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Conceptual Issues of Global Counterfeiting on Products and Services

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Counterfeiting is a global problem of enormous magnitude. Despite its obvious importance, relatively little attention has been paid to the management of counterfeiting. This paper considers the difficulties of measuring counterfeiting and provides evidence of the magnitude of the problem worldwide. The focus is on counterfeiting of privately produced goods and services, rather than the issue of the counterfeiting of currency *per se*, which is a somewhat different though related issue. A conceptual framework of the private and social costs and benefits of anti-counterfeiting measures is also provided. The framework highlights a number of key driving forces of counterfeiting, including existence of unsatisfied demand at the prevailing prices – a demand that is fuelled by advertising and other promotional activities. The paper draws on a range of conceptual and empirical work to develop an agenda of items for company policy makers.

Keywords: Counterfeiting, globalisation, management, economics

Counterfeiting of privately produced goods and services is a growing menace and is rather different from counterfeiting of currency *per se*.¹ The definition of counterfeiting is crucial for understanding the subject and for measuring the extent and nature of the problem. In practice, the boundaries of counterfeiting are blurred due to: first, the definition of what constitutes a counterfeit rests on views about consumer perceptions; second, it is not always obvious which goods are counterfeit and which are legitimately parallel traded – an issue that may have to be determined under the law.² The use of the term 'counterfeiting' has evolved and now, '... encompasses any manufacturing of a product which so closely imitates the appearance of the product of another to mislead a consumer that it is the product of another or deliberately offer a fake substitute to seek potential purchase from non-deceptive consumers. Hence, it may include trademark infringing goods, as well as copyright infringements. The concept also includes copying of packaging, labelling and any other significant features of the product'.³

While counterfeiting is generally associated with the infringement of trademarks, it may involve any

aspect of intellectual property rights (IPRs), i.e. patents, copyright, etc., or some combination of them. The effect of counterfeiting can be extremely debilitating for the IPR holder ('originator' is henceforth used to refer to holder e.g., company or organization), as the fake goods are often of lower quality and lower price.⁴ Thus, insofar as such goods confuse or mislead consumers, they tend to share the originator's market and the value of the originator's intellectual creations.

Scale of Counterfeiting

In this section, the scale and dimensions, conceptualised with regard to the impact, types, and determinants of counterfeiting and the magnitude of counterfeiting activities are addressed. Types of IPR further provide background information for conceptual categorisation of counterfeits. The distribution of counterfeits and their determinants of source and destination countries are also discussed.

Scale and Dimensions

All the evidence points to the enormous magnitude and important implications of counterfeiting activity (Table 1). Most commentators report a significant growth in counterfeiting in recent years, for example, 32.0 per cent of respondents from 145 UK Trading Standards Departments expected the time spent on

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Table 1— Estimated losses caused by counterfeiting

Estimated percentage of world trade	5-7%
Estimated job losses	EU: 100,000 US: 145,000
Estimated losses of export	Japan: 17%; USA: 16%; EU: 8%
Annual lost revenue in New York	\$350 million
Increase of counterfeiting trade	150%

Source: Compiled by the authors based on Trembly, Cyber crime means billions in losses, *National Underwriter Property and Causality*, 103 (26) (1999), 19 and Vithlani H, *The Economic Impact of Counterfeiting*, (Organisation for Economic Cooperation and Development, Paris), 1998.

Table 2 — Counterfeiting by types of IPRs in Europe

Types of IPRs	EC%	Germany%
Trademarks	78	72
Copyrights	15	16
Industrial designs	6	10
Patents	1	2

Source: Compiled by the authors based on the *EC Counterfeiting Survey*, 2004.

anti-counterfeiting measures to increase over the next three years, while only 12.9 per cent expected it to decrease.⁵ Such increase is partly due to the growth of counterfeiting itself, and partly due to the corporate, industrial, national, regional and international efforts to combat the crime of the twenty-first century.⁶

Types of IPRs

The only large-scale evidence found to date about the type of IPRs infringed is from the *European Commission Counterfeiting Survey* (Table 2). The European Commission releases their survey results once a year, categorising the counterfeits across European countries. The break-up in Europe reflects the types of products that are most frequently infringed, for example, high quality 'designer products', such as watches, sun glasses, skis, etc., and also other products like pharmaceuticals, automobile parts, etc.⁷ This distribution differs significantly across countries, reflecting their sectoral orientation and, thereby, the importance of different forms of IPRs. In Germany, for example, the higher proportion of design, utility models reflects the greater use of these forms of IPRs, given the strength of manufacturing in Germany.

Sector/Type of Counterfeits

Trading Standards Department in the UK (as opposed to cross-border) revealed around 1.3 million seizures of counterfeit goods.⁵ The main types of products confiscated were clothing (39.8 per cent by

'street value': retail price and 31.9 per cent 'genuine value': costs) and computer software (38. per cent by 'street value' and 47.4 per cent 'genuine value'). While the clothing result was broadly the same based upon 'street' and 'genuine' values, this was not the case with computer software, which exhibited a higher ratio of genuine to street value. Over all product types, genuine value was just under three times the street value, although the ratio differed significantly across products, with the highest ratios for sunglasses and watches.

The *EC Counterfeiting Survey* only provides data on the numbers of cases and articles (cross-border, in thousands). Taking the EU as a whole, the 'other goods' category (i.e. car parts, pharmaceuticals, etc.) is particularly important when counterfeiting is categorised by products, although it would be much more revealing if this large category were sub-divided in the data.⁸ Clothing is again an important counterfeiting activity (48.5 per cent of all cases), although forming only 6.8% per cent of items seized. The low ratio of clothing items seized in the EU appears different from UK, where clothing formed 30-40 per cent by value and 49.9 per cent of the total number of items. There are clearly important differences between EC and UK Trading Standards survey results that require future investigation.^{2,5} Two methodological differences need to be addressed: (i) the year – 1999 for UK, compared to 2000 for the EC; (ii) use of domestic trading standard departments *vis a vis* customs data in the EU survey.

Seizures by the US Customs Service rose from a domestic value of US \$ 45,327,526 (3,244 cases) in the financial year 2000, to \$57,438,680 (3,586) in 2001.⁹ 'Media' was the largest area of activity reported in 2002,¹⁰ followed by consumer electronics.¹¹ The same source provided examples of counterfeiting activity, including: (i) loses of US \$12-16 billion *per annum* for the US computer software industry – more than 40 per cent of total revenues, with over 90% per cent of goods being illegitimate copies in some countries; (ii) US automobile manufacturers and suppliers lost \$12 billion a year in revenues globally (210,000 jobs); (iii) illegal videos of new films were often available on the street before the movies appeared in cinemas – counterfeit videos of a recent film that cost over \$100 million to produce, were available for only \$10.00 *per* copy prior to its premier.

Global Flows of Counterfeiting

The USA, as the technology leader and the largest single market in the world, has been particularly vociferous about the problems caused by counterfeiting. Thus, US developed a 'Watch List' and 'Priority Watch List' (PWL) of offending countries under the auspices of the United States Trade Representatives (USTR) in accordance with the 'Special 301', introduced under the *Omnibus Trade and Competitiveness Act*, signed by Reagan in 1988.¹² The Watch List identified countries that do not offer adequate and effective protection of IPRs or equitable access for US persons. The USTR then designated Priority Foreign countries; based on the extent of the problem and the efforts by the country to rectify the problem.¹³

The pressure placed on China by the USA¹⁴ under 'Special 301' is evident from the fact that China was in the PWL twice during the period 1991-95. Data from US Customs Service seizures confirms the problems posed by Asia Pacific countries like Taiwan, Hong Kong, Singapore, Malaysia, Korea and Thailand, with China on top as the most important source by value of counterfeited products in 2000 and 2001. However, many other countries have appeared in both the Watch List and in the Customs Service rankings as IPR problems have emerged, including Argentina, Brazil, as well as a number of European countries.¹⁴ Interestingly, one or two countries bordering the USA also appear in these rankings, such as Panama, Mexico and Honduras. This suggests that the proximity of low cost producing countries, with poorer IP enforcement, close to a large market plays a part in driving counterfeiting activity. While persistent offenders are likely to reappear in the various rankings, there is considerable movement of countries in the listings – caused by the vagaries of discovering counterfeit goods, the relocation of illegal production facilities and variations in the vigilance with which countries police IPRs.

A number of Asia Pacific countries also present significant problems to the EU. The countries involved are largely those highlighted by the USA, although China is not quite so important in the EU.¹⁵ In addition, just as the US experiences problems with some EU countries, the EU reports problems with counterfeits from the USA (largely watches and jewelry). The EU has problems similar to the US with its lower income neighbours having poorer IP standards (i.e. Czech Republic, Poland and Turkey).

The EU also reports intra-European problems, with Greece one of the principal countries involved, although such issues are small relative to non-EU countries. Finally, particular EU countries have problems with their colonies or ex-colonies, such as Djibouti in the case of France.

Factors Determining the Origin and Destination of Counterfeits

Taken in entirety, these comparisons suggest a number of interesting leads concerning the factors that influence counterfeiting. First, there appear to be countries that tend to be more important sources of certain goods (such as Thailand in the case of CDs, DVDs and cassettes, and the USA in terms of watches).¹⁶ Second, high technology-high income countries are likely to be similarly affected by cross-border flows of counterfeit goods. Third, lower-income neighbouring countries are likely to be a source, where the probability of being involved declines with the physical, cultural and social distance between countries. Fourth, industrializing countries, particularly, those in the Asia Pacific (and to a lesser extent the Middle East) are important sources because of their lower cost base, poorer legal framework of IPRs, lower levels of enforcement, size of their unsatisfied domestic market, and the likelihood that MNEs use them as a production base.

The study by CEBR (Centre for Economic and Business Research Ltd)¹⁷ made an early attempt to provide an indication of the likely incidence of counterfeit goods appearing in various EU Member State markets. They used a combination of qualitative and quantitative methods to serve different project requirements. While their method did not properly

Table 3 — Major determinants of counterfeiting activities

Determinants	Weights
Production costs	20
Barriers to legitimate entry	10
Detection and enforcement intensity	20
Ease of detection and enforcement	10
Proximity of source of product or point of entry	10
Elapsed production and distribution time	5
Legal penalties	10
Sunk costs in production	10
Cultural attitudes	5
Total	100

Source: Compiled by the authors based on, Counting counterfeits: Defining a method to collect, analyse and compare data on counterfeiting and piracy in the single market, *Final Report to the European Commission*, (Centre for Economic and Business Research, London) 2002.

account for the separate issues of country of origin and country of destination, their account of the measures and the related literature provided at least a starting point for empirical testing of the determinants of counterfeiting activity (Table 3). By breaking down determinants by product group and country, they were able to produce a matrix of 15 EU countries by 19 product groups. In this matrix, certain products, which were more likely to be subject to counterfeiting appeared in certain countries, for example, where IPRs were more lax; identified a cell in the matrix where the likelihood or incidence of counterfeiting was high.

Corporate Management Issues

An IACC survey of US Fortune 500 companies reported that an average of up to \$4 million per year is spent to combat counterfeiting, with spending going up to \$10 million in some cases.¹⁸ Hence, the threat of counterfeiting and piracy requires a set of management responses and this section sets out areas requiring consideration in order to develop cohesive and effective policies to defend and enforce company IPRs. This is a highly under-researched topic, which merits greater attention. Counterfeiting should be tackled within a general, consistent and synergistic package of measures to ensure the protection of corporate IP (Table 4).¹⁸ Some strategies are:

Price and Quality

The originator's product should be kept distinct from those of (potential) counterfeiters. If the originator fails in this fundamental action, the goods

slip into becoming generic and any remaining IPRs become difficult, if not impossible to defend. Thus, maintenance of distinctiveness is a pre-requisite for many of the anti-counterfeiting strategies described below. This suggests that limit-pricing is not likely to be a central strategy for the originator firm faced by (potential) counterfeiters.¹⁹ Insofar the originator is able to prevent entry, this helps maintain the distinctiveness of the product, but where entry occurs, the incumbent is likely to be increasingly forced into price rather than quality competition if no administrative or legal action is taken at an early stage. Thus, distinctiveness is the crucial aspect - it defines the scope of the monopoly and the grounds for protection of the monopoly because of consumer confusion. Strategies to differentiate their protect and defend against counterfeiting, therefore, depend fundamentally on the originator establishing their IP through the use of trademarks, copyright and other forms of IPR, reinforced by market promotional activities such as advertising.

Anti-Counterfeiting Technologies

Anti-counterfeiting technologies are increasingly being used to protect and authenticate products.²⁰ This trend reflects the increasing availability of such technologies, their falling cost and the rising losses from counterfeiting. While solutions offering complete protection are rare, in many areas (some combination of) technologies can significantly delay or reduce the magnitude of counterfeiting. OECD (Organisation for Economic Co-operation and Development) argues that the technology must be "... cost-effective, compatible with the distribution of the product, consumer-friendly, resistant and durable". Peticolas, *et al.* argue that, while there are no general solutions, there are a "... wide range of tools, which if applied intelligently should be sufficient to solve most of the problems that we meet in practice." Such technologies range from, "... simple cost-effective printing technologies through optical technology, biotechnology, chemical and electronic fields". The technologies can be covert or overt, where covert devices constitute a key trade secret of the enterprise and should form a carefully guarded secret.

Licensing Management

One source of counterfeiting is the over-production of goods under licence. However, properly regulated licensing may offer opportunities that deflect potential counterfeiters.²¹ Offering a licensing opportunity to a

Table 4 — General corporate anti-counterfeiting strategies

Strategy 1	Monitoring the need for IPP
Strategy 2	Familiar with the legal and administrative rules, seeking governmental support while enforcing corporate IP
Strategy 3	Internal management of IP (ownership, tax, information)
Strategy 4	Assessing the value of IP
Strategy 5	Evaluating the IP returns
Strategy 6	Monitoring counterfeiting, and take legal actions with evidential proof when appropriate
Strategy 7	Maintain access to legal experts
Strategy 8	Pricing and quality control
Strategy 9	Using anti-counterfeiting technologies
Strategy 10	Licensing management and commercialisation
Strategy 11	Establishing anti-counterfeiting networks with other firms and specialized organizations
Strategy 12	Familiar with the culture and IP environments across countries

potential counterfeiter lowers the returns to counterfeiting, as long as the contract is properly designed and enforced. Licensee counterfeiting can be controlled by: (i) constructing a legally binding contract between the parties, stipulating the actions of each party if the other breaches the contract and, in particular, imposing specific punishments to licensees who exceed agreed production quotas; (ii) inspecting and supervising the production and marketing of the goods produced under licence. It is important, of course, that such licence agreements are designed to comply with the prevailing competition laws.

Managing Enforcement

Legal remedies generally only block goods entering the country without eliminating them at source and the customs services have neither the power nor the resources to inspect all incoming goods.¹⁸ Even the seizure of cross-border shipments depends heavily on property right owners policing and reporting counterfeiting to the customs or other relevant authorities.³ Thus, the main responsibility for enforcement lies with the businesses affected and hence, 'Businesses should set up an effective system of their own to monitor the flow of counterfeit goods and keep the relevant institution of their governments well informed'.^{3,18} However, the costs and benefits need to be weighed in determining the scale and nature of such 'policing activities'. For instance, Manchester United Football Club has been doing business in China²² since 1993 in the form of licensing operations, which is cost-effective, but has limited control on operations, including counterfeiting. They therefore, lack a system to monitor and disseminate information to the authorities – or set up foreign invested enterprises in place of their loose, arm's-length licensing arrangements in China.

Anti-Counterfeiting Networks

Where sole action is not cost effective, companies can establish networks with other 'brand name' companies. Trademark managers in the Manchester United Football Club, for example, meet regularly with their counterparts, such as Levis and Puma, to discuss their counterfeiting experiences and seek the possibility of joint actions against counterfeiting; including pressurising government organizations to take actions.²² In addition, there are a large number of national and international anti-counterfeiting organizations, some of which specialize in particular product areas.²³ They liaise with governments and

enforcement agencies; undertake surveys; publicize information about counterfeiting; lobby for increased protection and enforcement; and sometimes provide training for customs officials.

Administrative and Judicial Support with Evidential Proof

Good working relationships need to be built by the originator with administrative and legal authorities dealing with piracy and counterfeiting. In countries, such as China, this has proved problematic as either the official bodies have been too passive or had insufficient time and resources. Nonetheless, given sufficient evidence, relevant organisations can be very co-operative in taking action to punish infringement. In addition to government support, sometimes, judicial remedy may be appropriate, although it is not always (or even generally) in the company's interest to litigate, because it is often costly and it may be unnecessary to exact criminal penalties when financial punishment and public apologies are more effective. Thus, if they are available, companies often prefer administrative solutions, such as warnings, out-of-court settlements, public apologies, etc.

To prove the infringement of, say, a trademark in UK courts, the plaintiff would need to demonstrate that they had established a protectable right under Common Law or through the registration of a trademark. In addition, the originator must demonstrate that the defendant's product or mark is sufficiently similar to cause confusion or to mislead. Confusion may arise because the product is similar or the defendant's company is "... associated, affiliated, connected, approved, authorised or sponsored by plaintiff".²³ US courts have generally looked at eight factors: (i) similarity in impression created by the two marks, (ii) similarities of the goods involved, (iii) strength of the plaintiff's mark, (iv) evidence of actual confusion, (v) physical proximity of the goods in the marketplace, (vi) intent of the defendant in adopting its mark, (vii) degree of care likely to be exercised by the consumer, (viii) likelihood of expansion of the product lines.²³ Such actions indicate that companies, apart from relying on government enforcement as will be shown later, tend to adopt self-policing tactics to keep counterfeiting at bay given that counterfeiting is often hard to muster.

Understanding Different Cultures and Systems

When dealing with counterfeit goods that are manufactured or marketed in other countries, the laws, administrative systems and cultures can be very

different. For example, the Chinese IP system cannot be viewed in isolation from its cultural background of Confucianism.²⁴ During Mao's times, Marxism, Leninism and Mao Zedong-thought advocated public ownership in China, and the principle of IPRs ran counter to that of a planned economy. The formal legal position changed dramatically after the "Open Door Policy" in 1979, but enforcement of such laws in China has lagged way behind the levels expected within most developed countries. China's cultural background has also influenced the approach to dispute resolution, with a preference for arbitration and mediation over litigation. Therefore, different cultures and systems may require different management of anti-counterfeiting activities. For example, given the lax enforcement in many developing countries, corporate strategies might be more effective to curtail counterfeiting problems.

Conclusion

There is a need for a greater consistency in the measurement of the problem that can probably only be resolved by an international survey of the global counterfeiting problem, organized by a supra-national body, such as WTO or WIPO. Nevertheless, the available statistics confirm the widely held view that counterfeiting is a major global problem. The evidence distinguishes some of the major sources of counterfeit goods (i.e. China and other parts of the Asia Pacific), and dispels the view that it is a localized, developing country problem. The statistical evidence also highlights some of the key causal factors associated with the production and flows of counterfeit goods (i.e. income and cost disparities, the size and proximity of the market, etc.). While a more complete model will have to await future research, the current version at least gives a number of insights, for example, as to why firms do not always pursue counterfeiters using all the management measures discussed.

Nevertheless, the discussion of management issues focuses primarily on the range of tools available to companies to delay the onset and reduce the magnitude of counterfeiting activities. These emphasize the need for holistic solutions, within a broad framework, which recognizes the role of intangibles in driving firm value and the need to protect these assets to ensure the continuity of good dynamic performance. The measures range from technological solutions to counterfeiting, through to

setting up external networks for the exchange of information about the problems and their solutions. While the problem of counterfeiting can never be wholly resolved, in part because company success creates an inherent incentive to counterfeiters, it is clear that firms can do a great deal to manage the magnitude of the problem and the effects on their performance.

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