CHAPTER 2
THE ECONOMICS OF TRADEMARKS

Branding is a central element of modern market economies and an important feature of everyday life. Firms invest large sums of money in advertising their goods and services and building a reputation in the marketplace. In turn, these activities influence consumer choice and determine commercial success. Ultimately, branding shapes how firms compete, with important implications for economic welfare. Understanding firms' branding strategies and how they affect market outcomes is therefore important.

Early theories of how market economies function paid little attention to branding activities. Starting with the writings of Adam Smith in the 1700s, economic scholars implicitly took it for granted that consumers have full knowledge of all products offered on the market and that their purchase decisions form part of the invisible hand that guides firms' production decisions. However, in the early 1970s, economists began to appreciate that information does not flow freely among market participants. This development paved the way for rigorous analysis of how branding activities and the behavior of imperfectly informed consumers affect market outcomes.

Drawing on the insights of the economic literature, this chapter explores the role of the trademark system in supporting the branding activities of firms and promoting orderly competition in the marketplace. It begins by outlining the main rationale for protecting trademarks (Section 2.1) and then asks how society fares when counterfeit goods violating trademark rights enter the market (Section 2.2). Against this background, the chapter explores important choices in designing trademark laws and institutions (Section 2.3). The concluding remarks summarize the main messages emerging from the chapter's discussion, and point to areas where more research could usefully guide policymakers' decision-making (Section 2.4).

2.1

THE RATIONALE FOR PROTECTING TRADEMARKS

In order to appreciate the role of trademarks, it is helpful to start by asking why consumers value brands in the marketplace.[1] One can broadly distinguish between two different sources of value. First, brands have *reputational value*. Consumers may prefer one product over another for a variety of reasons – how functional or effective the product is; how reliable it is; how long it lasts; how easy it is to use; how it tastes, sounds or smells; what side effects it may have. Often, these characteristics cannot be easily observed at the time of purchase. Consumers may only be able to evaluate them as they experience the product.

In order for consumers to select the products that best suit their needs and preferences, they must rely either on their past consumption experience or on information about the product provided by the producer or a third party. In short, they need to rely on a product's reputation. But this only works when consumers can reliably identify the goods of different producers in the marketplace – the precise function performed by brands. Indeed, if many producers could independently market their products using the same brand, consumer intelligence would have little value, and producers could not build a reputation.

1 As in Chapter 1, this chapter employs the term "trademark" when referring to the specific instument of intellectual property protection; the term "brand" is used when more generally referring to the use of product and company identifiers in the marketplace (see Box 1.1).

However, brands do not only offer reputational value. A consumer facing the choice between two goods of the same known quality, but bearing different brand names, may still choose one brand over another – and may even be willing to pay a higher price for the preferred brand. This is because brands have *image value*. For example, a consumer may derive pleasure from wearing the same sunglasses as a Hollywood actor. More often, image value stems from displaying the ownership of a particular brand to other members of society. This is especially relevant for many luxury products, where brands enable consumers to communicate their affluence. However, it also applies to other images; for example, consumers choose brands to convey how traditional, modern, alternative, sporty, or trendy they are.

In rationalizing the trademark system, economic analysis has mainly focused on the reputational value of brands. Accordingly, this section takes a closer look at what lies behind such reputational value, which the economic literature analyzes in terms of consumers' search costs. However, the image value of brands has important economic implications to which this chapter – and Chapter 3 – will return.

2.1.1

How trademarks reduce consumers' search costs

Neoclassical economics largely assumes that buyers have full knowledge of the quality of all product offerings and that there are many sellers of the same product. Unrestricted competition among self-interested sellers then leads to an allocation of resources that maximizes societal welfare. In today's world, some markets come close to fitting these assumptions. For example, primary commodities such as gold or copper are homogenous goods traded around the world at pre-determined quality levels. Similarly, many financial markets are close to perfectly competitive – a United States (US) dollar costs the same in terms of Japanese yen, regardless of whether the dollar is purchased in New York or in Tokyo.

However, many modern markets – particularly consumer markets – do not fit these simplified assumptions. As described above, product offerings differ along a wide range of quality characteristics. Consumers, in turn, cannot always observe these characteristics at the moment of purchase. In economic jargon, they are asymmetrically informed about products – asymmetrically, in the sense that they know less about the products than the sellers. Nobel prize-winning economist George Akerlof was the first to explore the consequences of asymmetric information on market behavior and the allocation of resources.[2] His main conclusion – illustrated in Box 2.1 with the example of the market for used cars – is that buyer uncertainty about product quality may not lead to markets for high-quality products, even if there is demand for such products; as a result, consumers and society as a whole are worse off.

2 See Akerlof (1970).

Box 2.1: A market for lemons?

In what turned out to be one of the most-cited journal articles in economics, George Akerlof famously considered the market for used cars. He argued that, typically, buyers will have less information about the quality of used cars than sellers – the latter of whom could be either the cars' owners or specialized dealers. This is because buyers cannot ascertain key quality characteristics of a used car – how long the engine will last, how often the windscreen wiper needs repair, or whether the engine will ignite on a cold winter's day – by simple inspection. In other words, buyers are uncertain about whether they are about to buy a good quality car or a lemon (which is American slang for a car that is found to be unsatisfactory or defective).

Faced with this uncertainty, buyers will not be willing to pay the full price of a high-quality car. If they are risk-neutral and quality is uniformly distributed, they will at most be willing to pay the price of an average quality car. Sellers, in turn, who have perfect knowledge about quality, would not be willing to sell a high-quality car for the price of an average quality car. As a result, there is no market for high-quality cars. Instead, a race to the bottom ensues, whereby only sales of the lowest quality cars occur.

Of course – as many readers would attest – markets for high-quality used cars do, in fact, exist. Akerlof's original article recognized that certain mechanisms – such as warranties and social norms – exist in order to lessen the effects of quality uncertainty. In a nod to the role of trademarks, he specifically mentioned the role of brand names: *"[b]rand names not only indicate quality but also give the consumer a means of retaliation if the quality does not meet expectations. For the consumer will then curtail future purchases. Often too, new products are associated with old brand names. This ensures the prospective consumer of the quality of the product."*

Source: Akerlof (1970)

A different way to think about information asymmetry is to recognize that consumers spend time and money researching different offerings before deciding which good or service to buy. Brand reputation helps consumers to reduce these so-called search costs. As already pointed out, it enables them to draw on their past experience and other information about specific goods and services – such as advertisements and third party consumer reviews. However, the reputation mechanism only works if consumers are confident that they will purchase what they intend to purchase. The trademark system provides the legal framework underpinning this confidence. It does so by granting exclusive rights to names, signs and other identifiers in commerce subject to certain procedural rules and limitations.

Besides guaranteeing exclusivity, the trademark system reduces consumers' search costs in another way. It pushes producers and sellers towards creating concise identifiers for specific goods or services. For example, instead of asking for the location of a "coffee store belonging to a firm headquartered in the US city of Seattle", consumers can simply search for "Starbucks" and will be perfectly understood. Trademarks thus improve communication about goods and services.[3] They help consumers to distinguish between different product offerings and, in this way, they promote orderly competition between sellers.

3 See Landes and Posner (1987).

While the discussion has thus far focused on brands for goods and services, the same principles also apply to firm brands. Knowing who produced a particular good, or who is providing a particular service, offers consumers relevant information and can thus reduce their search costs. Company brands can be especially important for new and previously untested products: consumers cannot base their purchase decisions on how satisfied they were with a product in the past, but rather by how satisfied they were with the producer of that product following previous purchases.

From the perspective of producers, lower search costs create incentives to invest in higher quality goods and services. Producers will be confident that consumers are able to identify higher quality offerings in the marketplace and not confuse them with lower quality ones. More generally, trademarks are at the heart of product differentiation strategies, whether vertical or horizontal in nature – concepts that Chapter 3 will explore in greater detail.[4]

2.1.2

How trademarks compare to other intellectual property rights

Trademarks are a form of intellectual property (IP). Like patents, copyright, industrial designs and other forms of IP, they afford exclusive rights to an intangible asset. However, trademarks differ in important ways from other forms of IP; in order to fully appreciate the role of trademarks, it is useful to explore these differences.

From an economic perspective, the most significant difference pertains to the type of market failure the various IP rights seek to resolve. As already explained, in the case of trademarks, the relevant market failure is the presence of asymmetric information between buyers and sellers. In the case of patents and copyright, it is the public good nature of inventive and creative output. Economists refer to public goods as goods that many people can use simultaneously, and which one cannot effectively exclude people from using. Clearly, a solution to a technical problem or a literary work falls within this definition. Without patents and copyright, firms' incentive to invest in inventive and creative activities would be reduced, as competitors could free-ride on the fruits of those activities.[5]

4 Historically, the introduction of trademarks supported the geographical separation of production and sale. Before the Industrial Revolution, manufacturers had to sell goods to consumers in distant markets anonymously, leading to Akerlof-type information failures. To overcome these information failures, manufacturers added conspicuous characteristics to products which served as substitutes for today's brands (Richardson, 2008). Trademarks enabled firms to reach consumers through intermediaries (Griffiths, 2011). They thus encouraged specialization in the organization of economic activities, allowing firms to reap economies of scale and focus on what they do best.

5 See WIPO (2011) for a more detailed discussion of the market failure that gives rise to patent and copyright protection.

Are trademarks private goods or public goods? Interestingly, they have elements of both. A brand only has reputational value if it is used in relation to a single good, service, or firm.[6] Use of a brand is thus "rival" in nature – in contrast to an invention which many firms can reuse without undermining its value. Viewed from this perspective, trademarks are private goods. At the same time, the fact that trademarks uniquely identify particular goods and services makes them useful communication tools. This attribute of trademarks has a public good character, as many people can simultaneously refer to a trademark when describing or comparing products. It has given rise to certain exceptions to the exclusive rights conferred by trademarks, notably the right of the public to use a trademark when referring to particular goods and services.[7]

There is one form of IP that is closely related to trademarks, namely geographical indications (GIs). Like trademarks, GIs seek to reduce consumers' search costs and provide incentives for product differentiation. One key difference is that the right to use a GI belongs to a group of producers located within a certain geographical boundary, rather than a single entity. There are additional legal and institutional differences between trademarks and GIs (see Box 2.2). However, many of the arguments and findings in relation to trademarks that are presented in this chapter also apply in the same way, or in a similar way, to GIs.

Box 2.2: What are GIs and how do they differ from trademarks?

A GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation associated with that origin. Most commonly, a GI consists of the name of the product's place of origin, for example, "Jamaica Blue Mountain" or "Idaho potatoes". However, non-geographical names – such as "Vinho Verde", "Cava" or "Argan Oil" – or symbols commonly associated with a place can also constitute a GI.

Whether a sign functions as a GI is a matter of national law and consumer perception. As a general prerequisite, it must identify a product as originating in a given place. In addition, the qualities or reputation of the product should be *essentially attributable* to the place of origin.[8]

GIs and trademarks are distinctive signs used to distinguish goods or services in the marketplace. Both convey information about the origin of a good or service, and enable consumers to associate a particular quality with a good or service. In the case of trademarks, this information relates to the identity of the producer; in the case of GIs, it relates to a particular place.

GIs do not belong to individual producers. Irrespective of the legal form of GI protection, the embodied collective goodwill benefits all producers who are entitled to use it. Those producers are often members of a collective body administering and controlling a GI's use. Indeed, *sui generis* GI protection instruments – such as appellations of origin or registered GIs – often require that the beneficiaries organize themselves into a collective such as a producers association, which administers the use, control, certification and marketing of the GI.

A trademark can be assigned or licensed to anyone, anywhere in the world. In contrast, the sign to denote a GI is directly linked to a particular place. All producers who are based in the area of origin – and produce the good according to specified standards – may use the GI. However, because of its link with the place of origin, a GI cannot be assigned or licensed to someone producing outside that place, or to someone who does not belong to the group of authorized producers.

Some countries protect GIs under trademark law – more specifically through collective marks or certification marks. This is the case, for example, in Australia, Canada, China and the US. What precisely defines a collective mark or certification mark differs from country to country. However, a common feature of these types of trademarks is that more than one entity may use them, as long as all users comply with the regulations of use or the standards established by the holder. Those regulations or standards may precisely require that the trademark be used only in connection with goods that have a particular geographical origin.

6 See Landes and Posner (1987).
7 See Barnes (2006).
8 See Article 22.1 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Like brands protected by trademarks, brands displaying GIs can have considerable image value – especially brands with a long history of reputation for quality. This explains why selected GI products can command substantial price premia akin to luxury goods. For example, accounting for product quality and the reputation of individual producers, Landon and Smith (1998) found that the display of certain regional designations for Bordeaux wines plays a significant role in determining prices, with the "Pomerol" designation commanding a price premium of United States dollar (USD) 15 per bottle.

Policymakers around the world have taken an interest in GIs as a way to enhance the value of local production – especially in the agricultural sector. Indeed, there are several examples of GI products that have developed an international reputation, including GI products from developing countries, such as "Café de Colombia" and "Darjeeling tea". At the same time, the number of GI products that can command a substantial price premium remains relatively small, and even those highly successful GI products do not feature in lists of top global brands (see Subsection 1.2.2). Newly established GIs not only face the challenge of gaining an international reputation – which may take decades – but also face the challenge of competing with incumbent GIs benefitting from considerable consumer goodwill.

Another important difference between trademarks and other forms of IP concerns their protection term. Most other IP rights are time bound – for example, limited to 20 years in the case of patents – after which the subject matter they protect moves into the public domain.[9] This reflects the trade-off between providing sufficient incentives for inventive and creative activities, and limiting the costs imposed on society from inhibiting competitive market forces. Trademarks, by contrast, can last for a potentially unlimited time as long as their owners renew them and use them. This supports the permanent contribution that trademarks make towards reducing consumers' search costs. Indeed, a statutory term limit would create confusion in the marketplace and, invariably, raise search costs.

Like other forms of IP, trademarks can confer market power on their owners; however, the sources of market power differ. Patents and industrial designs prevent competitors from copying physical product features or technologies that consumers value.[10] Trademarks at first appear less exclusionary, as they do not restrict this form of copying, as long as competitors sell their products under a different brand. Yet, the brand may be all that matters: when trademarks protect brands with significant image value, the brand in and of itself becomes a product characteristic that consumers care about but competitors cannot copy. In addition, regardless of any image value, certain brands can command considerable consumer goodwill due to buyers being unwilling to incur the search cost of switching to a competing product. For example, studies have shown that brands of previously patent protected medicines can command a premium price over newly available generic versions of the same medicines.[11] In a world of imperfect information, it may be entirely rational for consumers to pay a higher price for the brand they are used to, as they save the time of researching whether other products would equally satisfy them.[12]

9 Trade secrets are an exception; their protection term is not statutorily limited.

10 Of course, patented products still compete with substitute products, limiting the market power that patent holders can exercise.

11 See, for example, Hurwitz and Caves (1988). Admittedly, the price premium for the established brands may also reflect strong relationships of pharmaceutical firms with market intermediaries, notably doctors. See also Subsection 3.2.1.

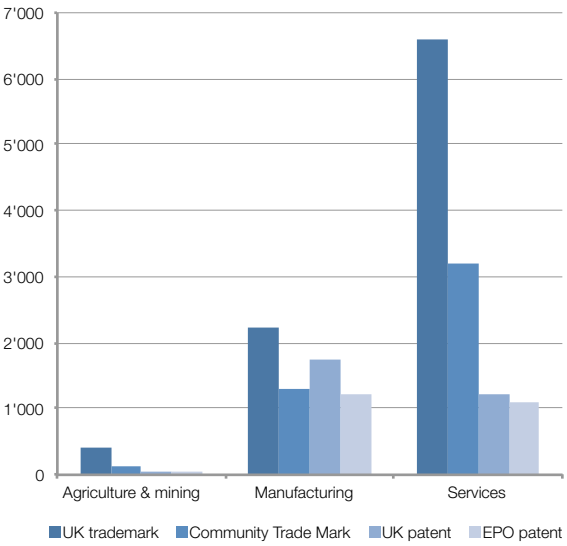
12 Another way in which trademarks can command market power is specific to design marks. Sometimes, product designs acquire distinctiveness with consumers, in which case they become eligible for trademark protection. The shape of the Coca-Cola bottle is a famous case in point. A design can be an important product characteristic, leading consumers to choose one product over another; a trademarked design cannot, in turn, be copied by competitors. However, market power is limited by competitors "designing around" a trademarked design and by exceptions in trademark laws that deny protection to designs that are functional in nature. See Economides (1988) for a fuller discussion of the entry barriers created by trademarks.

The fact that brands can be a source of market power means that they can support firms' innovation strategies. In particular, evidence has shown that branding is one of the most important mechanisms for firms to secure returns to investments in research and development (R&D) – a link that will be the focus of the discussion in Chapter 3.

As a final point, and as a practical matter, trademarks are more widely used than other forms of IP.[13] In contrast to patents, trademark use is not limited to firms that operate at the technology frontier, or to sectors that witness rapid technological progress. Firms in almost every sector of the economy employ trademarks to protect the exclusivity of their brands. This includes the service sector, which accounts for the majority share of gross domestic product (GDP) in most economies and which sees only modest use of other forms of IP. Small and medium-sized enterprises (SMEs), in particular, rely to a far greater extent on trademarks than they do on patents – as illustrated in Figure 2.1 for the United Kingdom (UK). In addition, many low- and middle-income economies show intensive trademark use, even when they only see limited use of other forms of IP.[14] A study on IP use in Chile, for example, found that 92 percent of all IP applicants only filed for trademark protection.[15]

Figure 2.1: SMEs mostly use trademarks, especially in services

Number of IP-active SMEs in the UK, 2001–2005a



Notes: Figures are based on the Oxford Firm Level Intellectual Property database that links IP activity to all UK firms. The definition of SMEs excludes micro entities; see the source for further details. The figure excludes 191 SMEs that could not be allocated to a particular industry. EPO stands for European Patent Office.

Source: Rogers *et al* (2007).

13 Trade secrets may be an exception here. However, they are an unregistered form of IP that does not leave a statistical trace.

14 See Subsection 1.3.1.

15 See Abud *et al* (2013a).

2.2

Trademark counterfeiting

Just as the protection of trademarks promotes orderly competition in the marketplace, so are there incentives to infringe trademarks and profit from disorderly competition. Trademark counterfeiting is not a new phenomenon. The oldest counterfeit products on display at the Museum of Counterfeiting – stoppers used to seal amphorae filled with wine – date from around 200 BC.[16] A study on manufacturing activity in the Middle Ages reports widespread product counterfeiting; in one example, chemical analysis of sword blades believed to be made of Damascus steel showed that one in four were convincing counterfeits.[17] In the mid-1980s, a business magazine described counterfeiting as "perhaps the world's fastest growing and most profitable business".[18]

Even though it remains elusive to precisely measure global counterfeiting activity, anecdotal evidence suggests that its scale and scope has expanded. For example, newspaper articles and surveys indicate that counterfeiting has moved beyond luxury goods to target various types of consumer goods – affecting products as diverse as automotive replacement parts, electrical appliances and toys.[19] Falling shipping costs have spurred international trade in counterfeit goods, and the Internet has created new distribution channels for such goods that are more difficult to monitor than bricks-and-mortar stores.

What happens when trademark rights are ignored and fake goods enter the market? How consumers, producers and society at large will be affected depends greatly on whether consumers unknowingly purchase fake goods, or whether they knowingly do so. The economic literature refers to these two alternatives as deceptive and non-deceptive counterfeiting, respectively.[20] This section first explores the socioeconomic effects of these two distinct forms of counterfeiting and then discusses more generally the economy-wide consequences of trademark violations.

16 See "The Museum of Counterfeiting, Paris – A Walk on the Wild Side," *WIPO Magazine*, February 2009, page 20.
17 See Richardson (2008).
18 See "The Counterfeit Trade: Illegal Copies Threaten Most Industries," *Business Week*, December 1985, pages 64-72.
19 See OECD (2008).
20 See Fink (2009).

2.2.1

Deceptive counterfeiting

If consumers are unable to tell apart fake from genuine goods, the supply of fake goods undermines the ability of trademarks to identify goods in the marketplace. Unknowing buyers of fake goods will derive a value from the product that is lower than what they expected and, possibly, below what they were willing to pay for. To the extent that consumers know about the presence of fake goods on the market but cannot easily identify them, sufficiently high search costs will lead them to shun higher quality products for fear of buying a low-quality fake. Producers, in turn, will have a reduced incentive to invest in product differentiation, undermining product quality and diversity. Society is bound to be worse off.[21]

The harm inflicted by fake goods may go beyond consumers being disappointed. Counterfeit products may pose health and safety risks – for example, when drugs do not contain the relevant active ingredient, or when defective vehicle replacement parts result in traffic accidents.[22] The risk of physical harm may not be limited to the persons consuming the fake good, but may extend to others – for example, due to the spread of infectious diseases. In the parlance of economists, the consumption of fake goods may entail negative externalities.

In most circumstances, the selling of counterfeit products that endanger the public will not only violate trademark laws, but also health and consumer protection laws. In addition, certain falsely-labeled or substandard products violating health and consumer protection laws do not involve trademark counterfeiting. The incidence of fraudulent products – broadly defined – is typically higher in less developed economies with weaker regulatory and enforcement systems.[23]

21 Producers of fake goods benefit from the purchase of fake goods, but those benefits will likely be lower than the losses to consumers and genuine producers. Grossman and Shapiro (1988a) confirm that this in a formal model, although they also identify special cases in which social welfare effects are more ambiguous.

22 For a specific example of mislabeled malaria medicines not containing the relevant active ingredient, see Dondrop *et al* (2004).

23 See WHO *et al* (2013) for evidence on substandard, spurious, falsely-labeled, falsified and counterfeit medicines.

2.2.2

Non-deceptive counterfeiting

Cases of non-deceptive counterfeiting involve different – and arguably more complex – considerations. At the outset, such cases raise the question of why a consumer prefers a product bearing a falsified label to a generic product of the same quality. Since no information asymmetry prevails, the only plausible explanation is that consumers derive image value from buying the falsified brand. This may, at first, seem irrational. However, there may be rational explanations. In particular, while consumers know that they are buying a fake product, they may be able to pretend that they own the genuine brand when displaying the product to others. This explanation seems relevant to luxury products, where brands are especially important as a means of communicating affluence and status.

A considerable body of survey evidence has confirmed that image value is indeed what underlies the decision of consumers to knowingly buy counterfeit products. At the same time, they trade off image value with other considerations – notably the price of fake goods, and their moral attitude towards counterfeiting.[24] In addition, the precise image benefit that counterfeit products provide differs markedly across products and social context (see Box 2.3).

Box 2.3: Why do consumers buy counterfeit luxury brands?

Drawing on the psychology of human attitudes, Wilcox *et al* (2009) distinguish between two social functions that luxury brands fulfill – a "social-adjustive" function and a "value-expressive" function. Under the former, brands help consumers to gain approval in social situations. Under the latter, brands help consumers to communicate their central beliefs and values to their peers.

Research in psychology has suggested that consumers valuing the "social-adjustive" function of brands primarily respond to messages promoting a product's image, whereas consumers employing brands for "value-expressive" purposes primarily respond to messages promoting a product's quality.[25] Accordingly, to the extent that counterfeit products allow consumers to borrow a product's image but not its quality, one would expect consumers who seek brands for "social-adjustive" purposes to be more likely to turn to counterfeit products.

Using a survey of consumer attitudes towards luxury brands, Wilcox *et al* confirm that this is indeed the case. In particular, they identify how strongly survey participants value the two social functions of brands and then explore whether those preferences explain their intent to purchase counterfeit products. The empirical results show that preference for a brand's "social-adjustive" function has a statistically significant effect on counterfeit purchase intent, whereas preference for a brand's "value-expressive" function does not.

Interestingly, however, Wilcox *et al* also find that moral attitudes towards counterfeit products only affect counterfeit purchase intent when preferences are of the "value-expressive" rather than the "social-adjustive" type. They explain this result by such moral attitudes forming part of the central beliefs and values that guide the purchase decisions of "value-expressive" but not "social-adjustive" type consumers.

24 See, for example, Bian and Moutinho (2009), Bloch *et al* (1993), Penz and Stöttinger (2005), Vida (2007).

25 See Snyder and DeBono (1985).

It is this latter complexity that makes it difficult to evaluate the socioeconomic impact of non-deceptive counterfeiting. In particular, the buying of a fake not only affects the buyer, but also how other consumers perceive the genuine brand underlying the fake. One prominent theoretical study on this topic assumes that image value results from a product's perceived exclusivity; in particular, it models image value as declining in terms of the number of consumers buying the product – whether genuine or fake.[26] In this particular setting, the social welfare consequences of counterfeiting prove to be ambiguous. In particular, while the presence of fake goods undermines the brand's image value, and thus harms brand owners and consumers of the genuine product, consumers of fake goods benefit by deriving image value without paying the full price of the genuine product.[27]

The notion of perceived product exclusivity generating image value arguably holds for many luxury products – as evidenced by numerous advertisements for luxury brands expressly alluding to their exclusivity. However, there are other ways in which the presence of counterfeit products can affect the demand for the genuine product. For example, trend conformity – consumers seeking to imitate their peers – may lead to a positive relationship between image value and the number of both genuine and fake purchases.[28]

The effects of non-deceptive counterfeiting on innovation are similarly complex. To the extent that counterfeits undermine the image value of brands, one would expect the immediate effect to be negative: fewer sales and reduced market power make it more difficult for brand owners to finance investments in innovation. At the same time, as further explained in Section 3.1, greater competition may under certain circumstances lead firms to innovate more in order to retain their competitive edge. This holds true even when competition is illicit in nature. Indeed, one prominent investigation on counterfeiting in the Chinese footwear industry found that some genuine producers reacted to increased competition from fake products by improving the quality of their product line – especially visible quality elements such as surface materials.[29] However, this finding is specific to the industry and the nature of counterfeit activity studied; there have been too few empirical studies on this link to draw any general conclusions.

26 See Grossman and Shapiro (1988b).

27 The overall effect on social welfare depends on the values of the relevant market parameters. See Grossman and Shapiro (1988b).

28 For empirical evidence of such peer effects, see, for example, Burnkrant and Cousineau (1975), and Bearden *et al* (1989). Conner (1995) and Nia and Zaichkowsky (2000) show that, under certain assumptions, the presence of counterfeit products can benefit the producers of genuine goods. See also the "social-adjustive" role of brands, as described in Box 3.

29 See Qian (2008). This study exploits a natural experiment created by the reallocation of enforcement resources away from the footwear industry and towards sectors where illicit products posed greater risks for public health. In addition to innovating more, genuine producers reacted to the entry of fake products by vertically integrating downstream retailers and stepping up enforcement efforts. These strategies proved effective in reducing counterfeit sales.

2.2.3

Economy-wide effects

In policy discussions on trademark counterfeiting, possible adverse tax revenue and employment effects have assumed some importance. In this regard, it is important to distinguish between short-term effects of changes in levels of counterfeiting and the longer term effects of a given level of these activities.

Understanding the former is conceptually straightforward. Short-term employment effects depend on the output movements of licit and illicit producers, and the intensities with which they use labor in the production and distribution of goods.[30] Short-term tax revenue effects are bound to be negative, as sales of fake goods typically occur in informal markets and thus do not generate sales, corporate income, or import tax revenue. In addition, to the extent that counterfeiting reduces the sales of genuine producers, tax collections from those firms also fall.

The longer term consequences of counterfeiting activity are more difficult to grasp. Workers losing employment likely find other jobs and governments facing a revenue shortfall likely adjust their tax structure to finance public spending. The key question is how workers and the efficiency of the tax system would fare in a hypothetical scenario that is not characterized by counterfeiting.

Some studies have sought to estimate the effects of counterfeiting activity on sales, employment, and tax revenue.[31] These studies have focused entirely on the short-term effects of counterfeiting.[32] Possibly because they lack information on a hypothetical scenario that is not characterized by counterfeiting, they do not consider the longer term economic effects of persistent counterfeiting activity. In addition, they suffer from data limitations and, where no data exist, they need to make crude assumptions – especially on important behavioral parameters.[33]

Indeed, the lack of consistent macroeconomic data on counterfeiting activities across countries and over time poses one of the biggest barriers towards providing more reliable empirical insights into this topic. Being illegal, the production and sale of fake goods escapes official statistical recording. While some efforts are under way to find indirect ways of capturing the scale and effect of counterfeiting, it will invariably take time for better data to become available.[34] In the meantime, policymakers will need to continue setting priorities for fighting trademark counterfeiting with little empirical guidance on offer.

30 Much will depend on whether employment changes take place in the formal or informal sector; the setting of wages, the reach of social safety nets, and the length of possible unemployment spells are bound to differ in these two sectors.

31 See Fink *et al* (2010) and the US Government Accountability Office (2010) for reviews of these studies.

32 In some cases, the resulting estimates include the effects of copyright piracy as well. In addition, some studies look at short-term effects of given levels – rather than changes in levels – of counterfeiting, without considering the longer term 'general-equilibrium' consequences outlined in the text. See Fink *et al* (2010).

33 One such parameter is the degree to which fake and genuine products are substitutes for one another. Some studies simply assume that consumers of fake goods would switch one-for-one to genuine goods, if the former were not available. See Fink *et al* (2010).

34 The European Observatory on Counterfeiting and Piracy has initiated work towards methodologies that would quantify the scope, scale and impact of IPR infringements on the European economy. However, this work is still at a relatively initial stage. See Hoorens *et al* (2012) for a first proposal for a new approach towards quantification.

2.3

Choices in designing trademark laws and institutions

As an economic principle, protecting trademarks stirs little controversy. As outlined in Section 2.1, they help lower consumers' search costs and promote orderly competition in the marketplace; society as a whole stands to benefit. However, designing trademark laws and institutions entails choices that determine how effectively the system fulfills this role. Among others, these choices concern what subject matter qualifies for trademark protection, how trademark rights are acquired and lost, and what acts constitute violation of those rights.

Over time, different approaches to trademark protection have emerged in different countries. New business models and the evolving nature of the marketplace constantly challenge existing practices and prompt new or refined approaches. In particular, the arrival of the Internet some 20 years ago posed new questions about how firms employ trademarks, when consumers may be confused, and what constitutes orderly competition.

This section reviews some of the key design choices, exploring what approaches different jurisdictions have followed and what trade-offs these approaches entail. It is divided into two parts. The first part looks at the law, and the second part looks at the institutions charged with implementing the law – mainly trademark offices. The discussion does not comprehensively cover all legal and institutional design choices; rather, it focuses on selected choices for which approaches differ markedly across countries.

2.3.1

Designing trademark laws

To fulfill their economic rationale (see Section 2.1), trademark laws establish exclusive rights over signs, with the ultimate objective of preventing consumer confusion. At the same time, they seek to avoid unduly restricting "orderly" competition in the marketplace – which is generally defined as competition whereby one firm does not inappropriately take advantage of another firm's brand.

In many cases, there are no conflicts between the exclusive rights associated with a trademark and the activities of competitors. Indeed, firms often seek to establish their own identities and deliberately differentiate their brands from those of their competitors. However, situations of conflict sometimes arise – especially when firms seek trademarks that closely resemble those protecting successful brands.

One important question is what subject matter should qualify for trademark protection. The increased sophistication of modern marketing strategies has vastly expanded the types of signs for which applicants seek protection. In particular, firms no longer limit claims for trademark protection to names and two-dimensional logos, but try to extend protection to three-dimensional shapes, colors, holograms, slogans, sounds, smells, tastes, and feels (see Subsection 1.3.1). National laws define whether specific signs are eligible for protection.[35]

35 Note that Article 15 of the TRIPS Agreement requires that "[a]ny sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark. Such signs, in particular words including personal names, letters, numerals, figurative elements and combinations of colours as well as any combination of such signs, shall be eligible for registration as trademarks. Where signs are not inherently capable of distinguishing the relevant goods or services, Members may make registrability depend on distinctiveness acquired through use. Members may require, as a condition of registration, that signs be visually perceptible."

Even if a particular sign qualifies, in principle, for protection, it must meet additional requirements: it must not deceive; it must not be contrary to morality and public order; in the case of shapes, it must not perform a technical function that competitors may want to use; and it must be distinctive.[36] The latter requirement is a key eligibility criterion. For trademarks to best support efficient communication as outlined in Subsection 2.1.1, consumers need to clearly associate them with specific goods and services. If descriptive terms such as "orange juice" or "mobile telephone" could receive trademark protection in relation to the goods they denote, the ordinary meaning of those terms would be distorted; in addition, firms possessing those trademarks would have an undue advantage *vis-à-vis* their competitors. In practice, it is not always easy to evaluate how distinctive different subject matter is in different contexts, and this evaluation may change over time.

A similar tension arises when a brand name is so successful that its primary meaning evolves to describe a general class of a good or service rather than the specific good or service offered by the trademark holder. Well-known examples of such cases are the terms "gramophone", "escalator", and "zipper". From an economic perspective, maintaining exclusive trademark rights in such cases would cement a dominant market position and lock in economic rents. Trademark law thus allows for the possibility that "genericized" trademarks lose their protection and become part of the public domain. However, this does not happen frequently. Indeed, trademark holders typically try to preempt losing their exclusive rights by discouraging the generic use of their trademarks. For example, the US firm Google publishes on its website suggested generic terms for the trademarks it owns, partly to help stem the use of "google" as a verb.[37]

A second important question is whether there can be situations of trademark infringement, even when it is not clear that consumers are confused. One classic example is the use of the name Cadillac in a brand of dog food. On the one hand, it seems unlikely that this dual use of the Cadillac name for two unrelated products confuses consumer as to its source or origin. One may even argue that the "premium product" notion associated with the Cadillac name conveys information to consumers. On the other hand, the introduction of the Cadillac dog food brand may negatively affect the image value of the original automobile brand; in legal terms, the former brand may "dilute" the latter.

Questions of trademark dilution have gained new prominence with the rise of e-commerce and the emergence of new market intermediaries. For example, search engine operators sometimes auction off trademarked keywords for the display of advertisements to the highest bidder, even if this bidder is not the trademark owner.[38] Does the display of advertisements unrelated to the trademarked keyword dilute the trademark in question? And if so, does such dilution constitute trademark infringement, even if there is no consumer confusion?

36 See WIPO document SCT/16/2 for further discussion on this subject.

37 See: *www.google.com/permissions/trademark/our-trademarks.html*

38 See Rosso (2010).

Courts have reached different conclusions on these questions, in part reflecting differences in how trademark laws protect right holders against dilution.[39] Assessing the consequences of dilution from an economic perspective is similarly complex. As pointed out in Subsection 2.1.2, trademarks can have a useful communication function, justifying their third-party use. In addition, diluting the image value of a brand may reduce the economic rents that strong brands can generate. This tends to benefit society. However, depending on competitive conditions, reduced profits may undermine investments in innovation, possibly rendering society worse off in the longer term (see Section 3.1). Few generalizations are possible and much depends on case-specific circumstances.

2.3.2

Designing trademark institutions

Trademark institutions encompass those entities tasked with implementing trademark law. In principle, this includes the administrative office managing the trademark registration process, as well as the various entities responsible for enforcing the law – including judicial authorities, the police, and customs authorities. This subsection focuses on the registration process, although it also touches on questions of law enforcement.

The registration of a trademark is usually the most important vehicle for securing exclusive rights to a brand.[40] The typical job of a trademark office consists of examining the applications they receive for registration, publishing those applications, considering possible third-party oppositions against them, registering successful applications, and maintaining the register as the official record of trademark ownership. In performing these tasks, trademark offices typically seek to further the following objectives:

- *Promote accessibility to the trademark system.* Fees for registering and defending a trademark as well as associated procedural requirements should not unduly burden applicants – especially smaller, more resource-constrained entities.
- *Ensure transparency and legal certainty.* All market participants should have a clear picture of the trademarks that are legally registered, the goods and services they cover, the trademarks for which the office has received applications, and the trademarks that have expired.

39 In the US, arguments of trademark dilution have historically gained little traction in both trademark case law and jurisprudence (Beebe 2004). Recent legislative reforms, however, have widened the possibilities for right holders to claim dilution of their trademarks (Slowik, 2009). In the EU, the Community Trademark Regulation (No 207/2009) expressly protects trademarks with a reputation against blurring, tarnishment, and free-riding (Fhima, 2011). Gilliéron (2008) offers a perspective on how the development of new online business models may influence the scope of trademark protection.

40 However, in most countries, even unregistered trademarks can benefit from legal protection. For example, under the US common law system, an entity can create and enforce a trademark without registering it. Registration provides additional benefits, however. See Graham *et al* (2013).

- *Balance the interests of right holders and those of third parties.* Administrative procedures should lead to the refusal of applications that pertain to non-eligible subject matter, that are not sufficiently distinctive, or for which prior rights exist. They should also allow third parties to challenge applications for new trademarks, while preventing them from unduly delaying the administrative process.
- *Avoid "cluttering" of the trademark register.* There should be incentives to minimize the registration and renewal of trademarks that applicants do not use. Cluttered registers impose a cost on society in that they reduce the space of names and other eligible subject matter available for new trademarks. While the precise extent of cluttered registers and their costs are uncertain, there is some evidence that they negatively affect at least some market participants (see Box 2.4).[41]

Box 2.4: Trademark cluttering in the pharmaceutical industry

Evaluating to what extent trademark registers may be cluttered is difficult, as one does not have information on whether owners of trademarks actually use them. To overcome this difficulty, von Graevenitz (2012) makes use of a natural experiment provided by the enlargement of the European Union (EU) in 2004.

In particular, von Graevenitz's study focuses on the pharmaceutical industry where firms do not only seek trademark protection for new drug names, but they must also obtain the approval of medical regulators for using those names in commerce. Indeed, in order to avoid confusion of drug names and the possible adverse health outcomes that could ensue, the scrutiny applied by medical regulators is typically tougher than that applied by trademark offices. As a result, pharmaceutical firms often submit multiple names for their new products to medical regulators, so that they do not have to start from scratch if one or more regulator around the world rejects a name. In order to establish exclusive rights over the submitted names, they apply for trademarks for each of them.

Against this background, von Graevenitz's study questions whether the enlargement of the EU prompted pharmaceutical companies to apply for more trademarks, as they faced a tougher name review at the European Medicines Agency (EMA). In particular, EU enlargement meant that 10 additional countries could object to a name in the EMA's Invented Name Review Group.

The study focuses on trademark applications at the Office for Harmonization in the Internal Market (OHIM), the EU office responsible for the Community Trade Mark (CTM). It employs a so-called difference-in-difference estimator that not only compares filing behavior before and after EU enlargement, but also evaluates how filing behavior in the pharmaceutical industry compares to other industries.[42] It concludes that name review at the EMA prompted pharmaceutical companies to register between 10 and 37 percent more trademarks. The costs of these additional trademark registrations are not trivial. Estimates suggest that the cost of developing a single new drug name can amount to USD 25,000 or more.

Admittedly, the study's findings only pertain to the pharmaceutical industry. Given the additional layer of name review that takes place in this industry, cluttering may well be less important elsewhere. However, this question deserves further study – especially in light of the rapid increase in the number of trademarks filed over the past decades (see Subsection 1.3.1).

Source: von Graevenitz (2012)

41 An explorative study on the extent of trademark cluttering at the UKIPO and OHIM reported on "survey-based evidence that applicants perceive cluttering to be a problem in specific fields and countries". However, it also concluded that there is no "strong evidence that cluttering has already become a systemic problem for the trade mark system that is comparable to the effect of patent thickets for patent systems." See von Graevenitz *et al* (2012).

42 The study also employs a so-called nearest neighbor matching estimator that confirms the main findings.

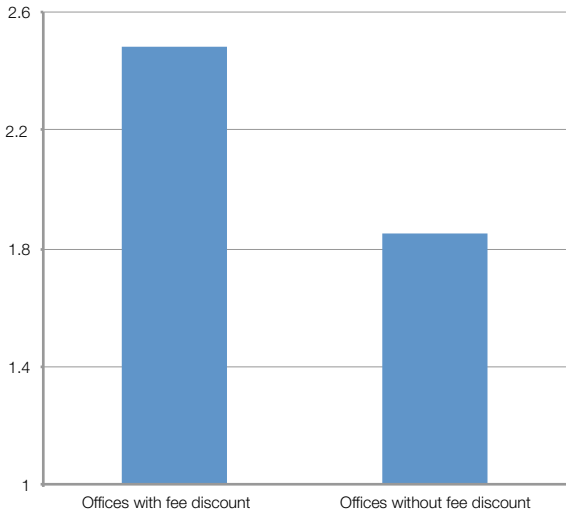
Trademark offices face a number of choices in designing the registration process that ultimately determine how effectively the system promotes the above objectives.[43] The remainder of this subsection discusses several of these choices, pointing to different approaches and associated trade-offs.

The first choice concerns the *level and structure of administrative fees*. Trademark offices charge applicants fees for the services they offer, typically starting with an initial application fee and extending to fees for additional services – such as publishing and registering the trademark, recording a change of ownership, and renewing the registration at regular intervals. The details vary from country to country.

Fees influence applicants' decisions, not only on whether to apply for a trademark, but also on the number of classes in which they seek protection. For instance, in some offices, the initial application fee already covers goods or services belonging to more than one class, whereas in other offices the initial fee only covers goods or services belonging to a single class, and the fee for each additional class costs extra. As a result, offices in the former category see, on average, 0.63 more classes specified in each application than offices in the latter category (Figure 2.2).[44]

Figure 2.2: Fees matter

Average number of classes specified in trademark applications, 2010



Note: This comparison is based on a sample of 51 offices for which underlying data were available and which operate multi-class filing systems. "Offices with fee discount" include 34 offices where the total fee for an application covering two classes exceeds the total fee for an application covering a single class by less than 50 percent; in most of these offices, the initial application fee already covers two or three classes. "Offices without fee discount" include 17 offices where the total fee for an application covering two classes exceeds the total fee for an application covering a single class by 50 percent or more.

Source: World Intellectual Property Organization (WIPO) Statistics Database and websites of national and regional IP offices.

These findings suggest that fees shape applicant behavior. How applicant behavior in turn shapes competitive outcomes in the marketplace is not always clear, however. For example, low fees can promote the trademark system's accessibility, benefitting small entities that might otherwise be exposed to 'disorderly' competition. At the same time, low fees might invite more speculative applications across a wider set of classes – thus possibly contributing to the cluttering of trademark registers, as described above.

43 It should be noted that, strictly speaking, at least some of the institutional choices discussed here are governed by law rather than by trademark offices decisions. However, for expositional simplicity, the discussion treats them as trademark offices choices, in view of the fact that offices are responsible for implementing them.

44 Of course, statistical correlation does not imply causation. In particular, many offices in the former category do not examine trademark applications on relative grounds and do not require that an application be based on 'intent to use' – which possibly explains why applicants specify additional classes. However, in a multivariate regression analysis based on the 51 offices included in Figure 2.2 that controlled for these office characteristics, the availability of a fee discount emerged as the only statistically significant variable that explains the average number of classes per application; the point estimate suggests that fee discounts are associated with 0.54 more classes per application.

Similar trade-offs exist for other design choices. Consider the implementation of the so-called *use requirement*. Most countries' legal frameworks make trademark protection conditional on the right holder using the trademark in commerce.[45] This condition precisely seeks to prevent the cluttering of trademark registers and bad-faith applicant behavior. In implementing this requirement, a key question is whether the trademark applicant or owner should furnish proof of use and, if so, when. On this question, countries have followed different approaches. Many European countries and OHIM, for example, do not require demonstration of use when trademarks are applied for, registered, or renewed. Questions of use only arise when third parties challenge trademarks through pre- or post-grant opposition procedures. At the United States Patent and Trademark Office (USPTO), by contrast, applicants generally need to demonstrate use before the office registers or renews a trademark.

From an economic viewpoint, not – or not immediately – requiring use is justified in cases where the market introduction of new goods or services takes considerable time, and where firms need some assurance that their future brands will receive protection. For this reason, a considerable number of offices have opted for an intent-to-use system, whereby they accept applications for which the applicant signals future use, but registration can only occur once the applicant is actually using the trademark.[46] At the USPTO, for example, applicants who file on an intent-to-use basis have to establish use within three years of the office approving the application. Only after they have done so will the office actually register the application.[47]

45 A WIPO questionnaire on trademark law and practice reveals that in 2010 only 11 out of a total of 79 countries (or regional trademark offices) did not provide for a use requirement. See WIPO/STrade/INF/1 Rev.1.

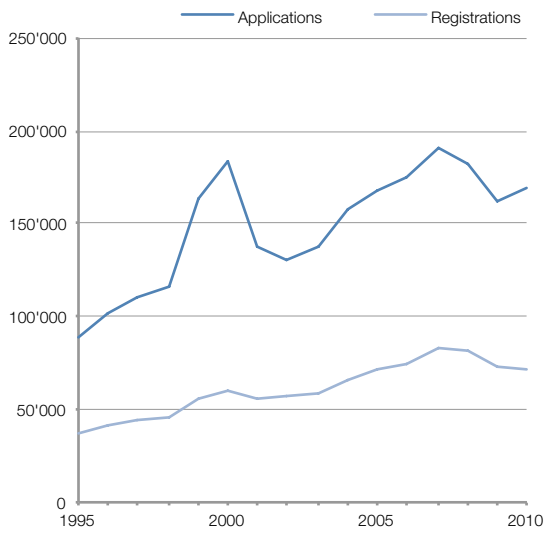
46 Responses to the WIPO questionnaire referred to in footnote 45 reveal that 23 out of a total of 79 countries (or regional trademark offices) require that an application be based on intent-to-use.

47 See Graham *et al* (2013). There are certain exceptions to this use requirement, notably for applications filed under the Paris Convention as well as via the Madrid system (see Box 2.5).

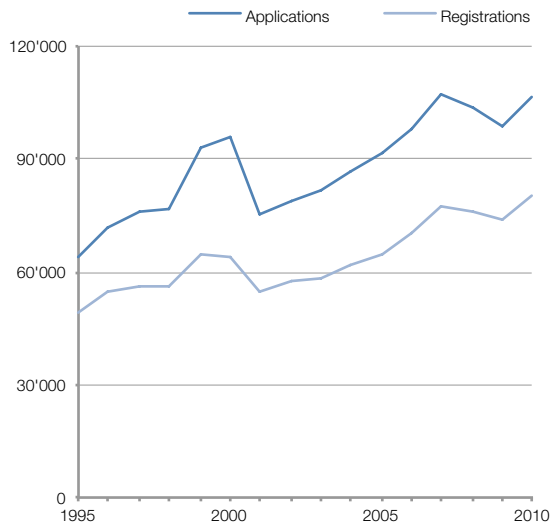
Figure 2.3: Intentions to use often do not result in actual use

Applications and registrations for trademarks at the USPTO, by filing year, 1995–2010

Intent-to-use applications



Use applications



Note: Intent-to-use applications include applications filed on the basis of intent-to-use, a foreign application or a registration under the Paris Convention, or an extension of protection under the Madrid Protocol.

Source: Myers (2013).

Interestingly, more than half of the intent-to-use trademarks filed at the USPTO do not result in a registration – a substantially higher share than for "regular" trademark applications (Figure 2.3). This suggests that many applicants realize within three years that they will not use the trademarks they intended to use. One explanation is that firms withdraw their plans for the introduction of new products; alternatively, they may initially apply for more than one trademark for the same product in order to collect more information on which branding strategy works best. The latter practice is especially relevant for the pharmaceutical industry, where firms face the risk that their proposed trade names will not meet regulatory approval (see Box 2.4).

The relatively low registration share of intent-to-use applications at the USPTO raises the question of whether offices that do not require proof of use as a condition for registration see a larger number of unused trademarks in their register. Preliminary evidence derived from comparing applications for the same trademarks at the USPTO and at OHIM suggests that this indeed is the case (see Box 2.5). Again, while indicating that the implementation of the use requirement matters, it remains unclear how the registration of unused trademarks affects competitive behavior and market outcomes.

Box 2.5: What happens to applications for the same trademarks at the USPTO and at OHIM?

One way to assess the effect of institutional design choices on trademark filing behavior and outcomes is to compare what happens to applications for the same trademarks that are filed in different offices. Von Graevenitz (2013) performed such an exercise focusing on trademarks filed in August 2007 at the USPTO and at OHIM. In those two months, the USPTO received 25,516 applications and OHIM received 8,140. Comparing the trademark names as well as the identity of the applicants, von Graevenitz identified 2,159 applications received by both offices.[48]

Some of the 2,159 common applications arrived at the two offices via the Madrid system, whereas others arrived via the regular national procedures. This matters for the USPTO insofar as the registration of Madrid system-based applications is not conditional on applicants establishing use; by contrast, the great majority of non-Madrid system-based applications at the USPTO are intent-to-use applications, for which applicants need to establish use prior to registration.

How do registration outcomes for these 2,159 common applications differ across these two offices? Table 2.1 compares registration outcomes, first focusing on only those common applications for which applicants at the USPTO opted for intent-to-use filings. Marked differences emerge. First, OHIM registered 87 percent of all applications in this subsample, whereas the USPTO only registered 59 percent. Second, there were 445 applications – representing 33 percent of the subsample – for which registration occurred at OHIM but not at the USPTO. Looking more closely at why those 445 applications failed to register at the USPTO, it turns out that the applicant did not establish use in 292 of the 445 cases. In other words, the USPTO's use requirement is an important factor explaining why the two offices saw different registration outcomes.

Table 2.1: Registration decisions, intent-to-use subsample

		Registered at the USPTO?		
		No	Yes	**Total**
Registered at OHIM?	No	108	70	**178**
	Yes	445	741	**1,186**
	Total	**553**	**811**	**1,364**

48 In identifying common applications, von Graevenitz (2013) also considered applications filed in the three months before and after August 2007. Correctly identifying common applications requires extensive manual checks. This explains why this investigation focused only on applications filed in a particular month, rather than the whole population of applications at the USPTO and at OHIM.

Table 2.2 makes the same comparisons, focusing only on those common applications that entered the USPTO via the Madrid system.[49] Interestingly, the registration rate at the USPTO – at 81 percent – was considerably higher for this subsample. This again underlines the relevance of the use requirement. OHIM's registration rate – at 95 percent – was also higher for this subsample, and it remains the case that far more registrations fail to register at the USPTO than at OHIM. This suggests that other factors besides the use requirement "filter out" applications at the USPTO. One such factor may be stricter examination of applications: the USPTO – in contrast to OHIM – examines applications on relative grounds against earlier trademarks. Unfortunately, available data do not offer useful insights into the precise reasons why applications at the USPTO fail to register.[50]

Table 2.2: Registration decisions, Madrid system subsample

		Registered at the USPTO?		
		No	Yes	**Total**
Registered at OHIM?	No	17	20	**37**
	Yes	119	566	**685**
	Total	**136**	**586**	**722**

While offering an empirical window into the effects of institutional design choices on registration outcomes, two caveats apply. First, there may be genuine differences in how applicants use the trademarks they applied for in the two jurisdictions, which could affect registration outcomes. Second, the sample at hand is relatively small; future investigations using larger samples may refine von Graeventiz's results and provide additional insights into how registration outcomes differ by sector and by applicant type.

Source: von Graevenitz (2013)

How extensively should offices examine applications for new trademarks? Virtually all offices examine applications on so-called absolute grounds – evaluating whether the applied for sign is eligible subject matter, sufficiently distinctive and in line with other provisions of the law (see Subsection 2.3.1). The majority of offices also perform so-called *relative grounds examination* – identifying any conflict with earlier trademarks in different ownership. However, a number of large offices – notably, OHIM and selected national offices in European countries – do not examine applications on relative grounds.

Relative grounds examination of all incoming trademark applications can consume considerable resources. One may argue that such a resource investment may not be necessary if only a minority of new applications is likely to raise a conflict with a prior trademark. In addition, the views of office examiners on whether new applications indeed raise a conflict may differ from the views of trademark owners.[51] Some offices have therefore opted to only deploy examination resources when third parties oppose new trademarks. While this approach can save resources, one counter-argument is that not all trademark owners – especially small businesses – have the capacity to monitor and, if necessary, oppose conflicting new applications; *ex officio* relative grounds examination thus offers some assurance to those entities, and contributes more generally to legal certainty.

49 In addition to intent-to-use and Madrid system applications, the USPTO accepts so-called Section 44 applications filed on the basis of a foreign application or registration. However, there are only 73 common applications for which the USPTO equivalent is based on Section 44 – a subsample that is too small for meaningful comparison of registration outcomes. This also explains why the two subsamples in Tables 2.1 and 2.2 only total 2,086 applications, slightly below the full sample of 2,159 common applications.

50 In the majority of cases, the data records simply indicate that the applicant failed to respond to an office inquiry.

51 Some offices that examine applications on relative grounds allow applicants to submit consent or co-existence agreements, allowing them to overcome a refusal based on a prior conflicting trademark. Generally, both parties sign these agreements, stating that they do not believe the trademarks will cause consumer confusion and that they should be allowed to co-exist.

Unfortunately, only limited empirical guidance is available on how relative grounds examination affects filing behavior and registration outcomes.[52] The comparison of common trademark applications at OHIM and at the USPTO outlined in Box 5 suggests that relative grounds examination may be a factor in explaining why more applications fail to register at the USPTO, but the evidence is not fully conclusive. A study on the effect of the United Kingdom Intellectual Property Office (UKIPO) weakening relative grounds examination in 2007 concluded that this policy change increased opposition rates; unfortunately the study could not evaluate how the policy change affected registration outcomes.[53]

Whether or not to examine on relative grounds raises a closely related institutional choice: the design of ***opposition systems***. The vast majority of trademark offices have such systems in place, thereby enabling third parties to formally object to the registration of a new trademark through an adversarial, administrative proceeding.[54] Opposition systems serve to balance the interests of applicants, owners of existing trademarks, and the public at large; in addition, as stated above, they can guide the allocation of administrative resources. The exact design of opposition procedures differs in important ways across offices. Key design elements include the following:

- *Timing of oppositions.* Should oppositions take place before or after the registration of a trademark and, if before, should they occur prior to or post the examination stage? Allowing oppositions before registration avoids the uncertainty of untested registrations on the register. In addition, if oppositions precede examinations, they can provide relevant information that examiners might otherwise miss. The main advantage of delaying oppositions until after registration is that they shorten the registration process, benefitting the majority of applications that do not lead to any conflict.
- *Grounds for opposition.* Should third parties be able to oppose trademarks on all grounds or only on selected grounds? The most common scenario is for owners of earlier trademarks to oppose a new trademark on the basis that it would give rise to confusion. However, in addition to such relative grounds, some offices also allow oppositions based on formal and absolute grounds. Narrowing the opposition grounds reduces the burden that oppositions pose to applicants, but it also narrows opportunities for third parties to provide information that may assist in preventing the erroneous registration of trademarks.

52 Responses to the WIPO questionnaire referred to in footnote 45 reveal that 38 of the 51 offices in the sample underlying Figure 2.2 engage in relative grounds examination. Those 38 offices see, on average, 0.48 fewer classes specified in each trademark application than the remaining 13 offices. In a multivariate regression analysis that controlled for whether an office requires that an application be based on intent to use and the availability of a fee discount (as per Figure 2.2), relative grounds examination had a negative effect on the number of classes per application; however, this effect was not statistically significant.

53 See von Graevenitz *et al* (2012). In 2007, the UKIPO adopted a system whereby the office no longer automatically refuses to register a new trademark application if it conflicts with an earlier trademark. However, the office still examines applications on relative grounds. In cases where it finds a conflict, it notifies the applicant; if the applicant chooses to continue with the application, it also notifies the owners of earlier conflicting trademarks.

54 Responses to the WIPO questionnaire referred to in footnote 45 reveal that 60 out of 73 offices allow for *ex parte* opposition.

- *Opposition periods.* Time windows for lodging oppositions range from as little as 30 days to up to 6 months after publication of a trademark. On the one hand, third parties need sufficient time to consider and prepare an opposition; on the other hand, long opposition periods delay the registration of trademarks, causing uncertainty for applicants. Some offices have put in place "cooling-off" periods – additional time windows for parties to consult on a case; these mechanisms appear to be useful in encouraging the settlement of cases that would otherwise lead to administrative or judicial decision-making.[55]

There are no clear best practices in relation to these elements. Much depends on other institutional characteristics – notably, whether an office conducts relative grounds examination and what resources an office has at its disposal to carry out such an examination.[56] In any case, balancing the interests of applicants as well as the interests of third parties and the public should be a principal goal of any opposition system.

A seemingly legalistic, yet important institutional choice is *how to specify the goods and services* for which an applicant seeks trademark protection. It determines the scope of trademark protection and the transparency of the trademark register. Most offices have adopted the so-called Nice Classification consisting of 34 goods classes and 14 services classes, as well as alphabetical lists of goods and services indications falling within each class.[57] However, there are important differences in how they use this classification. In particular, at one extreme, selected European offices have adopted a "class-heading-covers-all" approach, whereby they deem indications of individual Nice classes as covering all the goods or services falling within those classes.[58] At the other extreme, some offices have adopted the "means-what-it-says" approach, whereby applicants need to list in detail the particular goods and services for which they will use the trademark; protection then only applies to those goods and services and not to the full classes into which they fall. The former approach offers wider protection, especially benefitting firms that frequently launch new products and services under the same trademark. The latter approach leads to a more clearly delineated and transparent trademark register, promoting legal certainty among all market participants.[59] It also leaves room for new trademarks within the same class that would otherwise conflict with the broad specification of existing trademarks.

55 See WIPO document SCT/19/3 for further discussion on this topic.

56 WIPO documents SCT/19/3 and WIPO/STrade/INF/4 offer additional background.

57 The official name of the Nice Classification is the International Classification of Goods and Services under the Nice Agreement. In order to keep the Nice Classification up to date, it is regularly revised by a Committee of Experts, and a new edition of the classification is published every five years. See: *www.wipo.int/classifications/nice/en*

58 In the EU, a 2012 ruling by Court of Justice of the EU in the so-called "IP translator" case has prompted changes to the "class-heading-covers-all" approach. One the one hand, the Court ruled that goods and services indications in trademark applications must be sufficiently clear and precise to delimit their scope on that basis alone. But it also allowed the possibility of listing Nice class headings, provided applicants specify whether they intended to cover all of the goods or services included in the alphabetical list of the particular class concerned or only some of those goods or services. Accordingly, OHIM and many national offices have clarified how they interpret goods and services specifications in light of the Court's decision. See "Common Communication on the Implementation of `IP Translator´", *European Trademark and Design Network*, May 2, 2013.

59 There are no studies that systematically explore how alternative specification rules affect filing behavior. Abud *et al* (2013) report a sharp drop in the average number of classes specified in trademark applications – from 2.2 to 1.2 – after Chile adopted a "means-what-it-says" type rule in 2006.

A final important area of institutional design concerns *international cooperation*. Generally, a trademark only receives protection within the borders of the country that grants the right.[60] In principle, firms that sell their goods or services in more than one country need to apply for trademarks in multiple national offices. This can be a costly exercise. In addition to paying office fees, firms face substantial administrative and legal costs when drafting and submitting application documents in different languages and conforming to different national rules. One key area for international cooperation therefore is to make registration systems compatible, so as to facilitate the processing of the same trademark application in multiple jurisdictions.

A number of international instruments have emerged to further this goal. First and foremost, the Madrid system – one of the oldest international cooperation frameworks dating back to a treaty first signed in the late 19th century – offers trademark owners the possibility to have their trademarks protected in several countries through a single application for international registration. It reduces the administrative burden on applicants and offices, while preserving the ability of offices to refuse applications that do not qualify for protection on absolute or relative grounds.

In addition to the Madrid system, two international agreements – the Trademark Law Treaty and the Singapore Treaty on the Law of Trademarks – simplify and harmonize administrative procedures for the registration of trademarks. Among other elements, these treaties govern what type of information applicants need to supply when applying for a trademark; how goods and service classes should be specified, and what means of communication with the trademark office are acceptable. They also mandate multi-class filing systems, so that applicants do not have to apply for more than one trademark if they seek protection in two or more classes. Like the Madrid system, these treaties reduce the administrative cost of applying for the same trademark in several jurisdictions, but leave the decision on whether a trademark qualifies for protection under prevailing laws to participating offices.

A somewhat different need for international cooperation arises for ***well-known trademarks***. National laws provide special treatment for such trademarks, affording them protection even when they are not registered in a particular jurisdiction.[61] The existence of a well-known trademark can therefore be a reason for offices to refuse a trademark application. Determining whether there is a conflict with a well-known trademark in a particular goods or services class can be challenging, however. What precisely qualifies as "well known" is context specific. Above all, among which group of consumers should a trademark be well known? Different jurisdictions have adopted different criteria in order to answer this question; they have also adopted varying terminology – such as "famous trademarks" or "trademarks with a reputation" – with varying legal implications.[62] Uncertainty about whether a trademark is well known in a country can give rise to so-called squatting behavior (see Box 2.6).

60 The exceptions are supranational trademark systems – notably the CTM administered by OHIM – where protection applies to all jurisdictions that are party to the system.

61 Article 6*bis* of the Paris Convention and Article 16 of the TRIPS Agreement mandate special protection for well-known marks.

62 US law has adopted the concept of famous trademarks (Beebe, 2004). The EU's First Trademark Directive and the Community Trademark Regulation have introduced the concept of a trademark "with a reputation"; it remains unclear, however, to what extent there is a difference between the concepts of "well known" and "with a reputation" (Marsland, 2008).

Box 2.6: Trademark squatting – evidence from Chile

Trademark squatting describes a phenomenon whereby a firm or an individual deliberately registers a trademark that protects a good, service, or name belonging to another firm. The trademarks in question are often well-known and embody substantial goodwill built by the brand owner. However, the original owner has not registered them in a particular jurisdiction – for example, because the market in question is too small or initially seemed unattractive. Squatters, in turn, do not necessarily intend to use these trademarks; rather, they extract rents from the original brand owners or other companies that rely on the brand – such as importers of foreign brands. For example, the squatter may threaten to sue the original owner for trademark infringement once the latter seeks to enter the local market. Instead of engaging in costly litigation, the brand owner may be willing to make a modest payment to the squatter for abandoning or re-assigning the trademark.

There is anecdotal evidence of squatting behavior throughout the world. For example, when planning to enter the Russian market in 2005, Starbucks saw its trademark registered by an individual, Sergei Zuykov, who offered to re-assign the mark for USD 600,000. Instead, Starbucks succeeded in invalidating Mr. Zuykov's trademark in court – at the cost of delayed market entry. By contrast, other companies appear to have given in to Mr. Zuykov's demands.[63]

Going beyond anecdotal evidence, how systemic is squatting behavior? One recent study sought to quantify the share of squatters among all trademark applicants in Chile. Several characteristics make Chile an interesting case for studying the incidence of squatting: the legal framework does not require owners to use their trademarks; at an initial application fee of around USD 85, applying for a trademark is relatively cheap; and Chile is not a member of the Madrid system, requiring foreign applicants to directly file for protection in Chile.

The study employed ten variables to identify potential squatters in the trademark register, including the share of an applicant's trademarks that were rejected, opposed, or revoked, simultaneous filings of unrelated trademarks, class diversity, and others. Using these variables, the researchers calculated a "squatter score" that ranks trademark applicants according to how likely they are squatters. After performing extensive manual checks, the authors conservatively identified a total of 431 potential squatters – 87 companies and 344 individuals – in the Chilean trademark registry.[64] These potential squatters filed together almost 5,800 trademark applications between 1991 and 2010. The sector seeing the greatest number of squatting attempts is clothing and accessories; examples of trademark filings for which the Chilean IP office has frequently denied registration concern brands such as Abercrombie & Fitch, Adidas, Barbour, Calvin Klein, Chanel, and Ray-Ban.

The study also explores the effect of squatting on affected trademark owners. Using data on oppositions, the study finds that trademark owners that have been exposed to squatting file a disproportionately large number of trademarks shortly after having been targeted by squatters. This suggests that the squatting phenomenon induces more trademark filings by brand owners, which means squatting can have wider effects beyond the relatively small number of squatted trademarks themselves.

Source: Forthcoming study by the National Institute of Intellectual Property of Chile and WIPO on "Trademark Squatters: Evidence from Chile".

63 See "He Doesn't Make Coffee, but He Controls 'Starbucks' in Russia", *The New York Times*, October 12, 2005.

64 The estimates are conservative because the study ignores applicants with less than three filings and there may well be applicants that use the trademark system both "legitimately" and as squatters.

Offices and courts look at a range of factors to determine whether a particular trademark is well-known in the domestic context.[65] One of those factors may be the extent to which a particular trademark is well-known abroad. A trademark's recognition can easily transcend national borders, through travelling consumers, television, the Internet and other media. International cooperation can thus be helpful in providing information that can assist relevant authorities to evaluate a trademark's international reach. One example of such cooperation is WIPO's Global Brands Database, which allows users to search for trademarks across multiple jurisdictions (Box 2.7). In particular, this public database allows users to establish in how many countries a trademark is registered and for what length of time – variables that may be relevant for evaluating whether a trademark should qualify as well-known.

Box 2.7: WIPO's Global Brand Database

Reflecting the territoriality of IP laws, trademark registration systems operate to a large extent at the national level and, in selected cases, at the regional level. As a consequence, researching in which jurisdiction a particular sign is already registered requires, in principle, consulting all relevant national and regional trademark registers. Until recently, no single international source was publicly available that would allow for simultaneous trademark searches.

WIPO's Global Brand Database – a free service established in 2011 – seeks to fill this gap.[66] It includes the national trademark collections of 10 countries as well as the data collections generated by the Madrid system for the international registration of trademarks and the Lisbon system for the international registration of appellations of origin. The service offers state-of-the-art search features – including searches of images and figurative elements as well as automatic suggestions of potential matching terms. As of mid-2013, the Global Brand Database contained close to 12 million records, with the number of national collections included set to grow.

A stronger form of cooperation would be to establish a framework for exchanging information on well-known trademarks, possibly resulting in a directory of such trademarks. While discussions on the establishment of such a framework have taken place, they have not yet led to any concrete proposals.[67] Several difficult questions arise. For instance, what should be the relevant criteria for a trademark in order to qualify for inclusion in any directory, when national rules for what should qualify as well-known differ? What should be its legal effects, if any? How can one avoid a presumption that a trademark is not well-known, if it is not included in the directory? How could one maintain a directory to reflect changes in market condition across all relevant jurisdictions? Answering these questions is as challenging today as it was 10 or 20 years ago. One possible new element in this discussion, however, is the increased availability of electronic data enabling assessments of the popularity and geographical reach of trademarks. Such new quantitative approaches may well spur renewed interest in international cooperation.

65 See WIPO (2000).

66 The Global Brand Database is available online at *www.wipo.int/branddb*.

67 In the 1990s, WIPO's Committee of Experts on Well-Known Marks considered the establishment of a voluntary network for the exchange of information among countries on well-known marks. However, the Committee concluded at the time that the setting up of such a network was "not realistic" and "no longer pursued" this idea. See WIPO document WKM/CE/II/2.

2.4

Conclusions and directions for future research

Brands are an indispensable guide for consumers and a means for companies to build a reputation and image in the marketplace. By protecting their exclusivity, trademarks enable market economies to function more efficiently. Their importance goes far beyond sophisticated markets for differentiated goods in high-income countries. They are, by far, the most frequently used form of registered IP in low- and middle-income countries. Firms of every size and from virtually every sector of the economy rely on trademarks when seeking to gain an edge on their competitors.

Notwithstanding the clear economic rationale for protecting trademarks, policymakers face a set of choices that have a bearing on how effectively the trademark system supports market economies. In addition, changing business models and the rise of e-commerce have challenged established practices, requiring new thinking and new approaches. The fight against trademark counterfeiting, for example, requires continuous adjustment, as producers and sellers of fake goods find new ways of distributing them and evading existing channels of law enforcement.

Another central area of policymaking concerns the design of the trademark registration process. Different countries have opted for different approaches, thus affecting filing behavior in important ways. In particular, evidence suggests that offices register fewer applications when they require applicants to establish use prior to registration. Similarly, whether or not an office conducts relative grounds examination affects how frequently applications face oppositions. Other important design choices include the level and structure of administrative fees, the rules governing oppositions, and how applicants specify the goods and services for which they seek protection.

Unfortunately, there is much less evidence on how differences in filing behavior and registration outcomes affect competition and firms' performance in the marketplace. One specific concern is the possible "cluttering" of trademark registers, making it more difficult and costly for firms to find new trademarks that are available for protection. Policymakers would be well advised to carefully assess whether there are signs of "cluttered" registers in different goods and services classes – especially in countries that have seen rapid growth in trademark registrations over the past decades. More generally, differences in filing behavior and registration outcomes raise the question of how different types of firms fare under alternative approaches. For example, do smaller firms face a disadvantage in offices that place some of the burden of identifying conflicts with earlier trademarks on existing owners?

Finally, the protection of well-known trademarks raises special questions for international cooperation. With the globalization of information, a trademark's recognition easily transcends national borders. However, whether a trademark is well-known in a particular place remains context specific. International cooperation can help national authorities assess the international reach of a trademark. At a minimum, this can be done by providing information on where a trademark is registered and for how long. A more ambitious form of cooperation would be to establish a framework for exchanging information on well-known trademarks, possibly resulting in a directory of such trademarks.

Areas for future research

While not as voluminous as the literature on patents, economic research on trademarks has already provided important insights – both on how they resolve market failures and how policy choices affect economic outcomes. Nonetheless, there are many areas where future research could offer better guidance to policymakers. Such areas include the following:

- Generating reliable evidence on the scale and effects of trademark counterfeiting represents one of the biggest research challenges. The availability of data on what are inherently illicit activities will continue to constrain investigations in this field. However, there appears to be scope to generate better data on the basis of information that is collected in the course of law enforcement activities. In addition, as shown by several pioneering studies, original survey work can generate useful evidence on the behavior of consumers and firms that may in turn inform policymaking.[68]

- More insights into how trademark institutions affect filing behavior and registration outcomes are required – partly in order to validate and refine the conclusions of existing studies and partly in order to look at institutional choices that have not been considered thus far.[69]

- As already mentioned, research has provided too few insights into how differences in trademark filing behavior and registration outcomes affect firm performance and competition in the marketplace. The increased availability of unit-record trademark datasets should enable new investigations aimed at providing such insights.[70] In fact, similar datasets for patents became available more than 10 years ago and have prompted a large number of new empirical research studies that have produced new insights into the workings of the patent system. Comparable efforts in the field of trademarks would be welcome.

68 See Fink *et al* (2010) for observations on possible ways forward.

69 The WIPO questionnaire referred to in footnote 45 provides a list of relevant institutional choices and, indeed, enables cross-country studies on their effects.

70 For example, the USPTO recently released a Trademark Case Files Dataset covering 6.7 million trademark applications filed with, or registrations issued by, the USPTO between March 1823 and January 2012.

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