceuticals than for cinematic works.

Second, the recent adoption by the United States of the principle of international exhaustion creates possibilities for entrepreneurs in developing countries to create gray markets. However, responses by United States Trade Representatives to international exhaustion may impose treaty-based limits on trading partners. Nation states, particularly in developing countries, need to be aware of the reaction to international exhaustion.

Finally, the exhaustion doctrine itself has limitations. Centering largely on market transactions, exhaustion is not beneficial to protecting user interests for non-marketing settings that involve the copying or making of intellectual property. Therefore, the exhaustion doctrine needs to be supplemented by rules on fair use or fair dealing that more robustly and directly protect users' interests in specifically delineated areas. The limits of exhaustion were made clear by the US Supreme Court's recent decision in Bowman v. Monsanto, in which the Court held that the planting of a patented seed was not protected by the exhaustion doctrine. While exhaustion has its role, the doctrine is only part of the broader panoply of rights and limitations needed for a healthy intellectual property system.

1. THE EXHAUSTION DOCTRINE IN INTELLECTUAL PROPERTY

Intellectual property rights are not unlimited. Duration, scope of subject matter, users' privileges such as fair use or the right to repair are examples of how the intellectual property owner's right to exclude gives way to the interests of non-owners. The exhaustion doctrine, the subject of this paper, is another limitation which has been the source of controversy in both developed and developing countries. As a matter of global intellectual property law, the exhaustion doctrine is a linchpin to the relationship between developed and developing countries in a world of cross-border trade and global development.[1]

Under the exhaustion doctrine, the rights of an intellectual property owner terminate after an exercise of the rights by the owner. The most common example of exhaustion is the first sale doctrine, as it is called in the United States. The exhaustion doctrine states that after the intellectual property owner has made a first sale of a commodity that embodies the owner's intellectual property, the owner no longer has the right to prohibit sales of that particular commodity.[2] The classic example of the exhaustion doctrine is the resale of a book by the authorized purchaser. Such purchaser can resell the book without infringing the distribution rights of the copyright owner. Other examples would include the resale of a patented automobile or a trademarked product by a legitimate purchaser. As an example of exhaustion, the first sale doctrine shows that the intellectual property owner's right to prohibit distribution is limited to the first sale of a particular commodity embodying the intellectual property.

Exhaustion is not limited to sales. Another example is the right to repair a patented item. A purchaser of a patented machine, such as an automobile or a consumer electronic like a stereo, has the right to repair the product. The purchaser's right to repair, however, does not include the right to reconstruct the patented technology. While the boundary between permitted repair and unpermitted reconstruction is often difficult to predict, the repair privilege demonstrates how the patent owner's right to prohibit the use of a patented technology is exhausted.

The exhaustion doctrine is controversial in part because it recognizes a limitation on the intellectual property owner's rights. Intellectual property owners tend to be large companies with political and economic clout while users are dispersed and generally have weaker economic and political power. Consequently, the political pressure in both the legislature and courts is to place limits on the exhaustion principle. Such limits include placing restrictions on the scope of the application of the exhaustion doctrine through such means as identifying who is a legitimate purchaser and what transactions constitute a sale. Another limitation is the geographic scope of the exhaustion doctrine, restricting the doctrine to sales that occur wholly within a nation state's borders. This limitation based on geographic scope is referred to as the question of national exhaustion (also sometimes called territorial exhaustion). Current controversies over the exhaustion doctrine are posed as the question of whether exhaustion is international or national (or in the case of trading areas, regional) in scope. The question of geographic scope is at the heart of how intellectual property affects the movement of goods across national borders and, as we shall see in more detail, the business practices of the intellectual property owner.

Exacerbating the controversy over exhaustion is the lack of guidance from international agreements such as TRIPS. Under Article Six of the TRIPS Agreement: "For the purposes of dispute settlement under this Agreement, subject to the provisions of Articles 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights."[3] This provision gives member states broad latitude in implementing the exhaustion doctrine under its national laws, whether enacted by statute, articulated in judicial opinions, or formulated in agency regulations or

rules. Under the terms of this provision, the only limitations on how a nation state implements the exhaustion doctrine are the principles of National Treatment (discrimination against non-nationals) and Most Favored Nation (equal treatment among member nations). Other multilateral intellectual property agreements also provide wide latitude to signatories. Consequently, nation states show variation in the application of the exhaustion doctrine.

Silence in treaty instruments on specific obligations with respect to the exhaustion doctrine illustrates the difficulty in identifying a coherent set of principles on which to construct the doctrine. On one hand, a narrowly drawn, or weak, exhaustion doctrine is consistent with strong rights of intellectual property owners to exclude others from making, using, or distributing a protected work. Such a strong right of the intellectual property owner can be justified on the grounds of the economic interests of the owner to extract rents from the manufacture, use and resale of the intellectual property rights as embodied in a specific commodity. On the other hand, such a strong right is inconsistent with principles of market alienability and the need to protect the expectations of users in being able to resell a work legitimately purchased.

A weak exhaustion doctrine allows intellectual property owners effectively to impose servitudes on a work embodying intellectual property and thereby restrict the marketability of commodities. These implicit servitudes are especially burdensome in the global context, especially in the current regime of managed free trade. As a practical matter, a strong exhaustion doctrine would place constraints arising from the intellectual property laws of several countries as the goods travel globally through the channels of trade.

If a weak exhaustion doctrine hinders the expectations of users within a regime of relatively free competition, a strong exhaustion doctrine potentially weakens the intellectual property regime and its benefits. The challenge is finding the specific parameters delineating the exhaustion doctrine. These parameters include identifying what rights are exhausted, what acts by the owner trigger exhaustion, and the geographic scope of exhaustion. It is no surprise that nation states vary precisely along these dimensions in implementing the exhaustion doctrine. Furthermore, the precise parameters of the exhaustion doctrine vary across the regimes of copyright, patent and trademark, reflecting differences in policies of each of these regimes. From the perspective of global intellectual property, the critical policy questions influencing the precise shape of the exhaustion doctrine are (1) the relationship between international trade and intellectual property rights and (2) the role of trade and intellectual property rights in guiding economic development within a nation state. These two questions guide the analysis of the exhaustion doctrine in this paper.

This paper provides a relatively comprehensive account of the policies and practices underlying the exhaustion doctrine as they relate to the intellectual property as a policy lever for trade and development. The perspective is global with the emphasis on international trade, but regional with the emphasis on development. With respect to the development challenge, the assumption is that nation states are at different stages of economic development and have different trajectories for how development should proceed. The overarching concept of using intellectual property to "promote progress," as the United States Constitution proclaims, does not have universal meaning. There is no assumption that all nation states will converge in terms of standard of living or in terms of institutional balance of market and government. However, there is an assumption that quality of life as measured through health and welfare indicators as well as measures of income and productivity matter for assessing development. These indicators are relevant in part because international trade is the context within which development occurs. While, within this regime of international trade, treaties place limitations on how individual nation states might act with respect to implementation of laws, there will be variations across nation states in terms of national goals and styles of

development. Therefore, the implementation of the exhaustion doctrine as a means of attaining the goals of development will vary across nation states. Assessment of the exhaustion doctrine in its various formulations will derive from the goals of national and regional development within a global international trade regime.

This paper presents the exhaustion doctrine in three steps. First, the policies underlying the exhaustion doctrine are presented. The three principal policies include (1) exchange in goods in a global market context, (2) the business plan of price discrimination implemented by intellectual property owners, and (3) the incentives for creating new works. Second, the implementation of the exhaustion doctrine by nation states and the European Union are described and compared. This second step provides a comparative perspective on the range of possibilities of the exhaustion doctrine. The third step is the assessment of the exhaustion doctrine as a policy tool for "progress," interpreted in the context of developing countries as the pursuit of the goals of economic development. Part of this assessment will also focus on the role of the exhaustion doctrine for a global regime of international trade. With an understanding of the regional and global effects of the various forms of the exhaustion doctrine, the paper concludes.

2. POLICIES UNDERLYING EXHAUSTION ACROSS AND WITHIN COPYRIGHT, PATENT & TRADEMARK

Policy analyses of the exhaustion doctrine are connected to the underlying policies of intellectual property. Two broad theories support the implementation of intellectual property rights. The first is an economic theory that intellectual property rights create rights to exclude others from engaging in economic exploitation of the subject matter so that the rights holder can economically exploit the protected work.[4] Such exclusive rights are needed so as to solve an externality problem associated with works that are readily imitated upon dissemination. Under the externality rationale, absent exclusive rights, a readily imitated work will be copied widely undermining the appropriation of economic gain from the commercial distribution of the work. This inability to appropriate will reduce the incentive to create the work in the first instance. The economic rationale creates a logically consistent justification for intellectual property rights. However, it does not provide guidance as to the scope of the exclusive rights. Overly broad rights can deter follow-on innovation and creation and result in unnecessary costs imposed on users of the protected work. Too narrowly defined set of rights, on the other hand, can undermine incentives to create. What is overly broad or too narrow may be difficult to determine within economic theory alone and will depend upon the context within which the rights are exercised.

The second set of policy justifications are based on consequences of intellectual property rights for other related values, often justified on non-economic grounds.[5] For example, intellectual property rights are sometimes justified on freedom of expression grounds. Copyright in an author's expression serves to enrich the marketplace for ideas by protecting an author from low cost appropriation of the expression by others. Personal reputation is also a value protected by intellectual property rights as with the moral rights of author to be protected from duplication or appropriation through unauthorized derivative works. A natural right in the fruits of one's labor also provides a foundation for intellectual property rights. For example, patent law protects the labor of an inventor who invests time and other resources in the pursuit of new technologies. Finally, consumer protection in the authenticity of products or services as originating from the purported source of manufacture or distribution is the basis for trademark. In addition, the non-economic interest in business reputation sometimes supports the protection of trademark owners from unauthorized use of a mark.

Neither the economic theory nor the rights based theories provide a complete set of policy rationales for the creation or scope of intellectual property rights. Policy debates and judicial opinions take these theories as potential rationales for assessing intellectual property rights in the varied contexts in which they arise. In the case of exhaustion, both sets of rationales arise. Exhaustion affects the economic value of an intellectual property right and have consequences for other rights, such as those of consumers and users. There is wide latitude in how exhaustion doctrine is formulated in order to best address these sets of interests and values. Not surprisingly, different nation states and regional governments adopt different forms of exhaustion in order to reach widely disparate policy goals. What assessments like this paper purport to do is examine the implications of the legal choices for various policy outcomes.

Some readers may be concerned with the seeming indeterminacy of the policy analysis. The author is not suggesting that anything goes with respect to intellectual property rights and the exhaustion doctrine. The policy justifications presented in this section illustrate the types of arguments that are made in support of various forms of the exhaustion doctrine. Assessment of the effectiveness of the exhaustion doctrine as specifically implemented by a nation state

will depend on the goals of constituencies within that state. An assessment guides us in determining whether there is a meaningful fit between the purported goals and the particular form of the exhaustion doctrine adopted.

The policy arguments underlying the exhaustion doctrine align along two broad categories: arguments across intellectual property rights and arguments within each type of intellectual property. For exposition purposes, the exhaustion doctrine is presented as it arises in the three principal areas of intellectual property. However, debates about exhaustion also arise in more specialized areas of intellectual property rights, such as broadcaster's rights or digital rights. As appropriate, the treatment of exhaustion within these more specialized areas will be presented in the discussion of how specific countries have adopted the exhaustion doctrine, the subject of Section Three. For these more specialized areas, the arguments across all areas of intellectual property will be particularly salient as will be arguments for analogous fields of copyright, patent or trademark.

2.1 Policies Across Intellectual Property

Three types of policy justifications commonly arise for defining the scope of the exhaustion doctrine, justifications based on exchange of goods and services in a global market context, those based on price discrimination, and those based on incentives for creation. Each justification is taken in turn.

2.1.1 Exchange in Goods and Services in a Global Market Context

Intellectual property rights provide a legal foundation for the exchange of goods and services both within a national market and across national borders. As a matter of economic policy, these rights serve to appropriate rents from the distribution of goods and services embodying the intellectual property rights. Exchange in the marketplace has effects on non-economic rights as well, such as those of freedom of expression and consumer well-being. The exhaustion doctrine implicates the full range of justifications for intellectual property.

Before proceeding to the global market context, the implications within an idealized national market are considered first. With respect to economic rights, the exhaustion doctrine places limits on how much the intellectual property rights holder is permitted to appropriate from the commercialization of intellectual property. In the case of no exhaustion, the rights holder will have an economic interest in every possible infringing use of the protected work after legal acquisition by a user. For example, if the user has bought a copyrighted book or a patented laptop, the rights holder would have a right to any proceeds from subsequent resale of that book or laptop. The rights holder may even be able to enjoin such resale if injunctive relief were granted. To take another example, if a lawful purchaser seeks to repair a patented automobile engine that has been damaged, the rights holder could limit the rights of the purchaser to repair by requiring that only an authorized repair person be used. From an economic perspective, the exhaustion doctrine frees up from the control of the rights holder the collateral and subsidiary markets that arise from the primary market for exploiting the intellectual property rights.

Such a free market rationale for the exhaustion doctrine may be persuasive per se for adopting a broad application of exhaustion. In common law countries, the exhaustion doctrine has its roots on the free alienability of goods and the suspicion by common law judges towards restrictions on alienation.[6] In civil law countries, especially those following German law, the exhaustion doctrine has its roots in the implied license that allows purchasers who have obtained title to a chattel to contract with respect to the unburdened property.[7] Under principles of economics that would apply across common law and civil law countries, the rights holder can price the first dissemination of the protected work in order to take into consideration the rights of the acquirer to freely alienate the work after the acquisition. Furthermore, the possibility of resale of the

work will also place downward pressure on the price. Therefore, market forces regulate the transactions in the protected work.

However, the market dynamics are more complex than the simple conclusion stemming from the benefits of competition. If there was no exhaustion, then the rights holder will price the dissemination of the protected work according to the needs of the purchaser. If the purchaser does not want to reuse the work, then the price would lower for the initial sale as compared to the world where exhaustion was permitted. Comparing the market with exhaustion and the one without does not lead to an unambiguous conclusion. In which world are consumers better off? One may think that the world of exhaustion allows price competition and therefore must result in a gain to consumers. But that argument ignores the possibility that the initial price of the protected work may be higher than in a world where exhaustion is not allowed.

To illustrate this point, consider the case of textbooks. With exhaustion, the purchaser of the textbook can resell the book after the purchaser no longer needs it. As a result, the seller, who we will assume is the rights holder, charges a price that would allow the holder to recoup some of the gain to the buyer from the resale. The buyer is willing to pay that price since part of the purchase price can be recouped through resale. But what if the seller simply sold a one-time use of the book, perhaps as an electronic version that becomes inactive after a certain period when the purchaser no longer needs the book. In this case, the initial price may be lower and depending on the needs of the purchaser, that price may be lower than in a world with exhaustion. Price per use rather than per book may be beneficial to consumers.

An example outside of intellectual property further illustrates the point. Consider the question of whether one should lease a house or buy it. Buying permits resale while leasing does not. Of course leasing might involve other costs such as maintenance that the lessor will shift to the lessee. Abstracting from those for a minute, the price of the house for sale may very well be higher than the price for leasing the house for a fixed period of time. The true cost of purchasing versus leasing would also include the costs of exiting the transaction which would be the costs of reselling in the case of a purchase and the costs of waiting for the lease to terminate (or possibly of breaking the lease) in the case of a rental. Whether consumers and rights holders are better off through purchases or rentals depends in part upon the needs of the consumers. Do they want a long term commitment of a purchase or the short term use under a lease?

A similar analysis would apply in the economic policy argument for exhaustion. Whether the competition that arises from resales is economically beneficial or not depends on the needs of the consumers. Do consumers want long term commitment to the protected work (as some might with works of art or with a patented manufacturing part) or short term use of the work (as some might want with a textbook or with a patented electric car)? Since the benefits of resale depends on consumer needs, which are heterogeneous, it may be impossible to say as an absolute matter which regime is preferable from an economic perspective, one with exhaustion or one without.

How the doctrine of exhaustion accommodates consumer heterogeneity is through calibrating the application of the doctrine to the type of transaction. Sales trigger exhaustion while licenses or leases do not. Through these mechanisms, the parties can structure the transaction to suit their particular needs, and the rights holder can price accordingly. The difficulty is deriving workable criteria to distinguish between a sale and a lease. Such criteria can be difficult given the complexities of actual transactions that will contain myriad terms dealing with the allocation of various risks under different contingencies. Nonetheless, in principle, the exhaustion doctrine can deal with consumer heterogeneity through threshold rules of applicability based on the transaction.

Where arguments about the exhaustion doctrine grow more complicated is through the consideration of other factors than the

value of market competition. Consumers may not know their long term needs and choose the wrong type of transaction, regretting buying when they should have leased or vice versa. Furthermore, consumers may want to customize the work to particular needs as with software and therefore choose licensing terms that permit such reuse. Owners of intellectual property in software, however, may not want the competition and market foreclosure that might arise from granting such reuse rights to software users. Consequently, licensing terms and technological measures may further limit the rights of users. Exhaustion doctrine needs to be calibrated to deal with these cases that reflect consumer interests in the underlying transactions.

One degree of complexity arises with consideration of the global marketplace. Should the exhaustion doctrine extend to users in other nations? The previous analysis suggests that the answer is no different in the context of global markets. On the surface, the only change is that the range of possible consumers and rights holders has expanded to include those in the other country. But one country might want to benefit its rights holders or consumers at the expense of those in other countries. As a result, the country might limit the exhaustion doctrine only to transactions within its own borders. This choice illustrates the example of national exhaustion. On the other hand, the choice might be to allow exhaustion to apply regardless of what country is the place of the transaction. This choice illustrates international exhaustion. What are the additional policy arguments regarding exhaustion in the context of trade across borders?

The answer to this question depends upon one's view of international trade. Economic theory, as a general matter, supports free trade on the grounds that exchange across countries leads to gains from trade through specialization accruing to each country.[8] But this idealized notion is readily challenged. It rests upon certain assumptions about comparative advantage and market structure that will not apply to a world of intellectual property rights.

Remember that the economic argument for intellectual property rests on resolving an externality problem from the creation of a new work. Each nation state in a trading relationship can adopt its intellectual property laws independently to resolve the externality problems within the country's borders. But this resolution domestically leaves open the issue of externalities across borders. If the work embodying intellectual property crosses borders under a free trade agreement, what then to do about the infringement of the underlying intellectual property in the other country? If the intellectual property owner should be able to prevent the trade in these protected works, the use of intellectual property rights to prevent trade in works serves as an impediment to free trade. Arguably the goals of intellectual property and free trade are at odds.

One resolution to this dilemma is to reassess the free trade rationale. Traditional gains from trade arguments ignore externalities across countries. How should these cross-border externalities be incorporated? One way is to view them as benefits, or positive spillovers, and allow them to take place. This view is often countered by rights holders who are concerned about the appropriation of economic value and knowledge by other countries. Another view is to consider the gains from trade as arising not from comparative advantage but from the expanded market that cross-border trade makes possible. Intellectual property rights should be determined by the policy effects on the global market. Since individual nation states will most likely implement policies that favor national, rather than global, markets, international regimes are needed to create global standard for intellectual property rights. But that solution introduces the problem of how these global standards are established.

Most international intellectual property agreements are silent about exhaustion. Article Six of the TRIPS agreement expressly pronounces this silence, effectively leaving the matter of exhaustion to nation states. The analysis in this subsection may explain why. The proper treatment of exhaustion in the global context

is difficult to resolve. Therefore, the drafters of the TRIPS Agreement simply avoided the issue, leaving the matter to nation states. But this deference is not simply a matter of dodging responsibility. Instead, given the large number of interests and the heterogeneity of transactions and consumers implicated by the exhaustion doctrine, nation state are given latitude in fashioning the doctrine to pursue its particular policy objectives. In other words, the resolution of the conflicting interests is left to the nation states and its policy making apparatus. The result, as we will see in Section Three, is national exhaustion seems to be the adopted norm although we might question whether it is the correct one.

2.1.2 Price Discrimination

As the previous section showed, arguments based on global markets are complex and difficult to resolve. While arguments about free trade across borders often arise in the exhaustion debate, particularly in the European Union (EU) context for reasons having to do with the creation of a common market, the economic arguments about exhaustion often reduce to ones about price discrimination, or the ability of a seller to charge different prices to different consumer for the same product or service.

Price discrimination is a common practice both within and outside the context of intellectual property based markets. Software companies charge different prices for the same software package depending upon whether the purchaser is a business or an educator. Insurance companies have different rate plans for reimbursement depending on the nature of the entity providing the medical service. State universities charge differential tuition and fees for residents and non-residents. Airlines charge different prices for similar seats for the same route of travel depending on when the ticket was purchased and the timing of travel.

The economic rationale for price discrimination is that uniform pricing leaves certain consumers excluded from the market. If sellers could charge a higher price to those willing to pay more and a lower price to those willing to pay less than a prevailing uniform price, then the market as a whole would be improved. Although consumers paying a higher price are hurt as compared to the lower uniform price, the market reaches out to more consumers who were priced out and the sellers make more profits. In reality, the now higher paying consumers can receive benefits through a slightly higher quality of product, such as a first class seating or other benefits on an airline. Price discrimination often is accompanied by product differentiation, useful in compensating the consumers who pay higher than the uniform price.

While there are benefits to price discrimination, the practice comes under legal scrutiny because it can arise only in a market that is not perfectly competitive, in other words in one where sellers have market power. Under the competition laws of most countries, the presence of market power raises the concerns of regulators because of the potential for abuse. Under United States antitrust law, the Robinson-Patman Act prohibits price discrimination in favor of large retailers who can extract concessions from wholesalers and thereby foreclose small retail shops.

This concern with market power also informs the treatment of price discrimination as it arises under intellectual property law. In order for price discrimination to work as a business practice, the resale of the good has to be prohibited. Otherwise, the low price consumers could resell the good to the consumers charged the higher price and thereby undermine differential pricing. Since the exhaustion doctrine allows precisely for such resale, the doctrine undercuts the business strategies of intellectual property owners engaged in price discrimination. This tension is at the heart of the policy analysis of exhaustion based on principles of price discrimination.

Consideration of exhaustion at the national level provides a key starting point for assessing the price discrimination based arguments. As is shown in Section Three, most countries recognize exhaustion at the national level. Therefore, one might conclude that price discrimination for intellectual property based

works cannot occur within national markets. Of course that is not true. Even with exhaustion, there are several ways in which price discrimination can still be implemented by the intellectual property owner.

What allows price discrimination even under national exhaustion is the possibility of limiting resale in other ways. One possibility is to market intellectual property works as a service. For example, movies on a DVD are commodities that can be resold. But movies shown in a theatre, especially in a theatre with a large screen and specialized sound systems, is a service. As a point of fact, the performance of intellectual property protected works is a service that cannot be resold. Another possibility is through financing mechanisms such as insurance which allows patent owners in pharmaceuticals to engage in differential pricing for government funded medical insurance. Yet a third possibility is to slightly differentiate the protected product so that different consumers are getting slight differences in the product which make resale more difficult. Finally, technological protection measures, or other add-ons to intellectual property, make transfers more difficult especially for downloaded products like software, movies, or video programming. In short, while exhaustion allows for resale, price discrimination can still occur through other means of prohibiting resale even with a strong exhaustion doctrine.

Where the price discrimination arguments have their salience is in the sphere of international trade. Suppose that the intellectual property owner sells the same protected work in two different countries at two different prices. The differential pricing is a reflection of different demand and market conditions in the two countries. Exhaustion might apply to resale within the country, but what about sales between countries? Can the low price consumer in Country B resell to the high price consumer in Country A thereby undermining the global scheme of price discrimination? The answer rests on whether Country A recognizes the international exhaustion of intellectual property rights. In other words, does a distribution anywhere exhaust rights in Country A? If yes, then the product sold in Country B can be resold in Country A, undermining global price discrimination.

One argument against international exhaustion rests on the benefits of global price discrimination. Country B residents benefit from the lower price and the market as a whole is better off because of the expanded set of consumers. In fact, consumer in Country A may be no worse off by the expansion by the intellectual property owner into Country B because they might pay the higher price even if the good were not sold in Country B. So the economic case for global price discrimination is arguably stronger than the one for price discrimination within a national market. Therefore, under this type of argument, international exhaustion is undesirable as raising prices for the beneficiaries in Country B, which is most likely a developing country. At the same time, as I point out below, parallel importers who would be trading between low price and high price countries under a system of international exhaustion would benefit. Presumably, many of these parallel importers will be in developing countries.

The counterargument starts with a point about fairness. Why should Country A consumer pay a higher price? Although they may be richer and can afford it, there are many consumers in Country A that are priced out of the market and would benefit from the lower price in Country B. Should they not be able to reap the benefit of exhaustion? This fairness argument is most salient in the case of pharmaceuticals because of the clear benefits to human health and welfare. Although in general such benefits can be reaped by neglected consumers travelling from Country A to Country B, this may be too high a price to pay. Ultimately, the resolution of whether resales across borders should be allowed depends on whether the resulting uniform price will be closer to the price charged in Country B or that charged in Country A. That prediction will be difficult to make, resulting in further uncertainty on the value of international exhaustion.

As we will see in Section Three, the price discrimination argument has been central in debates over international exhaustion. Prevailing arguments in favor of international exhaustion often lean towards questions of free trade, rather than the unfairness of differential pricing and thereby collapse into the type of policy arguments relating to global markets. International exhaustion has been a source of controversy in all countries that have considered it, and the recent adoption of international exhaustion for copyright through a United States Supreme Court decision interpreting United States copyright law is no different.

But it should be emphasized that international exhaustion does not necessarily obviate the possibility of price discrimination. As discussed above in the context of national exhaustion, there are other ways to limit resale than through claims of intellectual property infringement. Transportation costs across national borders may be prohibitive even through technologies like the Internet. Regional differences in technological standards, such as with DVD's, allow for product differentiation that reduces the possibility of resale. Furthermore, distribution through broadcast and performance can turn a protected product into a protected service, prohibiting resale. On this last point, the recently concluded WIPO treaty on audio-visual performances (2012) and discussion at WIPO regarding a treaty on broadcast rights highlight the importance of intellectual property rights grounded in services, which cannot be resold within or across borders.

One last dimension of the price discrimination argument is the use of digital technologies to protect a work. Such technologies are an example of product differentiation that prevents resale. The recent United States Supreme Court decision in Kirtsaeng v. John Wiley & Sons permitting the cross border resale of textbooks raises the possibility that publishers may try to move more quickly to electronic book formats, in part as a response to the move to international exhaustion. Given the limited diffusion of e-Book readers in developing countries, such a full global shift to electronic books may not be feasible for publishers. Nonetheless, it will be interesting to see what effect international exhaustion will have on the adoption of new technologies for accessing protected content.

What is particularly interesting about digital works is the developing question of the applicability of the exhaustion doctrine to digital works, whether books, movies or music. The argument has been raised that exhaustion principles should limit rights in digital content. Specifically, purchasers of digital works have argued that they should be allowed to resell the digital works under the exhaustion doctrine, an example of exhaustion in copyright law. The argument has not been successful, but the litigation demonstrates how the exhaustion doctrine looms over emerging areas of intellectual property law.

2.1.3 Incentives for Creation

An often made argument against a strong exhaustion doctrine is the resulting erosion of the incentives to create and invent, the heart of intellectual property policy. In a recent appellate decision from the United States dealing with exhaustion of patent rights, the court proclaimed that exhaustion for certain types of technology "eviscerates the patent."[9] Such graphic metaphors rest on the economic rationale for intellectual property rights. If the grant is meant to promote creation and invention, then the rights holder should be able to appropriate as much rents from markets as otherwise legally permitted. Such a rationale would also support allowing price discrimination since it is a business model that in general benefits rights holders with possible attendant benefits to consumers. But these latter benefits are just icing on the cake and irrelevant to the key concern of allowing rights holders to make as much money as possible.

There is of course a non-economic side to this argument. Rights holders may have a natural claim to the legal protection of their works. In addition, there are recognizable reputational benefits to rights holders that are affected by resale. Such arguments tend to reinforce

the economic based ones and in many ways emphasize the need to allow the rights holder to gain as much as possible from the exploitation of the protected work.

It is important to rehearse these arguments, even though they, and objections to them, might be familiar to the reader. The role of intellectual property rights in incentivizing creation and invention is recognized while it may also be greatly exaggerated. Some creation and invention would occur anyway without intellectual property protection. The existence of intellectual property might promote forms of creation and invention that might not otherwise occur and also skew existing creative energies into directions that may yield intellectual property protection. While I have been critical of the incentive arguments largely on grounds of perspective and overemphasis, they are present here to acknowledge their existence and their proper role in the debate.

The word 'proper' in the last sentence should be emphasized because the argument about incentives tends to ignore other ways in which intellectual property laws operate that may hinder progress in creation and invention. The standard examples of these inhibiting effects are follow-on and cumulative innovation. Related examples are those based on the potential negative effects of too broad an intellectual property right on research, free expression, and consumer commentary. In the case of exhaustion, there are important users' interests that exhaustion can promote. Resale and reuse are examples already discussed. Exhaustion can serve to promote aftermarkets that complement intellectual property, such as markets for service and repair. Due consideration to these interests arise in the manner in which specific countries implement the exhaustion doctrine.

As discussed in greater detail throughout the paper, the policies underlying the exhaustion doctrine have industry specific effects. Studies of industry specific effects of the exhaustion doctrine have looked at the gray market, or the market for unauthorized distribution of noncounterfeit goods, in several industries. Both the airline and automobile industry are affected by the market for unauthorized parts, raising questions of consumer safety and product quality stemming for lack of consumer warranty protection or regulatory review. The pharmaceutical industry has also been subject to gray markets especially through resale of drugs from developed countries to developing countries and through resale among developed countries in response to differences in intellectual property and other regulatory laws. In these industries, the exhaustion doctrine serves to limit the gray market by giving the intellectual property owner the right to control importation or other forms of resale within the domestic market.

In addition to large scale and critical industries like aeronautics, automotive and pharmaceuticals, the exhaustion doctrine is relevant to consumer goods, such as cigarettes, fashion (including jewelry and clothing), food, and toys.[10] Arguably these industries do not have the larger social and economic effects as aeronautics, automotive, and pharmaceuticals. Consumption benefits are limited to purchasers of the products with little or no externalities. However, safety might be an issue for many of these products, including toys. Over all though, the price benefits from gray market goods would support a strong exhaustion doctrine as applied to works in these industries.

Industry specific studies show how contextual the exhaustion doctrine is.[11] In addition, these studies show additional effects of the exhaustion doctrine and the resulting resale on such attributes as product safety and quality. Industry specific studies, guided by the general contours of the policy implications of price discrimination and economic incentives, are useful in understanding the complete context in which the exhaustion doctrine operates and the kind of effects that resale has on particular markets and works.

The exhaustion doctrine also has implications for macro effects. Specifically, the exhaustion doctrine has potential implications for economic development. Identifying these effects requires looking at the connection

between copyright law and the creation of new works and the connection between these works and economic development, as measured by various indicators such as economic growth, employment, and consumer well-being. Different types of new works have differential effects on the macro-economy. For example, new fashion or new artistic works might have little spillovers for employment and development of new industries. New software can have large spillover effects as the software might have wide industrial application. Gaming software will have different effects from office software, for example, with the latter having wider industrial applicability. The links and connections among works, industries, and the economy may be difficult to identify and predict. Creation of works in the entertainment industry, such as movies, television programs, and videogames, may have little or no industrial applicability. But developments in these industries can spur economic development and growth with spillovers into tourism and other forms of entertainment.

The macro policy effects of the exhaustion doctrine require understanding the possible connections from the creation of works to industrial development. Assessing the effects also requires identifying the correct metrics for gauging progress and development. Growth in economic variables such as income will not capture qualitative effects on human capacity and the standard of living. Gauging, for example, the effects of the exhaustion doctrine on the pharmaceutical industry entails understanding both the effects on the incomes of pharmaceutical firms and on access to health care among consumers. These factors require not only distributional trade-offs among different interest groups, but also intertemporal trade-offs between synchronic access and use of goods and dynamic incentives to innovate. Such analysis may not be appropriate for specific legal disputes, but would be critical for drafting legislation and other regulation defining the exhaustion doctrine.

Underlying the discussion in this subsection is the relationship between private incentives and public institutions like the market. A fundamental question in intellectual property policy is whether competitive markets or markets with some degree of concentration are more conducive to innovation and growth. There are arguments in support of both positions, but the current understanding is that competition is more conducive to innovation than concentration while the latter is important for realizing scale effects and the financing of research and development in some situations.

The exhaustion doctrine is relevant to this debate to the extent that a strong exhaustion doctrine fosters competition. By allowing for entry of new distribution channels, the exhaustion doctrine provides a competitive source of goods that can allow new firms to enter an industry and can limit concentration of existing firms (and any possible harms from that concentration). In this sense, the exhaustion doctrine promotes gray markets that can be pro-competitive.

There are two problems from a competition perspective that need to be considered. First, allowing gray market channels might undermine existing distribution mechanisms that can be conducive to growth and competition. The development of retailing and sophisticated distribution channels can be a stimulus to growth. Allowing gray markets can undermine incentives to create authorized distribution channels and as a result have adverse effects on the development of retailing. The adverse effects would include a decline in incentives to invest in brands that would support interbrand competition. However, to the extent that the concern is solely or largely with price competition, the exhaustion doctrine and gray markets might be a net boon to society as they tend to lead to lower prices.

The second caveat is about our understanding of competition in intellectual property law and innovation. Competition in practice is a mix of price and non-price competition, each having different dynamics and effects on innovation. Price competition operates through the generation of profits for companies, profits that can be used for research and development and innova-

tion. Non-price competition operates through differences in quality and variety that can support innovation through the introduction of new products and services. Such innovation occurs through charging price premiums, and perhaps a reduction in price competition. In assessing the effects of the exhaustion doctrine on competitive dynamics, there needs to be better understanding of these dynamics and how they operate across industries.

The incentive argument needs to be acknowledged but placed in the broader context of the impact of intellectual property rights on markets and other institutions. Debates over the exhaustion doctrine highlight the need to place the incentive arguments in the proper context so as to assess claims that intellectual property rights are being eviscerated.

2.2 Policies Within Intellectual Property

While there are common policies across intellectual property regimes in support of the exhaustion doctrine, individual areas of intellectual property have independent policies that define the specific contours of exhaustion in terms of scope and factors that trigger the doctrine. As we shall see in Section Three, the exhaustion doctrine varies not only across regions but also across fields. In this subsection, the emphasis is on the three main subfields of intellectual property: copyright, patent and trademark. The organization of the discussion in Section Three is around countries and these three subfields, with reference as necessary to other areas of intellectual property, such as digital rights.

2.2.1 Copyright

As the body of intellectual property dealing with communicative and aesthetic works, copyright raises special issues for the exhaustion doctrine. These special issues reflect the range of expressive works protected by copyright, from the highly personalized and artistic to the commoditized forms of information and data. Furthermore, the special treatment of digital content through various forms of digital rights management, both technological and legal, raises issues of technical barriers to resale and reuse and the ability of technological forms of delivery to circumvent traditional channels of international trade.

The moral rights regime poses challenges for the exhaustion doctrine. Under moral rights, the author can prevent uses of a work that are harmful to reputation, such as distortions, divulgation (or publication) and false attribution. Furthermore, the author is permitted to obtain a share of the revenue from resales of the work under the principle of *droit de suite*. Granting the legal right to an author for controlling the reuse and resale of a copyrighted work is inconsistent with the exhaustion doctrine to the extent that moral rights protection overlaps with that of copyright. Certainly *droit de suite* supplements the distribution right under copyright. Furthermore, the right to prevent distortions overlaps in some instances with the derivative work right. If resales and reuses through adaptation are permitted after exhaustion of copyright, the presence of moral rights protections would negate the protections for users provided by exhaustion. On the other hand, the effects of moral rights on exhaustion may be limited. *Droit de suite*, for example, does not necessarily permit injunctions against resales, but requires compensation of the author. Such liability rule protection of authors would not interfere with the exhaustion doctrine to the same extent as a prevention of resale. However, rights against distortion or divulgation would severely limit the rights of users under principles of exhaustion. Under a moral rights regime, users would not be able to modify the work or even display a work which they purchased without infringing on the rights of the author.

Two factors limit the adverse influence of a moral rights regime on the exhaustion doctrine. First, moral rights generally apply to a category of artistic and literary works. Software, databases, and other information based works would not fall under the protections of moral rights. Second, as the survey of regional variations with respect to the exhaustion doctrine presented in Section Three shows, very few jurisdictions recognize

copyright exhaustion as applying to rights other than the distribution right. Therefore, while *droit de suite* and divulgation may limit exhaustion of distribution rights as applied to artistic and literary works, the rights against distortion or false attribution will have very little, if any, effect on the exhaustion of the rights of copying, adaptation or performance under copyright.

The larger threat to exhaustion comes from digital copyright. Technological mechanisms limit resale of works by preventing transfer of a digitized work without transfer of the hardware on which the work is stored. While this may not be an impediment to works stored on readily portable media, such as a CD or DVD, such technological restrictions can be insurmountable for media libraries stored, for example, on a server or "in the cloud." Resales would have to occur through transfers of entire accounts or systems within which the protected works are contained. Furthermore, encryption might also limit transfers as access to content may be technologically connected to passwords or compatibility between software containing the content and hardware readers. As we will see in Section Three, recent cases gauge the extent to which the legal concept of "digital exhaustion" exists and is viable to balance the interests of copyright owners and users.

On the other hand, digital technology permits the transmittal of content across geographic borders while avoiding the administrative controls that arise from patrolling these borders. The Internet, of course, has its own internal and external boundaries. Servers are tied to territory, and Internet transactions are linked to bricks and mortar transactions, such as through mail-delivery. But nonetheless, content delivery can occur among users in different countries without the need to engage with national laws. This transcendence of national boundaries is important for countries that adopt national exhaustion, limiting exhaustion to transactions within national borders. Since transactions involving residents from different countries may be difficult to police on the Internet, the effective regime may be one of international exhaustion for digital content that can move globally, but bypass actual national borders.

2.2.2 Patent

As compared to the two other types of intellectual property, patent operates as a strong property right that allows the owner to exclude others from making, using, selling, or offering to sell the protected invention. Under common law principles of property, restrictions on alienation such as post-sale covenants are suspect. Therefore, one might expect a strong exhaustion doctrine as a limitation on patent rights, at least as compared to other intellectual property regimes. Even in a civil law tradition, that may not, like the common law tradition, support strong alienability of property, the concept of implied license supports exhaustion of patent rights.

The prediction of strong exhaustion for patent law is not consistent with reality. Only a handful of jurisdictions recognize international exhaustion of patent rights. For example, Egypt and some emerging East African countries have included international exhaustion provisions in their recently enacted intellectual property statutes. Furthermore, there is wide variety on the scope of national exhaustion with many jurisdictions allowing contract terms to limit the scope of exhaustion within borders. If there is a value placed on the alienability of patent rights, that value is realized not through a strong exhaustion doctrine, but through the protection of the patent owner's right to commercially exploit the patent.

A weaker than expected exhaustion doctrine for patent may reflect a predilection to protect the economic rights of inventors and owners. The common law suspicion of restraints against alienation arose in the context of transactions involving land and chattels, two assets that have a legal life of infinite duration. Patents no longer have the ability to restrain alienation once they expire. Therefore, the patent owner, unlike the owner of land or of chattel, has a shorter time period in which to profit from the

legal rights. The temporal exhaustion of patent rights give way to a weaker exhaustion doctrine to support reuse and resale.

Furthermore, patent rights are administrative in nature, granted by the state through the administrative apparatus of the relevant patent office. While there are mechanisms for transnational application for and review of patents, such as in Europe, patent rights tend to be individualized to the policy choices of a particular nation state as articulated through the country's patent office. Patent rights can be idiosyncratic across nations, despite efforts in harmonization, and consequently, international exhaustion may not be consistent with rights that are highly peculiar to the nation that granted them. Furthermore, allowing transactions outside a nation's borders to limit rights granted by the nation and particular to that nation may conflict with principles of national sovereignty. Consequently, it is not surprising that national exhaustion tends to be the norm in patent law while we see different principles of exhaustion arising across regions.

2.2.3 Trademark

The rights of trademark owners are tied to the probably harmful effects of unauthorized trademark use consumers. Unlike patent or copyright infringement, which imposes strict liability for unauthorized using, making, or selling of a protected work, trademark infringement arises when a particular use of a trademark is likely to cause consumer confusion. Even for claims of reputational injury, such as dilution through blurring or dilution through tarnishment, the purpose is not to protect a strong property right of the trademark owner, but to protect the integrity of the trademark system as a tool for guiding consumers in being able to distinguish the products and services of one source company from those of another. While likelihood of confusion aims at preventing consumers from being steered to the wrong products, likelihood of dilution aims at maintaining the informational signals provided by trademarks and thereby protect a company's investment in branding.

Consequently, the exhaustion doctrine is also closely connected to the goals of creating a system of signs to communicate to consumers about the source of products. Reselling used goods that are branded arguably will not cause consumer confusion. Consumers should in general be able to recognize that if goods are being sold as used, such as through a resale by the current owner, then the goods do not originate from the trademark owner. Hence, resale of branded goods is protected under the exhaustion doctrine. The main exception to this general rule is if there is some material change to the good that might defeat consumer expectations about how the product functions. Once again, the issue is whether the context of the resale and the quality of the resold good are such as to lead to the likelihood of consumer confusion.

The choice between national and international exhaustion also rests on the potential effects on consumer confusion. In markets that are globally integrated through channels of free trade and through cross-border advertising, trademarks can reach an international stature. Consumers recognize that companies operate across borders and are not merely local in their distribution systems. What this means for the choice between national and international exhaustion is ambiguous. The existence of global channels of distribution will make it more difficult for consumers to discern the particular source of a product or service.

Accordingly, there is an interest in allowing trademark owners to prevent importation of branded goods obtained overseas for resale in the domestic market. On the other hand, such border restrictions would interfere with the movement of goods and the development of a vibrant resale market for branded goods. Adding a layer of complexity are the restrictions that a trademark owner may want to the make on distribution channels in order to maintain

the status associated with a particular brand. Once again countries balance these interests in different ways although some form of international exhaustion tends to be the norm as compromise between trademark owner rights and free trade.

A policy position towards trademark exhaustion cannot overlook the types of goods or services that are governed by the trademark. When trademark owners seek to limit the distribution of status goods, the policy response may be to allow such limitations because the loss to the public from access to such branded goods may be minimal. Such a conclusion requires some degree of caution if the protection of status good is used to preserve unequal class or social hierarchies. However, the use of trademark law to prevent access to life-saving or life-preserving products, such as pharmaceuticals, food, or educational materials would demand a different response, one that would take into consideration not the value of the brand, but the value of the underlying product or service. Policymakers should not let the need for a workable trademark system trump the need for the distribution of vital products and services, especially those who do not seek to acquire status through brands.

Finally, many of the issues discussed under the subsection on copyright with respect to the application of exhaustion to Internet transactions apply equally to trademark exhaustion. Although there is a use of digital codes and encryption as a way of branding and identifying products, digital trademark does not introduce issues different from those that arise with more traditional, non-digital marks. In this way, digital trademark differs from digital copyright, where technological means of preventing use supplements the legal right to exclude. However, as with copyrighted goods, the Internet does provide a mechanism for a distribution of goods that can transcend borders. Although Internet transactions that serve to initiate the physical shipment of products invariably involve the crossing of actual borders that can be policed, some Internet transactions involving private sales may be more difficult to police, especially if they avoid public market mechanisms like eBay. The presence of such Internet transactions may mean that the default rule is one of international exhaustion since branded goods can be readily traded independent of place of origin through the low cost communication and distribution channels online.

3. REGIONAL AND NATIONAL PRACTICES WITH RESPECT TO THE EXHAUSTION DOCTRINE

There is a great variation in the application of the exhaustion doctrine. This variation occurs not only across countries and regions, but also across fields of intellectual property. This section documents the many forms of the exhaustion doctrine through an examination of five jurisdictions (United States, European Union, Japan, India, and Brazil) with each one analyzed with respect to copyright, patent and trademark laws.

A large portion of the discussion is devoted to developments in United States law. In assessing the national and regional variations in the exhaustion doctrine, the reader should keep in mind the admonition by the economist Fritz Machlup in his assessment of the United States patent system in the 1950's:

> If we did not have a patent system, it would be irresponsible, on the basis of our present knowledge of its economic consequences, to recommend instituting one. But, since we have had a patent system for a long time, it would be irresponsible, on the basis of present knowledge, to recommend abolishing it. The last statement refers to a country such as the USA not a small country and not a predominantly nonindustrial country, where a different weight of argument might well suggest another conclusion.[12]

Expanding Professor Machlup's argument to intellectual property more broadly, intellectual property laws, including the exhaustion doctrine, are not necessary, but perhaps should not be abolished once enacted. A small, non-industrial country, to take Professor Machlup's example may choose not to adopt intellectual property laws, to the extent permissible under international treaty obligations. The US experience with exhaustion is actually quite developed and complex and can provide lessons for other countries as they shape their exhaustion doctrine. Most importantly, a thorough study of the many approaches to exhaustion under US law belies any claim that the US has a settled, uncontroversial approach to intellectual property, one ready to be exported into other countries. As the discussion shows, the US continues to grapple with basic issues and has experimented with ways to address them over its history. That heterogeneity should be seen as a justification for experimentation by other countries.

3.1 United States

Under US law, exhaustion exists separately within copyright, patent, and trademark, reflecting different policy goals for each type of intellectual property. Although courts and legislatures do refer to general exhaustion principles, the exhaustion doctrine is tailored to different intellectual property regimes.

3.1.1 Copyright

Exhaustion of copyright first arose in the United States in the 1908 decision by the United States Supreme Court in Bobbs-Merrill v. Strauss.[13] Prior to this decision, there is evidence of an aftermarket for copyrighted materials, particularly books, suggesting that copyrighted works could be resold. But there are no reported cases on the issue, perhaps because the practice of resale itself was not seen as controversial. This hypothesis is consistent with the specific controversy in the Bobbs-Merrill case. The publisher had distributed its books under the condition that the book not be sold for less than a specific price. The question before the Court was whether this contractual term was enforceable, not whether resale in general would be permitted. The two issues were related to each other, but the specific legal issue was the legality of the practice of maintaining the price at which books could be sold and resold.

The Court held that the contract term was unenforceable on the grounds of exhaustion. Although the Court did analogize to price maintenance practices and other contractual restrictions under patent law, citing many of the cases discussed in the next subsection on

US patent exhaustion, the Court ultimately concluded that these patent law cases were inapposite to the copyright context. The patent context was different because copyright was statutory, the Court deemed, although it is not completely clear from the opinion why that distinction is relevant.

Nonetheless, the Court based its decision on the reading of the copyright statute in light of the language in the United States Constitution that copyright and patent are enacted in order to "promote progress in science and the useful arts."[14] The Copyright statute in force in 1908 did not mention exhaustion. Nonetheless, the Court read the effective statute's language about the owner's right to vend the copyrighted work in broad terms as promoting wide dissemination of the work without private contractual restrictions. Such wide, unfettered dissemination, the Court concluded, fulfills the goals of copyright law to benefit the public.

Revisions to the Copyright Act in 1909 included an express provision regarding exhaustion. Section 41 of the 1909 Copyright Act stated: "[N]othing in this Act shall be deemed to forbid, prevent, or restrict the transfer of any copy of a copyrighted work the possession of which has been lawfully obtained." This provision allows the transfer of a copy of a copyrighted work by someone who has lawfully obtained that copy. This provision is the first statutory codification of exhaustion under US copyright law.

This version of exhaustion, referred to as the first sale doctrine, was recodified in the Copyright Act of 1976 under section 109(a), which has been in effect from 1978 to the present. This section provides that "the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord." The statute expressly states that this term is a limitation on the exclusive right of the copyright owner "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending" under Section 106(3) of the Copyright Act.

While the understanding of section 109(a) reduces to the lawfulness of reselling a copy of a copyrighted work that someone has lawfully purchased (e.g., reselling a purchased book or DVD), the statutory language is fairly byzantine. Although section 109(a) is presented as a limitation on 106(3), the limitation does not apply to the portion of 106(3) that provides an exclusive right "for rental, lease, or lending." This limitation on a limitation, so to speak, is an inference from the use of the word "owner" in section 109(a). Someone who obtains possession through rental, lease or lending would not be an owner of the copy. Section 109(d) clarifies this reading by expressly stating that 109(a) does not apply to rental, lease or lending.

Exhaustion principles arise in other provisions of section 109. These further limitations illustrate the work- and industry-specific nature of copyright exhaustion. Section 109(b) provides that the copyright owner retains the rental right in copyrighted software and phonorecords even after a first sale. This retention of rights effectively prohibits a rental market for software and phonorecords unless authorized by the copyright owner even if a purchaser buys a copy of software or a phonorecord. Section 117, however, does allow the owner of a copy of software to make copies for archival purposes or for booting up or running requisite hardware. Under section 117, the owner is also allowed to make copies for the purpose of maintaining or repairing a machine that contains authorized copies of the software. Section 109(c) allows a purchaser of a pictorial, graphic or sculptural work to publicly display the work without needing to obtain a license from the copyright owner. Furthermore section 109(e) allows the purchaser of an "electronic audiovisual game," which was "lawfully made under this title," to publicly perform and display the copyrighted content in the game although this right does not extend to any content that might be infringing within the game, i.e. content that the creator of the game infringed.

Lower courts in the US have addressed issues of copyright exhaustion in response to particular industry practices. Courts have found that copyright exhaustion applies when there is a sale based on the economic and business realities of a transaction.[15] Therefore, exhaustion has applied to a transaction in which resale rights were purportedly limited by contractual provisions.[16] Such contractual limitations on resale do not apply if the court finds under the circumstances that the copyright has transferred its rights in a particular copy to the acquiring party. However, right to resell digital content, that is works subject to technology protection measures, is an ongoing issue in the United States. The one district court ruling against exhaustion of digital works based its decision on the recopying of the work by the purchaser in reselling the technologically protected work.[17] According to the court, copyright exhaustion does not permit recopying the work since unlimited copying would lower the demand for the original work. However, the purchaser could resell the protected work as embodied in a physical medium (such as a digital player or a personal computer) as long as no new copies were made. The application of copyright exhaustion to digital works will be of continued importance as more content migrates to electronic formats.

The contemporary version of copyright exhaustion in the United States has roots that go back at least a century and illustrates the tailoring of the doctrine to specific works and uses. One overarching question that was resolved by the US Supreme Court in 2013 is the application of copyright exhaustion to cross-border transactions. Although this question has been controversial for over a decade, the Court decided in favor of the principle of international exhaustion through its decision, Kirtsaeng v. Wiley Publishing.[18]

The debate over international copyright exhaustion had its origins in the 1997 case, Quality King v. L'Anza,[19] a controversy over the gray market sales of cosmetics bearing labels copyrighted in the United States. The facts in Quality King entailed the resale in the US of cosmetics bearing copyrighted labels by a parallel importer who had bought these products overseas and was arbitraging the global price differential for the products. The products themselves were initially exported from the United States, but made their way back into the United States market through the round trip of global sales. While the owner of the copyright in the labels (also the manufacturer of the cosmetics) claimed that the act of importing the products into the United States was a violation of the distribution right, the importer asserted the exhaustion doctrine through the first sale defense. However, it was not clear as a matter of statutory interpretation whether the first sale doctrine under 109(a) applied to the importation right under section 601. For the courts, the issue was purely one of statutory interpretation. Since section 109(a) was stated as a limitation on section 106(3), it was not clear that the limitation would apply to the separate statutory provision establishing the importation right. The Supreme Court ultimately ruled that section 109(a) was a limitation on the rights under section 601 since section 601 was written to be a part of the distribution rights under 106(3).

Although a relatively straightforward matter of statutory interpretation, several controversies were buried within the Quality King case. First, the US government position was that the first sale defense did not apply to the importation right as importation entailed the movement of goods across borders as distinct from the sale of goods. The Court in Quality King rejected this view since the first sale doctrine would apply to the sale of a work. Application of the first sale doctrine would rest on whether there had been a sale triggering exhaustion. Whether there was a separate importation right involving the movement of goods would not negate any application of exhaustion to the sale of the imported goods. Although the Court in Quality King seemingly gave a definitive negative response to the US government's view, Justices Kagan and Alito in the 2013 Kirstaeng decision authored a concurrence suggesting that perhaps the US government was correct. So, the issue over the treatment of importation as physical movement of goods still potentially remains open.

The second controversy arises from the nature of the transaction triggering exhaustion. At issue in Quality King was a round trip, meaning that the goods were originally exported from the US before, after several transactions overseas, being imported back into the country. Justice Ginsburg in a separate opinion stated that the first sale doctrine applied only to this scenario. Subsequently, lower courts followed Justice Ginsburg's analysis to conclude that the first sale doctrine applied only to goods that originated from the United States. Some courts adopted even a stronger limitation to require that the copyrighted works be manufactured in the US in order for exhaustion to apply to the importation of the goods into the country. A few courts, however, held that the first sale doctrine applied to all copyrighted goods regardless of place of manufacture or sale.[20] This last position is referred to as international exhaustion, which is the principle adopted by the Court in the 2013 Kirstaeng decision.

Before 2013, the Court attempted to resolve the disagreement over international exhaustion in its review of Costco v. Omega,[21] a 2010 case involving the importation and sale in the United States of watches made and sold overseas. The Court could not reach a decision in that case and split evenly on the exhaustion question. Although there are nine justices on the Court, the even split occurred because Justice Kagan was forced to recuse herself because of involvement in the case as Solicitor General. When the Court agreed to review the issue again in the Kirstaeng case, Justice Kagan was viewed as a decisive vote. More importantly, given her work for the US government, the prediction was that she would vote against international exhaustion. Surprisingly, the Court ruled six to three in favor of international exhaustion with Justice Kagan siding with the majority. However, as pointed out above, she expressed some reservation about the decision.

At issue in Kirstaeng was the purchase overseas of text books manufactured and marketed by the copyright owner Wiley Publishers for the Thailand market. Kirstaeng, a Thai student in the US, had bought large quantities of the text books at the low price for which they sold in Thailand and imported them into the US for resale at the higher price in the US market. Wiley, as copyright owner, asserted violation of the importation and distribution rights. Kirstaeng asserted exhaustion through the first sale doctrine. The majority of the Supreme Court found for Kirstaeng on the grounds that there was no geographic limitation on the first sale doctrine in the statute, in case law, and in policy.

With respect to the statute, the Court addressed the language "lawfully made under this title," which some courts had interpreted to mean "made in the United States." The Court rejected this reading because "under this title" does not have a geographic meaning. Instead, the phrase referred to the source of legal authority for making a work. Such legal authority would not extend to pirated or counterfeited works. But in this case Wiley had authorized the manufacture and sale of the books in Thailand. Furthermore, the roots of the first sale doctrine in case law did not support a geographic limitation. On this point, the Court majority refers to Bobbs-Merrill and the broad policy goals of dissemination to the public articulated in that precedent. Finally, as a policy matter, the Court majority expressed concern with the uncertainty created in domestic markets as to the applicability of the first sale doctrine to copyrighted works that would have many countries of origin with respect to either manufacture or with respect to sale. For example, if there were a geographic limitation, a purchaser of an automobile containing copyrighted software may not be able to resell the car domestically if it was the case that the software originated overseas. International exhaustion was held to be consistent with the statute, the judicial precedent, and with copyright policy.

The three dissenting judges (Justices Ginsburg, Scalia, and Kennedy) read the statute as limiting first sale to works that originated in the United States. They emphasized the policy concern expressed by copyright owners and by the US government that permitting imported works would lead to the introduction of pirated

or counterfeit works within the United States. Limiting the copyright owners' rights to prevent imports would allow unscrupulous importers to bring in works produced without the authority of the US copyright owner into the country. Therefore, the three justices advocated for a much narrower exhaustion principle, one limited to national boundaries. Even though Justices Kagan and Alito agreed with the majority on adopting international exhaustion, their concurring opinion expresses sympathy to the dissenting argument. But ultimately, Justices Kagan and Alito concluded that adopting international exhaustion was consistent with precedent. However, their concurrence and the opinion of the three dissenters suggest that the issue of international exhaustion may be settled only temporarily.

Legislative lobbyists and various representatives of trade associations have been moving for a reversal of the Kirstaeng decision either through statute or through bilateral treaties.[22] One expects that exhaustion will be central to future trade negotiations and legislative debates. By adopting international exhaustion, the United States has established the stage for the unfettered global movement of copyrighted works. The fear among copyright owners is that this unfettered movement will invite piracy. From a developing country perspective, international exhaustion might lead to higher prices within developing countries as copyright owners will find it more difficult to adopt the business practice of price discrimination. At the same time, higher domestic prices may spur domestic industry to enter copyright industries and enjoy the benefit of higher prices.

The assessment of these policies is the subject of Section Four of this report. There are however two lessons to be gleaned from the discussion of US copyright exhaustion. The first is the basis of the doctrine in policies and principles of public dissemination. The second is the tailoring of the exhaustion doctrine to different works, industries and uses. These potentially competing principles will be important in drawing broader policy implications for the exhaustion doctrine.

3.1.2 Patent

Like copyright exhaustion, patent exhaustion originates in judicial decisions. But unlike copyright exhaustion, patent exhaustion has not been codified in the statute. Instead, the case law based, on a mixture of patent, law, antitrust law, and common law principles of property, continues to be the basis for applying the patent exhaustion doctrine. Recent US Supreme Court decisions have addressed novel issues of patent exhaustion, demonstrating both the doctrine's continued viability and evolution.

The grant of a patent to a useful, novel, and nonobvious invention is one step in the development of a free and competitive marketplace. The exclusive rights to make, use, sell, and offer to sell provided by 35 USC §154(a)(1) and enforced through 35 USC §271(a) allow the patent owner to distribute its patented invention and enter into transactions that permit dissemination of the protected product through a chain of manufacture and into the hands of many users. In this way, the existence of a patent is no different from the existence of any other legal rule that facilitates the working of a vibrant market. Like the rules of property, contract, tort, and sundry federal and state statutory schemes that protect consumers, investors, and manufacturers, patent law (and its cousin copyright law) sets ground rules for competition.

The patent exhaustion doctrine is one of the key elements of these ground rules. Under the patent exhaustion doctrine, once the invention is distributed through a lawful transaction, the invention passes into the hands of the purchaser, no longer subject to the exclusive rights of the patent owner. Like any other commodity, a patented invention enters into commerce and can be further distributed without the original seller encumbering and raising the costs of subsequent transactions. Put simply, the principle underlying the exhaustion doctrine is that the patent owner obtains one bite at the apple, so to speak, by permitting the owner to extract the commercial returns in

the first sale of a patented invention and by preventing him from erecting a tollgate at each subsequent transaction.

While copyright exhaustion extinguishes the distribution right after the first sale, patent exhaustion applies to both the patent owner's exclusive right to sale and the right to use. On the last point, the purchaser of a patented invention has an implied license to use the patented invention for the purposes intended. In addition, the purchaser has the right to repair the invention in order to "preserve the fitness for use."[23] However, the court distinguishes a reconstruction from repair as an impermissible making of the invention. A reconstruction entails the making another copy of the patented invention while repair entails reconstituting an existing invention.

The Court has recognized that the patent exhaustion doctrine is important for a functioning market shaped by patent law. The Court first articulated the broad contours of the doctrine in Bloomer v. McQuewan:

> The inventor might lawfully sell it to him, whether he had a patent or not, if no other patentee stood in his way. And when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.[24]

In Adams v. Burke,[25] the Court recognized the patent exhaustion doctrine as essential to the nature of transactions transferring patented inventions. In Burke, the Court was faced with a territorial use restriction on the manufacturer-assignee, who was not permitted to distribute patented coffin lids outside a ten-mile radius of the City of Boston. When a subsequent assignee of the patent owner sued an undertaker who had purchased the lids and removed them from the territory, the Court found that patent exhaustion barred the claim. This out-of-territory purchaser, the Court reasoned, had "acquired the right to use that coffin for the purpose for which all coffins are used."[26] "[I] n the essential nature of things," the Court wrote, "when the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use."[27] The protected work passes "without the limit of the monopoly."[28]

What makes the doctrine "essential" is the way in which the patent owner collects his reward for producing and disseminating the invention. As the Court explained in Burke, "the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees."[29] The exhaustion doctrine forces the patent owner to negotiate his consideration once and allows the purchaser to make the permitted use of the invention, including further dispositions, without further compensation owed to the patentee. Allowing the patentee to impose post-sale restrictions on use, the Court said, "would be to engraft a limitation upon the right of use not contemplated by the statute nor within the reason of the contract to say that it could only be used within the ten-miles circle."[30] In other words, the patentee cannot negotiate terms in the first sale transaction that would expand its rights under the Patent Act and that would be unreasonable under contract law.

The exhaustion doctrine, in patent as well as copyright law, rests on a carefully constructed balance between property and contract rights. The doctrine recognizes that transactions between patent or copyright owners and purchasers will be subject to a myriad of negotiated terms. In Bobbs-Merrill, for example, the Court applied the first sale doctrine to sales "without restriction." This qualifying language recognizes that the copyright or patent owner can impose contractual restrictions on the initial purchaser, including, presumably, clear limitations on the right of the initial purchaser to resell the intellectual property. In this way, for example, the owner can create a rental market for intellectual property analogous to rental markets for real or personal property. But

as the Federal Circuit itself has acknowledged, "patented articles when sold 'become the private individual property of the purchasers, and are no longer specifically protected by the patent laws.' The fact that an article is patented gives the purchaser neither more nor less rights of use and disposition."[31] In other words, limitations imposed in the sale of a patented invention are a matter of contract law, not patent law. The exhaustion doctrine lets a purchaser of a patent-protected work and all subsequent parties in the chain of distribution know that the work has been transferred free of any patent claims of the original owner on the use or disposition of the work, although not necessarily of contract claims.

The exhaustion doctrine should not be understood as a limitation on rights, but as an essential legal doctrine for the construction of competitive markets driven by intellectual property. There are many ways in which the first sale doctrine promotes competition. By permitting unencumbered resale, the first sale doctrine permits competition through the creation of rental markets and markets for second-hand products. Manufacturers at various stages of a production chain can negotiate without fear of interference from patent owners who have obtained their reward through the first negotiation. Creditors can assess the business assets and contracts of business entities and determine appropriate valuation for the purposes of secured or unsecured lending.

Both the Bloomer and Adams decisions were rendered before the enactment of the Sherman Act in 1890. With the enactment of this foundational statute of US Antitrust law, the doctrine of patent exhaustion found further roots in federal competition law. Under early decisions interpreting the antitrust laws, the exhaustion doctrine was held not to apply to restrictions imposed on a manufacturing licensee.[32] Such an exception has been explained by the fact that a manufacturing licensee is equivalent to the patentee who can, of course, impose resale restrictions on itself. Purchasers who buy from the manufacturing licensee in knowing violation of the restriction on the licensee (i.e., who make unauthorized purchases) may be held liable for patent infringement. Allowing infringement suits against knowing unauthorized purchasers of a manufacturing licensee is a relatively narrow and explicable exception to the exhaustion doctrine. Nor is the doctrine undercut by the fact that it only applies to sales, and not to licenses without the incidents of a sale (although the distinction may be difficult to make in some cases) because without the incidents of a sale the issue of free transferability of property embodying patented inventions does not arise.

The Supreme Court's decision in United States v. Univis Lens Co.[33] illustrates how the exhaustion doctrine complements the antitrust treatment of use restrictions. At issue in Univis Lens was an alleged antitrust violation arising from resale restrictions imposed by a manufacturer patentee. The manufacturer argued under the rule of General Electric it was engaged in a licensing transaction that allowed it to impose the resale restrictions. The Court found that the transactions was a sale, and not a license, and therefore was outside the scope of the patent monopoly. The Court reasoned:

> [W]here one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent, and has destined the article to be finished by the purchaser in conformity to the patent, he has sold his invention so far as it is or may be embodied in that particular article. The reward he has demanded and received is for the article and the invention which it embodies and which his vendee is to practice upon it. He has thus parted with his right to assert the patent monopoly with respect to it and is no longer free to control the price at which it may be sold either in its unfinished or finished form.[34]

In short, the exhaustion doctrine made the legal issue a pure question of how the contractual restriction would be treated under antitrust law. This approach to the patent exhaustion doctrine through the lens of antitrust law was affirmed by

the Supreme Court's 2008 decision in Quanta v. LG Electronics[35] and is the subject of the recent 2013 decision in Bowman v Monsanto.[36]

In Quanta, LG Electronic's licensee, to quote the language from Univis Lens, has sold an article that "embodies essential features" of the patented invention and "has destined the article to be finished by the purchaser in conformity to the patent." LG Electronics had acquired a large patent portfolio of technologies used in the manufacture of computer chips. After a dispute with Intel, the chip manufacturer, respondent entered into a complex licensing agreement with Intel that allowed Intel to use the technology in the construction and sale of chips. These chips in turn were sold to petitioners and incorporated as components in computer hardware systems. LG Electronics subsequently sought to enforce its patent rights against the petitioners based on their alleged violation of "conditions" placed on the original agreement with Intel.

The patent exhaustion doctrine was designed to prohibit precisely this type of reach-through by the patent owner to enforce its patent rights. Accordingly, in Quanta, the Supreme Court affirmed the long recognized patent exhaustion doctrine. Citing its precedents at the intersection of antitrust and patent laws, the Court stated the first sale doctrine broadly, holding that "[t]he authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control post sale use of the article."[37]

In its decision, the Court also rejected an exception to the exhaustion doctrine for process or method claims, stating that such an exception "would violate the longstanding principle that, when a patented item is 'once lawfully made and sold, there is no restriction on [its] use to be implied for the benefit of the patentee."[38] The Court upheld a strong and robust patent exhaustion doctrine on the grounds that exceptions based on the type of patent or technology would lead to gamesmanship by patent applicants as they draft patent claims to invoke such an exception. Applicants would have incentive to engage in such strategic patent claim drafting in order to be able to impose downstream restrictions that would be the basis for claims of patent infringement. Technology-based exceptions that would treat process patents differently from other patents, or self-replicating technologies differently from other technologies, would undermine the broad patent exhaustion doctrine historically recognized by this Court.

In Bowman v. Monsanto, the Supreme Court considered the applicability of patent exhaustion to genetically modified seeds. At issue in the case are two patents owned by Monsanto which read on a type of gene and a type of synthase, respectively. A gene is a molecular unit of heredity, and a synthase is an enzyme that catalyzes the synthesis of a substance. It is uncontested that Roundup Ready (RR) seeds substantially embody the patented gene and the patented synthase, along with a bevy of other genes, enzymes and matter intrinsic to soybean seeds generally. Monsanto's patent claim is limited to its chimera gene sequence that allows the resulting plant to be pesticide resistant. Monsanto sells the genetically modified seeds directly to purchasers and licenses its patent to seed producers to manufacture and sell the genetically modified seeds.

However, Monsanto did restrict through contract the right of the purchaser of the seeds from replanting the second generation seeds from the germinated plant. The patented gene sequence is sold and licensed subject to an agreement which states (1) that the purchaser will plant the seed for only one growing season; (2) that the purchaser not supply the seed to any other grower for planting; (3) that the purchaser will not save any crop from the planting for replanting or transfer the crop to the a third party for replanting; and (4) that the purchaser will not use the seed or allow the seed to be used for research, crop breeding, or crop production. Bowman, a soybean farmer, planted seeds he had obtained from grain elevators to which other farmers had sold the second generation seeds. Monsanto sued Bowman for patent infringement.

Bowman raised the exhaustion defense along the lines of the Supreme Court's ruling in Quanta. The US Court of Appeals for the Federal Circuit rejected the defense on two grounds. First, the court reasoned that the exhaustion doctrine would not apply to self-replicating technologies, like genetically modified seeds. Applying exhaustion, the court reasoned, would permit reuse and thereby limit the patent owner's ability to profit from the patented technology. Second, the Federal Circuit reasoned that exhaustion would not apply to Bowman because exhaustion permits reselling the seed and not making another copy of the patented technology. By growing a third generation of plants containing the seeds, the Federal Circuit concluded, Bowman went beyond his rights under the exhaustion doctrine to make an unauthorized copy of the patented technology.

In its decision finding for Monsanto, the Federal Circuit creates an exception to the patent exhaustion doctrine for the sui-generis category of self-replicating technologies. The court repeated its reasoning in Monsanto v Scruggs that "[a]pplying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder."[39] Effectively, the court has created an exception from the patent exhaustion doctrine for self-replicating technologies, meaning inventions that recreate themselves through reproduction.

The Federal Circuit rejected Bowman's argument that the seed sold by Monsanto contained all future generation seeds and thereby embodied Monsanto's patent fully for two reasons. First, the court characterized the reproduction from the seed of a new plant as constructing an essentially new article, infringing the patent owner's right to exclude others from making the patented invention. Second, the court rejected Bowman's argument that the only reasonable and intended use of the seed was for replanting them to create new seeds. The court suggested other use of the seeds, such as for feed. Consequently, the court rejected the exhaustion argument because the patented technology at issue is one that recreates itself. The application of the patent exhaustion doctrine to such a technology, the Federal Circuit concluded, would eviscerate patent rights over such technology.

The creation of a technology based exemption to the patent exhaustion doctrine is inconsistent with Congress' technology neutral view of patent law, dating back at least to the enactment of the 1952 Patent Act. Such a technology neutral view of patent law is mandated by and consistent with Article 27(1) of the TRIPS Agreement which imposes on signatories the obligation that "patents shall be available and patent rights be enjoyable without discrimination as to…the field of technology." The Federal Circuit's exception for self-replicating technologies creates such discrimination based on field of technology.

The Federal Circuit distinguished Supreme Court precedent on patent exhaustion, discussed above, in Bowman's case by first stating that there are other uses for the patented seed than for planting and second finding that the replication of the seed is unauthorized making of the patented invention. Both distinctions are suspect.

First, while it is true that there are many uses of any invention, such as Monsanto's patented seed, the question is identifying the only and intended use. In Univis, the fitted lenses might be used for many things; they could be used for recycling the glass. But their only and intended use was for eyeglasses. The Federal Circuit points out that Monsanto seeds could be used for feed. But the primary reason Monsanto produced the seeds and farmers like Bowman would buy the seeds is to plant them. That is their only and intended use in the sense of this Court's language in Univis, as affirmed in Quanta.

The Supreme Court described Quanta's use of LG Electronics' patent as follows:

> Here, LGE has suggested no reasonable use for the Intel Products other than incorporating them into computer systems

> that practice the LGE Patents. Nor can we discern one: A microprocessor or chipset cannot function until it is connected to buses and memory. And here, as in Univis, the only apparent object of Intel's sales to Quanta was to permit Quanta to incorporate the Intel Products into computers that would practice the patent.[40]

Likewise, a genetic trait cannot function until it is inserted into the germplasm of a seed. The trait is like the LGE patents and the seed is like the microprocessor. Monsanto sells both the input and the end product in this case, but the patent lies only with the input, which has no use unless it is incorporated into the end product seed, whether that seed is sold as feed, for planting, or for any other purpose. But again there is the same question whether the patent is necessarily "practiced" when sold for purposes other than planting.

Second, the Federal Circuit characterized the planting of the seed and its generation in a replica as an unauthorized making of the patented invention. But if the intended use of the seed is for planting, then the generation would be implicitly authorized as part of the expected use of the patented invention. The Federal Circuit's definition of unauthorized making of the patented invention ignores the purchaser's use rights protected under the exhaustion doctrine. Once the seed is planted as intended a new plant is produced carrying the next generation of seed. This reproductive technology is inherent to the chimera gene strain that is the subject of Monsanto's patent. Monsanto has no exclusive right to prevent the farmer's expected and intended use of the unpatented reproductive capacity of the seed contained the patented gene strain.

The Federal Circuit's limitation on the exhaustion doctrine does not have a business justification in preventing what the court ominously describes as "the evisceration of the patent right." If the concern is with the price competition created by the second generation of seeds, the business response is to charge a higher price for the first generation of seeds upfront. This practice parallels that of book publishers who sell expensive first editions of books knowing that there will be competition from used versions of the book in the future.

If the concern is with proliferation of a readily replicable invention, a lesson is available from the software industry, which engages in effective product differentiation and efficient third degree price discrimination. Furthermore, the threat of replicability is arguably greater for software since an entire suite is users can be satisfied with one disk containing the program. By contrast, the threat of replicability is not as great for seeds as it is for software since an individual seed can produce only a limited number of replicas while software is replicable without limit. Nonetheless, the first sale doctrine has been recognized for the sale of software.[41]

These restrictions have adverse consequences on downstream markets. Once the patented genetic material is propagated through seeds and plants, downstream growers and granaries cannot distinguish between plants and seeds that contain the patented sequence and those that do not. If the restrictions were upheld downstream, contra the patent exhaustion doctrine, downstream users may be chilled in using unpatented seeds and plants for fear of patent litigation. Such a muddying of the marketplace is inconsistent with the balance within patent law between innovation and competition. Such adverse consequences can be avoided through a strict application of the patent exhaustion doctrine and protection of Monsanto's patent rights in the genetic sequence through its price structure and through product differentiation as in other industries subject to problems of replication. Through these creative practices that do not hinge on expanded patent rights, both the interests of Monsanto and of downstream market participants can be protected and the primary goal of patent law to promote progress in the useful arts is enhanced.

The Supreme Court affirmed the Federal Circuit's ruling in favor of Monsanto although through different reasoning. Writing for an unanimous court, Justice Kagan concluded:

> Under the patent exhaustion doctrine, Bowman could resell the patented soybeans he purchased from the grain elevator; so too he could consume the beans himself or feed them to his animals. Monsanto, although the patent holder, would have no business interfering in these uses of Roundup Ready beans. But the exhaustion doctrine does not enable Bowman to make additional patented soybeans without Monsanto's permission (either express or implied).[42]

Citing precedent from 1882, the Court reasoned that the exhaustion doctrine did not permit the making of another copy of the patented invention without the patent owner's permission. As the Court explained:

> [I]f simple copying were a protected use, a patent would plummet in value after the first sale of the first item containing the invention. The undiluted patent monopoly, it might be said, would extend not for 20 years (as the Patent Act promises), but for only one transaction. And that would result in less incentive for innovation than Congress wanted. Hence our repeated insistence that exhaustion applies to the particular item sold, and not to reproductions.[43]

While the Court's reasoning parallels that of the Federal Circuit in its concern with the possibility of boundless copying after the first sale under an application of exhaustion to the planting of the seed to make another generation, the Court falls short of adopting an exception to patent exhaustion for self-replicating technologies. The Court concludes its opinion by stating that the holding "is limited" to the particular facts of the Bowman case. As for other types of self-replicating technologies, such as software or digital content, "the article's self-replication might occur outside the purchaser's control. Or it might be a necessary but incidental step in using the item for another purpose."[44] Therefore, the Supreme Court's decision leaves open the question of how the patent exhaustion doctrine would apply to cases other than genetically modified soybeans.

One controversy left open by the Court's decision is the source of a farmer's right to plant the genetically modified seed. In an elaborate footnote, the Court states that its conclusion about exhaustion is applicable regardless of how a farmer acquires the patented seed. Whether the farmer bought the seed directly from the patent owner or indirectly from a granary, the farmer cannot plant the seed to grow another generation of the patented germplasm. The Court does point out that a purchase directly from the patent owner would be subject to an express license that the patent owner users to distribute the seeds. But even absent such an express license, the Court suggests, "the farmer might reasonably claim that the sale came with an implied license to plant and harvest one soybean crop."[45] The language about implied license is confusing. It is not clear whether the Court is saying that exhaustion is a matter of implied or express license rather than a matter of rights of the purchaser to be free from restraints on alienation. The possible existence of an implied license suggests that the patent owner could further restrict the farmer in the use of the patented seeds through contractual restrictions. How far a patent owner can limit the exhaustion doctrine through contract is an unclear question under the Court's recent patent exhaustion decision in Bowman.

While the applicability of patent exhaustion to genetically modified seeds remains controversial, one point that is clear is the principle of national exhaustion under US patent law. A court in 1893 described the state of law as follows:

> A purchaser in a foreign country, of an article patented in that country and also in the United States, from the owner of each patent, or from a licensee under each patent, who purchases without any restrictions upon the extent of his use or power of sale, acquires an unrestricted ownership in the article, and can use or sell it in this country. The cases which have been heretofore decided by the Supreme Court in regard to the unrestricted ownership by purchasers in this country of

> articles patented in this country, and sold to such purchasers without limitation or condition, lead up to this principle. Bloomer v. Millinger, 1 Wall. 340, 351; Mitchell v. Hawley, 16 Wall. 544, 548; Paper-Bag Cases, 105 U. S. 770; Holiday v. Mattheson, 24 Fed. Rep. 185. A purchaser in a foreign country of an article patented in that country and also in the United States, from a licensee under the foreign patent only, does not give the purchaser a right to import the article into, and to sell it in, the United States, without the license or consent of the owner of the United States patent. Boesch v. Graff, 133 U. S. 697, 10 Sup. Ct. Rep. 378.[46]

The Supreme Court decided the Graff case in 1890. At issue was the importation of a lamp patented in both the United States and Germany. The importer bought the lamp in Germany and attempted to import and resell the lamp in the United States. The Court held that this was patent infringement because the authority granted under German patent law did not provide rights to the purchaser under US patent law. In other words, the competitive rationale justified patent exhaustion within the US did not apply to cross-border transactions. National exhaustion continues to be the law today under US patent law.[47]

However, one lower court in the United States has suggested that under the Supreme Court's holding in Quanta, patent exhaustion would apply to foreign sales authorized by the patent owner. In LG Electronics v. Hitachi, the court from the Northern District of California stated:

> Drawing such a distinction between authorized domestic sales and authorized foreign sales would negate the Supreme Court's stated intent in Quanta to eliminate the possibility of a patent holder doing an "end-run" around the exhaustion doctrine by authorizing a sale, thereby reaping the benefit of its patent, then suing a downstream purchaser for patent infringement. District courts may not follow circuit court precedent where a subsequent Supreme Court decision has "undercut the theory or reasoning underlying the prior circuit precedent in such a way that the cases are clearly irreconcilable."[48]

The court distinguished the Supreme Court's decision in Boesch:

> In [Boesch], the unauthorized foreign sale of the device did not exhaust the United States patent holder's rights to enforce the patent with respect to sales in the United States. The present case, in contrast, involves an authorized sale made pursuant to a license under a United States patent. Boesch does not speak to this issue.[49]

While no other reported decision follows this reasoning, there seems to be some legal argument for finding a principle of international patent exhaustion under US case law. In Ninestar v. ITC, the alleged patent infringer sought review from the US Supreme Court on the question of international patent exhaustion in light of the high court's 2013 decision in Kirstaeng, regarding international copyright exhaustion. The Court declined to grant review.[50]

The US flirted briefly with the policy of permitting importation of patented pharmaceuticals. In October 2000, President Clinton signed into law an agricultural bill which contained a provision authorizing the Secretary of Health and Human Services, "after consultation with the United States Trade Representative and the Commissioner of Customs," to promulgate "regulations permitting pharmacists and wholesalers to import into the United States covered products," meaning prescription drugs other than controlled substances or biological products. The statutory provision was deemed to be effective only if the Secretary demonstrated that its implementation would "pose no additional risk to the public's health and safety... and result in a significant reduction in the cost of covered products to the American consumer."[51] The statute also contained a sunset provision which canceled the legal effect of the regulations five years after they went into effect.

In December 2000, then Secretary of Health and Human Services Donna Shalala refused to implement the legislation, contending that there were serious risks to health from allowing reimports of pharmaceuticals into US from a foreign country. The Secretary also expressed doubt that the reimportation would result in substantial reduction in the price of drugs. President Clinton supported her decision, causing yet another controversy in the closing days of the Clinton Administration. Supporters of the bill indicated suspicions about the influence of pharmaceutical companies, opponents to gray marketing on the measure. The predecessor Secretary of Health and Human Services, Tommy Thompson, described the future of the program as "doubtful."

The preamble to the legislation listed several Congressional findings on price differentials in pharmaceuticals between countries and the alarming rate at which the cost of prescription drugs continues to rise in the United States. Congress concluded that "Americans should be able to purchase medicines at prices that are comparable to prices for such medicines in other countries, but efforts to enable such purchases should not endanger the gold standard for safety and effectiveness that has been established and maintained in the United States."[52] The appeal of allowing reimportation was based on reports that many elderly Americans were making excursions to Canada and Mexico solely for the purposes of obtaining prescription drugs. Reimportation would permit access but place the transportation costs on parallel importers.

3.1.3 Trademark

With respect to sales within the US, the application of trademark exhaustion follows the principle of avoidance of consumer confusion that undergirds trademark law and policy. Within the US, trademark exhaustion has its origins in Justice Oliver Wendell Holmes' opinion in Prestonettes v. Coty,[53] a 1924 opinion arising from a controversy over the resale of trademarked cosmetics manufactured by Coty. Prestonettes had bought the cosmetics and modified them. The Court's decision rested on the right of Prestonettes "by virtue of its ownership…to compound or change what it bought, to divide either the original or the modified product, and to sell it so divided."[54] Most importantly, Presonettes had made the changes to the product and labeled the product to ensure that consumers would not be confused. A long line of cases analyzed in Automotive Gold v. Volkswagen,[55] a 2010 decision from the US Court of Appeals for the Ninth Circuit, affirms the reasoning of Prestonettes to recognize the exhaustion of trademark rights upon transfer of ownership of the trademarked product so long as the purchaser does not cause consumer confusion.

Where trademark exhaustion becomes more complicated is in its application to international trade and multinational corporations. In the US, the controversy over trademark exhaustion as applied to cross-border transactions stems from a conflict between two different theories of trademark rights: the universality theory and the territoriality theory.[56] Under the universality theory, the purpose of a trademark is to mark the origins of goods and thereby to extend a trademark owner's rights globally. An important corollary to the global protection of property rights is the idea of the exhaustion of rights. Once trademark owners sell goods in commerce, they lose all further rights in the trademark. Therefore, under a universality theory a trademark owner would not have any rights against a gray marketer after the initial sale of the trademarked good.

The leading case illustrating the universality theory is Apollinaris Co., Ltd., v. Scherer.[57] In Apollinaris, a US company obtained the right to sell its mineral water under the name of a Hungarian company. A German importer subsequently imported into the United States the mineral water produced overseas by the Hungarian company, also bearing the name of that company. The court held that there was no infringement of the US trademark licensee's rights because the goods were genuine. In other words, the German importer was not passing off counterfeit goods under the licensed trademark. Apollinaris illustrates not only the universality theory but also the tension in gray

market cases between property rights in the mark and passing-off.

In contrast, the territoriality theory posits trademark rights in a particular region and in the goodwill created by the trademark owner in the regional sale of the product. A trademark could have separate legal existence in each country under the laws of that country. The principal case illustrating the territoriality theory is A. Bourjois & Co., Inc. v. Katzel,[58] in which a US company had licensed the right to use the name of a French face powder company to sell powder in the United States. As in Apollinaris, an importer subsequently imported the French product into the US market. The lower court held for the importer and the Court of Appeals affirmed. The US Supreme Court reversed the appeals court in Katzel and for the first time articulated a territorial principle of trademarks. The majority wrote:

> It is said that the trade mark here is that of the French house and truly indicates the origin of the goods. But that is not accurate. It is the trade mark of the plaintiff only in the United States and indicates in law ... that the goods come from the plaintiff although not made by it. It was sold and could only be sold with the good will of the business that the plaintiff bought.[59]

Under this theory, trademark rights are ultimately grounded in associated goodwill and are not independent and global property rights.

At the same time as Katzel, and in response to cases in which the courts had espoused the universality theory, Congress passed § 526 of the Tariff Act, which became the principal legislation limiting gray market goods. The territoriality rationale is now the most widely accepted theory of trademark rights and constitutes the philosophy underlying § 526 of the Tariff Act. It should be noted, however, that the remnants of the universality theory still affect gray market jurisprudence as evidenced in the US Supreme Court's 1988 decision in K Mart v. Cartier[60] and subsequent legislative and judicial responses to that case.

The 1988 K Mart decision brought to a close several decades of confusion surrounding the agency interpretation of § 526 of the Tariff Act. In 1922, Congress passed § 526 to prohibit the importing of any

> merchandise of foreign manufacture if such merchandise ... bears a trade-mark owned by a citizen of, or by a corporation or association created or organized within, the United States, and registered in the Patent Office by a person domiciled in the United States ... unless written consent of the owner of such trade-mark is produced at the time of making entry.[61]

This code section enabled the Customs Service to exclude imports that bore a trademark registered in the Patent and Trademark Office ("PTO") by a US citizen or corporation unless there was written consent for the import of such goods. In applying the statute, however, the U.S. Customs Service read two broad exceptions into the Tariff Act: the common control exception and the authorized use exception.[62]

Under the common control exception, imports bearing US trademarks were permitted entry if they were produced by a foreign affiliate of a US entity. The interpretation of "common control" was broad, encompassing not only the parent-subsidiary relationship but also foreign manufacturing units of US companies. The second exception for authorized use was a broad reading of the "written consent" requirement. It permitted the entry of gray market goods if they originated from a foreign licensee of the US trademark holder. Each of these broad exceptions was challenged in K Mart by a trade group seeking to protect trademark holders' rights by bringing a claim against discount stores such as K Mart and Sam's Wholesale Club. The US Supreme Court's decision provided a mixed victory for the trademark owners by striking down the authorized use exception but upholding the common control exception.

The K Mart Court's decision rested on the statutory interpretation of § 526. The Court generally gives great deference to agency

interpretation unless such interpretation was an unreasonable reading of the statute. Specifically, the court held that the "authorized use" exception was not a valid agency interpretation unless the authorization came within the written permission requirement of § 526. Furthermore, the Court expanded the reading of the "common control exception" to isolate three types of gray market situations.

First, a US company which wishes to distribute the product of a foreign company; it will typically license the trademark from the foreign company and manufacture and distribute the product bearing the foreign trademark. The US company will typically register the foreign mark with the Patent and Trademark Office. In this type of case (type one cases), a gray market arises when foreign goods sell for less than their US counterparts, and a gray marketeer purchases the goods overseas and sells them domestically. This is the classic case of gray marketing. It can be enjoined underUS laws by the US company and is compensable by a demonstration of damages.

A second gray market scenario arises when the US and foreign companies are in a parent-subsidiary relationship. In this case, the US or foreign parent wishes to expand its geographic market by establishing a subsidiary in the other country. The subsidiary is given rights in the trademark and is usually restricted geographically in its sale of the final product. Once again a gray market arises because of price differences between the US and the foreign market. Even though the situation is similar to type one cases, type two cases have not been found to be actionable under the rationale that the parent corporation and subsidiary are actually one corporate entity sharing ownership in the trademark, and that a trademark owner cannot infringe its own trademark.

Finally, a type three gray market may be created when an unrelated foreign company buys the right to use a US trademark for the sale of a similar product. As in the previous case, prices difference between the US and foreign markets leads a gray marketeer to purchase the goods overseas and resell them in the US market. In this case, the sale of the gray market goods can be enjoined and the US company can recover damages upon showing a loss of profit.

In type one cases, a US firm buys rights in the use of a trademark from a foreign firm. According to the K Mart Court, this is the easiest instance in which to prohibit gray marketing because the foreign imports infringe on the domestic goodwill created by the use of the mark in theUS market. Similarly, type three situations, in which the US company licenses its trademark to a foreign company, also offer an easy case for prohibiting gray markets; however, there are some recent conflicts over the exhaustion doctrine under copyright law.

The most controversial gray market scenario is the type two case, in which the US and foreign companies are related. In K Mart, the Court held that the Customs Service did not need to restrict gray marketing because of the common control exception to § 526. The Court's rationale for this ruling was that if the US and foreign manufacturers are under common control through a parent-subsidiary or other affiliate relationship, they are in fact one entity. Any loss in profits to the US Company can be compensated within the multi-national corporate entity through the transfer of income. Furthermore, the Court reasoned that to the extent that § 526 is intended to prevent trademark infringement, it is meaningless for one corporate entity to infringe its own trademark.

This distinction by corporate relationship seems to ignore the fact that gray marketing results from the actions of a third party unrelated to either of the corporate entities engaged in licensing or common ownership of the trademark. The problem is that it is often impossible to bring claims against these third parties because once they have brought the goods into the US, they sell them to unauthorized dealers who then sell the goods in the US market. If the US and foreign companies are engaged in a licensing agreement, the Court reasons that it is not possible for the two companies to renegotiate the licensing fee once the gray marketeer has begun to compete with the US firm. Furthermore, even if the licensing

agreement contains territorial restrictions, the US company will not have a cause of action for breach of contract against the foreign licensee or licensor because the gray market sales are transacted by third parties. Therefore, allowing causes of action when the relationship is based on a licensing agreement stems from the lack of contract remedies against the foreign company by the US company. The Court reasoned, however, that companies in an affiliate relationship can transfer profits within the corporate entity in order to compensate the US subsidiary or parent for any losses resulting from gray marketing.

The distinction raised by the K Mart court raises three main issues. First, it seems to violate the territoriality principle of trademarks. If the US company has territorial rights to the use of the trademark, its corporate relationship should be irrelevant to its trademark rights within its territorial boundaries. In other words, the Court seems to have ignored the implication of the territoriality theory that the US parent and the foreign subsidiary may have independent rights in the trademark in their respective geographic markets.

The remnants of the universality theory that seem to cloud the decision in K Mart lead to further concerns, as the Court left unclear exactly how closely the foreign and US companies have to be affiliated in order to fall under the common control exception. Evidence suggests that some corporations have licensed trademark rights to third parties, who in turn license the rights to the trademark holding corporations' subsidiaries with the intention of falling out of the common control exception. Nonetheless, it is still possible that the net of common control may be expanded. At issue in the Fifth Circuit case of US *v. Eighty-Three Rolex Watches*[63] was whether a corporation that owned common stock of a foreign company and that was licensed to use the corporation's trademark qualified for the common control exception. The Fifth Circuit held that mere ownership of stock did not qualify and the US Supreme Court subsequently denied certiorari on the issue.[64]

The second issue raised by the common control exception is the rationale for the distinction between licensing and affiliate relationships. *NEC Electronics v. CAL Circuit Abco*,[65] a Ninth Circuit case decided a year before K Mart, illustrates this point. This case concerned the gray market sale of Japanese computer chips bearing a trademark owned by NEC-Japan and licensed to a US company. The lower court decided that the gray market goods infringed the US company's trademark under S 43 of the Lanham Act because certain purchasers thought that the gray market chips were protected by the same servicing and warranty as US chips; the Ninth Circuit reversed, relying on a mix of antitrust and trademark law. The Court noted:

> If NEC-Japan chooses to sell abroad at lower prices than those it could obtain for the identical product (in the United States), that is its business. In doing so, however, it cannot look to United States trademark law to insulate the American market or to vitiate the effects of international trade. This country's trade-mark law does not offer NEC-Japan a vehicle for establishing a worldwide discriminatory pricing scheme simply through the expedient of setting up an American subsidiary with nominal title to its mark. [66]

The logical question is whether this antitrust rationale is viable after K Mart, because of the strict protection § 526 is read to give to gray marketing in the licensing context. There are no valid reasons why antitrust concerns are more salient for the parent-subsidiary relationship than for the licensor-licensee relationship. Neither the statutory language nor the legislative history of § 526 suggest that it was intended to further antitrust goals.

Finally, the K Mart court left open the use of passing-off claims in order to restrict the entry of gray market goods. As the majority wrote, "(Respondents) also asserted that the Customs Service regulation was inconsistent with § 42 of the Lanham Trade-Mark Act, 15 USC § 1124, which prohibits the importation of goods bearing marks that 'copy or simulate' United States

trademarks. That issue is not before us."[67] This open question was subsequently addressed in *Lever Brothers Corp. v. United States*,[68] which involves provisions of the Lanham Act, the national trademark legislation of the United States.

The use of §§ 42 and 43 claims in the gray market context has had a lengthy history that culminated in the D.C. Circuit decision in *Lever Brothers*. Section 42 states:

> (N)o article of imported merchandise which shall copy or simulate the name of... any domestic manufacture, or manufacturer, or trader, or of any manufacturer or trader located in any foreign country which, by treaty, convention, or law affords similar privileges to citizens of the United States... shall be admitted to... the United States.[69]

In conjunction with § 42 claims, plaintiffs usually join claims based on § 43(b) which states that, "(a)ny goods marked or labeled in contravention of the provisions of this section shall not be imported into the United States or admitted to entry at any customhouse of the United States."[70] Under § 43(b), the criterion is that the sale of the marked goods is likely to "cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person."[71] The courts, however, have not been consistent or coherent in identifying when gray market use of a trademark is likely to cause confusion as illustrated in the *Lever Brothers* decision.

In *Lever Brothers*, a British company, affiliated with a US soap manufacturer, imported soap products bearing the trademarks "SHIELD" and "SUNLIGHT" into the United States. These marks infringed the US trademark rights. The court held that material differences reflecting varied consumer tastes can be the basis for §§ 42 and 43 claims and that the domestic trademark owner can proceed against either private parties or the Customs Service for alleged Lanham Act violations. Somewhat comically, the court based its finding of material difference on the factual determination that "US Shield contains a higher concentration of coconut soap and fatty acids, and thus more readily generates lather. ... The manufacturing choice evidently arises out of the British preference for baths, which permit time for lather to develop, as opposed to a US preference for showers."[72] As the first appellate court opinion on §§ 42 and 43 and gray markets, *Lever Brothers* provides a test of material difference based in part upon differences in consumer tastes. More generally, the case stands for the proposition that trademark exhaustion, or the first sale doctrine in trademark law, does applies only to genuine goods.[73]

In conclusion, likelihood of confusion is the underlying principle that informs trademark exhaustion. The inquiry under §§ 42 and 43 expands gray market protection under § 526 beyond the licensor-licensee relationship, so long as the trademark holder can show material difference between the domestically manufactured product and the gray market good. Arguably the US has a form of international exhaustion under the administrative rules of the Customs Office as interpreted in the K Mart decision. What limits international trademark exhaustion in the US are the questions of (1) whether trademarks are universal of territorial and (2) whether a specific use of a trademark is likely to result in consumer confusion.

3.2 European Union

The EU consists of 28 member states: Belgium, Netherlands, Luxembourg, France, Italy, Germany, Denmark, United Kingdom, Ireland, Greece, Portugal, Spain, Austria, Sweden, Finland, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria, Romania and Croatia. Applications from Macedonia, Montenegro and Iceland are pending review as of the writing of this paper. With its origins in the free trade zones for coal and steel after World War Two, the EU serves as a complex governance structure for commerce among its member states. This governance structure includes both parliamentary and judicial systems. National sovereignty allows for differences in substantive laws subject

to Directives from the European Council, Commission and Parliament, decisions from the European Court of Justice, and treaties such as the EU Treaty and the Treaty on the Functioning of the European Union (TFEU).

Exhaustion principles in the EU have their basis in Articles 34 and 36 of TFEU. Article 34 states that "[q]uantitative restrictions on exports, and all measures having equivalent effect, shall be prohibited between Member States." Article 36 provides an exception to this general principle for "the protection of industrial or commercial property." Patents and trademarks fall under this exception for industrial or commercial property and, with the qualifications discussed below, so do copyrights. Given its roots in preserving the free movement of goods and services within the EU, intellectual property rights are subject to features of a community or regional exhaustion principle. However, the precise details of exhaustion differ among copyright, patent, and trademark based on directives, judicial opinions and national law as discussed in the following sections.

3.2.1 Copyright

Copyright within the EU has a dual status as a legal means to economically exploit a creative work and as a legal protection for the moral rights, or reputation and integrity, of the creator. The latter serves to distinguish copyright from patent and trademark for the purposes of exhaustion. However, the European Court of Justice has recognized that despite the presence of moral rights as one dimension of copyright law, the commercial uses of copyright serve to bring copyrighted works under the provisions for the free movement of goods under Article 34 of the TFEU and its limitations under Article 36.[74] The result is that regional or community exhaustion is the rule for copyright as well as for patent and trademark.

When the copyright owner distributes or consents to distribute a copyrighted work into any of the countries of the EU, the copyright owner cannot prevent the unauthorized importation of the work into any other country of the Union. In an early case from 1968, a German copyright owner sought to enjoin the importation into Germany of sound recordings sold in the French market.[75] The German copyright owner argued that the prevention was necessary to protect its territorial rights under German law. The Court rejected this argument, ruling that the prevention of importation would lead to the isolation of national markets. The German copyright owner's argument about the need to protect territorial rights did not "constitute the specific subject matter" of copyright. In other words, copyright cannot be used to balkanize the unified market by preventing the free movement of goods, or copies of a copyrighted work, across national borders. Distribution and marketing of copyrighted works entail the commercial exploitation of a commodity and therefore is subject to Article 34. In another case, the Court found exhaustion when a collective society in France received payments upon the first distribution of the music in France.[76] The collective society could not demand payment for importation into another country in the Union. Such double payment would constitute a prohibited barrier to trade under Article 34. Note that in a separate line of cases, the European court has held that exhaustion does not apply to the rental right, which is a distinct right, separate from the right to distribute, under European copyright law.[77]

Restrictions on importation based on copyright are permitted if the basis for the prohibition arises from differences in national copyright law. The European Court of Justice has permitted the ban on reimportation of copyrighted works from a country in which copyright is not recognized to one where copyright is recognized in the imported work.[78] For example, the import of a videotape of a movie, not restricted by copyright in the United Kingdom, was enjoined in Denmark, which did restrict unauthorized videotapes of a copyrighted film. Similarly, imports from a country in which copyright has expired into one where copyright duration continues can be prohibited.[79] National differences in copyright law can trump the principle of the

free movement of goods. However, efforts to harmonize copyright laws across the European Union have made this scenario less likely.

Copyright law, however, can prevent rebroadcast of cinematographic works in different countries in the European Union. Broadcast in one country does not exhaust rights in other countries.[80] Therefore, a rebroadcast of a film on a Belgian cable station was considered copyright infringement even though the same film had already been broadcast on Germany television. As a cinematographic work, the film is distributed as a performance that could be repeated an infinite number of times. The problems arising from observance of copyright with respect to performance based works, the Court reasoned, "are not the same as those which arise in connection with literary or artistic works the placing of which at the disposal of the public is inseparable from the circulation of the material form of the works, as is the case of books or records." Requiring compensation for any performance of works like the film "is part of the essential function of the copyright."

By contrast, the European Court of Justice has permitted resale of software a copy of which has been downloaded by the purchaser if the copyright owner has authorized perpetual use of the software or has provided a maintenance agreement providing periodic updates.[81] The specific copy can be resold as long as the original purchaser makes his copy unusable upon resale. Although this ruling provides an arguably more liberal approach to software than under US law, the European court has not yet confronted the issue of resale of digital books, such as in the Redigi case. However, the Court has ruled that a national prohibition of import of a device used to decrypt satellite broadcast from another member state containing content copyrighted in that member state is inconsistent with the free movement of services under the TFEU.[82] The device had been authorized by service providers in one member state for use in that state, but not for export to other states. This 2011 decision may have implications for distribution of digital content across national borders. The decisions on performance rights for films suggest that exhaustion may be limited to the resale of copyrighted content and would not allow the making of additional copies, even in the context of a resale.

3.2.2 Patent

Distribution of a patented item by the consent of the patent owner into the market of any country that is a member of the EU exhausts the rights of distribution within the Union.[83] This rule illustrates the principle of regional, or community, exhaustion. The rule applies even if the country does not recognize patent in the product that is distributed. Although the cases that have arisen involve patented pharmaceuticals, the decisions are not based on access to medicines or other social justice concerns.

Instead, the European Court of Justice frames the issue in terms of free movement of goods under Article 34 of the TFEU. There are two factual situations which have given rise to an exception to exhaustion. First, if the goods are produced under a compulsory license that did not allow for export, exhaustion does not apply.[84] The rationale is that the patent owner has the right to profit once from the distribution of the patented item. The second situation involves the manufacture of a patented pharmaceutical for marketing approval.[85] Drugs created for such approval while under patent are not subject to exhaustion since such drugs are produced for regulatory approval purposes and not for commercialization. Therefore, the patent owner has not profited from the initial distribution of the patented product.

In 2012, progress was made in the development of a Unified Patent Court to hear disputes regarding patent validity and infringement arising in the European Union. Currently the European Patent Office, through the European Patent Convention, serves as a means for a unified process of patent review with national patent offices and courts serving as the basis for validity and infringement actions. While discussions over the creation of unified patent court began in 2000, the relationship of this proposed court to the European Court system

inhibited progress in implementing the new patent court. While many details are still pending about the jurisdiction and role of the unified court, its eventual establishment may have implications for patent exhaustion. By potentially creating a uniform system for enforcing the various national patent laws, the unified body of patent law created by the court would diminish national disparities in law that provide the basis for parallel importation of patented products. A Unified Patent Court would further the goals of creating a unified market within which patent law cannot serve to impede the free movement of goods.

3.2.3 Trademark

Regional, or community, exhaustion also applies to the distribution of a particular copy of a branded product. The European Court of Justice has expressly rejected the principle of international trademark exhaustion in favor of regional exhaustion.[86] The right to resell applies only to the particular copy. Therefore, the use of a brand on a related product would not exhaust rights with respect to other products bearing the same trademark.[87] Exhaustion attaches when the branded item is sold by the trademark owner or a company in association with the trademark owner, either as an exclusive licensee or a subsidiary company. However, the resale of the product cannot result in consumer confusion.[88] The concern with consumer confusion from resale is reflected in rules about repackaging or rebranding products for resale. Under decisions of the European court, the repackaging cannot lead to a partitioning of national markets, cannot affect the original condition of the product, affirmatively states the identity of the repackager and manufacturer, gives notice to the trademark owner with a sample of the repackaged product, or does not harm the reputation of the trademark owner through advertising and promotion of the rebranded product.[89]

3.3 Canada

Canadian law follows in the tradition from United Kingdom law. With respect to exhaustion, Canadian intellectual property law relies heavily on concepts of licensing and contract, as opposed to principles disfavoring restrictions on alienation.[90]

3.3.1 Copyright

Under section 27(2)(e) of the Copyright Act, "[i]t is an infringement of copyright for any person to... import... a copy of a work... that the person knows... would infringe copyright if it had been made in Canada by the person who made it." This provision governs parallel importation of copyrighted works and imposes a principle of international exhaustion for works made overseas by the copyright owner or its authority. Section 27.1 of the Canadian Copyright Act expressly prohibits parallel importation of books in cases where (1) the book was made overseas by owner of copyright but imported into Canada without consent of the copyright owner and (2) importer knows or should have known that the book would infringe copyright if the importer made it in Canada. Canadian copyright law recognized for the first time a general principle of exhaustion in 2012 through the enactment of Section 3(1)(j) of the Copyright Act which gives the copyright owner the exclusive right "in the case of a work that is in the form of a tangible object, to sell or otherwise transfer ownership of the tangible object, as long as that ownership has never previously been transferred in or outside Canada with the authorization of the copyright owner."

In 1984, the Canadian Supreme Court recognized a broad exhaustion doctrine in its Theberge decision.[91] The case involved the transfer of lawfully purchased posters onto canvasses by an art gallery in Canada. The Court ruled that such use of the copyrighted work was not infringement:

[The art gallery] purchased lawfully reproduced posters of [the artist's] paintings and used a chemical process that allowed them to lift the ink layer from the paper (leaving it blank) and to display it on canvas. They were within their rights to do so as owners of the physical posters (which lawfully incorporated the copyrighted expression).[92]

The Court based its decision on rights obtained in the tangible copy of the poster. Although the Court does not expressly use the term exhaustion, the decision speaks in general terms of the rights of a purchaser to use the physical item that embodies the copyrighted expression.

In Kraft Canada Inc. v. Euro-Excellence,[93] the Canadian Supreme Court addressed the application of copyright law to the blocking of parallel imports of copyrighted materials. The copyrighted works were the labels on branded confectionaries. The products originated in Europe from the European parent companies of Kraft-Canada. A parallel importer had bought the products overseas for resale in Canada. Kraft-Canada sought to enjoin the importation. The Supreme Court in a badly split decision ruled that copyright did attach to the labels, but that under 27(2)(e), Kraft-Canada could not enjoin the importation since the products originated from the true owner of the copyright, the European parent companies. The Court's analysis is similar to the common control exception discussed by the US Supreme Court in the K Mart decision involving parallel imports of trademarked goods. In each case, corporate relationship barred the infringement action.

3.3.2 Patent

An articulation of patent exhaustion doctrine appears in the Canadian Federal Court of Appeals case of Signalization from 1982. In that case, the Court concluded

> It is settled law that the purchaser of a patented article from a patentee acquires, at the same time, the right to use the article and the right to sell it, together with the same "right of use," to another person. As long ago as 1871, this right was described as a "licence."[94]

Although patent exhaustion is described as a form of contractual licence, Canadian courts recognize the policies in protecting purchasers from liability for patent infringement from resale or other uses subsequent to purchase. In Eli Lilly v Apotex,[95] the Canadian Supreme Court articulated a national exhaustion doctrine for patents and stated that contractual restrictions imposed by the patent owner would not pass through to subsequent purchasers.

3.3.3 Trademark

Trademark exhaustion was recognized by the Canadian Supreme Court in its 1984 Consumers Distributing Co. v. Seiko Time Canada Ltd. decision.[96] In this case, the Court did not allow a trademark owner to permit the resale of branded watches by a purchaser. Although the claim was based on the tort of passing-off, the Court concluded that "the distribution of a trade-marked product lawfully acquired is not, by itself, prohibited under the Trade-marks Act of Canada, or indeed at common law."[97] This decision is the basis for trademark exhaustion as adopted by lower courts in Canada.

3.4 India

Pursuant to its obligations under the TRIPS Agreement, the Indian government has amended its intellectual property laws to meet the substantive minimum standards of the Agreement. This section summarizes recent development with brief discussion of the historical background as context for the changes.

3.4.1 Copyright

Indian copyright law has its roots in colonial times when copyright legislation was enacted in the subcontinent pursuant to British copyright reform.[98] Such early legislation included provisions relating a form of regional exhaustion for literary works copyrighted within the British colonies. Exhaustion was seen as a way of providing inexpensive books for residents of the colonies and providing a ready market for British copyright owners.

The current copyright act was passed in 1957, ten years after independence. Exhaustion is recognized for literary, dramatic, musical, or artistic works in Section 14 of the Copyright Act. The relevant provisions grant the copyright

owner in these types of works the exclusive right "to issue copies of the work to the public not being copies already in circulation." The language of "not being copies already in circulation" does not apply to computer programs, cinematographic works or sound recordings. Consequently, copyright exhaustion does not apply to these last types of works. With respect to cinematographic works and sound recordings, the Act grants to the copyright owner the exclusive "to sell or give on hire, or offer for sale or hire, any copy of the sound recording *regardless of whether such copy has been sold or given on hire on earlier occasions.* [emphasis added]" In addition, separate rental right provisions for software limit copyright exhaustion for computer programs.

Section 53 of the Copyright Act permits the restriction of imports. Specifically, the Act empowers the Registrar of Copyright to prohibit the importation of "copies made out of India of the work which if made in India would infringe copyright shall not be imported." This section gives the copyright owner authority to enter any ship, dock or premises where any such [infringing imports] may be found and may examine such copies." Under the terms of this section, Indian copyright law recognizes the principle of national copyright exhaustion. In 2010, as part of its comprehensive reform of the Copyright Act, the Parliament rejected a provision that would adopt international exhaustion, thus allowing parallel importation.[99] The rejected provision stated "that a copy of work published in any country outside India with the permission of the author of the work and imported from that country into India shall not be deemed to be an infringing copy." The defeat of this amendment has been attributed to the lobbying efforts of publishers and other copyright owners in opposition to international exhaustion. As an interpretation of existing exhaustion provisions in the Copyright Act, the Delhi High Court rejected international exhaustion in its 2011 decision in John Wiley & Sons v. Prabhat Kumar Jain.[100]

Copyright exhaustion in India varies by type of work and is limited to the principle of national exhaustion. The Delhi High Court's decision in Warner Brothers v. Santosh[101] in 2009, illustrates the application of copyright exhaustion to cinematographic works. Santosh purchased copyrighted DVD's of movies outside India and imported them into India to start an online movie rental business. Warner Brothers successfully sued for copyright infringement. The court cited precedent from the US and Canada on exhaustion to derive the principle that exhaustion is a question of national law. Since the Indian copyright statute does not apply copyright exhaustion to cinematographic works and adopts national exhaustion, Santosh could be enjoined from importing the copyrighted movies for the purpose of his online business.

3.4.2 Patent

Like copyright law, contemporary Indian patent law has roots in Colonial India. After Independence in 1947, India examined closely its patent system, most famously with the 1958 Ayengaar Report on Patent Law. The Ayengaar Report adopted a critical stance towards patent law, advocating a system of minimal protection that provided access of technologies to ordinary citizens. Of specific concern was access to life saving medicines. India enacted its first post-Independence patent law in 1970. Although the Ayengaar Report did not address the issue of exhaustion, certain provisions of the 1970 Act did address exhaustion. These are retained in the 2002 and 2005 amendments to the Patent Act, pursuant to the TRIPS Agreement.

Although Indian generic drug manufacturers were quite active in the parallel importation of drugs into Thailand and Brazil in the 1990's, there is no case law on patent exhaustion in India. The bases for patent exhaustion include rules against restraints on alienation arising from contract and property law and particular provisions in the Patent Act.[102] Under Section 107A(b), "importation of patented products by any person from a person who is duly authorized under the law to produce and sell or distribute the product shall not be considered as an infringement of patent rights." This provision allows an importer to obtain the patented invention from the first sale by the patent

owner and import the item into India. Although this provision has not been interpreted by the courts, the language supports the principle of international patent exhaustion.

3.4.3 Trademark

Under Section 30(3) of the Trademark Act,

> [w]here the goods bearing a registered trade mark are lawfully acquired by a person, the sale of the goods in the market or otherwise dealing in those goods by that person claiming under or through him is not infringement of a trade by reason of…the goods having been put on the market under the registered trade mark by the proprietor or with his consent.

In Xerox Corporation v. Puneet Suri,[103] the Delhi High Court interpreted this provision as creating international trademark exhaustion. At issue was the importation of second hand copiers into India. The Court held that the "import of [used] Xerox machines that have proper documentation" is not trademark infringement provided that "there is no change or impairment in the machine."[104]

3.5 Japan

The discussion of the exhaustion doctrine under Japanese, Brazilian and Chinese laws are drawn from secondary sources and primary legal materials in translation.

3.5.1 Copyright

Copyright exhaustion arises not from the statute but from Japanese case law. In 2002, the Japanese Supreme Court held that a copyright owner in a cinematographic work could not prevent the resale of a used videogame that incorporated the work. The Court's rationale rested on the desirability of the free exchange of goods, a policy that also guides patent exhaustion in Japan.[105]

3.5.2 Patent

Patent exhaustion has been recognized under case law in Japan and is not codified in the statute.[106] The 2006 Japanese Supreme Court decision in BBS v. Japan-Auto Products[107] was the first acknowledgment of patent exhaustion by the high court although lower courts had previously recognized the doctrine. The BBS case involved the parallel importation into Japan of patented auto parts made by the Japanese company in Germany. The parts were authentic in the sense that they were made by Japanese manufacturer and patent owner under a German patent. In the course of addressing the parallel importation issue, the Supreme Court stated in what is considered dicta the basis for domestic exhaustion of patent rights. The Court offered three rationales for domestic exhaustion: (1) patents should be consistent with the public interest; (2) the patent owner assigned all rights to the purchaser of the patented invention and therefore imposing additional licensing requirements on a purchaser would be inconsistent with the free circulation of goods in the marketplace; and (3) the patent owner should not be compensated twice for the transfer of a patented item. Although described as dicta, lower courts have followed this reasoning in finding domestic patent exhaustion.

With respect to the parallel importation issue, the Supreme Court affirmed the rulings of the lower court that the doctrine of international exhaustion was not applicable because the patent laws of different nations are independent. However, the Court did acknowledge that enforcing the Japanese patent would not be consistent with the policy goal of free circulation of products in the global economy. The Court, however, recognized that the patent owner could prohibit the importation of goods through contract by placing a restriction on the initial transfer and by indicating on the product that the patented item is not intended for sale in Japan. One could describe the Japanese approach to international exhaustion as one that can be modified via license by the patent owner.

The Japanese courts have also addressed the issue of what is referred to under US patent law as the repair/reconstruction distinction. As in the

US, repair is permissible while reconstruction, or making, is not. One important difference is that repair under US law is permissible as an implied license of the licensee or purchaser while under Japanese law, repair is permissible under the principle of exhaustion. A series of district court cases have held that replacing the depleting or deteriorating part of a patenting item constitute impermissible reconstruction and not permissible repair.[108] The Tokyo High Court decision in Aciclovir held that in determining whether a use constitutes reconstruction, the court should consider whether the defendant replaced an essential part of the patented invention based upon on the structure and working effect or technical idea of the patented invention.[109]

In a 2007 case involving replacement of ink in a patented ink cartridge, the Japanese Supreme Court affirmed a lower court finding of no exhaustion and set forth an approach to determine whether a use constitutes an impermissible reconstruction.[110] Specifically, the Supreme Court stated that in determining whether a use is a manufacture, courts should pay comprehensive attention to factors such as attributes of the patented products, including both its structure and function; elements of the patented invention; details of processing and replacing elements; and actual transactions. Theories of reconstruction and repair focus either on protecting the patent owner's rights in the patented item or on the role of the patent right in obtaining adequate recovery of investment by the inventor. The first approach tends to disfavor exhaustion while the second tends to support a finding of exhaustion.

3.5.3 Trademark

Trademark exhaustion cases rest largely on whether the resale of the trademarked product would affect the source identifying function of the trademark.[111] The concern is whether there may be consumer confusion as to whether the product originated from the trademark owner or its licensee.

3.6 Brazil

Intellectual property reform, particularly of copyright law, has been an important issue in Brazil since its accession to the TRIPS Agreement in 1995. Exhaustion has been the subject of some discussion, especially in light of Brazil's role in the parallel importation of pharmaceuticals in the 1990's.

3.6.1 Copyright

Brazilian copyright law has roots in a moral rights tradition and has been enforced largely through criminal provisions. Exhaustion is not part of the current Brazilian copyright statute and is not developed in the case law. National exhaustion in the form of a first sale doctrine was part of the proposed copyright reform in 2010 although those reforms have stalled in the legislature.[112]

3.6.2 Patent

Under Brazil's patent act, the patent owner can prevent unauthorized importation of the patented invention or products made from patented processes into Brazil. Therefore, Brazil recognizes the national exhaustion of rights. Unauthorized importation, however, is not a crime and gives rise only to civil sanctions. Furthermore, parallel imports are expressly permitted under the statute in two situations. First, if the patent owner exploits the patent through importation, then parallel importation is allowed. Second, if the patent is subject to a compulsory license because abuse of economic power, the licensee can engage in parallel importation for a one year period and during that one year period, third parties can also engage in parallel importation.[113]

3.6.3 Trademark

Brazil's trademark act allows for international exhaustion of trademark rights by restricting the right of the trademark owner to "prevent free circulation of the product placed on the internal market either by itself or a third party

with his consent." The key term is the consent of the trademark owner. Licensing restrictions imposed by the trademark owner serve as a way to withdraw consent for the circulation of the product within Brazil. Therefore, Brazilian courts have enjoined parallel imports when trademark owners have exclusive distributors within Brazil, have designated that branded products not be distributed in Brazil, and has contracted with an exclusive licensee. Throughout these cases, courts appeal to the principle of the free movement of goods within Brazil.[114]

3.7 China

Intellectual property law is rapidly changing in China as the country adapts to the new legal regime under the TRIPS Agreement.

3.7.1 Copyright

The Chinese Copyright Act, amended in 2010, does not provide for the exhaustion of rights. However, the Act also does not give the copyright owner the exclusive right to import. Therefore, parallel importation would be possible under Chinese copyright although there is no basis for national exhaustion under the Act. There is no case law to address the issue.[115]

3.7.2 Patent

The Patent Act expressly allows for exhaustion.[116] The few courts that have examined the issue of patent exhaustion find exhaustion in situations where the patented product has been lawfully made or imported by the patent owner and have been resold by third parties who obtained the product lawfully. Although there are no cases on international patent exhaustion, Professor Benjamin Liu reports that there have been four repair cases decided by lower courts in China during the late 2000's, all dealing with recycling glass bottles that were protected under design patent.[117]

3.7.3 Trademark

The Trademark Act does not provide for exhaustion. The Act does provide that it is infringement to sell a branded product by replacing or altering the trademark. This provision would have implications for parallel importers who sell a product with an altered Chinese trademark.[118]

4. ASSESSMENT OF THE EXHAUSTION DOCTRINE AS PRACTICED

Exhaustion doctrine has some common features across categories of intellectual property and across jurisdictions. Extinguishing the rights of intellectual property owners after a first sale, exhaustion permits the resale and reuse of a particular commodity embodying the intellectual property rights without the need for a license. At the same time, the exhaustion doctrine can have a diverse range of forms and applications including the geographic scope of the doctrine's application and the types of works to which exhaustion can apply.

The diverse forms of the exhaustion doctrine provide experiments of sorts to gauge the implications of the doctrine. In theory, it is possible to see what the impact of the exhaustion doctrine is on economic welfare and the well-being of people who enjoy legal rights under a specific exhaustion regime. Although many of these impacts may be difficult to measure, studying the various ways in which the exhaustion doctrine has been implemented can illuminate the decision-making process in designing intellectual property systems.

Care is necessary in gauging the appropriate lessons from this study of exhaustion. The focus will be on three areas: (1) development within a country or region; (2) consumer well-being in terms of economic welfare and metrics such as access to resources, healthcare or education, that support and improve human capabilities; and (3) industry- and work-specific issues. Exhaustion is a policy lever, to use a term of art from the scholarly intellectual property literature,[119] to reach these varied goals.

The term policy lever is used with caution so as not to adopt an overly simplified and instrumentalist view of law. The three goals are not mutually consistent. What is good for consumers may not be good for industry and the goals of national development will often be in tension with the values of international trade. To speak of exhaustion as a policy lever for these goals cannot result in ignorance of the larger choices among these goals and the broader social and political values that will be at stake in the design of a legal system. At the same time, there is value in identifying some of the possible consequences of a legal rule while keeping in mind that these consequences may be unpredictable and unwieldy. Ultimately, the design of an exhaustion regime is not about instrumentally seeking a particular result from the design. Rather, the question is whether the normative underpinnings of our choice of legal rules and institutions are consistent with our goals. The term policy lever may have some instrumental leanings, but the more critical choices are the normative ones.

There are several choices in the design of exhaustion regimes. The first is whether to recognize exhaustion at all. That choice has to do with recognizing that intellectual property rights are limited. That limit may come from some vision of market competition or foundational notion of the free alienability of goods. The point is that there are competing values to those of promoting innovation through strong intellectual property rights which may requires that the rights at some point are exhausted.

The second choice is determining what triggers exhaustion. In all jurisdictions, exhaustion is triggered when a work embodying intellectual property rights is distributed through a sale or other transaction. A compulsory license can also be the basis for triggering exhaustion. In theory, there could be some other triggering event, but because of the lack of evidence, the discussion here will assume that exhaustion will be based on distribution by the rights holder.

Choice, however, still remains on the type of distribution that will count for exhaustion. For example, all jurisdictions focus on a transfer of ownership from the rights holder. No jurisdiction permits a license or a rental to exhaust rights. This point suggests that exhaustion is related to a market economy and the transactional decisions of the rights

holder. In addition, all jurisdictions tailor the exhaustion doctrine based on the type of work. For example, India does not apply exhaustion to any transfers of software or cinematographic works within its borders. The US has special rules of exhaustion for pictorial and architectural works as well as for software and sound recordings. This dimension of choice suggests that the transactional environment and desirable market conditions vary across types of works.

Third, choice exists as to the implications of exhaustion for the rights of the immediate transferee and those downstream. Will subsequent owners and possessors of the item embodying the intellectual property rights be free to do anything with that item? Or will the freedom be limited to resale? No jurisdiction exhausts all of the intellectual property owner's rights. All recognize that at the minimum the right to distribute is exhausted. Some jurisdictions also permit the right to repair or to use the item as intended. This third dimension of choice reflects why it is desirable to extinguish intellectual property rights in some situations. The implication is that there are competing objectives to those of intellectual property law that justify the exhaustion of rights.

The fourth choice is one of geographic scope of exhaustion. This choice is framed as one among national, regional, or international exhaustion. Some jurisdictions, like Brazil, provide a hybrid of these options by recognizing parallel imports in some very narrow situations (such as compulsory licensing). This choice depends on the goals of a particular nation state and its vision of internal development and its role in international trade. Regional exhaustion arises in the context of a free trade zone in which goods are services are free to move among countries in the zone. Why the free trade zone is desirable is a matter of diverse goals, political and economic. International exhaustion rests on a vision of global free trade in which intellectual property rights cannot segment markets and thereby balkanize national economies. How a nation chooses the geographic scope of exhaustion reflects goals of development and its relationship to trade within global markets.

This section will address each of the three goals of development, consumer well-being, and industry- and work-specific concerns in terms of these four dimensions of choice in the design of exhaustion regimes. Lessons from the specific exhaustion regimes described in Section Three and academic studies of exhaustion inform the analysis that follows. The reader should broach this discussion as one of providing specific details about the design of exhaustion regimes. These details inform our understanding of what purposes the exhaustion doctrine might serve.

4.1 National Development in a Global Environment

Intellectual property's role in national development depends on measurements of development and the advantages and disadvantages of being a leader in technological innovation. As to the question of measurement, the central problem is one of balancing static considerations of maximizing national gross domestic product and the economic well-being of economic actors, as gauged through profits and incomes, with dynamic considerations of growth and innovation. A country may experience high levels of income for a period of time, but current success may not be sustained if the country cannot also grow to ensure that momentary economic well-being is not trounced by inflation, industry stagnation and competition from growing nations. Furthermore, a nation can obtain an advantage from being a leader in technological innovation through being the first to market such innovation. However, a follower, or imitative, nation can have the advantage of not incurring the costs of innovation while copying the knowledge and technology introduced by the leader. The follower may simply imitate or may build on existing innovation through a process of cumulative development.

As a limit on intellectual property rights, the exhaustion doctrine can define a country's role as a leader or follower in technological development and in shaping static and dynamic

dimensions of economic well-being. The mechanism through which exhaustion works is the same as that for intellectual property rights. By providing a financial incentive, intellectual property rights can shape the market in which innovative and creative economic actors operate. Strong intellectual property rights allow the owner to shape the market through an economically desirable business plan supported by licensing and other contractual mechanisms. Limits on intellectual property rights, such as exhaustion, allow non-owners to use the protected work in order to pursue their own economic plans. These limits can foster competition against the intellectual property owner and spur on both cumulative innovation and independent innovation by those unhindered by intellectual property rights.

The standard argument is that intellectual property rights without exception can stifle follow-on innovation by reducing competition and raising the costs of transacting with and around these rights. However, intellectual property rights that are nonexistent can also hinder innovation as actors may prefer to imitate rather than create new or original works. Of course, there is an urge to create and innovate that may not solely respond to the incentives of intellectual property rights. The arguments over the design and scope of intellectual property rights are not so much about whether or even how much innovation might occur. Rather, the debate is about the form and shape in which innovation occurs in the aggregate. Strong intellectual property rights preclude innovation through imitation and may lead to spurious differentiation as creative individuals seek to avoid infringement. No intellectual property rights allow for cumulative innovation through competition but would most likely foster imitation, perhaps at the expense of new and original creation on a large scale.

Exhaustion potentially serves to limit intellectual property rights both for domestic resale and reuses and for sales that occur internationally. As for the effect on the domestic market, exhaustion permits the development of a resale market that can benefit consumers through price competition from used versions of the good. The question is the value of such competition. While it is true that every item an intellectual property owner sells is competing with future sales of the identical version of the item, the intellectual property owner can control the quantity in the aftermarket by the amount it sells initially. Taking account of this competition from resales may cause the intellectual property owner to restrict quantity to the market initially resulting in higher prices than what would occur without the possibility of resale.

Whether this occurs is a question in part of market structure and the demand for the protected item. Furthermore, the strategy of limiting quantity may not be economically rational for the intellectual property owner when viewed dynamically. Suppose the intellectual property decides to limit supply of the protected item to 100 units after taking into consideration the possibility of competition from the used products. The intellectual property owner may not be able to commit to this supply because there would be some gain from selling the 101st unit to a willing purchaser. Therefore, limiting supply may not be a business policy that the intellectual property owner could commit to.

More realistically, the intellectual property owner will try to differentiate the protected item it sells so that buying a used version of the item may be less attractive. One example is the change in editions of textbooks every few years. Another is the inclusion of extra materials on a movie DVD or a CD. Yet another is the change in format, such as a shift to High Definition, that occurs which may require the repurchase of content. While exhaustion may provide some competition to the domestic market, such competition might come with additional costs as the intellectual property owner potentially engages in product differentiation.

All in all, domestic exhaustion is seen as desirable. The actual market effects may depend upon specific conditions such as market demand and the use of differentiation. A broader concern is the uncertainty over what

a purchaser is allowed to do with an item after obtaining it if some form of exhaustion was not recognized. Domestic exhaustion is desirable because some degree of freedom to operate is desirable for the purchaser of a product without having to engage in licensing negotiations or the threat of a lawsuit.

What this freedom to operate means has been narrowly tailored under domestic exhaustion. Permitting resale is consistent with notions of ownership. Therefore, resale is a common feature for all exhaustion regimes even if the effect on the market price and the quality of the product may be unclear. In the patent situation, exhaustion supports the right to repair as a means to allow a market for reuse that benefits consumers and suppliers to the aftermarket without permitting the patent owner to require repurchase upon disrepair of the item. Such freedom to operate is consistent with conceptions of ownership and the value of competition at a broad normative level even if the effect on specific markets may not always be clear.

Analogous concepts inform the international application of exhaustion. Limiting the right of the intellectual property owner to prevent the importation of goods into the country is consistent broadly with commitments to free trade. We see this commitment in the adoption of regional exhaustion in the European Union. The adoption of international copyright exhaustion in Kirstaeng shows some concern by a majority of the Supreme Court with freedom of movement for goods globally event though this enthusiasm is tempered by concerns over the flooding of the US market with products of differential quality. Free global trade, a variation of the pro-competition argument, supports a strong exhaustion doctrine that is committed to open markets.

However, a commitment to free trade masks the broader issues of free on whose terms and of differences in market structure. As to the first point, the issue is how much weight to give to the chosen business practices of the intellectual property owner, such as price discrimination. As to the second point, international exhaustion will have differential benefits by market and industry.

Limiting exhaustion to the national or the regional level can facilitate the business practices of price discrimination and the development of brands. As discussed in Section Two, international exhaustion permits parallel importation that can result in uniform pricing and an increase of price in developing countries with a consequent reduction of price in developed countries. However, the empirical evidence is mixed on whether consumers benefit from parallel importation in developed countries as much of the consumer gain can be captured by the parallel importer. Furthermore, if the parallel importer is from a developing country (as was Kirstaeng a national of Thailand), the increased price to consumers in developing countries may be offset by a gain to the importers in that country. These distributional shifts can be important for the dynamic effects on development. If parallel importers in developing countries capture the gain in the developed countries and invest it back into the home country, developing countries may gain from international exhaustion despite the price increase.

However, these potential gains will need to be balanced against potential changes in business practices by intellectual property owners such as increased product differentiation between products sold in developing and developed countries. Such product differentiation would impede parallel importation. For example, differences in DVD formats limit the extent of parallel importation in cinematographic works.[120] In the case of books, if intellectual property owners shift to digital book formats in the developed world, parallel importation might be completely barred especially with limits on possible legal limits on exhaustion for digital content.

The analysis of price discrimination takes as the base line that typical case of the intellectual property owner in the developed country engaging in global price discrimination with lower prices in the developing country. Under this scenario, international exhaustion in the

developed country might benefit the developing country if the parallel importer is from the developing world. What should the exhaustion regime be in the developing country? Typically prices are more expensive in developed countries and therefore suppliers in developing countries would benefit from access to markets in the developed world. Such suppliers may also benefit from higher prices in their home country.

But such suppliers would also support national exhaustion in the developing country to the extent that it supports brand development. National exhaustion allows a company in one country to develop brands in different countries and prevent cross border competition in the brand. Such restrictions on intra-brand competition are considered beneficial to the development of brands and can be beneficial to consumers if there is adequate inter-brand competition. So, a desirable exhaustion regime for a developing country would be international exhaustion in developed countries and national exhaustion locally.

However, the specific effects of the exhaustion regime may vary by industry and market structure. Empirical studies of the economic effect of parallel importation do not yield general conclusions. A 1999 survey looking at certain low range consumer products, such as cosmetics, compact disks, perfumes, and soft drinks, in the European Union found little consumer benefit from parallel importation.[121] Parallel importation was found to bring little price competition to pharmaceuticals in Finland and to six EU member states comprising 21 per cent of the retail market for pharmaceuticals.[122] However, country specific studies focused a close time period have found reductions in pharmaceutical prices in Sweden, Denmark, Netherlands, the United Kingdom, and Germany.[123] The empirical studies suggest that price competition from parallel imports is product specific perhaps even "immaterial."[124]

One reason for these ambiguous findings is that market structure varies for different products and for different countries. The stylized arguments about price discrimination assume a classic monopoly market. However, markets with product differentiation would be better described as oligopolistic or monopolistically competitive. Therefore, the competitive dynamics might be quite complex and hard to predict. For example, a study of the price of music compact disks in the United Kingdom found little benefit from parallel importation.[125] In part, this result reflected concentrations in the industry even with parallel importation

Debates in India over the 2010 Copyright Act reforms included the question of adopting international exhaustion. Eventually, the provision for international exhaustion was not enacted. Opponents of international exhaustion were from the copyright industries, particularly book publishers. Proponents pointed to the relatively high price of books in India and concerns over increased market concentration through an expansion of intellectual property rights.[126] Based on empirical studies of the benefits of parallel importation, the benefits of the different exhaustion regimes may not be completely clear. Perhaps national exhaustion in India might benefit domestic brands. International exhaustion in India may have little effect as compared to other tools such as compulsory licensing or expanded fair dealing. Although price competition and free trade inform one strand of argument regarding exhaustion, it may be the case that the actual benefits of different exhaustion regimes are difficult to gauge.

One point that may be clear is that some form of exhaustion is beneficial. But exhaustion alone is a blunt instrument for pursuing development strategy particularly in a world of global trade. Further guidance for the design of exhaustion may come from other sources, such as the pursuit of user well-being, the subject of the next subsection.

4.2 User Well-being

While much debate over the exhaustion doctrine is framed in economic terms, with particular emphasis on price discrimination and international trade, the economic arguments are ultimately ambiguous in providing support

for the appropriate contours of the exhaustion doctrine. Policy makers and scholars need to be mindful of the economic arguments, and this mindfulness should include recognizing the context specific conclusions as to the economic benefits and costs of exhaustion. This prescription may be unsatisfactory for those seeking a definitive formulation of the exhaustion doctrine. However, the ambiguity of the economic arguments is an important response to those who advocate for a weak form of exhaustion in defense of strong incentives for creation and invention. In point of fact, economic analysis does not support either a weak form or a strong form of exhaustion. The economic analysis yields the answer: it depends.

A principled basis for exhaustion rests on recognizing the importance of the user in intellectual property systems. If exhaustion is to matter, then its importance rests on recognizing that the rights of intellectual property owners must yield to the rights of users in some situations. At the same time, exhaustion can only do so much in the defense of users' interests. Other doctrines such as fair use, fair dealing, and exemptions from intellectual property protection may be more beneficial for users' interests than exhaustion. Therefore, policy makers and scholars should not ask too much of exhaustion. At the same time, exhaustion should not be ignored.

An example for this position comes from Brazil which adopts criminal sanctions for the protection of copyright. While Brazil has recognized protection for copyright on the grounds of protecting artists and authors with a moral rights foundation for copyright law, Brazil has recently recognized more protections for users through limitations on rights. Exhaustion has not figured heavily among these limitations. Nonetheless, protections for users are arguably quite strong under Brazilian copyright law as compared to other regimes. The point is that exhaustion is important but does not substitute for other doctrines.

The word 'user' is consciously used here, as opposed to consumer. My concern in this section is not to espouse consumerist values in intellectual property. The term user is meant to include interests broader than those of consumers being able to buy new technologies and gadgets. While consumerist values in intellectual property cannot be denied, they should not be made central. Access to new technologies can be included as part of users' well-being. However, the focus on users is to recognize that access to life-saving pharmaceuticals or to educational materials is not equivalent to access to the latest smart phone. There are implicit distributional assumptions in the present analysis as will be in designing limitations on intellectual property rights such as exhaustion. The argument is that exhaustion can be justified in terms of furthering the well-being of users and that this justification may be more persuasive in many instances than economic justifications about market competition and development. At the same time, the economic justifications overlap with justifications based on users' well-being.

Two overarching case of users' well-being are the subject of attention. The first is clarity of ownership and obligation in the distribution of products embodying intellectual property. The second is protection of users in instances where negotiating a license would be infeasible or unreasonable.

The first case is fairly common in the exhaustion debate. A concern is that someone has bought a product, such as software or a patented automobile, but the purchase is subject to conditions by the intellectual property owner either based on express contract or based on property interests of the intellectual property rights holder. This situation describes servitudes based on intellectual property that run with a commercialized product. When courts justify exhaustion in terms of suspicions towards restraints on alienation under the common law, the concern is with intellectual property rights as a servitude.[127]

Exhaustion provides a way to free chattels of servitudes and thereby providing users some clarity in how they can use items they have purchased. Ostensibly, this objective is framed largely in terms of the market. But the concern is deeper. Intellectual property rights should not be a shadow cast over users of ordinary commodities. Just as dead head control over real property interests are suspect so should the threat of intellectual property infringement in ordinary day to day activities. The doctrine of repair as it exists under patent law in the US and Japan is an example of how servitudes can be extinguished. Rights to resell commodities can be critical, especially when a user such as a farmer may have as his main assets farm equipment and other technology subject to patent and trademark laws. The US Supreme Court in the oral argument for the Kirstaeng case raised hypothetical examples of imported works whose use may be questioned because of the threat of copyright infringement. International exhaustion provided sunshine to the uncertainty of whether ownership of the thing permitted resale and reuse.

The US Supreme Court's recent decision in Bowman v. Monsanto illustrates the cloudiness created by a weak exhaustion doctrine. Under the ruling, a farmer buys patented seeds from Monsanto and can plant them only once. The next generation of seeds generated by the plants cannot be reused without a separate license. But this seed than can be mixed with the rest of aftermarket for seeds, which would include unpatented varieties. But since seeds cannot be differentiated, a farmer cannot tell what seeds are patented and what are not. Therefore, because rights are not exhausted, a farmer will be deterred from planting any aftermarket seed. The market for seed would be limited to those supplied by the patent owner and whatever rare competing sellers that might exist.

The Court, however, concluded that allowing a farmer to replant a purchased seed after the first generation would weaken the economic incentives of the patent owner. Unrestricted planting would flood the market with the patented invention and thereby depleting its economic value. This conclusion rests on assumptions about the quality of next generation seeds and the possibility of genetic variability in subsequent generations. Whether the economic value is depleted needs to weighed against effects on users from a limited aftermarket. Aftermarkets for used items do not always eviscerate the market for new versions. The Court arguably did not take into consideration the importance of exhaustion for protecting users, not as an absolute matter, but as a countervailing interest.

Taking account users' interests does not mean ignoring the institution of the market and its reliance on private incentive. In the case of Bowman, technological advance in agriculture is an important consequence of the patent system. While there is disagreement about the role of technology in the food industry, it is hard to deny that there have been critical technological advances in agriculture over the past several decades, starting with the Green Revolution of the 1960's. But private incentives for technological advance are not absolute, and one has to question whether the replanting of seed as was at issue in the Bowman case would bring such progress to a halt. In designing exhaustion, users' interests in clarity may be critical to the very progress that intellectual property is meant to promote.

Sometimes users' interests arise in policy debates over exhaustion, but in the form of consumer safety. Products protected by intellectual property are deemed authentic. Parallel imports are in the gray market and may contain items that are unsafe. This type of users' interest is not the provenance of intellectual property law. All markets embody risks to consumers. Such risks should be regulated directly and not indirectly through the protection of intellectual property rights. Just as gray market goods pose potential risks so do goods that originate from the intellectual property owner. Health and safety regulation appropriately designed should address those consumer harms.

With respect to access to education[128] and health care,[129] users' interests can provide a compelling justification for exhaustion. By providing a supply for educational materials and pharmaceuticals, parallel importation can aid in distributing intellectual property materials at potentially lower costs to consumers. The case for recognizing international exhaustion as a way to permit parallel imports is made stronger when the goods supplied are necessities for improving human well-being. But the case needs to be tempered. Intellectual property is not the only possible barrier for access to education and health care. Government regulation, mismanagement in the private sector and market failures for teachers and physicians are also potential causes for inadequate access. Reform of education and health care policy needs to occur in tandem with reform of intellectual property. Even within intellectual property reform, adjustments to exhaustion may not be as compelling a solution as changes in fair use, fair dealing and related doctrines that can increase access.

The point here is that users' interests provide a compelling basis for reforming exhaustion. This basis can complement the market arguments regarding trade and development in the previous subsection. Users' interests seem normative and political as rationales while market arguments may appear more neutral. But the choice of exhaustion rules is a normative decision which should be made with consideration of the particular set of users' interests a nation seeks to recognize. At the same time, the limits of exhaustion as a policy lever exist. Exhaustion is only part of a broader set of reforms both within and outside the intellectual property system in both developed and developing countries.

However, the pursuit of users' interests through intellectual property reform may be subjugated to the broader political and interest group influences that shape policy. One lesson is clear from the debate over exhaustion is that the doctrine's contours are context specific. Factors specific to an industry or to a particular type of work influence the details of the exhaustion doctrine. These context specific factors suggest that exhaustion doctrine may be subject to interest group capture by particular industry- or work-specific interest groups. In addition, the politics of international trade negotiations can have an undue influence on domestic exhaustion rules in developing countries. The next subsection highlights these concerns.

4.3 Industry- and Work-Specific Issues

Exhaustion doctrine is often tailored to particular industries or works. This point is true in copyright law where special exhaustion rules arise for software, sound recordings, and cinematographic works in many jurisdictions. While patent law has a broad exhaustion doctrine, tailored rules arise based on what is deemed a making or using of a particular work. As examples of this tailoring consider the US Supreme Court's treatment of planting in the Bowman decision or the interpretations of the term repair in the context of specific products, such as printers, cameras, or automobiles. While trademark law has a broad exhaustion principle, its application often rests on private choices about corporate structure and can vary from industry to industry depending upon whether market forces lead to parallel importation. As documented in the scholarly literature, gray markets range from simple consumer items such as cosmetics to automobile parts to consumer durables, with differing effects on price and economic welfare across the various markets.

Such tailoring of the legal doctrine is consistent with the context specific economic consequences of exhaustion. As discussed in the first subsection and emphasized in the previous subsection, exhaustion can have varied effects on economic measures and on users' well-being more broadly. Therefore, one would expect the variation we observe in exhaustion doctrines based on types of works and types of uses.

The hard question is to identify the relevant details of exhaustion for a specific industry or type of work. For example, US patent exhaustion seems to be flirting with different rules for self-replicating technologies. Copyright exhaustion rules may work differently for digital works than for analog works. But it is not clear how

the choices of rules balance the interests of rights holders with that of users. The current trend in the US seems to favor rights holder at the expense of users, especially for readily replicated works and technologies. By contrast, the exhaustion rules for globally traded copyrighted works seem to favor users under the recent Kirstaeng decision.

The Santosh case from India is notable on the issue of industry- and work-specific tailoring of exhaustion. In Santosh, the court read the copyright act to preclude the application of copyright exhaustion to cinematographic work. The result was to enjoin the development of an Internet based movie rental system developed by an Indian entrepreneur. The copyright complainant was Warner Brothers, a film production company from the United States. While the exception for cinematographic works was designed to aid the domestic film industry, the industry- and work-specific exception to be exhausted served to prevent the creation of a local business. Even with the rule of international exhaustion under Kirstaeng, which ostensibly aids parallel importers in developing countries, domestic exhaustion rules can thwart domestic industry. The lesson is that there are unintended consequences to exhaustion rules. The problem is that domestic legislation must contend with a global economy in which intellectual property owners may move readily across borders. So in Santosh, legislative exceptions to exhaustion designed for domestic industries help a United States copyright owner at the expense of a domestic business venture.

While exhaustion rules are industry- and work-specific by necessity, the challenge is in identifying the problem form of tailoring. Policymakers need to be attentive to the environment in which users of intellectual property operate and construct exhaustion rules that suit the goals of that environment. To consider the Santosh case again, the exceptions for cinematographic works were in support of the domestic film industry in an environment without the Internet and without video rentals. Once that market and technological environment changed, the exception to exhaustion was ill suited to the new market opportunities for online video rentals. Whether a court should construe a statute in favor of users in light of changed circumstances is a controversial question. But some institution, whether court, agency or legislature needs to be adjusting intellectual property rules to changes in technology and markets. The broader lesson is that doctrines like exhaustion may always lag and lead to failures in protecting users and promoting development.

Policymakers therefore need to closely scrutinize industry- and work-specific exceptions to exhaustion for their impact on users and their role in promoting or impeding development. Tailoring, on the one hand, may arise from context appropriate rules for shaping exhaustion. On the other hand, such tailoring may unduly favor some industries over others. While exceptions to exhaustion are created to benefit domestic intellectual property owners and domestic industry, as more intellectual property owners are transnational, the inadvertent effect of an industry- or work-specific exception is to benefit non-national owners at the expense of national users. Therefore, policy makers, particularly in developing countries, should reconsider the details of the exhaustion doctrine to suit the current environment for specific industries and works.

5. CONCLUSION

The exhaustion doctrine serves as a powerful policy lever to limit intellectual property rights and protect the interests of users. Its power rests in extinguishing intellectual property rights upon the first sale by the rights holder. With its connection to distribution through sale, the exhaustion doctrine demonstrates the relationship between intellectual property and market competition. At the same time, the purpose of exhaustion is more than the promotion of competition or of free trade in the global marketplace. Instead, exhaustion serves as a means to recognize the rights of users within intellectual property law. But exhaustion may also be a blunt instrument that treats rights as an either/or proposition: either the rights holder can exclude or the user can avoid a license. Whether it can be properly tailored to specific contexts is the biggest challenge. The most important lesson from this study is the prevalence of the exhaustion doctrine and its variation in implementation. For policymakers in both developing and developed countries looking forward, the exhaustion doctrine provides one option which, in conjunction with other intellectual property doctrines and regulations outside intellectual property, can aid in making innovation, development and technological change responsive to the needs of users in our contemporary multinational and multivalent world.

ENDNOTES

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